FORMER GASTOWN MGP SITE
SITE NO. 915171

2014 LAB REPORTS
FOR THE GROUNDWATER COLLECTION & TREATMENT SYSTEM

All lab reports for 2014 are available.

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: 480-53321-1
Client Project/Site: NYSDEC-Gastown WWTP: Site# 915171
Sampling Event: Mthly Post-Carbon
Mthly Pre-Carbon

For:
New York State D.E.C.
270 Michigan Avenue
Buffalo, New York 14203

Attn: Mr. Glenn May

Joseph V. Giacomazza

Authorized for release by:
1/24/2014 12:46:46 PM
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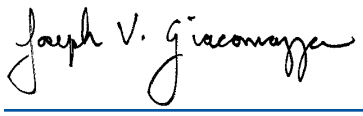
I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Joe Giacomazza
Project Management Assistant II
1/24/2014 12:46:46 PM

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits

GC 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.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
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)

Job ID: 480-53321-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-53321-1

Receipt
The samples were received on 1/15/2014 4:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.7º C and 2.7º C.

GC/MS VOA
Method(s) 8260C: Due to the coelution of Ethyl Acetate with 2-Butanone in the full spike solution, these analytes exceeded control limits in the laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) associated with batch 161805.

No other analytical or quality issues were noted.

Ion Chromatography
Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-53321-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

GC VOA
Method(s) 8021B: The following samples were diluted to bring the concentration of target analytes within the calibration range: (480-53322-3 MS), (480-53322-3 MSD), Outside Sump (480-53321-2), Post-Carbon-1 (480-53322-3), Pre-Carbon (480-53321-1). Elevated reporting limits (RLs) are provided.

Method(s) 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 162253 were outside control limits. The associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 8021B: The following samples was diluted to bring the concentration of target analytes within the calibration range: (480-53322-3 MS), (480-53322-3 MSD), Post-Carbon-1 (480-53322-3). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

General Chemistry
Method(s) SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample(s) has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute time frame: Post-Carbon-3 (480-53322-1)

No other analytical or quality issues were noted.

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-53321-1

Client Sample ID: Pre-Carbon
Date Collected: 01/15/14 14:25
Date Received: 01/15/14 16:00

Lab Sample ID: 480-53321-1
Matrix: Wastewater

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		20	3.5	ug/L			01/20/14 15:45	100
1,3,5-Trimethylbenzene	ND		20	15	ug/L			01/20/14 15:45	100
Benzene	**3700**		20	2.3	ug/L			01/20/14 15:45	100
Ethylbenzene	**370**		20	2.9	ug/L			01/20/14 15:45	100
Isopropylbenzene	ND		20	2.7	ug/L			01/20/14 15:45	100
Methyl tert-butyl ether	ND		40	4.4	ug/L			01/20/14 15:45	100
m,p-Xylene	**51**		40	5.4	ug/L			01/20/14 15:45	100
n-Butylbenzene	ND		20	3.1	ug/L			01/20/14 15:45	100
n-Propylbenzene	ND		20	13	ug/L			01/20/14 15:45	100
o-Xylene	**83**		20	2.7	ug/L			01/20/14 15:45	100
p-Cymene	ND		20	3.0	ug/L			01/20/14 15:45	100
sec-Butylbenzene	ND		20	2.0	ug/L			01/20/14 15:45	100
Toluene	**1100**		20	3.6	ug/L			01/20/14 15:45	100
Xylenes, Total	**130**		60	5.4	ug/L			01/20/14 15:45	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*87*		*63 - 145*		*01/20/14 15:45*	*100*
4-Bromofluorobenzene	*87*		*64 - 141*		*01/20/14 15:45*	*100*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**124000**		500	100	ug/L		01/16/14 09:20	01/17/14 22:22	1
Iron	**627**		50.0	19.3	ug/L		01/16/14 09:20	01/20/14 14:33	1
Magnesium	**63800**		200	43.4	ug/L		01/16/14 09:20	01/17/14 22:22	1
Potassium	**4680**		500	100	ug/L		01/16/14 09:20	01/17/14 22:22	1
Sodium	**60300**		1000	324	ug/L		01/16/14 09:20	01/17/14 22:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**105**		2.5	1.4	mg/L			01/16/14 17:38	5
Sulfate	**140**		10.0	1.7	mg/L			01/16/14 17:38	5
Alkalinity, Total	**445**		100	40.0	mg/L			01/17/14 10:45	10

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-53321-1

Client Sample ID: Outside Sump
Date Collected: 01/15/14 14:35
Date Received: 01/15/14 16:00

Lab Sample ID: 480-53321-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**33**		20	3.5	ug/L			01/20/14 16:19	100
1,3,5-Trimethylbenzene	ND		20	15	ug/L			01/20/14 16:19	100
Benzene	**4300**		20	2.3	ug/L			01/20/14 16:19	100
Ethylbenzene	**450**		20	2.9	ug/L			01/20/14 16:19	100
Isopropylbenzene	ND		20	2.7	ug/L			01/20/14 16:19	100
Methyl tert-butyl ether	ND		40	4.4	ug/L			01/20/14 16:19	100
m,p-Xylene	**250**		40	5.4	ug/L			01/20/14 16:19	100
n-Butylbenzene	ND		20	3.1	ug/L			01/20/14 16:19	100
n-Propylbenzene	ND		20	13	ug/L			01/20/14 16:19	100
o-Xylene	ND		20	2.7	ug/L			01/20/14 16:19	100
p-Cymene	ND		20	3.0	ug/L			01/20/14 16:19	100
sec-Butylbenzene	ND		20	2.0	ug/L			01/20/14 16:19	100
Toluene	**1400**		20	3.6	ug/L			01/20/14 16:19	100
Xylenes, Total	**250**		60	5.4	ug/L			01/20/14 16:19	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*86*		*63 - 145*		*01/20/14 16:19*	*100*
4-Bromofluorobenzene	*86*		*64 - 141*		*01/20/14 16:19*	*100*

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-53321-1

Client Sample ID: Post-Carbon-3
Date Collected: 01/15/14 14:10
Date Received: 01/15/14 16:00

Lab Sample ID: 480-53322-1
Matrix: Wastewater

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			01/16/14 05:28	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			01/16/14 05:28	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			01/16/14 05:28	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			01/16/14 05:28	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			01/16/14 05:28	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			01/16/14 05:28	1
1,2-Dichloroethene, Total	ND		2.0	0.70	ug/L			01/16/14 05:28	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			01/16/14 05:28	1
2-Hexanone	ND		5.0	1.2	ug/L			01/16/14 05:28	1
2-Butanone (MEK)	ND	*	10	1.3	ug/L			01/16/14 05:28	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			01/16/14 05:28	1
Acetone	ND		10	3.0	ug/L			01/16/14 05:28	1
Benzene	ND		1.0	0.41	ug/L			01/16/14 05:28	1
Bromodichloromethane	ND		1.0	0.39	ug/L			01/16/14 05:28	1
Bromoform	ND		1.0	0.26	ug/L			01/16/14 05:28	1
Bromomethane	ND		1.0	0.69	ug/L			01/16/14 05:28	1
Carbon disulfide	ND		1.0	0.19	ug/L			01/16/14 05:28	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			01/16/14 05:28	1
Chlorobenzene	ND		1.0	0.75	ug/L			01/16/14 05:28	1
Dibromochloromethane	ND		1.0	0.32	ug/L			01/16/14 05:28	1
Chloroethane	ND		1.0	0.32	ug/L			01/16/14 05:28	1
Chloroform	ND		1.0	0.34	ug/L			01/16/14 05:28	1
Chloromethane	ND		1.0	0.35	ug/L			01/16/14 05:28	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			01/16/14 05:28	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/16/14 05:28	1
Methylene Chloride	ND		1.0	0.44	ug/L			01/16/14 05:28	1
Styrene	ND		1.0	0.73	ug/L			01/16/14 05:28	1
Tetrachloroethene	ND		1.0	0.36	ug/L			01/16/14 05:28	1
Toluene	ND		1.0	0.51	ug/L			01/16/14 05:28	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			01/16/14 05:28	1
Trichloroethene	ND		1.0	0.46	ug/L			01/16/14 05:28	1
Vinyl chloride	ND		1.0	0.90	ug/L			01/16/14 05:28	1
Vinyl acetate	ND		5.0	0.85	ug/L			01/16/14 05:28	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/16/14 05:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*66 - 137*		*01/16/14 05:28*	*1*
Toluene-d8 (Surr)	*104*		*71 - 126*		*01/16/14 05:28*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*01/16/14 05:28*	*1*

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			01/20/14 12:30	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			01/20/14 12:30	1
Benzene	ND		0.20	0.023	ug/L			01/20/14 12:30	1
Ethylbenzene	ND		0.20	0.029	ug/L			01/20/14 12:30	1
Isopropylbenzene	ND		0.20	0.027	ug/L			01/20/14 12:30	1
Methyl tert-butyl ether	ND		0.40	0.044	ug/L			01/20/14 12:30	1
m,p-Xylene	ND		0.40	0.054	ug/L			01/20/14 12:30	1
n-Butylbenzene	ND		0.20	0.031	ug/L			01/20/14 12:30	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-53321-1

Client Sample ID: Post-Carbon-3
Date Collected: 01/15/14 14:10
Date Received: 01/15/14 16:00

Lab Sample ID: 480-53322-1
Matrix: Wastewater

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	ND		0.20	0.13	ug/L			01/20/14 12:30	1
o-Xylene	ND		0.20	0.027	ug/L			01/20/14 12:30	1
p-Cymene	ND		0.20	0.030	ug/L			01/20/14 12:30	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			01/20/14 12:30	1
Toluene	ND		0.20	0.036	ug/L			01/20/14 12:30	1
Xylenes, Total	ND		0.60	0.054	ug/L			01/20/14 12:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*86*		*63 - 145*		*01/20/14 12:30*	*1*
4-Bromofluorobenzene	*86*		*64 - 141*		*01/20/14 12:30*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**124**		50.0	19.3	ug/L		01/16/14 09:20	01/16/14 19:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.30**		0.010	0.0050	mg/L		01/21/14 06:13	01/21/14 11:16	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.57**	**HF**	0.100	0.100	SU			01/16/14 02:55	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-53321-1

Client Sample ID: Post-Carbon-2
Date Collected: 01/15/14 14:15
Date Received: 01/15/14 16:00

Lab Sample ID: 480-53322-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			01/20/14 13:05	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			01/20/14 13:05	1
Benzene	**7.4**		0.20	0.023	ug/L			01/20/14 13:05	1
Ethylbenzene	ND		0.20	0.029	ug/L			01/20/14 13:05	1
Isopropylbenzene	ND		0.20	0.027	ug/L			01/20/14 13:05	1
Methyl tert-butyl ether	**0.20**	**J**	0.40	0.044	ug/L			01/20/14 13:05	1
m,p-Xylene	ND		0.40	0.054	ug/L			01/20/14 13:05	1
n-Butylbenzene	ND		0.20	0.031	ug/L			01/20/14 13:05	1
n-Propylbenzene	ND		0.20	0.13	ug/L			01/20/14 13:05	1
o-Xylene	ND		0.20	0.027	ug/L			01/20/14 13:05	1
p-Cymene	ND		0.20	0.030	ug/L			01/20/14 13:05	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			01/20/14 13:05	1
Toluene	**0.17**	**J**	0.20	0.036	ug/L			01/20/14 13:05	1
Xylenes, Total	ND		0.60	0.054	ug/L			01/20/14 13:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*88*		*63 - 145*		*01/20/14 13:05*	*1*
4-Bromofluorobenzene	*90*		*64 - 141*		*01/20/14 13:05*	*1*

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-53321-1

Client Sample ID: Post-Carbon-1
Date Collected: 01/15/14 14:20
Date Received: 01/15/14 16:00

Lab Sample ID: 480-53322-3
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**2.7**		2.0	0.35	ug/L			01/20/14 14:02	10
1,3,5-Trimethylbenzene	ND		2.0	1.5	ug/L			01/20/14 14:02	10
Ethylbenzene	**92**		2.0	0.29	ug/L			01/20/14 14:02	10
Isopropylbenzene	ND		2.0	0.27	ug/L			01/20/14 14:02	10
Methyl tert-butyl ether	**12**		4.0	0.44	ug/L			01/20/14 14:02	10
m,p-Xylene	**36**		4.0	0.54	ug/L			01/20/14 14:02	10
n-Butylbenzene	ND		2.0	0.31	ug/L			01/20/14 14:02	10
n-Propylbenzene	ND		2.0	1.3	ug/L			01/20/14 14:02	10
o-Xylene	**24**		2.0	0.27	ug/L			01/20/14 14:02	10
p-Cymene	ND		2.0	0.30	ug/L			01/20/14 14:02	10
sec-Butylbenzene	ND		2.0	0.20	ug/L			01/20/14 14:02	10
Toluene	**330**		2.0	0.36	ug/L			01/20/14 14:02	10
Xylenes, Total	**60**		6.0	0.54	ug/L			01/20/14 14:02	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*88*		*63 - 145*		*01/20/14 14:02*	*10*
4-Bromofluorobenzene	*87*		*64 - 141*		*01/20/14 14:02*	*10*

Method: 8021B - Volatile Organic Compounds (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1500**		10	1.2	ug/L			01/21/14 11:09	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*87*		*63 - 145*		*01/21/14 11:09*	*50*
4-Bromofluorobenzene	*87*		*64 - 141*		*01/21/14 11:09*	*50*

Client Sample ID: Pre-Carbon

Lab Sample ID: 480-53321-1

Date Collected: 01/15/14 14:25

Matrix: Wastewater

Date Received: 01/15/14 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		100	162253	01/20/14 15:45	DGB	TAL BUF
Total/NA	Prep	200.7			161848	01/16/14 09:20	NMD2	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	162288	01/17/14 22:22	LMH	TAL BUF
Total/NA	Prep	200.7			161848	01/16/14 09:20	NMD2	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	162498	01/20/14 14:33	LMH	TAL BUF
Total/NA	Analysis	300.0		5	161910	01/16/14 17:38	KRC	TAL BUF
Total/NA	Analysis	310.2		10	162160	01/17/14 10:45	NCH	TAL BUF

Client Sample ID: Outside Sump

Lab Sample ID: 480-53321-2

Date Collected: 01/15/14 14:35

Matrix: Water

Date Received: 01/15/14 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		100	162253	01/20/14 16:19	DGB	TAL BUF

Client Sample ID: Post-Carbon-3

Lab Sample ID: 480-53322-1

Date Collected: 01/15/14 14:10

Matrix: Wastewater

Date Received: 01/15/14 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	161805	01/16/14 05:28	GTG	TAL BUF
Total/NA	Analysis	8021B		1	162253	01/20/14 12:30	DGB	TAL BUF
Total/NA	Prep	200.7			161852	01/16/14 09:20	NMD2	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	162047	01/16/14 19:06	LMH	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	161824	01/16/14 02:55	KS	TAL BUF
Total/NA	Prep	Distill/CN			162530	01/21/14 06:13	LAW	TAL BUF
Total/NA	Analysis	335.4		1	162555	01/21/14 11:16	NCH	TAL BUF

Client Sample ID: Post-Carbon-2

Lab Sample ID: 480-53322-2

Date Collected: 01/15/14 14:15

Matrix: Water

Date Received: 01/15/14 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	162253	01/20/14 13:05	DGB	TAL BUF

Client Sample ID: Post-Carbon-1

Lab Sample ID: 480-53322-3

Date Collected: 01/15/14 14:20

Matrix: Water

Date Received: 01/15/14 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		10	162253	01/20/14 14:02	DGB	TAL BUF
Total/NA	Analysis	8021B	DL	50	162477	01/21/14 11:09	DGB	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-53321-1

Laboratory References:

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

Certification Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-53321-1

Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-14
California	NELAP	9	1169CA	09-30-14
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-14
Illinois	NELAP	5	200003	09-30-14
Iowa	State Program	7	374	03-01-15
Kansas	NELAP	7	E-10187	01-31-14
Kentucky (DW)	State Program	4	90029	12-31-14
Kentucky (UST)	State Program	4	30	04-01-14
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-14
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14
Minnesota	NELAP	5	036-999-337	12-31-14
New Hampshire	NELAP	1	2337	11-17-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	03-31-14
North Dakota	State Program	8	R-176	03-31-14
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-30-14
Tennessee	State Program	4	TN02970	04-01-14
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-14
West Virginia DEP	State Program	3	252	03-31-14
Wisconsin	State Program	5	998310390	08-31-14

Method Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-53321-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8021B	Volatile Organic Compounds (GC)	SW846	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-53321-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-53321-1	Pre-Carbon	Wastewater	01/15/14 14:25	01/15/14 16:00
480-53321-2	Outside Sump	Water	01/15/14 14:35	01/15/14 16:00
480-53322-1	Post-Carbon-3	Wastewater	01/15/14 14:10	01/15/14 16:00
480-53322-2	Post-Carbon-2	Water	01/15/14 14:15	01/15/14 16:00
480-53322-3	Post-Carbon-1	Water	01/15/14 14:20	01/15/14 16:00

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler	Lab PM	Carrier Tracking No(s)	COC No:
Client Contact: Thomas Palmer	Phone: (716) 866-3540	Fischer, Brian J		480-30381-1176.1
Company: Groundwater & Environmental Services Inc		E-Mail: brian.fischer@testamericainc.com		Page: Page 1 of 1
Address: 495 Aero Drive Suite 3	Due Date Requested: ~~10~~ 10			Job #:
City: Cheektowaga	TAT Requested (days): 10-day			
State, Zip: NY, 14225				
Phone: (800)287-7857	PO #: Purchase Order not requir			
Email: tpalmer@gesonline.com	WO #:			
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Pre-Carl	Project #: 48002525			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0_28D - (MOD) Local Method	200.7 - (MOD) Local Method	310.2 - Alkalinity, Total	8021B - (MOD) Stars List VOA - GC/	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	N	A		
Pre-Carbon	1-15-14	1425	G	Water	N	N	X	X	X	X		
Outside Sump	1-15-14	1435	G	Water	N	N				X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment	
Relinquished by:	Date/Time: 1-15-14 1600	Company: GES	Received by:	Date/Time: 1/15/14 1600	Company: TA BUFFALO		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company		

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: #3 2.7

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: T Palmer	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-30390-1177.1
Client Contact: Thomas Palmer	Phone: (716)866-3540	E-Mail: brian.fischer@testamericainc.com		Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc				Job #

Address: 495 Aero Drive Suite 3	Due Date Requested:
City: Cheektowaga	TAT Requested (days): 10-day
State, Zip: NY, 14225	PO #: Purchase Order not requir
Phone: (800) 287-7857	WO #
Email: tpalmer@gesonline.com	Project #: 48002525
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Post-Ca	SSOW#
Site: New York	

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitnc Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7 - Iron	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS List - VOA - 8021	335.4 - Cyanide, Total	SM4500_H+ - pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	A	A	B	N		
Post-Carbon -3	1-15-14	1410	G	Water	N	N	X	X	X	X	X		
Post-Carbon -2	1	1415	G	1	N	N			X				
Post-Carbon -1	1	1420	G	1	N	N			X				

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment	
Relinquished by: (GES)	Date/Time: 1-15-14 / 1600	Company: GES	Received by:	Date/Time: 1/15/14 1600	Company: TA Buffalo		
Relinquished by	Date/Time	Company	Received by	Date/Time	Company		
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company		

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: #3 2.7

1/24/2014

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-53321-1

Login Number: 53321

List Source: TestAmerica Buffalo

List Number: 1

Creator: Janish, Carl 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.	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.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-53321-1

Login Number: 53322

List Source: TestAmerica Buffalo

List Number: 1

Creator: Janish, Carl 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.	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.	True	

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: 480-54582-1
Client Project/Site: NYSDEC-Gastown WWTP: Site# 915171
Sampling Event: Qtrly Post-Carbon
Qtrly Pre-Carbon

For:
New York State D.E.C.
270 Michigan Avenue
Buffalo, New York 14203

Attn: Mr. Glenn May

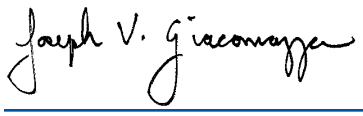
Joseph V. Giacomazza

Authorized for release by:
2/26/2014 4:55:26 PM
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

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
2/26/2014 4:55:26 PM

Table of Contents

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-54582-1

Qualifiers

GC 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.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
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)

Job ID: 480-54582-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-54582-1

Receipt
The samples were received on 2/12/2014 2:05 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.0º C and 3.3º C.

GC/MS VOA
Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-54582-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

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

Ion Chromatography
Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-54582-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

GC VOA
Method(s) 8021B: this data not used as the dilutionis not reported.

Method(s) 8021B: The following samples were diluted to bring the concentration of target analytes within the calibration range: OUTSIDE SUMP (480-54582-2), Post-Carbon-1 (480-54583-3), Pre-Carbon (480-54582-1). Elevated reporting limits (RLs) are provided.

Method(s) 8021B: The following samples were diluted to bring the concentration of target analytes within the calibration range: (480-54583-3 MS), (480-54583-3 MSD), OUTSIDE SUMP (480-54582-2), Post-Carbon-1 (480-54583-3), Pre-Carbon (480-54582-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

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

Metals
Method(s) 200.7 Rev 4.4: The Method Blank for batch 480-165728 contained total zinc above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples Post-Carbon-3 (480-54583-1) was not performed.

No other analytical or quality issues were noted.

General Chemistry
Method(s) SM 5210B: The USB dilution water D.O. depletion was greater than 0.2 mg/L but less than the reporting limit of 2.0 mg/L. The associated sample results are reported. (USB 480-165691/1)

Method(s) SM 4500 H+ B: The following sample(s) was received outside of holding time: Post-Carbon-3 (480-54583-1).

No other analytical or quality issues were noted.

Organic Prep
Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 165982

Job ID: 480-54582-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

No other analytical or quality issues were noted.

Client Sample ID: Pre-Carbon

Date Collected: 02/12/14 13:00
Date Received: 02/12/14 14:05

Lab Sample ID: 480-54582-1

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		100	82	ug/L			02/13/14 19:54	100
1,1,2,2-Tetrachloroethane	ND		100	21	ug/L			02/13/14 19:54	100
1,1,2-Trichloroethane	ND		100	23	ug/L			02/13/14 19:54	100
1,1-Dichloroethane	ND		100	38	ug/L			02/13/14 19:54	100
1,1-Dichloroethene	ND		100	29	ug/L			02/13/14 19:54	100
1,2-Dichloroethane	ND		100	21	ug/L			02/13/14 19:54	100
1,2-Dichloroethene, Total	ND		200	81	ug/L			02/13/14 19:54	100
1,2-Dichloropropane	ND		100	72	ug/L			02/13/14 19:54	100
2-Hexanone	ND		500	120	ug/L			02/13/14 19:54	100
2-Butanone (MEK)	ND		1000	130	ug/L			02/13/14 19:54	100
4-Methyl-2-pentanone (MIBK)	ND		500	210	ug/L			02/13/14 19:54	100
Acetone	ND		1000	300	ug/L			02/13/14 19:54	100
Benzene	**6600**		100	41	ug/L			02/13/14 19:54	100
Bromodichloromethane	ND		100	39	ug/L			02/13/14 19:54	100
Bromoform	ND		100	26	ug/L			02/13/14 19:54	100
Bromomethane	ND		100	69	ug/L			02/13/14 19:54	100
Carbon disulfide	ND		100	19	ug/L			02/13/14 19:54	100
Carbon tetrachloride	ND		100	27	ug/L			02/13/14 19:54	100
Chlorobenzene	ND		100	75	ug/L			02/13/14 19:54	100
Dibromochloromethane	ND		100	32	ug/L			02/13/14 19:54	100
Chloroethane	ND		100	32	ug/L			02/13/14 19:54	100
Chloroform	ND		100	34	ug/L			02/13/14 19:54	100
Chloromethane	ND		100	35	ug/L			02/13/14 19:54	100
cis-1,3-Dichloropropene	ND		100	36	ug/L			02/13/14 19:54	100
Ethylbenzene	**650**		100	74	ug/L			02/13/14 19:54	100
Methylene Chloride	ND		100	44	ug/L			02/13/14 19:54	100
Styrene	**250**		100	73	ug/L			02/13/14 19:54	100
Tetrachloroethene	ND		100	36	ug/L			02/13/14 19:54	100
Toluene	**2200**		100	51	ug/L			02/13/14 19:54	100
trans-1,3-Dichloropropene	ND		100	37	ug/L			02/13/14 19:54	100
Trichloroethene	ND		100	46	ug/L			02/13/14 19:54	100
Vinyl chloride	ND		100	90	ug/L			02/13/14 19:54	100
Vinyl acetate	ND		500	85	ug/L			02/13/14 19:54	100
Xylenes, Total	**500**		200	66	ug/L			02/13/14 19:54	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*66 - 137*		*02/13/14 19:54*	*100*
Toluene-d8 (Surr)	*99*		*71 - 126*		*02/13/14 19:54*	*100*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*02/13/14 19:54*	*100*

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**47**		20	3.5	ug/L			02/14/14 10:16	100
1,3,5-Trimethylbenzene	ND		20	15	ug/L			02/14/14 10:16	100
Ethylbenzene	**690**		20	2.9	ug/L			02/14/14 10:16	100
Isopropylbenzene	ND		20	2.7	ug/L			02/14/14 10:16	100
Methyl tert-butyl ether	**8.6**	**J**	40	4.4	ug/L			02/14/14 10:16	100
m,p-Xylene	**370**		40	5.4	ug/L			02/14/14 10:16	100
n-Butylbenzene	ND		20	3.1	ug/L			02/14/14 10:16	100
n-Propylbenzene	ND		20	13	ug/L			02/14/14 10:16	100

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-54582-1

Client Sample ID: Pre-Carbon
Date Collected: 02/12/14 13:00
Date Received: 02/12/14 14:05

Lab Sample ID: 480-54582-1
Matrix: Wastewater

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		20	2.7	ug/L			02/14/14 10:16	100
p-Cymene	ND		20	3.0	ug/L			02/14/14 10:16	100
sec-Butylbenzene	ND		20	2.0	ug/L			02/14/14 10:16	100
Toluene	**2300**		20	3.6	ug/L			02/14/14 10:16	100
Xylenes, Total	**370**		60	5.4	ug/L			02/14/14 10:16	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*84*		*63 - 145*		*02/14/14 10:16*	*100*
4-Bromofluorobenzene	*87*		*64 - 141*		*02/14/14 10:16*	*100*

Method: 8021B - Volatile Organic Compounds (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**6400**		100	12	ug/L			02/17/14 10:10	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*85*		*63 - 145*		*02/17/14 10:10*	*500*
4-Bromofluorobenzene	*88*		*64 - 141*		*02/17/14 10:10*	*500*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**127000**		500	100	ug/L		02/13/14 09:30	02/14/14 02:25	1
Iron	**1140**		50.0	19.3	ug/L		02/13/14 09:30	02/14/14 02:25	1
Magnesium	**80500**		200	43.4	ug/L		02/13/14 09:30	02/14/14 02:25	1
Potassium	**4580**		500	100	ug/L		02/13/14 09:30	02/14/14 02:25	1
Sodium	**64000**		1000	324	ug/L		02/13/14 09:30	02/14/14 02:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**103**		2.5	1.4	mg/L			02/13/14 17:18	5
Sulfate	**168**		10.0	1.7	mg/L			02/13/14 17:18	5
Alkalinity, Total	**457**		100	40.0	mg/L			02/19/14 11:04	10

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-54582-1

Client Sample ID: OUTSIDE SUMP
Date Collected: 02/12/14 13:10
Date Received: 02/12/14 14:05

Lab Sample ID: 480-54582-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	56		10	1.7	ug/L			02/14/14 11:08	50
1,3,5-Trimethylbenzene	16		10	7.5	ug/L			02/14/14 11:08	50
Ethylbenzene	830		10	1.4	ug/L			02/14/14 11:08	50
Isopropylbenzene	2.0	J	10	1.4	ug/L			02/14/14 11:08	50
Methyl tert-butyl ether	5.1	J	20	2.2	ug/L			02/14/14 11:08	50
m,p-Xylene	440		20	2.7	ug/L			02/14/14 11:08	50
n-Butylbenzene	ND		10	1.5	ug/L			02/14/14 11:08	50
n-Propylbenzene	ND		10	6.5	ug/L			02/14/14 11:08	50
o-Xylene	ND		10	1.4	ug/L			02/14/14 11:08	50
p-Cymene	ND		10	1.5	ug/L			02/14/14 11:08	50
sec-Butylbenzene	ND		10	1.0	ug/L			02/14/14 11:08	50
Toluene	2500		10	1.8	ug/L			02/14/14 11:08	50
Xylenes, Total	440		30	2.7	ug/L			02/14/14 11:08	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*84*		*63 - 145*		*02/14/14 11:08*	*50*
4-Bromofluorobenzene	*88*		*64 - 141*		*02/14/14 11:08*	*50*

Method: 8021B - Volatile Organic Compounds (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	8200		100	12	ug/L			02/17/14 10:44	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*86*		*63 - 145*		*02/17/14 10:44*	*500*
4-Bromofluorobenzene	*87*		*64 - 141*		*02/17/14 10:44*	*500*

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-54582-1

Client Sample ID: Post-Carbon-3
Date Collected: 02/12/14 12:40
Date Received: 02/12/14 14:05

Lab Sample ID: 480-54583-1
Matrix: Wastewater

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			02/13/14 19:33	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/13/14 19:33	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/13/14 19:33	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/13/14 19:33	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/13/14 19:33	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/13/14 19:33	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			02/13/14 19:33	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/13/14 19:33	1
2-Hexanone	ND		5.0	1.2	ug/L			02/13/14 19:33	1
2-Butanone (MEK)	ND		10	1.3	ug/L			02/13/14 19:33	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/13/14 19:33	1
Acetone	ND		10	3.0	ug/L			02/13/14 19:33	1
Benzene	ND		1.0	0.41	ug/L			02/13/14 19:33	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/13/14 19:33	1
Bromoform	ND		1.0	0.26	ug/L			02/13/14 19:33	1
Bromomethane	ND		1.0	0.69	ug/L			02/13/14 19:33	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/13/14 19:33	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/13/14 19:33	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/13/14 19:33	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/13/14 19:33	1
Chloroethane	ND		1.0	0.32	ug/L			02/13/14 19:33	1
Chloroform	ND		1.0	0.34	ug/L			02/13/14 19:33	1
Chloromethane	ND		1.0	0.35	ug/L			02/13/14 19:33	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/13/14 19:33	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/13/14 19:33	1
Methylene Chloride	ND		1.0	0.44	ug/L			02/13/14 19:33	1
Styrene	ND		1.0	0.73	ug/L			02/13/14 19:33	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/13/14 19:33	1
Toluene	ND		1.0	0.51	ug/L			02/13/14 19:33	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/13/14 19:33	1
Trichloroethene	ND		1.0	0.46	ug/L			02/13/14 19:33	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/13/14 19:33	1
Vinyl acetate	ND		5.0	0.85	ug/L			02/13/14 19:33	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/13/14 19:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*66 - 137*		*02/13/14 19:33*	*1*
Toluene-d8 (Surr)	*101*		*71 - 126*		*02/13/14 19:33*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*02/13/14 19:33*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		4.8	0.57	ug/L		02/14/14 08:14	02/15/14 11:56	1
Acenaphthene	ND		4.8	0.39	ug/L		02/14/14 08:14	02/15/14 11:56	1
Acenaphthylene	ND		4.8	0.36	ug/L		02/14/14 08:14	02/15/14 11:56	1
Anthracene	ND		4.8	0.27	ug/L		02/14/14 08:14	02/15/14 11:56	1
Benzo[a]anthracene	ND		4.8	0.34	ug/L		02/14/14 08:14	02/15/14 11:56	1
Benzo[a]pyrene	ND		4.8	0.45	ug/L		02/14/14 08:14	02/15/14 11:56	1
Benzo[b]fluoranthene	ND		4.8	0.32	ug/L		02/14/14 08:14	02/15/14 11:56	1
Benzo[g,h,i]perylene	ND		4.8	0.33	ug/L		02/14/14 08:14	02/15/14 11:56	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-54582-1

Client Sample ID: Post-Carbon-3
Date Collected: 02/12/14 12:40
Date Received: 02/12/14 14:05

Lab Sample ID: 480-54583-1
Matrix: Wastewater

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	ND		4.8	0.69	ug/L		02/14/14 08:14	02/15/14 11:56	1
Biphenyl	ND		4.8	0.62	ug/L		02/14/14 08:14	02/15/14 11:56	1
Bis(2-ethylhexyl) phthalate	ND		4.8	1.7	ug/L		02/14/14 08:14	02/15/14 11:56	1
Carbazole	ND		4.8	0.29	ug/L		02/14/14 08:14	02/15/14 11:56	1
Chrysene	ND		4.8	0.31	ug/L		02/14/14 08:14	02/15/14 11:56	1
Dibenz(a,h)anthracene	ND		4.8	0.40	ug/L		02/14/14 08:14	02/15/14 11:56	1
Dibenzofuran	ND		9.5	0.48	ug/L		02/14/14 08:14	02/15/14 11:56	1
Fluoranthene	ND		4.8	0.38	ug/L		02/14/14 08:14	02/15/14 11:56	1
Fluorene	ND		4.8	0.34	ug/L		02/14/14 08:14	02/15/14 11:56	1
Indeno[1,2,3-cd]pyrene	ND		4.8	0.45	ug/L		02/14/14 08:14	02/15/14 11:56	1
Naphthalene	ND		4.8	0.72	ug/L		02/14/14 08:14	02/15/14 11:56	1
Pentachlorophenol	ND		9.5	2.1	ug/L		02/14/14 08:14	02/15/14 11:56	1
Phenanthrene	ND		4.8	0.42	ug/L		02/14/14 08:14	02/15/14 11:56	1
Phenol	ND		4.8	0.37	ug/L		02/14/14 08:14	02/15/14 11:56	1
Pyrene	ND		4.8	0.32	ug/L		02/14/14 08:14	02/15/14 11:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*94*		*52 - 132*	*02/14/14 08:14*	*02/15/14 11:56*	*1*
2-Fluorobiphenyl	*82*		*48 - 120*	*02/14/14 08:14*	*02/15/14 11:56*	*1*
2-Fluorophenol	*47*		*20 - 120*	*02/14/14 08:14*	*02/15/14 11:56*	*1*
Nitrobenzene-d5	*78*		*46 - 120*	*02/14/14 08:14*	*02/15/14 11:56*	*1*
p-Terphenyl-d14	*96*		*67 - 150*	*02/14/14 08:14*	*02/15/14 11:56*	*1*
Phenol-d5	*31*		*16 - 120*	*02/14/14 08:14*	*02/15/14 11:56*	*1*

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			02/14/14 15:59	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			02/14/14 15:59	1
Benzene	**0.12**	**J**	0.20	0.023	ug/L			02/14/14 15:59	1
Ethylbenzene	ND		0.20	0.029	ug/L			02/14/14 15:59	1
Isopropylbenzene	ND		0.20	0.027	ug/L			02/14/14 15:59	1
Methyl tert-butyl ether	ND		0.40	0.044	ug/L			02/14/14 15:59	1
m,p-Xylene	ND		0.40	0.054	ug/L			02/14/14 15:59	1
n-Butylbenzene	ND		0.20	0.031	ug/L			02/14/14 15:59	1
n-Propylbenzene	ND		0.20	0.13	ug/L			02/14/14 15:59	1
o-Xylene	ND		0.20	0.027	ug/L			02/14/14 15:59	1
p-Cymene	ND		0.20	0.030	ug/L			02/14/14 15:59	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			02/14/14 15:59	1
Toluene	ND		0.20	0.036	ug/L			02/14/14 15:59	1
Xylenes, Total	ND		0.60	0.054	ug/L			02/14/14 15:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*84*		*63 - 145*		*02/14/14 15:59*	*1*
4-Bromofluorobenzene	*86*		*64 - 141*		*02/14/14 15:59*	*1*

Method: 608 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.048	0.0064	ug/L		02/14/14 08:20	02/18/14 09:59	1
alpha-BHC	ND		0.048	0.0064	ug/L		02/14/14 08:20	02/18/14 09:59	1
beta-BHC	ND		0.048	0.024	ug/L		02/14/14 08:20	02/18/14 09:59	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-54582-1

Client Sample ID: Post-Carbon-3
Date Collected: 02/12/14 12:40
Date Received: 02/12/14 14:05

Lab Sample ID: 480-54583-1
Matrix: Wastewater

Method: 608 - Organochlorine Pesticides in Water (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
delta-BHC	ND		0.048	0.0097	ug/L		02/14/14 08:20	02/18/14 09:59	1
gamma-BHC (Lindane)	ND		0.048	0.0058	ug/L		02/14/14 08:20	02/18/14 09:59	1
Chlordane (technical)	ND		0.48	0.28	ug/L		02/14/14 08:20	02/18/14 09:59	1
4,4'-DDD	ND		0.048	0.0089	ug/L		02/14/14 08:20	02/18/14 09:59	1
4,4'-DDE	ND		0.048	0.011	ug/L		02/14/14 08:20	02/18/14 09:59	1
4,4'-DDT	ND		0.048	0.011	ug/L		02/14/14 08:20	02/18/14 09:59	1
Dieldrin	ND		0.048	0.0095	ug/L		02/14/14 08:20	02/18/14 09:59	1
Endosulfan I	ND		0.048	0.011	ug/L		02/14/14 08:20	02/18/14 09:59	1
Endosulfan II	ND		0.048	0.012	ug/L		02/14/14 08:20	02/18/14 09:59	1
Endosulfan sulfate	ND		0.048	0.015	ug/L		02/14/14 08:20	02/18/14 09:59	1
Endrin	ND		0.048	0.013	ug/L		02/14/14 08:20	02/18/14 09:59	1
Endrin aldehyde	ND		0.048	0.016	ug/L		02/14/14 08:20	02/18/14 09:59	1
Heptachlor	ND		0.048	0.0082	ug/L		02/14/14 08:20	02/18/14 09:59	1
Heptachlor epoxide	ND		0.048	0.0051	ug/L		02/14/14 08:20	02/18/14 09:59	1
Toxaphene	ND		0.48	0.12	ug/L		02/14/14 08:20	02/18/14 09:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*50*		*23 - 120*	*02/14/14 08:20*	*02/18/14 09:59*	*1*
Tetrachloro-m-xylene	*87*		*36 - 120*	*02/14/14 08:20*	*02/18/14 09:59*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10.0	5.6	ug/L		02/13/14 09:30	02/14/14 02:31	1
Iron	**232**		50.0	19.3	ug/L		02/13/14 09:30	02/14/14 02:31	1
Manganese	**252**		3.0	0.40	ug/L		02/13/14 09:30	02/14/14 02:31	1
Zinc	**3.8**	**J B**	10.0	1.5	ug/L		02/13/14 09:30	02/14/14 02:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	ND		5.0	1.4	mg/L		02/14/14 01:56	02/14/14 02:05	1
Cyanide, Total	**0.57**		0.020	0.010	mg/L		02/14/14 17:50	02/15/14 10:30	2
Phenolics, Total Recoverable	ND		0.010	0.0050	mg/L		02/18/14 17:39	02/20/14 16:11	1
Total Dissolved Solids	**937**		10.0	4.0	mg/L			02/13/14 20:24	1
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			02/12/14 19:09	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	4.0	mg/L			02/13/14 17:16	1
pH	**7.33**	**HF**	0.100	0.100	SU			02/12/14 17:52	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-54582-1

Client Sample ID: Post-Carbon-2
Date Collected: 02/12/14 12:50
Date Received: 02/12/14 14:05

Lab Sample ID: 480-54583-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			02/14/14 16:33	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			02/14/14 16:33	1
Benzene	**43**		0.20	0.023	ug/L			02/14/14 16:33	1
Ethylbenzene	**0.62**		0.20	0.029	ug/L			02/14/14 16:33	1
Isopropylbenzene	ND		0.20	0.027	ug/L			02/14/14 16:33	1
Methyl tert-butyl ether	**0.19**	**J**	0.40	0.044	ug/L			02/14/14 16:33	1
m,p-Xylene	**0.21**	**J**	0.40	0.054	ug/L			02/14/14 16:33	1
n-Butylbenzene	ND		0.20	0.031	ug/L			02/14/14 16:33	1
n-Propylbenzene	ND		0.20	0.13	ug/L			02/14/14 16:33	1
o-Xylene	**0.17**	**J**	0.20	0.027	ug/L			02/14/14 16:33	1
p-Cymene	ND		0.20	0.030	ug/L			02/14/14 16:33	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			02/14/14 16:33	1
Toluene	**2.7**		0.20	0.036	ug/L			02/14/14 16:33	1
Xylenes, Total	**0.38**	**J**	0.60	0.054	ug/L			02/14/14 16:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*86*		*63 - 145*		*02/14/14 16:33*	*1*
4-Bromofluorobenzene	*88*		*64 - 141*		*02/14/14 16:33*	*1*

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-54582-1

Client Sample ID: Post-Carbon-1
Date Collected: 02/12/14 12:55
Date Received: 02/12/14 14:05

Lab Sample ID: 480-54583-3
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**12**		10	1.7	ug/L			02/14/14 17:41	50
1,3,5-Trimethylbenzene	ND		10	7.5	ug/L			02/14/14 17:41	50
Benzene	**3700**		20	2.3	ug/L			02/17/14 11:19	100
Ethylbenzene	**230**		10	1.4	ug/L			02/14/14 17:41	50
Isopropylbenzene	ND		10	1.4	ug/L			02/14/14 17:41	50
Methyl tert-butyl ether	ND		20	2.2	ug/L			02/14/14 17:41	50
m,p-Xylene	**120**		20	2.7	ug/L			02/14/14 17:41	50
n-Butylbenzene	ND		10	1.5	ug/L			02/14/14 17:41	50
n-Propylbenzene	ND		10	6.5	ug/L			02/14/14 17:41	50
o-Xylene	ND		10	1.4	ug/L			02/14/14 17:41	50
p-Cymene	ND		10	1.5	ug/L			02/14/14 17:41	50
sec-Butylbenzene	ND		10	1.0	ug/L			02/14/14 17:41	50
Toluene	**880**		10	1.8	ug/L			02/14/14 17:41	50
Xylenes, Total	**120**		30	2.7	ug/L			02/14/14 17:41	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*86*		*63 - 145*		*02/14/14 17:41*	*50*
4-Bromofluorobenzene	*88*		*64 - 141*		*02/14/14 17:41*	*50*

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-54582-1

Client Sample ID: Pre-Carbon

Lab Sample ID: 480-54582-1

Date Collected: 02/12/14 13:00

Matrix: Wastewater

Date Received: 02/12/14 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	165776	02/13/14 19:54	NMD1	TAL BUF
Total/NA	Analysis	8021B		100	165968	02/14/14 10:16	DGB	TAL BUF
Total/NA	Analysis	8021B	DL	500	166182	02/17/14 10:10	DGB	TAL BUF
Total/NA	Prep	200.7			165728	02/13/14 09:30	EHD	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	165997	02/14/14 02:25	HTL	TAL BUF
Total/NA	Analysis	300.0		5	165828	02/13/14 17:18	KRC	TAL BUF
Total/NA	Analysis	310.2		10	166681	02/19/14 11:04	NCH	TAL BUF

Client Sample ID: OUTSIDE SUMP

Lab Sample ID: 480-54582-2

Date Collected: 02/12/14 13:10

Matrix: Water

Date Received: 02/12/14 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		50	165968	02/14/14 11:08	DGB	TAL BUF
Total/NA	Analysis	8021B	DL	500	166182	02/17/14 10:44	DGB	TAL BUF

Client Sample ID: Post-Carbon-3

Lab Sample ID: 480-54583-1

Date Collected: 02/12/14 12:40

Matrix: Wastewater

Date Received: 02/12/14 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	165776	02/13/14 19:33	NMD1	TAL BUF
Total/NA	Prep	3510C			165982	02/14/14 08:14	MRB	TAL BUF
Total/NA	Analysis	8270D		1	166125	02/15/14 11:56	ANM	TAL BUF
Total/NA	Analysis	8021B		1	165968	02/14/14 15:59	DGB	TAL BUF
Total/NA	Prep	3510C			165983	02/14/14 08:20	MRB	TAL BUF
Total/NA	Analysis	608		1	166372	02/18/14 09:59	MAN	TAL BUF
Total/NA	Prep	200.7			165728	02/13/14 09:30	EHD	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	165997	02/14/14 02:31	HTL	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	165672	02/12/14 17:52	KS	TAL BUF
Total/NA	Analysis	SM 5210B		1	165691	02/12/14 19:09	CLT	TAL BUF
Total/NA	Analysis	SM 2540D		1	165896	02/13/14 17:16	KS	TAL BUF
Total/NA	Analysis	SM 2540C		1	165904	02/13/14 20:24	KS	TAL BUF
Total/NA	Prep	1664A			165933	02/14/14 01:56	RMB	TAL BUF
Total/NA	Analysis	1664A		1	165934	02/14/14 02:05	RMB	TAL BUF
Total/NA	Prep	Distill/CN			166088	02/14/14 17:50	CLT	TAL BUF
Total/NA	Analysis	335.4		2	166138	02/15/14 10:30	NCH	TAL BUF
Total/NA	Prep	Distill/Phenol			166510	02/18/14 17:39	KS	TAL BUF
Total/NA	Analysis	420.4		1	166937	02/20/14 16:11	EGS	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-54582-1

Client Sample ID: Post-Carbon-2

Lab Sample ID: 480-54583-2

Date Collected: 02/12/14 12:50

Matrix: Water

Date Received: 02/12/14 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	165968	02/14/14 16:33	DGB	TAL BUF

Client Sample ID: Post-Carbon-1

Lab Sample ID: 480-54583-3

Date Collected: 02/12/14 12:55

Matrix: Water

Date Received: 02/12/14 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		50	165968	02/14/14 17:41	DGB	TAL BUF
Total/NA	Analysis	8021B		100	166182	02/17/14 11:19	DGB	TAL BUF

Laboratory References:

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

Certification Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-54582-1

Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-14
California	NELAP	9	1169CA	09-30-14
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-14
Illinois	NELAP	5	200003	09-30-14
Iowa	State Program	7	374	03-01-15
Kansas	NELAP	7	E-10187	04-01-14
Kentucky (DW)	State Program	4	90029	12-31-14
Kentucky (UST)	State Program	4	30	04-01-14
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-14
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14
Minnesota	NELAP	5	036-999-337	12-31-14
New Hampshire	NELAP	1	2337	11-17-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	03-31-14
North Dakota	State Program	8	R-176	03-31-14
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-30-14
Tennessee	State Program	4	TN02970	04-01-14
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
West Virginia DEP	State Program	3	252	03-31-14
Wisconsin	State Program	5	998310390	08-31-14

Method Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-54582-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8021B	Volatile Organic Compounds (GC)	SW846	TAL BUF
608	Organochlorine Pesticides in Water	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
1664A	HEM and SGT-HEM	1664A	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
420.4	Phenolics, Total Recoverable	MCAWW	TAL BUF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL BUF
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
SM 5210B	BOD, 5-Day	SM	TAL BUF

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-54582-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-54582-1	Pre-Carbon	Wastewater	02/12/14 13:00	02/12/14 14:05
480-54582-2	OUTSIDE SUMP	Water	02/12/14 13:10	02/12/14 14:05
480-54583-1	Post-Carbon-3	Wastewater	02/12/14 12:40	02/12/14 14:05
480-54583-2	Post-Carbon-2	Water	02/12/14 12:50	02/12/14 14:05
480-54583-3	Post-Carbon-1	Water	02/12/14 12:55	02/12/14 14:05

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: T. Palmer	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-43978-1179.1
Client Contact: Thomas Palmer	Phone: (716) 866 3590	E-Mail: brian.fischer@testamericainc.com		Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc				Job #:
Address: 495 Aero Drive Suite 3	Due Date Requested:			
City: Cheektowaga	TAT Requested (days): 10			
State, Zip: NY, 14225				
Phone	PO #: Purchase Order not requir			
Email: tpalmer@gesonline.com	WO #:			
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Qtrly Pre-Carb	Project #: 48002525			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitnc Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0_28D - (MOD) Local Method	200.7 - (MOD) Local Method	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS List - VOA - 8021	310.2 - Alkalinity, Total	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	A	A	N		
Pre-Carbon	2-12-14	1300	G	Water			X	X	X	X	X		
Outside Sump	1	1310	1	1						X			

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		2-12-14 1405	GES		2-12-14 1405	FAB
2	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
3	Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 3.0 #1

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: T. Palmer	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-43974-1178.1
Client Contact: Thomas Palmer	Phone: (716) 866-3590	E-Mail: brian.fischer@testamericainc.com		Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc				Job #:
Address: 495 Aero Drive Suite 3	Due Date Requested:			
City: Cheektowaga	TAT Requested (days): 10			
State, Zip: NY, 14225				
Phone:	PO #: Purchase Order not requir			
Email: tpalmer@gesonline.com	WO #:			
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Qtrly Post-Car	Project #: 48002525			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7 - (MOD) Local Method	1664A_Calc - Oil & Grease	420.4 - Phenolics, Total Recoverable	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS List - VOA - 8021	608_Pest - Priority Pollutant Pesticides	8270C - (MOD) TCL SVOA - OLM04.2	5210B - Biochemical Oxygen Demand	2540C_Calcd - Total Dissolved Solids	2540D - Total Suspended Solids	335.4 - Cyanide, Total	SM4500_H+ - pH		Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	S	S	A	A	N	N	N	N	N	B	N			
Post-Carbon -3	2-12-14	1240	G	Water			X	X	X	X	X	X	X	X	X	X	X	X			
Post Carbon -2	"	1250	"	"							X										
Post Carbon -1	"	1255	"	"							X										

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		2-12-14 1405	GES		2-12-14 1405	TAS
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.3 #1

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-54582-1

Login Number: 54582

List Source: TestAmerica Buffalo

List Number: 1

Creator: Janish, Carl 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.	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.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-54582-1

Login Number: 54583

List Source: TestAmerica Buffalo

List Number: 1

Creator: Janish, Carl 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.	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.	N/A	
Chlorine Residual checked.	True	

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: 480-54582-1
Client Project/Site: NYSDEC-Gastown WWTP: Site# 915171
Sampling Event: Qtrly Post-Carbon
Qtrly Pre-Carbon
Revision: 1

For:
New York State D.E.C.
270 Michigan Avenue
Buffalo, New York 14203

Attn: Mr. Glenn May

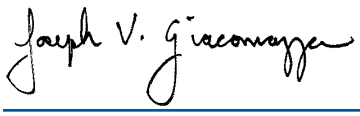
Joseph V. Giacomazza

Authorized for release by:
2/27/2014 12:01:40 PM
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

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
2/27/2014 12:01:40 PM

Table of Contents

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-54582-1

Qualifiers

GC 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.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
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)

Job ID: 480-54582-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-54582-1

Revision I
Report was revised to report 8021dilution for sample Post-Carbon-1 (480-54583-3) with surrogates.

Receipt
The samples were received on 2/12/2014 2:05 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.0º C and 3.3º C.

GC/MS VOA
Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-54582-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

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

Ion Chromatography
Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-54582-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

GC VOA
Method(s) 8021B: this data not used as the dilutionis not reported.

Method(s) 8021B: The following samples were diluted to bring the concentration of target analytes within the calibration range: OUTSIDE SUMP (480-54582-2), Post-Carbon-1 (480-54583-3), Pre-Carbon (480-54582-1). Elevated reporting limits (RLs) are provided.

Method(s) 8021B: The following samples were diluted to bring the concentration of target analytes within the calibration range: (480-54583-3 MS), (480-54583-3 MSD), OUTSIDE SUMP (480-54582-2), Post-Carbon-1 (480-54583-3), Pre-Carbon (480-54582-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

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

Metals
Method(s) 200.7 Rev 4.4: The Method Blank for batch 480-165728 contained total zinc above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples Post-Carbon-3 (480-54583-1) was not performed.

No other analytical or quality issues were noted.

General Chemistry
Method(s) SM 5210B: The USB dilution water D.O. depletion was greater than 0.2 mg/L but less than the reporting limit of 2.0 mg/L. The associated sample results are reported. (USB 480-165691/1)

Method(s) SM 4500 H+ B: The following sample(s) was received outside of holding time: Post-Carbon-3 (480-54583-1).

No other analytical or quality issues were noted.

Job ID: 480-54582-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

Organic Prep

Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 165982

No other analytical or quality issues were noted.

Client Sample ID: Pre-Carbon

Date Collected: 02/12/14 13:00
Date Received: 02/12/14 14:05

Lab Sample ID: 480-54582-1

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		100	82	ug/L			02/13/14 19:54	100
1,1,2,2-Tetrachloroethane	ND		100	21	ug/L			02/13/14 19:54	100
1,1,2-Trichloroethane	ND		100	23	ug/L			02/13/14 19:54	100
1,1-Dichloroethane	ND		100	38	ug/L			02/13/14 19:54	100
1,1-Dichloroethene	ND		100	29	ug/L			02/13/14 19:54	100
1,2-Dichloroethane	ND		100	21	ug/L			02/13/14 19:54	100
1,2-Dichloroethene, Total	ND		200	81	ug/L			02/13/14 19:54	100
1,2-Dichloropropane	ND		100	72	ug/L			02/13/14 19:54	100
2-Hexanone	ND		500	120	ug/L			02/13/14 19:54	100
2-Butanone (MEK)	ND		1000	130	ug/L			02/13/14 19:54	100
4-Methyl-2-pentanone (MIBK)	ND		500	210	ug/L			02/13/14 19:54	100
Acetone	ND		1000	300	ug/L			02/13/14 19:54	100
Benzene	**6600**		100	41	ug/L			02/13/14 19:54	100
Bromodichloromethane	ND		100	39	ug/L			02/13/14 19:54	100
Bromoform	ND		100	26	ug/L			02/13/14 19:54	100
Bromomethane	ND		100	69	ug/L			02/13/14 19:54	100
Carbon disulfide	ND		100	19	ug/L			02/13/14 19:54	100
Carbon tetrachloride	ND		100	27	ug/L			02/13/14 19:54	100
Chlorobenzene	ND		100	75	ug/L			02/13/14 19:54	100
Dibromochloromethane	ND		100	32	ug/L			02/13/14 19:54	100
Chloroethane	ND		100	32	ug/L			02/13/14 19:54	100
Chloroform	ND		100	34	ug/L			02/13/14 19:54	100
Chloromethane	ND		100	35	ug/L			02/13/14 19:54	100
cis-1,3-Dichloropropene	ND		100	36	ug/L			02/13/14 19:54	100
Ethylbenzene	**650**		100	74	ug/L			02/13/14 19:54	100
Methylene Chloride	ND		100	44	ug/L			02/13/14 19:54	100
Styrene	**250**		100	73	ug/L			02/13/14 19:54	100
Tetrachloroethene	ND		100	36	ug/L			02/13/14 19:54	100
Toluene	**2200**		100	51	ug/L			02/13/14 19:54	100
trans-1,3-Dichloropropene	ND		100	37	ug/L			02/13/14 19:54	100
Trichloroethene	ND		100	46	ug/L			02/13/14 19:54	100
Vinyl chloride	ND		100	90	ug/L			02/13/14 19:54	100
Vinyl acetate	ND		500	85	ug/L			02/13/14 19:54	100
Xylenes, Total	**500**		200	66	ug/L			02/13/14 19:54	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*66 - 137*		*02/13/14 19:54*	*100*
Toluene-d8 (Surr)	*99*		*71 - 126*		*02/13/14 19:54*	*100*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*02/13/14 19:54*	*100*

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**47**		20	3.5	ug/L			02/14/14 10:16	100
1,3,5-Trimethylbenzene	ND		20	15	ug/L			02/14/14 10:16	100
Ethylbenzene	**690**		20	2.9	ug/L			02/14/14 10:16	100
Isopropylbenzene	ND		20	2.7	ug/L			02/14/14 10:16	100
Methyl tert-butyl ether	**8.6**	**J**	40	4.4	ug/L			02/14/14 10:16	100
m,p-Xylene	**370**		40	5.4	ug/L			02/14/14 10:16	100
n-Butylbenzene	ND		20	3.1	ug/L			02/14/14 10:16	100
n-Propylbenzene	ND		20	13	ug/L			02/14/14 10:16	100

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-54582-1

Client Sample ID: Pre-Carbon
Date Collected: 02/12/14 13:00
Date Received: 02/12/14 14:05

Lab Sample ID: 480-54582-1
Matrix: Wastewater

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		20	2.7	ug/L			02/14/14 10:16	100
p-Cymene	ND		20	3.0	ug/L			02/14/14 10:16	100
sec-Butylbenzene	ND		20	2.0	ug/L			02/14/14 10:16	100
Toluene	**2300**		20	3.6	ug/L			02/14/14 10:16	100
Xylenes, Total	**370**		60	5.4	ug/L			02/14/14 10:16	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*84*		*63 - 145*		*02/14/14 10:16*	*100*
4-Bromofluorobenzene	*87*		*64 - 141*		*02/14/14 10:16*	*100*

Method: 8021B - Volatile Organic Compounds (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**6400**		100	12	ug/L			02/17/14 10:10	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*85*		*63 - 145*		*02/17/14 10:10*	*500*
4-Bromofluorobenzene	*88*		*64 - 141*		*02/17/14 10:10*	*500*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**127000**		500	100	ug/L		02/13/14 09:30	02/14/14 02:25	1
Iron	**1140**		50.0	19.3	ug/L		02/13/14 09:30	02/14/14 02:25	1
Magnesium	**80500**		200	43.4	ug/L		02/13/14 09:30	02/14/14 02:25	1
Potassium	**4580**		500	100	ug/L		02/13/14 09:30	02/14/14 02:25	1
Sodium	**64000**		1000	324	ug/L		02/13/14 09:30	02/14/14 02:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**103**		2.5	1.4	mg/L			02/13/14 17:18	5
Sulfate	**168**		10.0	1.7	mg/L			02/13/14 17:18	5
Alkalinity, Total	**457**		100	40.0	mg/L			02/19/14 11:04	10

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-54582-1

Client Sample ID: OUTSIDE SUMP
Date Collected: 02/12/14 13:10
Date Received: 02/12/14 14:05

Lab Sample ID: 480-54582-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	56		10	1.7	ug/L			02/14/14 11:08	50
1,3,5-Trimethylbenzene	16		10	7.5	ug/L			02/14/14 11:08	50
Ethylbenzene	830		10	1.4	ug/L			02/14/14 11:08	50
Isopropylbenzene	2.0	J	10	1.4	ug/L			02/14/14 11:08	50
Methyl tert-butyl ether	5.1	J	20	2.2	ug/L			02/14/14 11:08	50
m,p-Xylene	440		20	2.7	ug/L			02/14/14 11:08	50
n-Butylbenzene	ND		10	1.5	ug/L			02/14/14 11:08	50
n-Propylbenzene	ND		10	6.5	ug/L			02/14/14 11:08	50
o-Xylene	ND		10	1.4	ug/L			02/14/14 11:08	50
p-Cymene	ND		10	1.5	ug/L			02/14/14 11:08	50
sec-Butylbenzene	ND		10	1.0	ug/L			02/14/14 11:08	50
Toluene	2500		10	1.8	ug/L			02/14/14 11:08	50
Xylenes, Total	440		30	2.7	ug/L			02/14/14 11:08	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*84*		*63 - 145*		*02/14/14 11:08*	*50*
4-Bromofluorobenzene	*88*		*64 - 141*		*02/14/14 11:08*	*50*

Method: 8021B - Volatile Organic Compounds (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	8200		100	12	ug/L			02/17/14 10:44	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*86*		*63 - 145*		*02/17/14 10:44*	*500*
4-Bromofluorobenzene	*87*		*64 - 141*		*02/17/14 10:44*	*500*

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-54582-1

Client Sample ID: Post-Carbon-3
Date Collected: 02/12/14 12:40
Date Received: 02/12/14 14:05

Lab Sample ID: 480-54583-1
Matrix: Wastewater

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			02/13/14 19:33	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/13/14 19:33	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/13/14 19:33	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/13/14 19:33	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/13/14 19:33	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/13/14 19:33	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			02/13/14 19:33	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/13/14 19:33	1
2-Hexanone	ND		5.0	1.2	ug/L			02/13/14 19:33	1
2-Butanone (MEK)	ND		10	1.3	ug/L			02/13/14 19:33	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/13/14 19:33	1
Acetone	ND		10	3.0	ug/L			02/13/14 19:33	1
Benzene	ND		1.0	0.41	ug/L			02/13/14 19:33	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/13/14 19:33	1
Bromoform	ND		1.0	0.26	ug/L			02/13/14 19:33	1
Bromomethane	ND		1.0	0.69	ug/L			02/13/14 19:33	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/13/14 19:33	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/13/14 19:33	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/13/14 19:33	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/13/14 19:33	1
Chloroethane	ND		1.0	0.32	ug/L			02/13/14 19:33	1
Chloroform	ND		1.0	0.34	ug/L			02/13/14 19:33	1
Chloromethane	ND		1.0	0.35	ug/L			02/13/14 19:33	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/13/14 19:33	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/13/14 19:33	1
Methylene Chloride	ND		1.0	0.44	ug/L			02/13/14 19:33	1
Styrene	ND		1.0	0.73	ug/L			02/13/14 19:33	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/13/14 19:33	1
Toluene	ND		1.0	0.51	ug/L			02/13/14 19:33	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/13/14 19:33	1
Trichloroethene	ND		1.0	0.46	ug/L			02/13/14 19:33	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/13/14 19:33	1
Vinyl acetate	ND		5.0	0.85	ug/L			02/13/14 19:33	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/13/14 19:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*66 - 137*		*02/13/14 19:33*	*1*
Toluene-d8 (Surr)	*101*		*71 - 126*		*02/13/14 19:33*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*02/13/14 19:33*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		4.8	0.57	ug/L		02/14/14 08:14	02/15/14 11:56	1
Acenaphthene	ND		4.8	0.39	ug/L		02/14/14 08:14	02/15/14 11:56	1
Acenaphthylene	ND		4.8	0.36	ug/L		02/14/14 08:14	02/15/14 11:56	1
Anthracene	ND		4.8	0.27	ug/L		02/14/14 08:14	02/15/14 11:56	1
Benzo[a]anthracene	ND		4.8	0.34	ug/L		02/14/14 08:14	02/15/14 11:56	1
Benzo[a]pyrene	ND		4.8	0.45	ug/L		02/14/14 08:14	02/15/14 11:56	1
Benzo[b]fluoranthene	ND		4.8	0.32	ug/L		02/14/14 08:14	02/15/14 11:56	1
Benzo[g,h,i]perylene	ND		4.8	0.33	ug/L		02/14/14 08:14	02/15/14 11:56	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-54582-1

Client Sample ID: Post-Carbon-3
Date Collected: 02/12/14 12:40
Date Received: 02/12/14 14:05

Lab Sample ID: 480-54583-1
Matrix: Wastewater

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	ND		4.8	0.69	ug/L		02/14/14 08:14	02/15/14 11:56	1
Biphenyl	ND		4.8	0.62	ug/L		02/14/14 08:14	02/15/14 11:56	1
Bis(2-ethylhexyl) phthalate	ND		4.8	1.7	ug/L		02/14/14 08:14	02/15/14 11:56	1
Carbazole	ND		4.8	0.29	ug/L		02/14/14 08:14	02/15/14 11:56	1
Chrysene	ND		4.8	0.31	ug/L		02/14/14 08:14	02/15/14 11:56	1
Dibenz(a,h)anthracene	ND		4.8	0.40	ug/L		02/14/14 08:14	02/15/14 11:56	1
Dibenzofuran	ND		9.5	0.48	ug/L		02/14/14 08:14	02/15/14 11:56	1
Fluoranthene	ND		4.8	0.38	ug/L		02/14/14 08:14	02/15/14 11:56	1
Fluorene	ND		4.8	0.34	ug/L		02/14/14 08:14	02/15/14 11:56	1
Indeno[1,2,3-cd]pyrene	ND		4.8	0.45	ug/L		02/14/14 08:14	02/15/14 11:56	1
Naphthalene	ND		4.8	0.72	ug/L		02/14/14 08:14	02/15/14 11:56	1
Pentachlorophenol	ND		9.5	2.1	ug/L		02/14/14 08:14	02/15/14 11:56	1
Phenanthrene	ND		4.8	0.42	ug/L		02/14/14 08:14	02/15/14 11:56	1
Phenol	ND		4.8	0.37	ug/L		02/14/14 08:14	02/15/14 11:56	1
Pyrene	ND		4.8	0.32	ug/L		02/14/14 08:14	02/15/14 11:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*94*		*52 - 132*	*02/14/14 08:14*	*02/15/14 11:56*	*1*
2-Fluorobiphenyl	*82*		*48 - 120*	*02/14/14 08:14*	*02/15/14 11:56*	*1*
2-Fluorophenol	*47*		*20 - 120*	*02/14/14 08:14*	*02/15/14 11:56*	*1*
Nitrobenzene-d5	*78*		*46 - 120*	*02/14/14 08:14*	*02/15/14 11:56*	*1*
p-Terphenyl-d14	*96*		*67 - 150*	*02/14/14 08:14*	*02/15/14 11:56*	*1*
Phenol-d5	*31*		*16 - 120*	*02/14/14 08:14*	*02/15/14 11:56*	*1*

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			02/14/14 15:59	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			02/14/14 15:59	1
Benzene	**0.12**	**J**	0.20	0.023	ug/L			02/14/14 15:59	1
Ethylbenzene	ND		0.20	0.029	ug/L			02/14/14 15:59	1
Isopropylbenzene	ND		0.20	0.027	ug/L			02/14/14 15:59	1
Methyl tert-butyl ether	ND		0.40	0.044	ug/L			02/14/14 15:59	1
m,p-Xylene	ND		0.40	0.054	ug/L			02/14/14 15:59	1
n-Butylbenzene	ND		0.20	0.031	ug/L			02/14/14 15:59	1
n-Propylbenzene	ND		0.20	0.13	ug/L			02/14/14 15:59	1
o-Xylene	ND		0.20	0.027	ug/L			02/14/14 15:59	1
p-Cymene	ND		0.20	0.030	ug/L			02/14/14 15:59	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			02/14/14 15:59	1
Toluene	ND		0.20	0.036	ug/L			02/14/14 15:59	1
Xylenes, Total	ND		0.60	0.054	ug/L			02/14/14 15:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*84*		*63 - 145*		*02/14/14 15:59*	*1*
4-Bromofluorobenzene	*86*		*64 - 141*		*02/14/14 15:59*	*1*

Method: 608 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.048	0.0064	ug/L		02/14/14 08:20	02/18/14 09:59	1
alpha-BHC	ND		0.048	0.0064	ug/L		02/14/14 08:20	02/18/14 09:59	1
beta-BHC	ND		0.048	0.024	ug/L		02/14/14 08:20	02/18/14 09:59	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-54582-1

Client Sample ID: Post-Carbon-3
Date Collected: 02/12/14 12:40
Date Received: 02/12/14 14:05

Lab Sample ID: 480-54583-1
Matrix: Wastewater

Method: 608 - Organochlorine Pesticides in Water (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
delta-BHC	ND		0.048	0.0097	ug/L		02/14/14 08:20	02/18/14 09:59	1
gamma-BHC (Lindane)	ND		0.048	0.0058	ug/L		02/14/14 08:20	02/18/14 09:59	1
Chlordane (technical)	ND		0.48	0.28	ug/L		02/14/14 08:20	02/18/14 09:59	1
4,4'-DDD	ND		0.048	0.0089	ug/L		02/14/14 08:20	02/18/14 09:59	1
4,4'-DDE	ND		0.048	0.011	ug/L		02/14/14 08:20	02/18/14 09:59	1
4,4'-DDT	ND		0.048	0.011	ug/L		02/14/14 08:20	02/18/14 09:59	1
Dieldrin	ND		0.048	0.0095	ug/L		02/14/14 08:20	02/18/14 09:59	1
Endosulfan I	ND		0.048	0.011	ug/L		02/14/14 08:20	02/18/14 09:59	1
Endosulfan II	ND		0.048	0.012	ug/L		02/14/14 08:20	02/18/14 09:59	1
Endosulfan sulfate	ND		0.048	0.015	ug/L		02/14/14 08:20	02/18/14 09:59	1
Endrin	ND		0.048	0.013	ug/L		02/14/14 08:20	02/18/14 09:59	1
Endrin aldehyde	ND		0.048	0.016	ug/L		02/14/14 08:20	02/18/14 09:59	1
Heptachlor	ND		0.048	0.0082	ug/L		02/14/14 08:20	02/18/14 09:59	1
Heptachlor epoxide	ND		0.048	0.0051	ug/L		02/14/14 08:20	02/18/14 09:59	1
Toxaphene	ND		0.48	0.12	ug/L		02/14/14 08:20	02/18/14 09:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*50*		*23 - 120*	*02/14/14 08:20*	*02/18/14 09:59*	*1*
Tetrachloro-m-xylene	*87*		*36 - 120*	*02/14/14 08:20*	*02/18/14 09:59*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10.0	5.6	ug/L		02/13/14 09:30	02/14/14 02:31	1
Iron	**232**		50.0	19.3	ug/L		02/13/14 09:30	02/14/14 02:31	1
Manganese	**252**		3.0	0.40	ug/L		02/13/14 09:30	02/14/14 02:31	1
Zinc	**3.8**	**J B**	10.0	1.5	ug/L		02/13/14 09:30	02/14/14 02:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	ND		5.0	1.4	mg/L		02/14/14 01:56	02/14/14 02:05	1
Cyanide, Total	**0.57**		0.020	0.010	mg/L		02/14/14 17:50	02/15/14 10:30	2
Phenolics, Total Recoverable	ND		0.010	0.0050	mg/L		02/18/14 17:39	02/20/14 16:11	1
Total Dissolved Solids	**937**		10.0	4.0	mg/L			02/13/14 20:24	1
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			02/12/14 19:09	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	4.0	mg/L			02/13/14 17:16	1
pH	**7.33**	**HF**	0.100	0.100	SU			02/12/14 17:52	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-54582-1

Client Sample ID: Post-Carbon-2
Date Collected: 02/12/14 12:50
Date Received: 02/12/14 14:05

Lab Sample ID: 480-54583-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			02/14/14 16:33	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			02/14/14 16:33	1
Benzene	**43**		0.20	0.023	ug/L			02/14/14 16:33	1
Ethylbenzene	**0.62**		0.20	0.029	ug/L			02/14/14 16:33	1
Isopropylbenzene	ND		0.20	0.027	ug/L			02/14/14 16:33	1
Methyl tert-butyl ether	**0.19**	**J**	0.40	0.044	ug/L			02/14/14 16:33	1
m,p-Xylene	**0.21**	**J**	0.40	0.054	ug/L			02/14/14 16:33	1
n-Butylbenzene	ND		0.20	0.031	ug/L			02/14/14 16:33	1
n-Propylbenzene	ND		0.20	0.13	ug/L			02/14/14 16:33	1
o-Xylene	**0.17**	**J**	0.20	0.027	ug/L			02/14/14 16:33	1
p-Cymene	ND		0.20	0.030	ug/L			02/14/14 16:33	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			02/14/14 16:33	1
Toluene	**2.7**		0.20	0.036	ug/L			02/14/14 16:33	1
Xylenes, Total	**0.38**	**J**	0.60	0.054	ug/L			02/14/14 16:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*86*		*63 - 145*		*02/14/14 16:33*	*1*
4-Bromofluorobenzene	*88*		*64 - 141*		*02/14/14 16:33*	*1*

Client Sample ID: Post-Carbon-1
Date Collected: 02/12/14 12:55
Date Received: 02/12/14 14:05

Lab Sample ID: 480-54583-3
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**12**		10	1.7	ug/L			02/14/14 17:41	50
1,3,5-Trimethylbenzene	ND		10	7.5	ug/L			02/14/14 17:41	50
Ethylbenzene	**230**		10	1.4	ug/L			02/14/14 17:41	50
Isopropylbenzene	ND		10	1.4	ug/L			02/14/14 17:41	50
Methyl tert-butyl ether	ND		20	2.2	ug/L			02/14/14 17:41	50
m,p-Xylene	**120**		20	2.7	ug/L			02/14/14 17:41	50
n-Butylbenzene	ND		10	1.5	ug/L			02/14/14 17:41	50
n-Propylbenzene	ND		10	6.5	ug/L			02/14/14 17:41	50
o-Xylene	ND		10	1.4	ug/L			02/14/14 17:41	50
p-Cymene	ND		10	1.5	ug/L			02/14/14 17:41	50
sec-Butylbenzene	ND		10	1.0	ug/L			02/14/14 17:41	50
Toluene	**880**		10	1.8	ug/L			02/14/14 17:41	50
Xylenes, Total	**120**		30	2.7	ug/L			02/14/14 17:41	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*86*		*63 - 145*		*02/14/14 17:41*	*50*
4-Bromofluorobenzene	*88*		*64 - 141*		*02/14/14 17:41*	*50*

Method: 8021B - Volatile Organic Compounds (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**3700**		20	2.3	ug/L			02/17/14 11:19	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*86*		*63 - 145*		*02/17/14 11:19*	*100*
4-Bromofluorobenzene	*87*		*64 - 141*		*02/17/14 11:19*	*100*

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-54582-1

Client Sample ID: Pre-Carbon

Lab Sample ID: 480-54582-1

Date Collected: 02/12/14 13:00

Matrix: Wastewater

Date Received: 02/12/14 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	165776	02/13/14 19:54	NMD1	TAL BUF
Total/NA	Analysis	8021B		100	165968	02/14/14 10:16	DGB	TAL BUF
Total/NA	Analysis	8021B	DL	500	166182	02/17/14 10:10	DGB	TAL BUF
Total/NA	Prep	200.7			165728	02/13/14 09:30	EHD	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	165997	02/14/14 02:25	HTL	TAL BUF
Total/NA	Analysis	300.0		5	165828	02/13/14 17:18	KRC	TAL BUF
Total/NA	Analysis	310.2		10	166681	02/19/14 11:04	NCH	TAL BUF

Client Sample ID: OUTSIDE SUMP

Lab Sample ID: 480-54582-2

Date Collected: 02/12/14 13:10

Matrix: Water

Date Received: 02/12/14 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		50	165968	02/14/14 11:08	DGB	TAL BUF
Total/NA	Analysis	8021B	DL	500	166182	02/17/14 10:44	DGB	TAL BUF

Client Sample ID: Post-Carbon-3

Lab Sample ID: 480-54583-1

Date Collected: 02/12/14 12:40

Matrix: Wastewater

Date Received: 02/12/14 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	165776	02/13/14 19:33	NMD1	TAL BUF
Total/NA	Prep	3510C			165982	02/14/14 08:14	MRB	TAL BUF
Total/NA	Analysis	8270D		1	166125	02/15/14 11:56	ANM	TAL BUF
Total/NA	Analysis	8021B		1	165968	02/14/14 15:59	DGB	TAL BUF
Total/NA	Prep	3510C			165983	02/14/14 08:20	MRB	TAL BUF
Total/NA	Analysis	608		1	166372	02/18/14 09:59	MAN	TAL BUF
Total/NA	Prep	200.7			165728	02/13/14 09:30	EHD	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	165997	02/14/14 02:31	HTL	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	165672	02/12/14 17:52	KS	TAL BUF
Total/NA	Analysis	SM 5210B		1	165691	02/12/14 19:09	CLT	TAL BUF
Total/NA	Analysis	SM 2540D		1	165896	02/13/14 17:16	KS	TAL BUF
Total/NA	Analysis	SM 2540C		1	165904	02/13/14 20:24	KS	TAL BUF
Total/NA	Prep	1664A			165933	02/14/14 01:56	RMB	TAL BUF
Total/NA	Analysis	1664A		1	165934	02/14/14 02:05	RMB	TAL BUF
Total/NA	Prep	Distill/CN			166088	02/14/14 17:50	CLT	TAL BUF
Total/NA	Analysis	335.4		2	166138	02/15/14 10:30	NCH	TAL BUF
Total/NA	Prep	Distill/Phenol			166510	02/18/14 17:39	KS	TAL BUF
Total/NA	Analysis	420.4		1	166937	02/20/14 16:11	EGS	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-54582-1

Client Sample ID: Post-Carbon-2

Lab Sample ID: 480-54583-2

Date Collected: 02/12/14 12:50

Matrix: Water

Date Received: 02/12/14 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	165968	02/14/14 16:33	DGB	TAL BUF

Client Sample ID: Post-Carbon-1

Lab Sample ID: 480-54583-3

Date Collected: 02/12/14 12:55

Matrix: Water

Date Received: 02/12/14 14:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		50	165968	02/14/14 17:41	DGB	TAL BUF
Total/NA	Analysis	8021B	DL	100	166182	02/17/14 11:19	DGB	TAL BUF

Laboratory References:

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

Certification Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-54582-1

Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-14
California	NELAP	9	1169CA	09-30-14
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-14
Illinois	NELAP	5	200003	09-30-14
Iowa	State Program	7	374	03-01-15
Kansas	NELAP	7	E-10187	04-01-14
Kentucky (DW)	State Program	4	90029	12-31-14
Kentucky (UST)	State Program	4	30	04-01-14
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-14
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14
Minnesota	NELAP	5	036-999-337	12-31-14
New Hampshire	NELAP	1	2337	11-17-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	03-31-14
North Dakota	State Program	8	R-176	03-31-14
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-30-14
Tennessee	State Program	4	TN02970	04-01-14
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
West Virginia DEP	State Program	3	252	03-31-14
Wisconsin	State Program	5	998310390	08-31-14

Method Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-54582-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8021B	Volatile Organic Compounds (GC)	SW846	TAL BUF
608	Organochlorine Pesticides in Water	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
1664A	HEM and SGT-HEM	1664A	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
420.4	Phenolics, Total Recoverable	MCAWW	TAL BUF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL BUF
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
SM 5210B	BOD, 5-Day	SM	TAL BUF

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-54582-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-54582-1	Pre-Carbon	Wastewater	02/12/14 13:00	02/12/14 14:05
480-54582-2	OUTSIDE SUMP	Water	02/12/14 13:10	02/12/14 14:05
480-54583-1	Post-Carbon-3	Wastewater	02/12/14 12:40	02/12/14 14:05
480-54583-2	Post-Carbon-2	Water	02/12/14 12:50	02/12/14 14:05
480-54583-3	Post-Carbon-1	Water	02/12/14 12:55	02/12/14 14:05

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: T. Palmer	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-43978-1179.1
Client Contact: Thomas Palmer	Phone: (716) 866 3590	E-Mail: brian.fischer@testamericainc.com		Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc				Job #:
Address: 495 Aero Drive Suite 3	Due Date Requested:			
City: Cheektowaga	TAT Requested (days): 10			
State, Zip: NY, 14225				
Phone	PO #: Purchase Order not requir			
Email: tpalmer@gesonline.com	WO #:			
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Qtrly Pre-Carb	Project #: 48002525			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitnc Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0_28D - (MOD) Local Method	200.7 - (MOD) Local Method	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS List - VOA - 8021	310.2 - Alkalinity, Total	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	A	A	N		
Pre-Carbon	2-12-14	1300	G	Water			X	X	X	X	X		
Outside Sump	1	1310	1	1						X			

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	[signature]	2-12-14 / 1405	GES	[signature]	2-12-14 1405	TAB
2	Relinquished by	Date/Time	Company	Received by:	Date/Time	Company
3	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 3.0 #1

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: T. Palmer	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-43974-1178.1
Client Contact: Thomas Palmer	Phone: (716) 866-3590	E-Mail: brian.fischer@testamericainc.com		Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc				Job #:
Address: 495 Aero Drive Suite 3	Due Date Requested:			
City: Cheektowaga	TAT Requested (days): 10			
State, Zip: NY, 14225				
Phone:	PO #: Purchase Order not requir			
Email: tpalmer@gesonline.com	WO #:			
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Qtrly Post-Car	Project #: 48002525			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7 - (MOD) Local Method	1664A_Calc - Oil & Grease	420.4 - Phenolics, Total Recoverable	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS List - VOA - 8021	608_Pest - Priority Pollutant Pesticides	8270C - (MOD) TCL SVOA - OLM04.2	5210B - Biochemical Oxygen Demand	2540C_Calcd - Total Dissolved Solids	2540D - Total Suspended Solids	335.4 - Cyanide, Total	SM4500_H+ - pH		Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	S	S	A	A	N	N	N	N	N	B	N			
Post-Carbon -3	2-12-14	1240	G	Water			X	X	X	X	X	X	X	X	X	X	X	X			
Post Carbon -2	"	1250	"	"							X										
Post Carbon -1	"	1255	"	"							X										

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		2-12-14 1405	GES		2-12-14 1405	TAS
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.3 #1

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-54582-1

Login Number: 54582

List Source: TestAmerica Buffalo

List Number: 1

Creator: Janish, Carl 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.	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.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-54582-1

Login Number: 54583

List Source: TestAmerica Buffalo

List Number: 1

Creator: Janish, Carl 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.	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.	N/A	
Chlorine Residual checked.	True	

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: 480-56067-1
Client Project/Site: NYSDEC-Gastown WWTP: Site# 915171
Sampling Event: Qtrly Post-Carbon
Qtrly Pre-Carbon

For:
New York State D.E.C.
270 Michigan Avenue
Buffalo, New York 14203

Attn: Mr. Glenn May

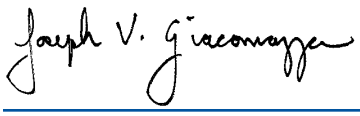
Joseph V. Giacomazza

Authorized for release by:
3/26/2014 10:26:18 AM
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

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
3/26/2014 10:26:18 AM

Table of Contents

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-56067-1

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.

GC 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.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
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)

Job ID: 480-56067-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-56067-1

Receipt
The samples were received on 3/14/2014 1:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.0º C and 3.6º C.

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

Ion Chromatography
Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-56067-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

GC VOA
Method(s) 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 170309 were outside control limits for xylenes, total. The associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 8021B: The following samples were diluted to bring the concentration of target analytes within the calibration range: (480-56067-1 MS), (480-56067-1 MSD), OUTSIDE SUMP (480-56067-2), Post-Carbon-1 (480-56068-3), Pre-Carbon (480-56067-1). Elevated reporting limits (RLs) are provided.

Method(s) 8021B: The following samples were diluted to bring the concentration of target analytes within the calibration range: (480-56068-2 MS), (480-56068-2 MSD), Post-Carbon-2 (480-56068-2). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

Metals
Method(s) 200.7 Rev 4.4: The Method Blank for batch 480-170313 contained total zinc above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of sample Post-Carbon-3 (480-56068-1) was not performed.

No other analytical or quality issues were noted.

General Chemistry
Method(s) SM 4500 H+ B: The following sample(s) was received outside of holding time: Post-Carbon-3 (480-56068-1).

No other analytical or quality issues were noted.

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-56067-1

Client Sample ID: Pre-Carbon
Date Collected: 03/14/14 13:10
Date Received: 03/14/14 13:50

Lab Sample ID: 480-56067-1
Matrix: Wastewater

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		100	17	ug/L			03/17/14 10:52	500
1,3,5-Trimethylbenzene	ND		100	75	ug/L			03/17/14 10:52	500
Benzene	**5200**		100	12	ug/L			03/17/14 10:52	500
Ethylbenzene	**530**		100	14	ug/L			03/17/14 10:52	500
Isopropylbenzene	ND		100	14	ug/L			03/17/14 10:52	500
Methyl tert-butyl ether	ND		200	22	ug/L			03/17/14 10:52	500
m,p-Xylene	**76**	**J**	200	27	ug/L			03/17/14 10:52	500
n-Butylbenzene	ND		100	15	ug/L			03/17/14 10:52	500
n-Propylbenzene	ND		100	65	ug/L			03/17/14 10:52	500
o-Xylene	**120**		100	14	ug/L			03/17/14 10:52	500
p-Cymene	ND		100	15	ug/L			03/17/14 10:52	500
sec-Butylbenzene	ND		100	10	ug/L			03/17/14 10:52	500
Toluene	**1700**		100	18	ug/L			03/17/14 10:52	500
Xylenes, Total	**200**	**J**	300	27	ug/L			03/17/14 10:52	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*92*		*63 - 145*		*03/17/14 10:52*	*500*
4-Bromofluorobenzene	*92*		*64 - 141*		*03/17/14 10:52*	*500*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**139000**		500	100	ug/L		03/17/14 08:55	03/18/14 23:59	1
Iron	**196**		50.0	19.3	ug/L		03/17/14 08:55	03/18/14 23:59	1
Magnesium	**74800**		200	43.4	ug/L		03/17/14 08:55	03/18/14 23:59	1
Potassium	**4620**		500	100	ug/L		03/17/14 08:55	03/18/14 23:59	1
Sodium	**65200**		1000	324	ug/L		03/17/14 08:55	03/18/14 23:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**109**		2.5	1.4	mg/L			03/18/14 05:50	5
Sulfate	**150**		10.0	1.7	mg/L			03/18/14 05:50	5
Alkalinity, Total	**543**		100	40.0	mg/L			03/19/14 11:51	10

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-56067-1

Client Sample ID: OUTSIDE SUMP
Date Collected: 03/14/14 13:20
Date Received: 03/14/14 13:50

Lab Sample ID: 480-56067-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**56**	**J**	100	17	ug/L			03/17/14 11:45	500
1,3,5-Trimethylbenzene	ND		100	75	ug/L			03/17/14 11:45	500
Benzene	**6000**		100	12	ug/L			03/17/14 11:45	500
Ethylbenzene	**600**		100	14	ug/L			03/17/14 11:45	500
Isopropylbenzene	ND		100	14	ug/L			03/17/14 11:45	500
Methyl tert-butyl ether	ND		200	22	ug/L			03/17/14 11:45	500
m,p-Xylene	**300**		200	27	ug/L			03/17/14 11:45	500
n-Butylbenzene	ND		100	15	ug/L			03/17/14 11:45	500
n-Propylbenzene	ND		100	65	ug/L			03/17/14 11:45	500
o-Xylene	**120**		100	14	ug/L			03/17/14 11:45	500
p-Cymene	ND		100	15	ug/L			03/17/14 11:45	500
sec-Butylbenzene	ND		100	10	ug/L			03/17/14 11:45	500
Toluene	**1900**		100	18	ug/L			03/17/14 11:45	500
Xylenes, Total	**420**		300	27	ug/L			03/17/14 11:45	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*90*		*63 - 145*		*03/17/14 11:45*	*500*
4-Bromofluorobenzene	*91*		*64 - 141*		*03/17/14 11:45*	*500*

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-56067-1

Client Sample ID: Post-Carbon-3
Date Collected: 03/14/14 12:45
Date Received: 03/14/14 13:50

Lab Sample ID: 480-56068-1
Matrix: Wastewater

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			03/17/14 23:11	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			03/17/14 23:11	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			03/17/14 23:11	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/17/14 23:11	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			03/17/14 23:11	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			03/17/14 23:11	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			03/17/14 23:11	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			03/17/14 23:11	1
2-Hexanone	ND		5.0	1.2	ug/L			03/17/14 23:11	1
2-Butanone (MEK)	ND		10	1.3	ug/L			03/17/14 23:11	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			03/17/14 23:11	1
Acetone	ND		10	3.0	ug/L			03/17/14 23:11	1
Benzene	ND		1.0	0.41	ug/L			03/17/14 23:11	1
Bromodichloromethane	ND		1.0	0.39	ug/L			03/17/14 23:11	1
Bromoform	ND		1.0	0.26	ug/L			03/17/14 23:11	1
Bromomethane	ND		1.0	0.69	ug/L			03/17/14 23:11	1
Carbon disulfide	ND		1.0	0.19	ug/L			03/17/14 23:11	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			03/17/14 23:11	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/17/14 23:11	1
Dibromochloromethane	ND		1.0	0.32	ug/L			03/17/14 23:11	1
Chloroethane	ND		1.0	0.32	ug/L			03/17/14 23:11	1
Chloroform	**0.68**	**J**	1.0	0.34	ug/L			03/17/14 23:11	1
Chloromethane	ND		1.0	0.35	ug/L			03/17/14 23:11	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			03/17/14 23:11	1
Ethylbenzene	ND		1.0	0.74	ug/L			03/17/14 23:11	1
Methylene Chloride	ND		1.0	0.44	ug/L			03/17/14 23:11	1
Styrene	ND		1.0	0.73	ug/L			03/17/14 23:11	1
Tetrachloroethene	ND		1.0	0.36	ug/L			03/17/14 23:11	1
Toluene	ND		1.0	0.51	ug/L			03/17/14 23:11	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			03/17/14 23:11	1
Trichloroethene	ND		1.0	0.46	ug/L			03/17/14 23:11	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/17/14 23:11	1
Vinyl acetate	ND		5.0	0.85	ug/L			03/17/14 23:11	1
Xylenes, Total	ND		2.0	0.66	ug/L			03/17/14 23:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*66 - 137*		*03/17/14 23:11*	*1*
Toluene-d8 (Surr)	*102*		*71 - 126*		*03/17/14 23:11*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*03/17/14 23:11*	*1*

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			03/17/14 14:02	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			03/17/14 14:02	1
Benzene	**0.059**	**J**	0.20	0.023	ug/L			03/17/14 14:02	1
Ethylbenzene	ND		0.20	0.029	ug/L			03/17/14 14:02	1
Isopropylbenzene	ND		0.20	0.027	ug/L			03/17/14 14:02	1
Methyl tert-butyl ether	**0.076**	**J**	0.40	0.044	ug/L			03/17/14 14:02	1
m,p-Xylene	ND		0.40	0.054	ug/L			03/17/14 14:02	1
n-Butylbenzene	ND		0.20	0.031	ug/L			03/17/14 14:02	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-56067-1

Client Sample ID: Post-Carbon-3
Date Collected: 03/14/14 12:45
Date Received: 03/14/14 13:50

Lab Sample ID: 480-56068-1
Matrix: Wastewater

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	ND		0.20	0.13	ug/L			03/17/14 14:02	1
o-Xylene	ND		0.20	0.027	ug/L			03/17/14 14:02	1
p-Cymene	ND		0.20	0.030	ug/L			03/17/14 14:02	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			03/17/14 14:02	1
Toluene	ND		0.20	0.036	ug/L			03/17/14 14:02	1
Xylenes, Total	ND		0.60	0.054	ug/L			03/17/14 14:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*88*		*63 - 145*		*03/17/14 14:02*	*1*
4-Bromofluorobenzene	*88*		*64 - 141*		*03/17/14 14:02*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**171**		50.0	19.3	ug/L		03/17/14 08:55	03/19/14 00:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.41**		0.010	0.0050	mg/L		03/20/14 15:40	03/21/14 15:57	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.49**	**HF**	0.100	0.100	SU			03/14/14 23:04	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-56067-1

Client Sample ID: Post-Carbon-2
Date Collected: 03/14/14 12:50
Date Received: 03/14/14 13:50

Lab Sample ID: 480-56068-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			03/17/14 14:36	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			03/17/14 14:36	1
Ethylbenzene	**0.29**		0.20	0.029	ug/L			03/17/14 14:36	1
Isopropylbenzene	ND		0.20	0.027	ug/L			03/17/14 14:36	1
Methyl tert-butyl ether	**0.72**		0.40	0.044	ug/L			03/17/14 14:36	1
m,p-Xylene	ND		0.40	0.054	ug/L			03/17/14 14:36	1
n-Butylbenzene	ND		0.20	0.031	ug/L			03/17/14 14:36	1
n-Propylbenzene	ND		0.20	0.13	ug/L			03/17/14 14:36	1
o-Xylene	**0.062**	**J**	0.20	0.027	ug/L			03/17/14 14:36	1
p-Cymene	ND		0.20	0.030	ug/L			03/17/14 14:36	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			03/17/14 14:36	1
Toluene	**1.8**		0.20	0.036	ug/L			03/17/14 14:36	1
Xylenes, Total	**0.062**	**J**	0.60	0.054	ug/L			03/17/14 14:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*90*		*63 - 145*		*03/17/14 14:36*	*1*
4-Bromofluorobenzene	*90*		*64 - 141*		*03/17/14 14:36*	*1*

Method: 8021B - Volatile Organic Compounds (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**56**		1.0	0.12	ug/L			03/19/14 11:13	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*90*		*63 - 145*		*03/19/14 11:13*	*5*
4-Bromofluorobenzene	*89*		*64 - 141*		*03/19/14 11:13*	*5*

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-56067-1

Client Sample ID: Post-Carbon-1
Date Collected: 03/14/14 12:55
Date Received: 03/14/14 13:50

Lab Sample ID: 480-56068-3
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**5.9**	**J**	20	3.5	ug/L			03/17/14 15:10	100
1,3,5-Trimethylbenzene	ND		20	15	ug/L			03/17/14 15:10	100
Benzene	**3000**		20	2.3	ug/L			03/17/14 15:10	100
Ethylbenzene	**130**		20	2.9	ug/L			03/17/14 15:10	100
Isopropylbenzene	ND		20	2.7	ug/L			03/17/14 15:10	100
Methyl tert-butyl ether	ND		40	4.4	ug/L			03/17/14 15:10	100
m,p-Xylene	**54**		40	5.4	ug/L			03/17/14 15:10	100
n-Butylbenzene	ND		20	3.1	ug/L			03/17/14 15:10	100
n-Propylbenzene	ND		20	13	ug/L			03/17/14 15:10	100
o-Xylene	**33**		20	2.7	ug/L			03/17/14 15:10	100
p-Cymene	ND		20	3.0	ug/L			03/17/14 15:10	100
sec-Butylbenzene	ND		20	2.0	ug/L			03/17/14 15:10	100
Toluene	**580**		20	3.6	ug/L			03/17/14 15:10	100
Xylenes, Total	**87**		60	5.4	ug/L			03/17/14 15:10	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*91*		*63 - 145*		*03/17/14 15:10*	*100*
4-Bromofluorobenzene	*90*		*64 - 141*		*03/17/14 15:10*	*100*

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-56067-1

Client Sample ID: Pre-Carbon
Lab Sample ID: 480-56067-1
Date Collected: 03/14/14 13:10
Matrix: Wastewater
Date Received: 03/14/14 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		500	170309	03/17/14 10:52	DGB	TAL BUF
Total/NA	Prep	200.7			170313	03/17/14 08:55	EHD	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	170805	03/18/14 23:59	LMH	TAL BUF
Total/NA	Analysis	300.0		5	170417	03/18/14 05:50	KAC	TAL BUF
Total/NA	Analysis	310.2		10	170878	03/19/14 11:51	NCH	TAL BUF

Client Sample ID: OUTSIDE SUMP
Lab Sample ID: 480-56067-2
Date Collected: 03/14/14 13:20
Matrix: Water
Date Received: 03/14/14 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		500	170309	03/17/14 11:45	DGB	TAL BUF

Client Sample ID: Post-Carbon-3
Lab Sample ID: 480-56068-1
Date Collected: 03/14/14 12:45
Matrix: Wastewater
Date Received: 03/14/14 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	170450	03/17/14 23:11	RAL	TAL BUF
Total/NA	Analysis	8021B		1	170309	03/17/14 14:02	DGB	TAL BUF
Total/NA	Prep	200.7			170313	03/17/14 08:55	EHD	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	170805	03/19/14 00:28	LMH	TAL BUF
Total/NA	Prep	Distill/CN			171282	03/20/14 15:40	JMB	TAL BUF
Total/NA	Analysis	335.4		1	171296	03/21/14 15:57	NCH	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	170228	03/14/14 23:04	KS	TAL BUF

Client Sample ID: Post-Carbon-2
Lab Sample ID: 480-56068-2
Date Collected: 03/14/14 12:50
Matrix: Water
Date Received: 03/14/14 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	170309	03/17/14 14:36	DGB	TAL BUF
Total/NA	Analysis	8021B	DL	5	170752	03/19/14 11:13	DGB	TAL BUF

Client Sample ID: Post-Carbon-1
Lab Sample ID: 480-56068-3
Date Collected: 03/14/14 12:55
Matrix: Water
Date Received: 03/14/14 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		100	170309	03/17/14 15:10	DGB	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-56067-1

Laboratory References:

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

Certification Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-56067-1

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-14 *

The following analytes are included in this report, but are not certified under this certification:

Analysis Method	Prep Method	Matrix	Analyte
8021B		Wastewater	sec-Butylbenzene
8021B		Water	sec-Butylbenzene

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8021B		Wastewater	m,p-Xylene
8021B		Wastewater	o-Xylene
8021B		Water	m,p-Xylene
8021B		Water	o-Xylene
8260C		Wastewater	1,2-Dichloroethene, Total
8260C		Water	1,2-Dichloroethene, Total
SM 4500 H+ B		Wastewater	pH
SM 4500 H+ B		Water	pH

* Expired certification is currently pending renewal and is considered valid.

Method Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-56067-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8021B	Volatile Organic Compounds (GC)	SW846	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-56067-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-56067-1	Pre-Carbon	Wastewater	03/14/14 13:10	03/14/14 13:50
480-56067-2	OUTSIDE SUMP	Water	03/14/14 13:20	03/14/14 13:50
480-56068-1	Post-Carbon-3	Wastewater	03/14/14 12:45	03/14/14 13:50
480-56068-2	Post-Carbon-2	Water	03/14/14 12:50	03/14/14 13:50
480-56068-3	Post-Carbon-1	Water	03/14/14 12:55	03/14/14 13:50

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

480-56067 Chain of Custody

Client Information	Sampler: T. Palmer	Lab PM: Fischer, Brian J	Carrier
Client Contact: Thomas Palmer	Phone: (716) 866-3590	E-Mail: brian.fischer@testamericainc.com	Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc		Analysis Requested	Job #:
Address: 495 Aero Drive Suite 3	Due Date Requested:		
City: Cheektowaga	TAT Requested (days): STP		
State, Zip: NY, 14225			
Phone:	PO #: Purchase Order not requir		
Email: tpalmer@gesonline.com	WO #:		
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Pre-Carl	Project #: 48002525		
Site: New York	SSOW#:		

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0_28D - (MOD) Local Method	200.7 - (MOD) Local Method	310.2 - Alkalinity, Total	8021B-(MOD) STARS list VOA -8021	Total Number of containers	Special Instructions/Note:
				Preservation Code:			N	D	N	A		
Pre-Carbon	3-14-14	1310	G	Water	N	N	X	X	X	X		
Outside Sump	⊥	1320	G	⊥	N	N				X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ________ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	3-14-14 / 1350	GES	[signature]	3/14/14 1350	TA BUFFALO
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: #2 3.0

3/26/2014

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

480-56068 Chain of Custody

Client Information	Sampler: T. Palmer	Lab PM: Fischer, Brian J	Carrie
Client Contact: Thomas Palmer	Phone: (716) 8663590	E-Mail: brian.fischer@testamericainc.com	Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc			Job #:
Address: 495 Aero Drive Suite 3	Due Date Requested:		
City: Cheektowaga	TAT Requested (days): Std		
State, Zip: NY, 14225			
Phone:	PO #: Purchase Order not requir		
Email: tpalmer@gesonline.com	WO #:		
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Post-Ca	Project #: 48002525		
Site: New York	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7 - Iron	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS List - VOA - 8021	335.4 - Cyanide, Total	SM4500_H+ - pH	Total Number of containers	Special Instructions/Note:
Preservation Code:							D	A	A	B	N		
Post-Carbon -3	3-14-14	1245	G	Water			X	X	X	X	X		
Post-Carbon-2	1	1250	1	1					X				
Post-Carbon-1	1	1255	1	1					X				

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

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

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	3/14/14 1350	GES		3/14/14 1350	TA BUFFALO
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: # 1 3.6

3/26/2014

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-56067-1

Login Number: 56067

List Source: TestAmerica Buffalo

List Number: 1

Creator: Stau, Brandon 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.	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.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-56067-1

Login Number: 56068

List Source: TestAmerica Buffalo

List Number: 1

Creator: Stau, Brandon 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.	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.	N/A	
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: 480-57564-1
Client Project/Site: NYSDEC-Gastown WWTP: Site# 915171
Sampling Event: Mthly Post-Carbon
Mthly Pre-Carbon

For:
New York State D.E.C.
270 Michigan Avenue
Buffalo, New York 14203

Attn: Mr. Glenn May

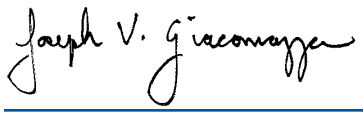
Joseph V. Giacomazza

Authorized for release by:
4/18/2014 9:51:44 AM
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

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
4/18/2014 9:51:44 AM

Table of Contents

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-57564-1

Qualifiers

GC 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.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
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)

Job ID: 480-57564-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-57564-1

Receipt
The samples were received on 4/9/2014 11:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 4.2º C and 4.2º C.

GC/MS VOA
Method(s) 8260C: The large number of analytes included in the continuing calibration verification (CCV) for batch 176122 gives a high probability that one or more analytes will be outside acceptance criteria. As indicated in the reference method, analysis may proceed as long as no more than 20% of the analytes are outside the method-defined %D criteria.

No other analytical or quality issues were noted.

Ion Chromatography
Method(s) 300.0: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-57566-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

GC VOA
Method(s) 8021B: The following samples were diluted to bring the concentration of target analytes within the calibration range: (480-57564-3 MS), (480-57564-3 MSD), Outside Sump (480-57566-2), Post-Carbon #1 (480-57564-3), Post-Carbon #2 (480-57564-2), Pre-Carbon (480-57566-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

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

General Chemistry
Method(s) 310.2: The method blank for batch 175053 contained Alkalinity above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.Pre-Carbon (480-57566-1)

Method(s) SM 4500 H+ B: The following sample(s) was received outside of holding time: Post-Carbon #3 (480-57564-1).

No other analytical or quality issues were noted.

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-57564-1

Client Sample ID: Post-Carbon #3
Date Collected: 04/09/14 10:15
Date Received: 04/09/14 11:20

Lab Sample ID: 480-57564-1
Matrix: Wastewater

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			04/16/14 15:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			04/16/14 15:44	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/16/14 15:44	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/16/14 15:44	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/16/14 15:44	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/16/14 15:44	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			04/16/14 15:44	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/16/14 15:44	1
2-Hexanone	ND		5.0	1.2	ug/L			04/16/14 15:44	1
2-Butanone (MEK)	ND		10	1.3	ug/L			04/16/14 15:44	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			04/16/14 15:44	1
Acetone	ND		10	3.0	ug/L			04/16/14 15:44	1
Benzene	**23**		1.0	0.41	ug/L			04/16/14 15:44	1
Bromodichloromethane	ND		1.0	0.39	ug/L			04/16/14 15:44	1
Bromoform	ND		1.0	0.26	ug/L			04/16/14 15:44	1
Bromomethane	ND		1.0	0.69	ug/L			04/16/14 15:44	1
Carbon disulfide	ND		1.0	0.19	ug/L			04/16/14 15:44	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/16/14 15:44	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/16/14 15:44	1
Dibromochloromethane	ND		1.0	0.32	ug/L			04/16/14 15:44	1
Chloroethane	ND		1.0	0.32	ug/L			04/16/14 15:44	1
Chloroform	**5.5**		1.0	0.34	ug/L			04/16/14 15:44	1
Chloromethane	ND		1.0	0.35	ug/L			04/16/14 15:44	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			04/16/14 15:44	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/16/14 15:44	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/16/14 15:44	1
Styrene	ND		1.0	0.73	ug/L			04/16/14 15:44	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/16/14 15:44	1
Toluene	ND		1.0	0.51	ug/L			04/16/14 15:44	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			04/16/14 15:44	1
Trichloroethene	ND		1.0	0.46	ug/L			04/16/14 15:44	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/16/14 15:44	1
Vinyl acetate	ND		5.0	0.85	ug/L			04/16/14 15:44	1
Xylenes, Total	ND		2.0	0.66	ug/L			04/16/14 15:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*66 - 137*		*04/16/14 15:44*	*1*
Toluene-d8 (Surr)	*107*		*71 - 126*		*04/16/14 15:44*	*1*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*04/16/14 15:44*	*1*

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			04/10/14 12:07	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			04/10/14 12:07	1
Benzene	**19**		0.20	0.023	ug/L			04/10/14 12:07	1
Ethylbenzene	ND		0.20	0.029	ug/L			04/10/14 12:07	1
Isopropylbenzene	ND		0.20	0.027	ug/L			04/10/14 12:07	1
Methyl tert-butyl ether	**0.38**	**J**	0.40	0.044	ug/L			04/10/14 12:07	1
m,p-Xylene	ND		0.40	0.054	ug/L			04/10/14 12:07	1
n-Butylbenzene	ND		0.20	0.031	ug/L			04/10/14 12:07	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-57564-1

Client Sample ID: Post-Carbon #3
Date Collected: 04/09/14 10:15
Date Received: 04/09/14 11:20

Lab Sample ID: 480-57564-1
Matrix: Wastewater

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	ND		0.20	0.13	ug/L			04/10/14 12:07	1
o-Xylene	ND		0.20	0.027	ug/L			04/10/14 12:07	1
p-Cymene	ND		0.20	0.030	ug/L			04/10/14 12:07	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			04/10/14 12:07	1
Toluene	**0.18**	**J**	0.20	0.036	ug/L			04/10/14 12:07	1
Xylenes, Total	ND		0.60	0.054	ug/L			04/10/14 12:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*92*		*63 - 145*		*04/10/14 12:07*	*1*
4-Bromofluorobenzene	*92*		*64 - 141*		*04/10/14 12:07*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**153**		50.0	19.3	ug/L		04/10/14 12:40	04/11/14 14:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.29**		0.010	0.0050	mg/L		04/14/14 17:10	04/15/14 23:42	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.62**	**HF**	0.100	0.100	SU			04/10/14 02:18	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-57564-1

Client Sample ID: Post-Carbon #2
Date Collected: 04/09/14 10:20
Date Received: 04/09/14 11:20

Lab Sample ID: 480-57564-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**0.098**	**J**	0.20	0.035	ug/L			04/10/14 12:41	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			04/10/14 12:41	1
Ethylbenzene	**1.2**		0.20	0.029	ug/L			04/10/14 12:41	1
Isopropylbenzene	ND		0.20	0.027	ug/L			04/10/14 12:41	1
Methyl tert-butyl ether	**2.2**		0.40	0.044	ug/L			04/10/14 12:41	1
m,p-Xylene	**0.60**		0.40	0.054	ug/L			04/10/14 12:41	1
n-Butylbenzene	ND		0.20	0.031	ug/L			04/10/14 12:41	1
n-Propylbenzene	ND		0.20	0.13	ug/L			04/10/14 12:41	1
o-Xylene	**0.47**		0.20	0.027	ug/L			04/10/14 12:41	1
p-Cymene	ND		0.20	0.030	ug/L			04/10/14 12:41	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			04/10/14 12:41	1
Toluene	**8.1**		0.20	0.036	ug/L			04/10/14 12:41	1
Xylenes, Total	**1.1**		0.60	0.054	ug/L			04/10/14 12:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*91*		*63 - 145*		*04/10/14 12:41*	*1*
4-Bromofluorobenzene	*93*		*64 - 141*		*04/10/14 12:41*	*1*

Method: 8021B - Volatile Organic Compounds (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**240**		2.0	0.23	ug/L			04/10/14 15:26	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*87*		*63 - 145*		*04/10/14 15:26*	*10*
4-Bromofluorobenzene	*88*		*64 - 141*		*04/10/14 15:26*	*10*

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-57564-1

Client Sample ID: Post-Carbon #1
Date Collected: 04/09/14 10:25
Date Received: 04/09/14 11:20

Lab Sample ID: 480-57564-3
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	12		2.0	0.35	ug/L			04/10/14 11:17	10
1,3,5-Trimethylbenzene	4.3		2.0	1.5	ug/L			04/10/14 11:17	10
Ethylbenzene	110		2.0	0.29	ug/L			04/10/14 11:17	10
Isopropylbenzene	ND		2.0	0.27	ug/L			04/10/14 11:17	10
Methyl tert-butyl ether	14		4.0	0.44	ug/L			04/10/14 11:17	10
m,p-Xylene	77		4.0	0.54	ug/L			04/10/14 11:17	10
n-Butylbenzene	ND		2.0	0.31	ug/L			04/10/14 11:17	10
n-Propylbenzene	ND		2.0	1.3	ug/L			04/10/14 11:17	10
o-Xylene	ND		2.0	0.27	ug/L			04/10/14 11:17	10
p-Cymene	ND		2.0	0.30	ug/L			04/10/14 11:17	10
sec-Butylbenzene	ND		2.0	0.20	ug/L			04/10/14 11:17	10
Toluene	510		2.0	0.36	ug/L			04/10/14 11:17	10
Xylenes, Total	77		6.0	0.54	ug/L			04/10/14 11:17	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*91*		*63 - 145*		*04/10/14 11:17*	*10*
4-Bromofluorobenzene	*91*		*64 - 141*		*04/10/14 11:17*	*10*

Method: 8021B - Volatile Organic Compounds (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2300		10	1.2	ug/L			04/10/14 13:43	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*88*		*63 - 145*		*04/10/14 13:43*	*50*
4-Bromofluorobenzene	*90*		*64 - 141*		*04/10/14 13:43*	*50*

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-57564-1

Client Sample ID: Pre-Carbon

Date Collected: 04/09/14 10:45
Date Received: 04/09/14 11:20

Lab Sample ID: 480-57566-1

Matrix: Wastewater

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**52**	**J**	100	17	ug/L			04/10/14 16:34	500
1,3,5-Trimethylbenzene	ND		100	75	ug/L			04/10/14 16:34	500
Benzene	**3600**		100	12	ug/L			04/10/14 16:34	500
Ethylbenzene	**270**		100	14	ug/L			04/10/14 16:34	500
Isopropylbenzene	ND		100	14	ug/L			04/10/14 16:34	500
Methyl tert-butyl ether	ND		200	22	ug/L			04/10/14 16:34	500
m,p-Xylene	**200**		200	27	ug/L			04/10/14 16:34	500
n-Butylbenzene	ND		100	15	ug/L			04/10/14 16:34	500
n-Propylbenzene	ND		100	65	ug/L			04/10/14 16:34	500
o-Xylene	ND		100	14	ug/L			04/10/14 16:34	500
p-Cymene	ND		100	15	ug/L			04/10/14 16:34	500
sec-Butylbenzene	ND		100	10	ug/L			04/10/14 16:34	500
Toluene	**1200**		100	18	ug/L			04/10/14 16:34	500
Xylenes, Total	**200**	**J**	300	27	ug/L			04/10/14 16:34	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*93*		*63 - 145*		*04/10/14 16:34*	*500*
4-Bromofluorobenzene	*93*		*64 - 141*		*04/10/14 16:34*	*500*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**133000**		500	100	ug/L		04/10/14 12:40	04/11/14 14:32	1
Iron	**1100**		50.0	19.3	ug/L		04/10/14 12:40	04/11/14 14:32	1
Magnesium	**63600**		200	43.4	ug/L		04/10/14 12:40	04/11/14 14:32	1
Potassium	**4700**		500	100	ug/L		04/10/14 12:40	04/11/14 14:32	1
Sodium	**186000**		1000	324	ug/L		04/10/14 12:40	04/11/14 14:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**97.6**		2.5	1.4	mg/L			04/11/14 01:49	5
Sulfate	**129**		10.0	1.7	mg/L			04/11/14 01:49	5
Alkalinity, Total	**474**	**B**	100	40.0	mg/L			04/10/14 11:30	10

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-57564-1

Client Sample ID: Outside Sump
Date Collected: 04/09/14 10:40
Date Received: 04/09/14 11:20

Lab Sample ID: 480-57566-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**38**	**J**	100	17	ug/L			04/10/14 17:08	500
1,3,5-Trimethylbenzene	ND		100	75	ug/L			04/10/14 17:08	500
Benzene	**4400**		100	12	ug/L			04/10/14 17:08	500
Ethylbenzene	**360**		100	14	ug/L			04/10/14 17:08	500
Isopropylbenzene	ND		100	14	ug/L			04/10/14 17:08	500
Methyl tert-butyl ether	ND		200	22	ug/L			04/10/14 17:08	500
m,p-Xylene	**210**		200	27	ug/L			04/10/14 17:08	500
n-Butylbenzene	ND		100	15	ug/L			04/10/14 17:08	500
n-Propylbenzene	ND		100	65	ug/L			04/10/14 17:08	500
o-Xylene	ND		100	14	ug/L			04/10/14 17:08	500
p-Cymene	ND		100	15	ug/L			04/10/14 17:08	500
sec-Butylbenzene	ND		100	10	ug/L			04/10/14 17:08	500
Toluene	**1400**		100	18	ug/L			04/10/14 17:08	500
Xylenes, Total	**210**	**J**	300	27	ug/L			04/10/14 17:08	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*86*		*63 - 145*		*04/10/14 17:08*	*500*
4-Bromofluorobenzene	*85*		*64 - 141*		*04/10/14 17:08*	*500*

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-57564-1

Client Sample ID: Post-Carbon #3

Lab Sample ID: 480-57564-1
Matrix: Wastewater
Date Collected: 04/09/14 10:15
Date Received: 04/09/14 11:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	176122	04/16/14 15:44	NMD1	TAL BUF
Total/NA	Analysis	8021B		1	174888	04/10/14 12:07	DGB	TAL BUF
Total/NA	Prep	200.7			174989	04/10/14 12:40	EHD	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	175586	04/11/14 14:30	LMH	TAL BUF
Total/NA	Prep	Distill/CN			175762	04/14/14 17:10	CLT	TAL BUF
Total/NA	Analysis	335.4		1	176157	04/15/14 23:42	KMF	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	174833	04/10/14 02:18	KS	TAL BUF

Client Sample ID: Post-Carbon #2

Lab Sample ID: 480-57564-2
Matrix: Water
Date Collected: 04/09/14 10:20
Date Received: 04/09/14 11:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	174888	04/10/14 12:41	DGB	TAL BUF
Total/NA	Analysis	8021B	DL	10	174888	04/10/14 15:26	DGB	TAL BUF

Client Sample ID: Post-Carbon #1

Lab Sample ID: 480-57564-3
Matrix: Water
Date Collected: 04/09/14 10:25
Date Received: 04/09/14 11:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		10	174888	04/10/14 11:17	DGB	TAL BUF
Total/NA	Analysis	8021B	DL	50	174888	04/10/14 13:43	DGB	TAL BUF

Client Sample ID: Pre-Carbon

Lab Sample ID: 480-57566-1
Matrix: Wastewater
Date Collected: 04/09/14 10:45
Date Received: 04/09/14 11:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		500	174888	04/10/14 16:34	DGB	TAL BUF
Total/NA	Prep	200.7			174989	04/10/14 12:40	EHD	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	175586	04/11/14 14:32	LMH	TAL BUF
Total/NA	Analysis	300.0		5	174982	04/11/14 01:49	KRC	TAL BUF
Total/NA	Analysis	310.2		10	175053	04/10/14 11:30	NCH	TAL BUF

Client Sample ID: Outside Sump

Lab Sample ID: 480-57566-2
Matrix: Water
Date Collected: 04/09/14 10:40
Date Received: 04/09/14 11:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		500	174888	04/10/14 17:08	DGB	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-57564-1

Laboratory References:

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

Certification Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-57564-1

Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-14
California	State Program	9	1169CA	09-30-14
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-15
Illinois	NELAP	5	200003	09-30-14
Iowa	State Program	7	374	03-01-15
Kansas	NELAP	7	E-10187	01-31-15 *
Kentucky (DW)	State Program	4	90029	12-31-14
Kentucky (UST)	State Program	4	30	03-31-15
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-15
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14 *
Minnesota	NELAP	5	036-999-337	12-31-14
New Hampshire	NELAP	1	2337	11-17-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	03-31-15
North Dakota	State Program	8	R-176	03-31-14 *
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-30-14
Tennessee	State Program	4	TN02970	03-31-15
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-15
West Virginia DEP	State Program	3	252	05-31-14
Wisconsin	State Program	5	998310390	08-31-14

* Expired certification is currently pending renewal and is considered valid.

Method Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-57564-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8021B	Volatile Organic Compounds (GC)	SW846	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-57564-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-57564-1	Post-Carbon #3	Wastewater	04/09/14 10:15	04/09/14 11:20
480-57564-2	Post-Carbon #2	Water	04/09/14 10:20	04/09/14 11:20
480-57564-3	Post-Carbon #1	Water	04/09/14 10:25	04/09/14 11:20
480-57566-1	Pre-Carbon	Wastewater	04/09/14 10:45	04/09/14 11:20
480-57566-2	Outside Sump	Water	04/09/14 10:40	04/09/14 11:20

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Mike Ward	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-43991-1177.1
Client Contact: Thomas Palmer	Phone: 484 645 2302	E-Mail: brian.fischer@testamericainc.com		Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc				Job #:

Address: 495 Aero Drive Suite 3	Due Date Requested:
City: Cheektowaga	TAT Requested (days): 5WD
State, Zip: NY, 14225	
Phone:	PO #: Purchase Order not requir
Email: tpalmer@gesonline.com	WO #:
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Post-Ca	Project #: 48002525
Site: New York	SSOW#:

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7 - Iron	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS List - VOA - 8021	335.4 - Cyanide, Total	SM4500_H+ - pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	A	A	B	N		
Post-Carbon #3	4/9/14	1015	Grab	Water	N	N	1	1	1	1	1		
Post-Carbon #2	4/9/14	1020							1				
Post-Carbon #1	4/9/14	1025							1				

480-57564 Chain of Custody

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☑ Unknown ☐ Radiological

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

☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	4/9/14 1120	GES	[signature]	4/9/14 1120	[signature]
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 4.2 #1 ICE

4/18/2014

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Mike Rand	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-43983-1176.1
Client Contact: Thomas Palmer	Phone: 484 645 2302	E-Mail: brian.fischer@testamericainc.com		Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc				Job #:
Address: 495 Aero Drive Suite 3	Due Date Requested:			
City: Cheektowaga	TAT Requested (days): STD.			
State, Zip: NY, 14225				
Phone:	PO #: Purchase Order not requir			
Email: tpalmer@gesonline.com	WO #:			
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Pre-Carl	Project #: 48002525			
Site: New York	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0_28D - (MOD) Local Method	200.7 - (MOD) Local Method	310.2 - Alkalinity, Total	8021B (MOD) STARS 1st VOA 8021	Total Number of containers	Special Instructions/Note:
				Preservation Code:			N	D	N	A		
Pre-Carbon	4/9/14	1045	G	Water	N	N	/	/	/	/		
Outside Sump	4/9/14	1040	G	water	N	N				/		

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

480-57566 Chain of Custody

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☒ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For ________ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	4/9/14 1120	GES	[signature]	4/9/14 1120	TA

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 4.2 #1 ICE

Page 18 of 20

4/18/2014

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-57564-1

Login Number: 57564

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.	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	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-57564-1

Login Number: 57566

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.	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	

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: 480-59933-1
Client Project/Site: NYSDEC-Gastown WWTP: Site# 915171
Sampling Event: Qtrly Post-Carbon
Qtrly Pre-Carbon

For:
New York State D.E.C.
270 Michigan Avenue
Buffalo, New York 14203

Attn: Mr. Glenn May

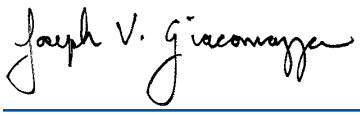
Joseph V. Giacomazza

Authorized for release by:
5/30/2014 9:43:38 AM
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

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
5/30/2014 9:43:38 AM

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits

GC 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.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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)

Job ID: 480-59933-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-59933-1

Receipt
The samples were received on 5/15/2014 10:55 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 4.3º C and 4.4º C.

GC/MS VOA
Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for batch 182789 recovered outside control limits for 2-Butanone, 2-Hexanone and/or 3-Chloro-1-propene These analytes were not requested spiking compounds and ND in associated samples; therefore, the data have been reported.

Method(s) 8260C: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-59933-1). 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.

GC/MS Semi VOA
Method(s) 8270D: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 182853 recovered outside control limits for the following analytes: Fluoranthene and Pyrene. The recoveries were within quality control acceptance limits, therefore the data has been qualified and reported.

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

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

GC VOA
Method(s) 8021B: The following samples were diluted to bring the concentration of target analytes within the calibration range: (480-59935-3 MS), (480-59935-3 MSD), Outside Sump (480-59933-2), Post-Carbon-1 (480-59935-3), Post-Carbon-2 (480-59935-2), Pre-Carbon (480-59933-1). 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.

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

Metals
Method(s) 200.7 Rev 4.4: The method blank for batch 480-182453 contained total potassium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of sample Pre-Carbon (480-59933-1) was not performed.

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

General Chemistry
Method(s) SM 4500 H+ B: The following sample(s) was received outside of holding time: Post-Carbon-3 (480-59935-1).

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

Organic Prep
Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 182853.
No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-59933-1

Client Sample ID: Pre-Carbon
Date Collected: 05/15/14 10:15
Date Received: 05/15/14 10:55

Lab Sample ID: 480-59933-1
Matrix: Wastewater

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			05/20/14 13:59	50
1,1,2,2-Tetrachloroethane	ND		50	11	ug/L			05/20/14 13:59	50
1,1,2-Trichloroethane	ND		50	12	ug/L			05/20/14 13:59	50
1,1-Dichloroethane	ND		50	19	ug/L			05/20/14 13:59	50
1,1-Dichloroethene	ND		50	15	ug/L			05/20/14 13:59	50
1,2-Dichloroethane	ND		50	11	ug/L			05/20/14 13:59	50
1,2-Dichloroethene, Total	ND		100	41	ug/L			05/20/14 13:59	50
1,2-Dichloropropane	ND		50	36	ug/L			05/20/14 13:59	50
2-Hexanone	ND		250	62	ug/L			05/20/14 13:59	50
2-Butanone (MEK)	ND		500	66	ug/L			05/20/14 13:59	50
4-Methyl-2-pentanone (MIBK)	ND		250	110	ug/L			05/20/14 13:59	50
Acetone	ND		500	150	ug/L			05/20/14 13:59	50
Benzene	**4200**		50	21	ug/L			05/20/14 13:59	50
Bromodichloromethane	ND		50	20	ug/L			05/20/14 13:59	50
Bromoform	ND		50	13	ug/L			05/20/14 13:59	50
Bromomethane	ND		50	35	ug/L			05/20/14 13:59	50
Carbon disulfide	ND		50	9.5	ug/L			05/20/14 13:59	50
Carbon tetrachloride	ND		50	14	ug/L			05/20/14 13:59	50
Chlorobenzene	ND		50	38	ug/L			05/20/14 13:59	50
Dibromochloromethane	ND		50	16	ug/L			05/20/14 13:59	50
Chloroethane	ND		50	16	ug/L			05/20/14 13:59	50
Chloroform	ND		50	17	ug/L			05/20/14 13:59	50
Chloromethane	ND		50	18	ug/L			05/20/14 13:59	50
cis-1,3-Dichloropropene	ND		50	18	ug/L			05/20/14 13:59	50
Ethylbenzene	**380**		50	37	ug/L			05/20/14 13:59	50
Methylene Chloride	**62**		50	22	ug/L			05/20/14 13:59	50
Styrene	**230**		50	37	ug/L			05/20/14 13:59	50
Tetrachloroethene	ND		50	18	ug/L			05/20/14 13:59	50
Toluene	**1700**		50	26	ug/L			05/20/14 13:59	50
trans-1,3-Dichloropropene	ND		50	19	ug/L			05/20/14 13:59	50
Trichloroethene	ND		50	23	ug/L			05/20/14 13:59	50
Vinyl chloride	ND		50	45	ug/L			05/20/14 13:59	50
Vinyl acetate	ND		250	43	ug/L			05/20/14 13:59	50
Xylenes, Total	**380**		100	33	ug/L			05/20/14 13:59	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*125*		*66 - 137*		*05/20/14 13:59*	*50*
Toluene-d8 (Surr)	*108*		*71 - 126*		*05/20/14 13:59*	*50*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*05/20/14 13:59*	*50*

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**61**	**J**	100	17	ug/L			05/20/14 10:34	500
1,3,5-Trimethylbenzene	ND		100	75	ug/L			05/20/14 10:34	500
Benzene	**4200**		100	12	ug/L			05/20/14 10:34	500
Ethylbenzene	**390**		100	14	ug/L			05/20/14 10:34	500
Isopropylbenzene	ND		100	14	ug/L			05/20/14 10:34	500
Methyl tert-butyl ether	ND		200	22	ug/L			05/20/14 10:34	500
m,p-Xylene	**270**		200	27	ug/L			05/20/14 10:34	500
n-Butylbenzene	ND		100	15	ug/L			05/20/14 10:34	500

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-59933-1

Client Sample ID: Pre-Carbon
Date Collected: 05/15/14 10:15
Date Received: 05/15/14 10:55

Lab Sample ID: 480-59933-1
Matrix: Wastewater

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	ND		100	65	ug/L			05/20/14 10:34	500
o-Xylene	ND		100	14	ug/L			05/20/14 10:34	500
p-Cymene	ND		100	15	ug/L			05/20/14 10:34	500
sec-Butylbenzene	ND		100	10	ug/L			05/20/14 10:34	500
Toluene	**1500**		100	18	ug/L			05/20/14 10:34	500
Xylenes, Total	**270**	**J**	300	27	ug/L			05/20/14 10:34	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*105*		*63 - 145*		*05/20/14 10:34*	*500*
4-Bromofluorobenzene	*103*		*64 - 141*		*05/20/14 10:34*	*500*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**120000**		500	100	ug/L		05/16/14 08:40	05/16/14 16:22	1
Iron	**637**		50.0	19.3	ug/L		05/16/14 08:40	05/16/14 16:22	1
Magnesium	**59300**		200	43.4	ug/L		05/16/14 08:40	05/16/14 16:22	1
Potassium	**4320**	**B**	500	100	ug/L		05/16/14 08:40	05/16/14 16:22	1
Sodium	**56800**		1000	324	ug/L		05/16/14 08:40	05/16/14 16:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**86.8**		2.5	1.4	mg/L			05/17/14 04:41	5
Sulfate	**122**		10.0	1.7	mg/L			05/17/14 04:41	5
Alkalinity, Total	**408**		100	40.0	mg/L			05/21/14 13:40	10

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-59933-1

Client Sample ID: Outside Sump
Date Collected: 05/15/14 10:20
Date Received: 05/15/14 10:55

Lab Sample ID: 480-59933-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**61**	**J**	100	17	ug/L			05/20/14 11:21	500
1,3,5-Trimethylbenzene	ND		100	75	ug/L			05/20/14 11:21	500
Benzene	**5600**		100	12	ug/L			05/20/14 11:21	500
Ethylbenzene	**530**		100	14	ug/L			05/20/14 11:21	500
Isopropylbenzene	ND		100	14	ug/L			05/20/14 11:21	500
Methyl tert-butyl ether	ND		200	22	ug/L			05/20/14 11:21	500
m,p-Xylene	**360**		200	27	ug/L			05/20/14 11:21	500
n-Butylbenzene	ND		100	15	ug/L			05/20/14 11:21	500
n-Propylbenzene	ND		100	65	ug/L			05/20/14 11:21	500
o-Xylene	ND		100	14	ug/L			05/20/14 11:21	500
p-Cymene	ND		100	15	ug/L			05/20/14 11:21	500
sec-Butylbenzene	ND		100	10	ug/L			05/20/14 11:21	500
Toluene	**1900**		100	18	ug/L			05/20/14 11:21	500
Xylenes, Total	**360**		300	27	ug/L			05/20/14 11:21	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*105*		*63 - 145*		*05/20/14 11:21*	*500*
4-Bromofluorobenzene	*102*		*64 - 141*		*05/20/14 11:21*	*500*

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-59933-1

Client Sample ID: Post-Carbon-3
Date Collected: 05/15/14 09:50
Date Received: 05/15/14 10:55

Lab Sample ID: 480-59935-1
Matrix: Wastewater

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			05/19/14 17:23	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/19/14 17:23	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/19/14 17:23	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/19/14 17:23	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/19/14 17:23	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/19/14 17:23	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			05/19/14 17:23	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/19/14 17:23	1
2-Hexanone	ND	*	5.0	1.2	ug/L			05/19/14 17:23	1
2-Butanone (MEK)	ND	*	10	1.3	ug/L			05/19/14 17:23	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/19/14 17:23	1
Acetone	ND		10	3.0	ug/L			05/19/14 17:23	1
Benzene	ND		1.0	0.41	ug/L			05/19/14 17:23	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/19/14 17:23	1
Bromoform	ND		1.0	0.26	ug/L			05/19/14 17:23	1
Bromomethane	ND		1.0	0.69	ug/L			05/19/14 17:23	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/19/14 17:23	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/19/14 17:23	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/19/14 17:23	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/19/14 17:23	1
Chloroethane	ND		1.0	0.32	ug/L			05/19/14 17:23	1
Chloroform	ND		1.0	0.34	ug/L			05/19/14 17:23	1
Chloromethane	ND		1.0	0.35	ug/L			05/19/14 17:23	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/19/14 17:23	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/19/14 17:23	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/19/14 17:23	1
Styrene	ND		1.0	0.73	ug/L			05/19/14 17:23	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/19/14 17:23	1
Toluene	ND		1.0	0.51	ug/L			05/19/14 17:23	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/19/14 17:23	1
Trichloroethene	ND		1.0	0.46	ug/L			05/19/14 17:23	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/19/14 17:23	1
Vinyl acetate	ND		5.0	0.85	ug/L			05/19/14 17:23	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/19/14 17:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*66 - 137*		*05/19/14 17:23*	*1*
Toluene-d8 (Surr)	*97*		*71 - 126*		*05/19/14 17:23*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*05/19/14 17:23*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		4.8	0.58	ug/L		05/19/14 11:28	05/20/14 11:06	1
Acenaphthene	ND		4.8	0.40	ug/L		05/19/14 11:28	05/20/14 11:06	1
Acenaphthylene	ND		4.8	0.37	ug/L		05/19/14 11:28	05/20/14 11:06	1
Anthracene	ND		4.8	0.27	ug/L		05/19/14 11:28	05/20/14 11:06	1
Benzo[a]anthracene	ND		4.8	0.35	ug/L		05/19/14 11:28	05/20/14 11:06	1
Benzo[a]pyrene	ND		4.8	0.45	ug/L		05/19/14 11:28	05/20/14 11:06	1
Benzo[b]fluoranthene	ND		4.8	0.33	ug/L		05/19/14 11:28	05/20/14 11:06	1
Benzo[g,h,i]perylene	ND		4.8	0.34	ug/L		05/19/14 11:28	05/20/14 11:06	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-59933-1

Client Sample ID: Post-Carbon-3
Date Collected: 05/15/14 09:50
Date Received: 05/15/14 10:55

Lab Sample ID: 480-59935-1
Matrix: Wastewater

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	ND		4.8	0.71	ug/L		05/19/14 11:28	05/20/14 11:06	1
Biphenyl	ND		4.8	0.63	ug/L		05/19/14 11:28	05/20/14 11:06	1
Bis(2-ethylhexyl) phthalate	ND		4.8	1.7	ug/L		05/19/14 11:28	05/20/14 11:06	1
Carbazole	ND		4.8	0.29	ug/L		05/19/14 11:28	05/20/14 11:06	1
Chrysene	ND		4.8	0.32	ug/L		05/19/14 11:28	05/20/14 11:06	1
Dibenz(a,h)anthracene	ND		4.8	0.41	ug/L		05/19/14 11:28	05/20/14 11:06	1
Dibenzofuran	ND		9.7	0.49	ug/L		05/19/14 11:28	05/20/14 11:06	1
Fluoranthene	ND	*	4.8	0.39	ug/L		05/19/14 11:28	05/20/14 11:06	1
Fluorene	ND		4.8	0.35	ug/L		05/19/14 11:28	05/20/14 11:06	1
Indeno[1,2,3-cd]pyrene	ND		4.8	0.45	ug/L		05/19/14 11:28	05/20/14 11:06	1
Naphthalene	ND		4.8	0.73	ug/L		05/19/14 11:28	05/20/14 11:06	1
Pentachlorophenol	ND		9.7	2.1	ug/L		05/19/14 11:28	05/20/14 11:06	1
Phenanthrene	ND		4.8	0.43	ug/L		05/19/14 11:28	05/20/14 11:06	1
Phenol	ND		4.8	0.38	ug/L		05/19/14 11:28	05/20/14 11:06	1
Pyrene	ND	*	4.8	0.33	ug/L		05/19/14 11:28	05/20/14 11:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*91*		*52 - 132*	*05/19/14 11:28*	*05/20/14 11:06*	*1*
2-Fluorobiphenyl	*82*		*48 - 120*	*05/19/14 11:28*	*05/20/14 11:06*	*1*
2-Fluorophenol	*42*		*20 - 120*	*05/19/14 11:28*	*05/20/14 11:06*	*1*
Nitrobenzene-d5	*80*		*46 - 120*	*05/19/14 11:28*	*05/20/14 11:06*	*1*
p-Terphenyl-d14	*101*		*67 - 150*	*05/19/14 11:28*	*05/20/14 11:06*	*1*
Phenol-d5	*28*		*16 - 120*	*05/19/14 11:28*	*05/20/14 11:06*	*1*

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			05/20/14 11:55	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			05/20/14 11:55	1
Benzene	ND		0.20	0.023	ug/L			05/20/14 11:55	1
Ethylbenzene	ND		0.20	0.029	ug/L			05/20/14 11:55	1
Isopropylbenzene	ND		0.20	0.027	ug/L			05/20/14 11:55	1
Methyl tert-butyl ether	ND		0.40	0.044	ug/L			05/20/14 11:55	1
m,p-Xylene	ND		0.40	0.054	ug/L			05/20/14 11:55	1
n-Butylbenzene	ND		0.20	0.031	ug/L			05/20/14 11:55	1
n-Propylbenzene	ND		0.20	0.13	ug/L			05/20/14 11:55	1
o-Xylene	ND		0.20	0.027	ug/L			05/20/14 11:55	1
p-Cymene	ND		0.20	0.030	ug/L			05/20/14 11:55	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			05/20/14 11:55	1
Toluene	ND		0.20	0.036	ug/L			05/20/14 11:55	1
Xylenes, Total	ND		0.60	0.054	ug/L			05/20/14 11:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*104*		*63 - 145*		*05/20/14 11:55*	*1*
4-Bromofluorobenzene	*102*		*64 - 141*		*05/20/14 11:55*	*1*

Method: 608 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.049	0.0064	ug/L		05/20/14 06:25	05/21/14 12:55	1
alpha-BHC	ND		0.049	0.0064	ug/L		05/20/14 06:25	05/21/14 12:55	1
beta-BHC	ND		0.049	0.024	ug/L		05/20/14 06:25	05/21/14 12:55	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-59933-1

Client Sample ID: Post-Carbon-3
Date Collected: 05/15/14 09:50
Date Received: 05/15/14 10:55

Lab Sample ID: 480-59935-1
Matrix: Wastewater

Method: 608 - Organochlorine Pesticides in Water (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
delta-BHC	ND		0.049	0.0097	ug/L		05/20/14 06:25	05/21/14 12:55	1
gamma-BHC (Lindane)	ND		0.049	0.0058	ug/L		05/20/14 06:25	05/21/14 12:55	1
Chlordane (technical)	ND		0.49	0.28	ug/L		05/20/14 06:25	05/21/14 12:55	1
4,4'-DDD	ND		0.049	0.0089	ug/L		05/20/14 06:25	05/21/14 12:55	1
4,4'-DDE	ND		0.049	0.011	ug/L		05/20/14 06:25	05/21/14 12:55	1
4,4'-DDT	ND		0.049	0.011	ug/L		05/20/14 06:25	05/21/14 12:55	1
Dieldrin	ND		0.049	0.0095	ug/L		05/20/14 06:25	05/21/14 12:55	1
Endosulfan I	ND		0.049	0.011	ug/L		05/20/14 06:25	05/21/14 12:55	1
Endosulfan II	ND		0.049	0.012	ug/L		05/20/14 06:25	05/21/14 12:55	1
Endosulfan sulfate	ND		0.049	0.015	ug/L		05/20/14 06:25	05/21/14 12:55	1
Endrin	ND		0.049	0.013	ug/L		05/20/14 06:25	05/21/14 12:55	1
Endrin aldehyde	ND		0.049	0.016	ug/L		05/20/14 06:25	05/21/14 12:55	1
Heptachlor	ND		0.049	0.0083	ug/L		05/20/14 06:25	05/21/14 12:55	1
Heptachlor epoxide	ND		0.049	0.0051	ug/L		05/20/14 06:25	05/21/14 12:55	1
Toxaphene	ND		0.49	0.12	ug/L		05/20/14 06:25	05/21/14 12:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*60*		*23 - 120*	*05/20/14 06:25*	*05/21/14 12:55*	*1*
Tetrachloro-m-xylene	*71*		*36 - 120*	*05/20/14 06:25*	*05/21/14 12:55*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10.0	5.6	ug/L		05/16/14 08:40	05/16/14 16:57	1
Iron	**152**		50.0	19.3	ug/L		05/16/14 08:40	05/16/14 16:57	1
Manganese	**175**		3.0	0.40	ug/L		05/16/14 08:40	05/16/14 16:57	1
Zinc	**1.6**	**J**	10.0	1.5	ug/L		05/16/14 08:40	05/16/14 16:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	ND		5.0	1.4	mg/L		05/29/14 12:54	05/29/14 13:20	1
Cyanide, Total	**0.30**		0.010	0.0050	mg/L		05/16/14 16:10	05/19/14 11:29	1
Phenolics, Total Recoverable	ND		0.010	0.0050	mg/L		05/19/14 08:43	05/21/14 02:53	1
Total Dissolved Solids	**682**		10.0	4.0	mg/L			05/16/14 19:11	1
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			05/15/14 23:03	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	4.0	mg/L			05/16/14 16:26	1
pH	**7.69**	**HF**	0.100	0.100	SU			05/15/14 23:38	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-59933-1

Client Sample ID: Post-Carbon-2
Date Collected: 05/15/14 10:05
Date Received: 05/15/14 10:55

Lab Sample ID: 480-59935-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		2.0	0.35	ug/L			05/20/14 12:30	10
1,3,5-Trimethylbenzene	ND		2.0	1.5	ug/L			05/20/14 12:30	10
Benzene	**210**		2.0	0.23	ug/L			05/20/14 12:30	10
Ethylbenzene	**4.2**		2.0	0.29	ug/L			05/20/14 12:30	10
Isopropylbenzene	ND		2.0	0.27	ug/L			05/20/14 12:30	10
Methyl tert-butyl ether	ND		4.0	0.44	ug/L			05/20/14 12:30	10
m,p-Xylene	**1.8**	**J**	4.0	0.54	ug/L			05/20/14 12:30	10
n-Butylbenzene	ND		2.0	0.31	ug/L			05/20/14 12:30	10
n-Propylbenzene	ND		2.0	1.3	ug/L			05/20/14 12:30	10
o-Xylene	ND		2.0	0.27	ug/L			05/20/14 12:30	10
p-Cymene	ND		2.0	0.30	ug/L			05/20/14 12:30	10
sec-Butylbenzene	ND		2.0	0.20	ug/L			05/20/14 12:30	10
Toluene	**22**		2.0	0.36	ug/L			05/20/14 12:30	10
Xylenes, Total	**1.8**	**J**	6.0	0.54	ug/L			05/20/14 12:30	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*101*		*63 - 145*		*05/20/14 12:30*	*10*
4-Bromofluorobenzene	*101*		*64 - 141*		*05/20/14 12:30*	*10*

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-59933-1

Client Sample ID: Post-Carbon-1
Date Collected: 05/15/14 10:10
Date Received: 05/15/14 10:55

Lab Sample ID: 480-59935-3
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**8.6**	**J**	10	1.7	ug/L			05/20/14 13:04	50
1,3,5-Trimethylbenzene	ND		10	7.5	ug/L			05/20/14 13:04	50
Benzene	**1700**		10	1.2	ug/L			05/20/14 13:04	50
Ethylbenzene	**70**		10	1.4	ug/L			05/20/14 13:04	50
Isopropylbenzene	ND		10	1.4	ug/L			05/20/14 13:04	50
Methyl tert-butyl ether	ND		20	2.2	ug/L			05/20/14 13:04	50
m,p-Xylene	**49**		20	2.7	ug/L			05/20/14 13:04	50
n-Butylbenzene	ND		10	1.5	ug/L			05/20/14 13:04	50
n-Propylbenzene	ND		10	6.5	ug/L			05/20/14 13:04	50
o-Xylene	ND		10	1.4	ug/L			05/20/14 13:04	50
p-Cymene	ND		10	1.5	ug/L			05/20/14 13:04	50
sec-Butylbenzene	ND		10	1.0	ug/L			05/20/14 13:04	50
Toluene	**330**		10	1.8	ug/L			05/20/14 13:04	50
Xylenes, Total	**49**		30	2.7	ug/L			05/20/14 13:04	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*103*		*63 - 145*		*05/20/14 13:04*	*50*
4-Bromofluorobenzene	*104*		*64 - 141*		*05/20/14 13:04*	*50*

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-59933-1

Client Sample ID: Pre-Carbon

Lab Sample ID: 480-59933-1

Date Collected: 05/15/14 10:15

Matrix: Wastewater

Date Received: 05/15/14 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		50	182982	05/20/14 13:59	GTG	TAL BUF
Total/NA	Analysis	8021B		500	182992	05/20/14 10:34	DGB	TAL BUF
Total/NA	Prep	200.7			182453	05/16/14 08:40	EHD	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	182798	05/16/14 16:22	LMH	TAL BUF
Total/NA	Analysis	300.0		5	182558	05/17/14 04:41	KRC	TAL BUF
Total/NA	Analysis	310.2		10	183393	05/21/14 13:40	NCH	TAL BUF

Client Sample ID: Outside Sump

Lab Sample ID: 480-59933-2

Date Collected: 05/15/14 10:20

Matrix: Water

Date Received: 05/15/14 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		500	182992	05/20/14 11:21	DGB	TAL BUF

Client Sample ID: Post-Carbon-3

Lab Sample ID: 480-59935-1

Date Collected: 05/15/14 09:50

Matrix: Wastewater

Date Received: 05/15/14 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	182789	05/19/14 17:23	LCH	TAL BUF
Total/NA	Prep	3510C			182853	05/19/14 11:28	AJM	TAL BUF
Total/NA	Analysis	8270D		1	182832	05/20/14 11:06	ANM	TAL BUF
Total/NA	Analysis	8021B		1	182992	05/20/14 11:55	DGB	TAL BUF
Total/NA	Prep	3510C			182958	05/20/14 06:25	MCZ	TAL BUF
Total/NA	Analysis	608		1	183265	05/21/14 12:55	LMW	TAL BUF
Total/NA	Prep	200.7			182453	05/16/14 08:40	EHD	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	182798	05/16/14 16:57	LMH	TAL BUF
Total/NA	Prep	1664A			184642	05/29/14 12:54	MDL	TAL BUF
Total/NA	Analysis	1664A		1	184649	05/29/14 13:20	MDL	TAL BUF
Total/NA	Prep	Distill/CN			182663	05/16/14 16:10	JMB	TAL BUF
Total/NA	Analysis	335.4		1	182866	05/19/14 11:29	JTS	TAL BUF
Total/NA	Prep	Distill/Phenol			182909	05/19/14 08:43	RP	TAL BUF
Total/NA	Analysis	420.4		1	183213	05/21/14 02:53	RMB	TAL BUF
Total/NA	Analysis	SM 2540C		1	182634	05/16/14 19:11	KS	TAL BUF
Total/NA	Analysis	SM 2540D		1	182611	05/16/14 16:26	KS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	182403	05/15/14 23:38	KS	TAL BUF
Total/NA	Analysis	SM 5210B		1	182405	05/15/14 23:03	KS	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-59933-1

Client Sample ID: Post-Carbon-2

Lab Sample ID: 480-59935-2

Date Collected: 05/15/14 10:05

Matrix: Water

Date Received: 05/15/14 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		10	182992	05/20/14 12:30	DGB	TAL BUF

Client Sample ID: Post-Carbon-1

Lab Sample ID: 480-59935-3

Date Collected: 05/15/14 10:10

Matrix: Water

Date Received: 05/15/14 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		50	182992	05/20/14 13:04	DGB	TAL BUF

Laboratory References:

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

Certification Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-59933-1

Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-14
California	State Program	9	1169CA	09-30-14
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-15
Illinois	NELAP	5	200003	09-30-14
Iowa	State Program	7	374	03-01-15
Kansas	NELAP	7	E-10187	01-31-15
Kentucky (DW)	State Program	4	90029	12-31-14
Kentucky (UST)	State Program	4	30	03-31-15
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-15
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	03-31-15
Minnesota	NELAP	5	036-999-337	12-31-14
New Hampshire	NELAP	1	2337	11-17-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	03-31-15
North Dakota	State Program	8	R-176	03-31-14 *
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-30-14
Tennessee	State Program	4	TN02970	03-31-15
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-15
West Virginia DEP	State Program	3	252	05-31-14
Wisconsin	State Program	5	998310390	08-31-14

* Expired certification is currently pending renewal and is considered valid.

Method Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-59933-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8021B	Volatile Organic Compounds (GC)	SW846	TAL BUF
608	Organochlorine Pesticides in Water	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
1664A	HEM and SGT-HEM	1664A	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
420.4	Phenolics, Total Recoverable	MCAWW	TAL BUF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL BUF
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
SM 5210B	BOD, 5-Day	SM	TAL BUF

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-59933-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-59933-1	Pre-Carbon	Wastewater	05/15/14 10:15	05/15/14 10:55
480-59933-2	Outside Sump	Water	05/15/14 10:20	05/15/14 10:55
480-59935-1	Post-Carbon-3	Wastewater	05/15/14 09:50	05/15/14 10:55
480-59935-2	Post-Carbon-2	Water	05/15/14 10:05	05/15/14 10:55
480-59935-3	Post-Carbon-1	Water	05/15/14 10:10	05/15/14 10:55

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

480-59933 Chain of Custody

Client Information	Sampler: T. Palmer	Lab PM: Fischer, Brian J	Carrier Tra
Client Contact: Thomas Palmer	Phone: (716) 866-3590	E-Mail: brian.fischer@testamericainc.com	

Company: Groundwater & Environmental Services Inc

Address: 495 Aero Drive Suite 3
City: Cheektowaga
State, Zip: NY, 14225
Phone:
Email: tpalmer@gesonline.com
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Qtrly Pre-Carb
Site: New York

Due Date Requested:
TAT Requested (days): 10
PO #: Purchase Order not requir
WO #:
Project #: 48002525
SSOW#:

Job #:

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0_28D - (MOD) Local Method	200.7 - (MOD) Local Method	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS List - VOA - 8021	310.2 - Alkalinity, Total	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	A	A	N		
Pre-Carbon	5-15-14	1015	G	Water	N	N	X	X	X	X	X		
Outside Sump	1	1020	G	Water	N	N				X			

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

	Date/Time	Company		Date/Time	Company
Relinquished by: [signature] / GES	5-15-14 / 1055	GES	Received by: [signature]	5/15/14 1055	TA Buff
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: #1 4.4

5/30/2014

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

480-59935 Chain of Custody

Client Information	Sampler: T. Palmer	Lab PM: Fischer, Brian J	Carrier Tracking	Page: Page 1 of 1
Client Contact: Thomas Palmer	Phone: (716) 8663590	E-Mail: brian.fischer@testamericainc.com		
Company: Groundwater & Environmental Services Inc				Job #:
Address: 495 Aero Drive Suite 3	Due Date Requested:			
City: Cheektowaga	TAT Requested (days): 10			
State, Zip: NY, 14225				
Phone:	PO #: Purchase Order not requir			
Email: tpalmer@gesonline.com	WO #:			
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Qtrly Post-Car	Project #: 48002525			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7 - (MOD) Local Method	1664A_Calc - Oil & Grease	420.4 - Phenolics, Total Recoverable	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS List - VOA - 8021	608_Pest - Priority Pollutant Pesticides	8270C - (MOD) TCL SVOA - OLM04.2	5210B - Biochemical Oxygen Demand	2540C_Calcd - Total Dissolved Solids	2540D - Total Suspended Solids	335.4 - Cyanide, Total	SM4500_H+ - pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	S	S	A	A	N	N	N	N	N	B	N		
Post-Carbon - 3	5-15-14	950	G	Water			X	X	X	X	X	X	X	X	X	X	X	X		
Post-Carbon - 2	1	1005	1	1							X									
Post Carbon - 1	1	1010	1	1							X									

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:				
Relinquished by:	Date/Time: 5-15-14 / 1055	Company GES	Received by:	Date/Time: 5/15/14 1055	Company FA Buff
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: #1 4.3

Page 20 of 22

5/30/2014

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-59933-1

Login Number: 59933

List Source: TestAmerica Buffalo

List Number: 1

Creator: Stau, Brandon 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.	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.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-59933-1

Login Number: 59935

List Source: TestAmerica Buffalo

List Number: 1

Creator: Stau, Brandon 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.	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.	N/A	
Chlorine Residual checked.	True	

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: 480-61687-1
Client Project/Site: NYSDEC-Gastown WWTP: Site# 915171
Sampling Event: Mthly Post-Carbon
Mthly Pre-Carbon

For:
New York State D.E.C.
270 Michigan Avenue
Buffalo, New York 14203

Attn: Mr. Glenn May

Joseph V. Giacomazza

Authorized for release by:
6/25/2014 11:39:37 AM
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

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
6/25/2014 11:39:37 AM

Table of Contents

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.

GC 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.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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)

Job ID: 480-61687-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-61687-1

Receipt
The samples were received on 6/11/2014 12:10 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.0º C and 2.5º C.

GC/MS VOA
Method(s) 8260C: The large number of analytes included in the continuing calibration verification (CCV) in batch 189380 gives a high probability that one or more analytes will be outside acceptance criteria. As indicated in the reference method, analysis may proceed as long as no more than 20% of the analytes are outside the method-defined %D criteria.

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

Ion Chromatography
Method(s) 300.0: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: (480-61687-1 MS), Pre-Carbon (480-61687-1). 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.

GC VOA
Method(s) 8021B: The following samples were diluted to bring the concentration of target analytes within the calibration range: (480-61688-2 MS), (480-61688-2 MSD), OUTSIDE SUMP (480-61687-2), Post-Carbon-1 (480-61688-3), Post-Carbon-2 (480-61688-2), Pre-Carbon (480-61687-1). 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.

Metals
Method(s) 200.7 Rev 4.4: The Serial Dilution (480-61727-5 SD) associated with batch 187865, exhibited results outside the quality control limits for sodium. However, the Post Digestion Spike was compliant so no corrective action was necessary.

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

General Chemistry
Method(s) 9040C, SM 4500 H+ B: The following sample(s) was received outside of holding time: Post-Carbon-3 (480-61688-1).

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

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-61687-1

Client Sample ID: Pre-Carbon
Date Collected: 06/11/14 11:30
Date Received: 06/11/14 12:10

Lab Sample ID: 480-61687-1
Matrix: Wastewater

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	93	J	100	17	ug/L			06/13/14 14:41	500
1,3,5-Trimethylbenzene	ND		100	75	ug/L			06/13/14 14:41	500
Benzene	4800		100	12	ug/L			06/13/14 14:41	500
Ethylbenzene	500		100	14	ug/L			06/13/14 14:41	500
Isopropylbenzene	ND		100	14	ug/L			06/13/14 14:41	500
Methyl tert-butyl ether	ND		200	22	ug/L			06/13/14 14:41	500
m,p-Xylene	420		200	27	ug/L			06/13/14 14:41	500
n-Butylbenzene	ND		100	15	ug/L			06/13/14 14:41	500
n-Propylbenzene	ND		100	65	ug/L			06/13/14 14:41	500
o-Xylene	ND		100	14	ug/L			06/13/14 14:41	500
p-Cymene	ND		100	15	ug/L			06/13/14 14:41	500
sec-Butylbenzene	ND		100	10	ug/L			06/13/14 14:41	500
Toluene	2100		100	18	ug/L			06/13/14 14:41	500
Xylenes, Total	420		300	27	ug/L			06/13/14 14:41	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*100*		*63 - 145*		*06/13/14 14:41*	*500*
4-Bromofluorobenzene	*99*		*64 - 141*		*06/13/14 14:41*	*500*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	136000		500	100	ug/L		06/12/14 09:35	06/16/14 13:09	1
Iron	1060		50.0	19.3	ug/L		06/12/14 09:35	06/14/14 15:29	1
Magnesium	84400		200	43.4	ug/L		06/12/14 09:35	06/14/14 15:29	1
Potassium	4480		500	100	ug/L		06/12/14 09:35	06/14/14 15:29	1
Sodium	68100		1000	324	ug/L		06/12/14 09:35	06/14/14 15:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	106		2.5	1.4	mg/L			06/19/14 21:59	5
Sulfate	155		10.0	1.7	mg/L			06/19/14 21:59	5
Alkalinity, Total	515		100	40.0	mg/L			06/17/14 12:23	10

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-61687-1

Client Sample ID: OUTSIDE SUMP
Date Collected: 06/11/14 11:40
Date Received: 06/11/14 12:10

Lab Sample ID: 480-61687-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**94**	**J**	100	17	ug/L			06/13/14 15:15	500
1,3,5-Trimethylbenzene	ND		100	75	ug/L			06/13/14 15:15	500
Benzene	**7400**		100	12	ug/L			06/13/14 15:15	500
Ethylbenzene	**690**		100	14	ug/L			06/13/14 15:15	500
Isopropylbenzene	ND		100	14	ug/L			06/13/14 15:15	500
Methyl tert-butyl ether	**53**	**J**	200	22	ug/L			06/13/14 15:15	500
m,p-Xylene	**510**		200	27	ug/L			06/13/14 15:15	500
n-Butylbenzene	ND		100	15	ug/L			06/13/14 15:15	500
n-Propylbenzene	ND		100	65	ug/L			06/13/14 15:15	500
o-Xylene	ND		100	14	ug/L			06/13/14 15:15	500
p-Cymene	ND		100	15	ug/L			06/13/14 15:15	500
sec-Butylbenzene	ND		100	10	ug/L			06/13/14 15:15	500
Toluene	**2600**		100	18	ug/L			06/13/14 15:15	500
Xylenes, Total	**510**		300	27	ug/L			06/13/14 15:15	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*100*		*63 - 145*		*06/13/14 15:15*	*500*
4-Bromofluorobenzene	*99*		*64 - 141*		*06/13/14 15:15*	*500*

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-61687-1

Client Sample ID: Post-Carbon-3
Date Collected: 06/11/14 11:15
Date Received: 06/11/14 12:10

Lab Sample ID: 480-61688-1
Matrix: Wastewater

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			06/24/14 00:49	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/24/14 00:49	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/24/14 00:49	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/24/14 00:49	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/24/14 00:49	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/24/14 00:49	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			06/24/14 00:49	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/24/14 00:49	1
2-Hexanone	ND		5.0	1.2	ug/L			06/24/14 00:49	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/24/14 00:49	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/24/14 00:49	1
Acetone	ND		10	3.0	ug/L			06/24/14 00:49	1
Benzene	ND		1.0	0.41	ug/L			06/24/14 00:49	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/24/14 00:49	1
Bromoform	ND		1.0	0.26	ug/L			06/24/14 00:49	1
Bromomethane	ND		1.0	0.69	ug/L			06/24/14 00:49	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/24/14 00:49	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/24/14 00:49	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/24/14 00:49	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/24/14 00:49	1
Chloroethane	ND		1.0	0.32	ug/L			06/24/14 00:49	1
Chloroform	**0.42**	**J**	1.0	0.34	ug/L			06/24/14 00:49	1
Chloromethane	ND		1.0	0.35	ug/L			06/24/14 00:49	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/24/14 00:49	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/24/14 00:49	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/24/14 00:49	1
Styrene	ND		1.0	0.73	ug/L			06/24/14 00:49	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/24/14 00:49	1
Toluene	ND		1.0	0.51	ug/L			06/24/14 00:49	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/24/14 00:49	1
Trichloroethene	ND		1.0	0.46	ug/L			06/24/14 00:49	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/24/14 00:49	1
Vinyl acetate	ND		5.0	0.85	ug/L			06/24/14 00:49	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/24/14 00:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*66 - 137*		*06/24/14 00:49*	*1*
Toluene-d8 (Surr)	*101*		*71 - 126*		*06/24/14 00:49*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*06/24/14 00:49*	*1*

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			06/13/14 10:23	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			06/13/14 10:23	1
Benzene	ND		0.20	0.023	ug/L			06/13/14 10:23	1
Ethylbenzene	ND		0.20	0.029	ug/L			06/13/14 10:23	1
Isopropylbenzene	ND		0.20	0.027	ug/L			06/13/14 10:23	1
Methyl tert-butyl ether	ND		0.40	0.044	ug/L			06/13/14 10:23	1
m,p-Xylene	ND		0.40	0.054	ug/L			06/13/14 10:23	1
n-Butylbenzene	ND		0.20	0.031	ug/L			06/13/14 10:23	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-61687-1

Client Sample ID: Post-Carbon-3
Date Collected: 06/11/14 11:15
Date Received: 06/11/14 12:10

Lab Sample ID: 480-61688-1
Matrix: Wastewater

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	ND		0.20	0.13	ug/L			06/13/14 10:23	1
o-Xylene	ND		0.20	0.027	ug/L			06/13/14 10:23	1
p-Cymene	ND		0.20	0.030	ug/L			06/13/14 10:23	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			06/13/14 10:23	1
Toluene	ND		0.20	0.036	ug/L			06/13/14 10:23	1
Xylenes, Total	ND		0.60	0.054	ug/L			06/13/14 10:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*102*		*63 - 145*		*06/13/14 10:23*	*1*
4-Bromofluorobenzene	*103*		*64 - 141*		*06/13/14 10:23*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**319**		50.0	19.3	ug/L		06/12/14 09:35	06/14/14 15:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.42**		0.010	0.0050	mg/L		06/17/14 13:19	06/18/14 12:03	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.65**	**HF**	0.100	0.100	SU			06/11/14 23:43	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-61687-1

Client Sample ID: Post-Carbon-2
Date Collected: 06/11/14 11:20
Date Received: 06/11/14 12:10

Lab Sample ID: 480-61688-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**0.15**	**J**	0.20	0.035	ug/L			06/13/14 10:57	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			06/13/14 10:57	1
Ethylbenzene	**2.2**		0.20	0.029	ug/L			06/13/14 10:57	1
Isopropylbenzene	ND		0.20	0.027	ug/L			06/13/14 10:57	1
Methyl tert-butyl ether	**2.4**		0.40	0.044	ug/L			06/13/14 10:57	1
m,p-Xylene	**1.2**		0.40	0.054	ug/L			06/13/14 10:57	1
n-Butylbenzene	ND		0.20	0.031	ug/L			06/13/14 10:57	1
n-Propylbenzene	ND		0.20	0.13	ug/L			06/13/14 10:57	1
o-Xylene	**0.76**		0.20	0.027	ug/L			06/13/14 10:57	1
p-Cymene	ND		0.20	0.030	ug/L			06/13/14 10:57	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			06/13/14 10:57	1
Toluene	**15**		0.20	0.036	ug/L			06/13/14 10:57	1
Xylenes, Total	**2.0**		0.60	0.054	ug/L			06/13/14 10:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*106*		*63 - 145*		*06/13/14 10:57*	*1*
4-Bromofluorobenzene	*104*		*64 - 141*		*06/13/14 10:57*	*1*

Method: 8021B - Volatile Organic Compounds (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**270**		2.0	0.23	ug/L			06/13/14 12:24	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*101*		*63 - 145*		*06/13/14 12:24*	*10*
4-Bromofluorobenzene	*100*		*64 - 141*		*06/13/14 12:24*	*10*

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-61687-1

Client Sample ID: Post-Carbon-1
Date Collected: 06/11/14 11:25
Date Received: 06/11/14 12:10

Lab Sample ID: 480-61688-3
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**6.0**	**J**	10	1.7	ug/L			06/13/14 11:32	50
1,3,5-Trimethylbenzene	ND		10	7.5	ug/L			06/13/14 11:32	50
Benzene	**1700**		10	1.2	ug/L			06/13/14 11:32	50
Ethylbenzene	**48**		10	1.4	ug/L			06/13/14 11:32	50
Isopropylbenzene	ND		10	1.4	ug/L			06/13/14 11:32	50
Methyl tert-butyl ether	ND		20	2.2	ug/L			06/13/14 11:32	50
m,p-Xylene	**35**		20	2.7	ug/L			06/13/14 11:32	50
n-Butylbenzene	ND		10	1.5	ug/L			06/13/14 11:32	50
n-Propylbenzene	ND		10	6.5	ug/L			06/13/14 11:32	50
o-Xylene	ND		10	1.4	ug/L			06/13/14 11:32	50
p-Cymene	ND		10	1.5	ug/L			06/13/14 11:32	50
sec-Butylbenzene	ND		10	1.0	ug/L			06/13/14 11:32	50
Toluene	**250**		10	1.8	ug/L			06/13/14 11:32	50
Xylenes, Total	**35**		30	2.7	ug/L			06/13/14 11:32	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*100*		*63 - 145*		*06/13/14 11:32*	*50*
4-Bromofluorobenzene	*99*		*64 - 141*		*06/13/14 11:32*	*50*

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-61687-1

Client Sample ID: Pre-Carbon

Lab Sample ID: 480-61687-1
Matrix: Wastewater
Date Collected: 06/11/14 11:30
Date Received: 06/11/14 12:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		500	187474	06/13/14 14:41	DGB	TAL BUF
Total/NA	Prep	200.7			187238	06/12/14 09:35	EHD	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	187865	06/14/14 15:29	SS1	TAL BUF
Total/NA	Prep	200.7			187238	06/12/14 09:35	EHD	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	188146	06/16/14 13:09	SS1	TAL BUF
Total/NA	Analysis	300.0		5	188724	06/19/14 21:59	KRC	TAL BUF
Total/NA	Analysis	310.2		10	188219	06/17/14 12:23	JTS	TAL BUF

Client Sample ID: OUTSIDE SUMP

Lab Sample ID: 480-61687-2
Matrix: Water
Date Collected: 06/11/14 11:40
Date Received: 06/11/14 12:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		500	187474	06/13/14 15:15	DGB	TAL BUF

Client Sample ID: Post-Carbon-3

Lab Sample ID: 480-61688-1
Matrix: Wastewater
Date Collected: 06/11/14 11:15
Date Received: 06/11/14 12:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	189380	06/24/14 00:49	LCH	TAL BUF
Total/NA	Analysis	8021B		1	187474	06/13/14 10:23	DGB	TAL BUF
Total/NA	Prep	200.7			187238	06/12/14 09:35	EHD	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	187865	06/14/14 15:26	SS1	TAL BUF
Total/NA	Prep	Distill/CN			188207	06/17/14 13:19	MDL	TAL BUF
Total/NA	Analysis	335.4		1	188510	06/18/14 12:03	JTS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	187193	06/11/14 23:43	KS	TAL BUF

Client Sample ID: Post-Carbon-2

Lab Sample ID: 480-61688-2
Matrix: Water
Date Collected: 06/11/14 11:20
Date Received: 06/11/14 12:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	187474	06/13/14 10:57	DGB	TAL BUF
Total/NA	Analysis	8021B	DL	10	187474	06/13/14 12:24	DGB	TAL BUF

Client Sample ID: Post-Carbon-1

Lab Sample ID: 480-61688-3
Matrix: Water
Date Collected: 06/11/14 11:25
Date Received: 06/11/14 12:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		50	187474	06/13/14 11:32	DGB	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-61687-1

Laboratory References:

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

Certification Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-61687-1

Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-14
California	State Program	9	1169CA	09-30-14
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14 *
Georgia	State Program	4	N/A	03-31-15
Illinois	NELAP	5	200003	09-30-14
Iowa	State Program	7	374	03-01-15
Kansas	NELAP	7	E-10187	01-31-15
Kentucky (DW)	State Program	4	90029	12-31-14
Kentucky (UST)	State Program	4	30	03-31-15
Louisiana	NELAP	6	02031	06-30-14 *
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-15
Massachusetts	State Program	1	M-NY044	06-30-14 *
Michigan	State Program	5	9937	03-31-15
Minnesota	NELAP	5	036-999-337	12-31-14
New Hampshire	NELAP	1	2337	11-17-14
New Jersey	NELAP	2	NY455	06-30-14 *
New York	NELAP	2	10026	03-31-15
North Dakota	State Program	8	R-176	03-31-14 *
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-15
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-30-14
Tennessee	State Program	4	TN02970	03-31-15
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-15
Wisconsin	State Program	5	998310390	08-31-14

* Certification renewal pending - certification considered valid.

Method Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-61687-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8021B	Volatile Organic Compounds (GC)	SW846	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-61687-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-61687-1	Pre-Carbon	Wastewater	06/11/14 11:30	06/11/14 12:10
480-61687-2	OUTSIDE SUMP	Water	06/11/14 11:40	06/11/14 12:10
480-61688-1	Post-Carbon-3	Wastewater	06/11/14 11:15	06/11/14 12:10
480-61688-2	Post-Carbon-2	Water	06/11/14 11:20	06/11/14 12:10
480-61688-3	Post-Carbon-1	Water	06/11/14 11:25	06/11/14 12:10

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody

480-61687 Chain of Custody

TestAmerica — LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: T-Palmer	Lab PM: Fischer, Brian J	lo: 3984-1176.1
Client Contact: Thomas Palmer	Phone: (716) 866-3590	E-Mail: brian.fischer@testamericai	Page 1 of 1
Company: Groundwater & Environmental Services Inc			Job #:
Address: 495 Aero Drive Suite 3	Due Date Requested:		
City: Cheektowaga	TAT Requested (days): 10-day		
State, Zip: NY, 14225			
Phone:	PO #: Purchase Order not requir		
Email: tpalmer@gesonline.com	WO #:		
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Pre-Carl	Project #: 48002525		
Site: New York	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0_28D - (MOD) Local Method	200.7 - (MOD) Local Method	310.2 - Alkalinity, Total	8021B (MOD) STARS Lg -VOA 8260	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	N			
Pre-Carbon	6-11-14	1130	G	Water	N	N	X	X	X	X		
Outside Stump	6-11-14	1140	G	W	N	N				X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 6-11-14 1210	Company GES	Received by:	Date/Time: 6/12/14 1210	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.0 #1

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6/25/2014

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custo

480-61688 Chain of Custody

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: T. Palmer	Lab PM: Fischer, Brian J	COC No: 480-43992-1177.1
Client Contact: Thomas Palmer	Phone: (716) 866-3590	E-Mail: brian.fischer@testan	Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc			Job #:
Address: 495 Aero Drive Suite 3	Due Date Requested:		
City: Cheektowaga	TAT Requested (days): 10 day		
State, Zip: NY, 14225	PO #: Purchase Order not requir		
Phone:	WO #:		
Email: tpalmer@gesonline.com	Project #: 48002525		
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Post-Ca	SSOW#:		
Site: New York			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7 - Iron	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS List - VOA - 8021	335.4 - Cyanide, Total	SM4500_H+ - pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	A	A	B	N		
Post-Carbon-3	6-11-14	1115	G	Water	N	N	X	X	X	X	X		
Post Carbon 2	1	1120	1	1	N	N			X				
Post Carbon-1	1	1125	1	1	N	N			X				

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 6-11-14 / 1210	Company: GES	Received by:	Date/Time: 6/11/14 1210	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.5#1

6/25/2014

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-61687-1

Login Number: 61687

List Source: TestAmerica Buffalo

List Number: 1

Creator: Janish, Carl 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.	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.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-61687-1

Login Number: 61688

List Source: TestAmerica Buffalo

List Number: 1

Creator: Janish, Carl 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.	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.	N/A	
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: 480-64047-1
Client Project/Site: NYSDEC-Gastown WWTP: Site# 915171
Sampling Event: Mthly Post-Carbon
Mthly Pre-Carbon

For:
New York State D.E.C.
270 Michigan Avenue
Buffalo, New York 14203

Attn: Mr. Glenn May

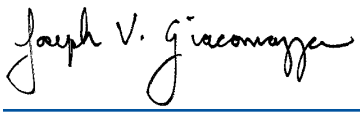
Joseph V. Giacomazza

Authorized for release by:
7/31/2014 12:19:59 PM
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

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
7/31/2014 12:19:59 PM

Table of Contents

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.

GC 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.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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)

Job ID: 480-64047-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-64047-1

Receipt
The samples were received on 7/18/2014 3:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.1º C and 3.6º C.

GC/MS VOA
Method(s) 8260C: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: Post-Carbon-1 (480-64048-3). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: Post-Carbon-2 (480-64048-2). 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.

HPLC/IC
Method(s) 300.0: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-64047-1). Elevated reporting limits (RLs) are provided.

Method(s) 300.0: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-64047-1). Elevated reporting limits (RLs) are provided.

Method(s) 300.0: The results reported for the following sample(s) do not concur with results previously reported for this site: Pre-Carbon (480-64047-1). Reanalysis was performed, and the result(s) confirmed.

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

GC VOA
Method(s) 8021B: The following samples were diluted to bring the concentration of target analytes within the calibration range: Outside Sump (480-64047-2), Post-Carbon-2 (480-64048-2), Pre-Carbon (480-64047-1). 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.

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

General Chemistry
Method(s) SM 4500 H+ B: The following sample(s) was received outside of holding time: Post-Carbon-2 (480-64048-2).

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

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-64047-1

Client Sample ID: Pre-Carbon
Date Collected: 07/18/14 12:10
Date Received: 07/18/14 15:15

Lab Sample ID: 480-64047-1
Matrix: Wastewater

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**120**		100	17	ug/L			07/23/14 16:03	500
1,3,5-Trimethylbenzene	ND		100	75	ug/L			07/23/14 16:03	500
Benzene	**16000**		100	12	ug/L			07/23/14 16:03	500
Ethylbenzene	**1600**		100	14	ug/L			07/23/14 16:03	500
Isopropylbenzene	ND		100	14	ug/L			07/23/14 16:03	500
Methyl tert-butyl ether	ND		200	22	ug/L			07/23/14 16:03	500
m,p-Xylene	**800**		200	27	ug/L			07/23/14 16:03	500
n-Butylbenzene	ND		100	15	ug/L			07/23/14 16:03	500
n-Propylbenzene	ND		100	65	ug/L			07/23/14 16:03	500
o-Xylene	**370**		100	14	ug/L			07/23/14 16:03	500
p-Cymene	ND		100	15	ug/L			07/23/14 16:03	500
sec-Butylbenzene	ND		100	10	ug/L			07/23/14 16:03	500
Toluene	**4800**		100	18	ug/L			07/23/14 16:03	500
Xylenes, Total	**1200**		300	27	ug/L			07/23/14 16:03	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*92*		*63 - 145*		*07/23/14 16:03*	*500*
4-Bromofluorobenzene	*91*		*64 - 141*		*07/23/14 16:03*	*500*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**154000**		500	100	ug/L		07/21/14 08:30	07/21/14 17:44	1
Iron	**1340**		50.0	19.3	ug/L		07/21/14 08:30	07/21/14 17:44	1
Magnesium	**106000**		200	43.4	ug/L		07/21/14 08:30	07/21/14 17:44	1
Potassium	**5290**	**B**	500	100	ug/L		07/21/14 08:30	07/21/14 17:44	1
Sodium	**74600**		1000	324	ug/L		07/21/14 08:30	07/21/14 17:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**144**		2.5	1.4	mg/L			07/23/14 16:23	5
Sulfate	**201**		10.0	1.7	mg/L			07/23/14 16:23	5
Alkalinity, Total	**615**		100	40.0	mg/L			07/22/14 12:31	10

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-64047-1

Client Sample ID: Outside Sump
Date Collected: 07/18/14 12:20
Date Received: 07/18/14 15:15

Lab Sample ID: 480-64047-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**39**	**J**	100	17	ug/L			07/23/14 16:37	500
1,3,5-Trimethylbenzene	ND		100	75	ug/L			07/23/14 16:37	500
Benzene	**9900**		100	12	ug/L			07/23/14 16:37	500
Ethylbenzene	**770**		100	14	ug/L			07/23/14 16:37	500
Isopropylbenzene	ND		100	14	ug/L			07/23/14 16:37	500
Methyl tert-butyl ether	ND		200	22	ug/L			07/23/14 16:37	500
m,p-Xylene	**300**		200	27	ug/L			07/23/14 16:37	500
n-Butylbenzene	ND		100	15	ug/L			07/23/14 16:37	500
n-Propylbenzene	ND		100	65	ug/L			07/23/14 16:37	500
o-Xylene	**210**		100	14	ug/L			07/23/14 16:37	500
p-Cymene	ND		100	15	ug/L			07/23/14 16:37	500
sec-Butylbenzene	ND		100	10	ug/L			07/23/14 16:37	500
Toluene	**2700**		100	18	ug/L			07/23/14 16:37	500
Xylenes, Total	**510**		300	27	ug/L			07/23/14 16:37	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*90*		*63 - 145*		*07/23/14 16:37*	*500*
4-Bromofluorobenzene	*90*		*64 - 141*		*07/23/14 16:37*	*500*

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-64047-1

Client Sample ID: Post-Carbon-3
Date Collected: 07/18/14 11:50
Date Received: 07/18/14 15:15

Lab Sample ID: 480-64048-1
Matrix: Wastewater

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			07/25/14 20:17	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/25/14 20:17	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/25/14 20:17	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/25/14 20:17	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/25/14 20:17	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/25/14 20:17	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			07/25/14 20:17	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/25/14 20:17	1
2-Hexanone	ND		5.0	1.2	ug/L			07/25/14 20:17	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/25/14 20:17	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/25/14 20:17	1
Acetone	**3.8**	**J**	10	3.0	ug/L			07/25/14 20:17	1
Benzene	ND		1.0	0.41	ug/L			07/25/14 20:17	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/25/14 20:17	1
Bromoform	ND		1.0	0.26	ug/L			07/25/14 20:17	1
Bromomethane	ND		1.0	0.69	ug/L			07/25/14 20:17	1
Carbon disulfide	**3.8**		1.0	0.19	ug/L			07/25/14 20:17	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/25/14 20:17	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/25/14 20:17	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/25/14 20:17	1
Chloroethane	ND		1.0	0.32	ug/L			07/25/14 20:17	1
Chloroform	**0.62**	**J**	1.0	0.34	ug/L			07/25/14 20:17	1
Chloromethane	**0.84**	**J**	1.0	0.35	ug/L			07/25/14 20:17	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/25/14 20:17	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/25/14 20:17	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/25/14 20:17	1
Styrene	ND		1.0	0.73	ug/L			07/25/14 20:17	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/25/14 20:17	1
Toluene	ND		1.0	0.51	ug/L			07/25/14 20:17	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/25/14 20:17	1
Trichloroethene	ND		1.0	0.46	ug/L			07/25/14 20:17	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/25/14 20:17	1
Vinyl acetate	ND		5.0	0.85	ug/L			07/25/14 20:17	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/25/14 20:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*66 - 137*		*07/25/14 20:17*	*1*
Toluene-d8 (Surr)	*95*		*71 - 126*		*07/25/14 20:17*	*1*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*07/25/14 20:17*	*1*

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-64047-1

Client Sample ID: Post-Carbon-2
Date Collected: 07/18/14 11:55
Date Received: 07/18/14 15:15

Lab Sample ID: 480-64048-2
Matrix: Water

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			07/29/14 02:10	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.1	ug/L			07/29/14 02:10	5
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L			07/29/14 02:10	5
1,1-Dichloroethane	ND		5.0	1.9	ug/L			07/29/14 02:10	5
1,1-Dichloroethene	ND		5.0	1.5	ug/L			07/29/14 02:10	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			07/29/14 02:10	5
1,2-Dichloroethene, Total	ND		10	4.1	ug/L			07/29/14 02:10	5
1,2-Dichloropropane	ND		5.0	3.6	ug/L			07/29/14 02:10	5
2-Hexanone	ND		25	6.2	ug/L			07/29/14 02:10	5
2-Butanone (MEK)	ND		50	6.6	ug/L			07/29/14 02:10	5
4-Methyl-2-pentanone (MIBK)	ND		25	11	ug/L			07/29/14 02:10	5
Acetone	ND		50	15	ug/L			07/29/14 02:10	5
Benzene	**280**		5.0	2.1	ug/L			07/29/14 02:10	5
Bromodichloromethane	ND		5.0	2.0	ug/L			07/29/14 02:10	5
Bromoform	ND		5.0	1.3	ug/L			07/29/14 02:10	5
Bromomethane	ND		5.0	3.5	ug/L			07/29/14 02:10	5
Carbon disulfide	ND		5.0	0.95	ug/L			07/29/14 02:10	5
Carbon tetrachloride	ND		5.0	1.4	ug/L			07/29/14 02:10	5
Chlorobenzene	ND		5.0	3.8	ug/L			07/29/14 02:10	5
Dibromochloromethane	ND		5.0	1.6	ug/L			07/29/14 02:10	5
Chloroethane	ND		5.0	1.6	ug/L			07/29/14 02:10	5
Chloroform	**27**		5.0	1.7	ug/L			07/29/14 02:10	5
Chloromethane	ND		5.0	1.8	ug/L			07/29/14 02:10	5
cis-1,3-Dichloropropene	ND		5.0	1.8	ug/L			07/29/14 02:10	5
Ethylbenzene	ND		5.0	3.7	ug/L			07/29/14 02:10	5
Methylene Chloride	ND		5.0	2.2	ug/L			07/29/14 02:10	5
Styrene	ND		5.0	3.7	ug/L			07/29/14 02:10	5
Tetrachloroethene	ND		5.0	1.8	ug/L			07/29/14 02:10	5
Toluene	**6.4**		5.0	2.6	ug/L			07/29/14 02:10	5
trans-1,3-Dichloropropene	ND		5.0	1.9	ug/L			07/29/14 02:10	5
Trichloroethene	ND		5.0	2.3	ug/L			07/29/14 02:10	5
Vinyl chloride	ND		5.0	4.5	ug/L			07/29/14 02:10	5
Vinyl acetate	ND		25	4.3	ug/L			07/29/14 02:10	5
Xylenes, Total	ND		10	3.3	ug/L			07/29/14 02:10	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*66 - 137*		*07/29/14 02:10*	*5*
Toluene-d8 (Surr)	*96*		*71 - 126*		*07/29/14 02:10*	*5*
4-Bromofluorobenzene (Surr)	*106*		*73 - 120*		*07/29/14 02:10*	*5*

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		2.0	0.35	ug/L			07/23/14 17:11	10
1,3,5-Trimethylbenzene	ND		2.0	1.5	ug/L			07/23/14 17:11	10
Benzene	**320**		2.0	0.23	ug/L			07/23/14 17:11	10
Ethylbenzene	**0.48**	**J**	2.0	0.29	ug/L			07/23/14 17:11	10
Isopropylbenzene	ND		2.0	0.27	ug/L			07/23/14 17:11	10
Methyl tert-butyl ether	ND		4.0	0.44	ug/L			07/23/14 17:11	10
m,p-Xylene	ND		4.0	0.54	ug/L			07/23/14 17:11	10
n-Butylbenzene	ND		2.0	0.31	ug/L			07/23/14 17:11	10

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-64047-1

Client Sample ID: Post-Carbon-2
Date Collected: 07/18/14 11:55
Date Received: 07/18/14 15:15

Lab Sample ID: 480-64048-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	ND		2.0	1.3	ug/L			07/23/14 17:11	10
o-Xylene	ND		2.0	0.27	ug/L			07/23/14 17:11	10
p-Cymene	ND		2.0	0.30	ug/L			07/23/14 17:11	10
sec-Butylbenzene	ND		2.0	0.20	ug/L			07/23/14 17:11	10
Toluene	**7.2**		2.0	0.36	ug/L			07/23/14 17:11	10
Xylenes, Total	ND		6.0	0.54	ug/L			07/23/14 17:11	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*93*		*63 - 145*		*07/23/14 17:11*	*10*
4-Bromofluorobenzene	*92*		*64 - 141*		*07/23/14 17:11*	*10*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**275**		50.0	19.3	ug/L		07/21/14 08:30	07/21/14 17:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.55**		0.010	0.0050	mg/L		07/25/14 17:00	07/28/14 01:42	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.94**	**HF**	0.100	0.100	SU			07/19/14 01:59	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-64047-1

Client Sample ID: Post-Carbon-1
Date Collected: 07/18/14 12:00
Date Received: 07/18/14 15:15

Lab Sample ID: 480-64048-3
Matrix: Water

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			07/25/14 21:02	50
1,1,2,2-Tetrachloroethane	ND		50	11	ug/L			07/25/14 21:02	50
1,1,2-Trichloroethane	ND		50	12	ug/L			07/25/14 21:02	50
1,1-Dichloroethane	ND		50	19	ug/L			07/25/14 21:02	50
1,1-Dichloroethene	ND		50	15	ug/L			07/25/14 21:02	50
1,2-Dichloroethane	ND		50	11	ug/L			07/25/14 21:02	50
1,2-Dichloroethene, Total	ND		100	41	ug/L			07/25/14 21:02	50
1,2-Dichloropropane	ND		50	36	ug/L			07/25/14 21:02	50
2-Hexanone	ND		250	62	ug/L			07/25/14 21:02	50
2-Butanone (MEK)	ND		500	66	ug/L			07/25/14 21:02	50
4-Methyl-2-pentanone (MIBK)	ND		250	110	ug/L			07/25/14 21:02	50
Acetone	ND		500	150	ug/L			07/25/14 21:02	50
Benzene	**3100**		50	21	ug/L			07/25/14 21:02	50
Bromodichloromethane	ND		50	20	ug/L			07/25/14 21:02	50
Bromoform	ND		50	13	ug/L			07/25/14 21:02	50
Bromomethane	ND		50	35	ug/L			07/25/14 21:02	50
Carbon disulfide	ND		50	9.5	ug/L			07/25/14 21:02	50
Carbon tetrachloride	ND		50	14	ug/L			07/25/14 21:02	50
Chlorobenzene	ND		50	38	ug/L			07/25/14 21:02	50
Dibromochloromethane	ND		50	16	ug/L			07/25/14 21:02	50
Chloroethane	ND		50	16	ug/L			07/25/14 21:02	50
Chloroform	**49**	**J**	50	17	ug/L			07/25/14 21:02	50
Chloromethane	ND		50	18	ug/L			07/25/14 21:02	50
cis-1,3-Dichloropropene	ND		50	18	ug/L			07/25/14 21:02	50
Ethylbenzene	**37**	**J**	50	37	ug/L			07/25/14 21:02	50
Methylene Chloride	ND		50	22	ug/L			07/25/14 21:02	50
Styrene	ND		50	37	ug/L			07/25/14 21:02	50
Tetrachloroethene	ND		50	18	ug/L			07/25/14 21:02	50
Toluene	**240**		50	26	ug/L			07/25/14 21:02	50
trans-1,3-Dichloropropene	ND		50	19	ug/L			07/25/14 21:02	50
Trichloroethene	ND		50	23	ug/L			07/25/14 21:02	50
Vinyl chloride	ND		50	45	ug/L			07/25/14 21:02	50
Vinyl acetate	ND		250	43	ug/L			07/25/14 21:02	50
Xylenes, Total	ND		100	33	ug/L			07/25/14 21:02	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*66 - 137*		*07/25/14 21:02*	*50*
Toluene-d8 (Surr)	*94*		*71 - 126*		*07/25/14 21:02*	*50*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*07/25/14 21:02*	*50*

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-64047-1

Client Sample ID: Pre-Carbon

Lab Sample ID: 480-64047-1
Matrix: Wastewater
Date Collected: 07/18/14 12:10
Date Received: 07/18/14 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		500	194267	07/23/14 16:03	DGB	TAL BUF
Total/NA	Prep	200.7			193790	07/21/14 08:30	EHD	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	194095	07/21/14 17:44	JRK	TAL BUF
Total/NA	Analysis	300.0		5	194389	07/23/14 16:23	NDB	TAL BUF
Total/NA	Analysis	310.2		10	194188	07/22/14 12:31	NCH	TAL BUF

Client Sample ID: Outside Sump

Lab Sample ID: 480-64047-2
Matrix: Water
Date Collected: 07/18/14 12:20
Date Received: 07/18/14 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		500	194267	07/23/14 16:37	DGB	TAL BUF

Client Sample ID: Post-Carbon-3

Lab Sample ID: 480-64048-1
Matrix: Wastewater
Date Collected: 07/18/14 11:50
Date Received: 07/18/14 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	194786	07/25/14 20:17	GTG	TAL BUF

Client Sample ID: Post-Carbon-2

Lab Sample ID: 480-64048-2
Matrix: Water
Date Collected: 07/18/14 11:55
Date Received: 07/18/14 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	195142	07/29/14 02:10	LCH	TAL BUF
Total/NA	Analysis	8021B		10	194267	07/23/14 17:11	DGB	TAL BUF
Total/NA	Prep	200.7			193790	07/21/14 08:30	EHD	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	194095	07/21/14 17:46	JRK	TAL BUF
Total/NA	Prep	Distill/CN			194909	07/25/14 17:00	JMB	TAL BUF
Total/NA	Analysis	335.4		1	194966	07/28/14 01:42	JTS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	193693	07/19/14 01:59	KS	TAL BUF

Client Sample ID: Post-Carbon-1

Lab Sample ID: 480-64048-3
Matrix: Water
Date Collected: 07/18/14 12:00
Date Received: 07/18/14 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		50	194786	07/25/14 21:02	GTG	TAL BUF

Laboratory References:

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

Certification Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-64047-1

Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-14 *
California	State Program	9	1169CA	09-30-14
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-15
Georgia	State Program	4	N/A	03-31-15
Illinois	NELAP	5	200003	09-30-14
Iowa	State Program	7	374	03-01-15
Kansas	NELAP	7	E-10187	01-31-15
Kentucky (DW)	State Program	4	90029	12-31-14
Kentucky (UST)	State Program	4	30	03-31-15
Louisiana	NELAP	6	02031	06-30-14 *
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-15
Massachusetts	State Program	1	M-NY044	06-30-15
Michigan	State Program	5	9937	03-31-15
Minnesota	NELAP	5	036-999-337	12-31-14
New Hampshire	NELAP	1	2337	11-17-14
New Jersey	NELAP	2	NY455	06-30-15
New York	NELAP	2	10026	03-31-15
North Dakota	State Program	8	R-176	03-31-14 *
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-15
Pennsylvania	NELAP	3	68-00281	07-31-14 *
Rhode Island	State Program	1	LAO00328	12-30-14
Tennessee	State Program	4	TN02970	03-31-15
Texas	NELAP	6	T104704412-11-2	07-31-14 *
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-15
Wisconsin	State Program	5	998310390	08-31-14

* Certification renewal pending - certification considered valid.

Method Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-64047-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8021B	Volatile Organic Compounds (GC)	SW846	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-64047-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-64047-1	Pre-Carbon	Wastewater	07/18/14 12:10	07/18/14 15:15
480-64047-2	Outside Sump	Water	07/18/14 12:20	07/18/14 15:15
480-64048-1	Post-Carbon-3	Wastewater	07/18/14 11:50	07/18/14 15:15
480-64048-2	Post-Carbon-2	Water	07/18/14 11:55	07/18/14 15:15
480-64048-3	Post-Carbon-1	Water	07/18/14 12:00	07/18/14 15:15

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody

480-64047 Chain of Custody

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: T.Palmer (GES)	Lab PM: Fischer, Brian J	C No: 0-43985-1176.1
Client Contact: Thomas Palmer	Phone: (716) 866-3590	E-Mail: brian.fischer@testamericainc.com	Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc		Analysis Requested	Job #:
Address: 495 Aero Drive Suite 3	Due Date Requested:		
City: Cheektowaga	TAT Requested (days): 10		
State, Zip: NY, 14225			
Phone:	PO #: Purchase Order not requir		
Email: tpalmer@gesonline.com	WO #:		
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Pre-Carl	Project #: 48002525		
Site: New York	SSOW#:		

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0_28D - (MOD) Local Method	200.7 - (MOD) Local Method	310.2 - Alkalinity, Total	8260B (MOD) STARS List VOA	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	N	A		
Pre-Carbon	7-18-19	1210	G	Water	N	N	X	X	X	X		
Outside Sump	7-18-19	1220	G	W						X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		7-18-19 / 1515	GES		7/18/14 1515	TA BUF
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: #2 3.1

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody

480-64048 Chain of Custody

TestAmerica — THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: T.Palmer (GES)	Lab PM: Fischer, Brian J	993-1177.1
Client Contact: Thomas Palmer	Phone: (716)866-3590	E-Mail: brian.fischer@testamericainc	Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc		**Analysis Requested**	Job #:
Address: 495 Aero Drive Suite 3	Due Date Requested:		**Preservation Codes:**
City: Cheektowaga	TAT Requested (days): 10		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: NY, 14225			
Phone:	PO #: Purchase Order not requir		**Other:**
Email: tpalmer@gesonline.com	WO #:		
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Post-Ca	Project #: 48002525		
Site: New York	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7 - Iron	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS List - VOA - 8021	335.4 - Cyanide, Total	SM4500_H+ - pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	A	A	B	N		
Post-Carbon -3	7.18-14	1150	G	Water				X					
Post Carbon 2	1	1155	1	1			X	X	X	X	X		
Post Carbon -1	1	1200	1	1				X					

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by:	Date/Time: 7-18-14 / 1515	Company GES	Received by:		Date/Time: 7/18/14 1575	Company TA Buff	
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: #2 3.6

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-64047-1

Login Number: 64047

List Source: TestAmerica Buffalo

List Number: 1

Creator: Stau, Brandon 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.	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.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-64047-1

Login Number: 64048

List Source: TestAmerica Buffalo

List Number: 1

Creator: Stau, Brandon 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.	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.	N/A	
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: 480-65462-1
Client Project/Site: NYSDEC-Gastown WWTP: Site# 915171
Sampling Event: Qtrly Post-Carbon
Qtrly Pre-Carbon
Revision: 1

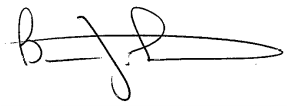
For:
New York State D.E.C.
270 Michigan Avenue
Buffalo, New York 14203

Attn: Mr. Glenn May

Authorized for release by:
8/29/2014 10:46:47 AM

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

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.



Brian Fischer
Manager of Project Management
8/29/2014 10:46:47 AM

Table of Contents

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-65462-1

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 exceeds the control limits

GC 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.

GC Semi 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.

Metals

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.
B	Compound was found in the blank and sample.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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)

Job ID: 480-65462-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-65462-1

Comments
This report has been revised to report appropriate metals for the Pre-Carbon sample.

Receipt
The samples were received on 8/13/2014 10:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.4º C and 3.8º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 198527 recovered outside acceptance criteria, low biased, for Carbon disulfide. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 198527 recovered above the upper control limit for Chloromethane and Vinyl acetate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: Post-Carbon 2 (CCVIS 480-198527/10).

Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for batch 198527 recovered outside control limits for the following analyte: Chloromethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260C: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-65466-1). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 199659 recovered above the upper control limit for Carbon tetrachloride and 1,1,1-Trichloroethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: Pre-Carbon (CCVIS 480-199659/3).

Method(s) 8260C: The method blank for batch 199659 contained Methylene Chloride above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

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

GC VOA
Method(s) 8021B: The following samples were diluted to bring the concentration of target analytes within the calibration range: OUTSIDE SUMP (480-65466-2), Pre-Carbon (480-65466-1). Elevated reporting limits (RLs) are provided.

Method(s) 8021B: The following samples were diluted to bring the concentration of target analytes within the calibration range: OUTSIDE SUMP (480-65462-2 MSD), Post-Carbon 1 (480-65462-2 MS), Post-Carbon 1 (480-65462-3), Post-Carbon 2 (480-65462-2), Post-Carbon 2 (480-65462-2 MS), Post-Carbon 2 (480-65462-2 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.

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

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

General Chemistry
Method(s) SM 4500 H+ B: The following sample(s) was received outside of holding time: Post-Carbon (480-65462-1).

Job ID: 480-65462-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

Method(s) SM 5210B: The USB dilution water D.O. depletion was greater than 0.2 mg/L but less than the reporting limit of 2.0 mg/L. The associated sample results in batch 197957 are reported.Post-Carbon (USB 480-197957/1)

Method(s) 335.4: The results reported for the following sample(s) do not concur with results previously reported for this site: Post-Carbon (480-65462-1). Reanalysis was performed, and the result(s) confirmed.

Method(s) 310.2: The results reported for the following sample(s) do not concur with results previously reported for this site: Pre-Carbon (480-65466-1). Reanalysis was performed, and the result(s) confirmed.

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

Organic Prep

Method(s) 3520C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch <<115413>>.

Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 198518.

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

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-65462-1

Client Sample ID: Post-Carbon
Date Collected: 08/13/14 08:30
Date Received: 08/13/14 10:45

Lab Sample ID: 480-65462-1
Matrix: Wastewater

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			08/26/14 16:42	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			08/26/14 16:42	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			08/26/14 16:42	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			08/26/14 16:42	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			08/26/14 16:42	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/26/14 16:42	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			08/26/14 16:42	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			08/26/14 16:42	1
2-Hexanone	ND		5.0	1.2	ug/L			08/26/14 16:42	1
2-Butanone (MEK)	ND		10	1.3	ug/L			08/26/14 16:42	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			08/26/14 16:42	1
Acetone	ND		10	3.0	ug/L			08/26/14 16:42	1
Benzene	ND		1.0	0.41	ug/L			08/26/14 16:42	1
Bromodichloromethane	ND		1.0	0.39	ug/L			08/26/14 16:42	1
Bromoform	ND		1.0	0.26	ug/L			08/26/14 16:42	1
Bromomethane	ND		1.0	0.69	ug/L			08/26/14 16:42	1
Carbon disulfide	ND		1.0	0.19	ug/L			08/26/14 16:42	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			08/26/14 16:42	1
Chlorobenzene	ND		1.0	0.75	ug/L			08/26/14 16:42	1
Dibromochloromethane	ND		1.0	0.32	ug/L			08/26/14 16:42	1
Chloroethane	ND		1.0	0.32	ug/L			08/26/14 16:42	1
Chloroform	**0.56**	**J**	1.0	0.34	ug/L			08/26/14 16:42	1
Chloromethane	ND		1.0	0.35	ug/L			08/26/14 16:42	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			08/26/14 16:42	1
Ethylbenzene	ND		1.0	0.74	ug/L			08/26/14 16:42	1
Methylene Chloride	ND		1.0	0.44	ug/L			08/26/14 16:42	1
Styrene	ND		1.0	0.73	ug/L			08/26/14 16:42	1
Tetrachloroethene	ND		1.0	0.36	ug/L			08/26/14 16:42	1
Toluene	ND		1.0	0.51	ug/L			08/26/14 16:42	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			08/26/14 16:42	1
Trichloroethene	ND		1.0	0.46	ug/L			08/26/14 16:42	1
Vinyl chloride	ND		1.0	0.90	ug/L			08/26/14 16:42	1
Vinyl acetate	ND		5.0	0.85	ug/L			08/26/14 16:42	1
Xylenes, Total	ND		2.0	0.66	ug/L			08/26/14 16:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*66 - 137*		*08/26/14 16:42*	*1*
Toluene-d8 (Surr)	*107*		*71 - 126*		*08/26/14 16:42*	*1*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*08/26/14 16:42*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		1.9	0.12	ug/L		08/20/14 10:04	08/25/14 19:04	1
Acenaphthene	ND		1.9	0.14	ug/L		08/20/14 10:04	08/25/14 19:04	1
Acenaphthylene	ND		1.9	0.14	ug/L		08/20/14 10:04	08/25/14 19:04	1
Anthracene	ND		1.9	0.15	ug/L		08/20/14 10:04	08/25/14 19:04	1
Benzo[a]anthracene	ND		1.9	0.14	ug/L		08/20/14 10:04	08/25/14 19:04	1
Benzo[a]pyrene	ND		1.9	0.13	ug/L		08/20/14 10:04	08/25/14 19:04	1
Benzo[b]fluoranthene	ND		1.9	0.15	ug/L		08/20/14 10:04	08/25/14 19:04	1
Benzo[g,h,i]perylene	ND		1.9	0.14	ug/L		08/20/14 10:04	08/25/14 19:04	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-65462-1

Client Sample ID: Post-Carbon
Date Collected: 08/13/14 08:30
Date Received: 08/13/14 10:45

Lab Sample ID: 480-65462-1
Matrix: Wastewater

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	ND		1.9	0.52	ug/L		08/20/14 10:04	08/25/14 19:04	1
Biphenyl	ND		9.5	0.40	ug/L		08/20/14 10:04	08/25/14 19:04	1
Bis(2-ethylhexyl) phthalate	ND		19	12	ug/L		08/20/14 10:04	08/25/14 19:04	1
Carbazole	ND		1.9	0.15	ug/L		08/20/14 10:04	08/25/14 19:04	1
Chrysene	ND		1.9	0.13	ug/L		08/20/14 10:04	08/25/14 19:04	1
Dibenz(a,h)anthracene	ND		1.9	0.15	ug/L		08/20/14 10:04	08/25/14 19:04	1
Dibenzofuran	ND		9.5	0.59	ug/L		08/20/14 10:04	08/25/14 19:04	1
Fluoranthene	ND		1.9	0.15	ug/L		08/20/14 10:04	08/25/14 19:04	1
Fluorene	ND		1.9	0.21	ug/L		08/20/14 10:04	08/25/14 19:04	1
Indeno[1,2,3-cd]pyrene	ND		1.9	0.19	ug/L		08/20/14 10:04	08/25/14 19:04	1
Naphthalene	ND		1.9	0.13	ug/L		08/20/14 10:04	08/25/14 19:04	1
Pentachlorophenol	ND		9.5	0.63	ug/L		08/20/14 10:04	08/25/14 19:04	1
Phenanthrene	ND		1.9	0.41	ug/L		08/20/14 10:04	08/25/14 19:04	1
Phenol	ND		1.9	0.55	ug/L		08/20/14 10:04	08/25/14 19:04	1
Pyrene	ND		1.9	0.15	ug/L		08/20/14 10:04	08/25/14 19:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*95*		*33 - 122*	*08/20/14 10:04*	*08/25/14 19:04*	*1*
2-Fluorobiphenyl	*86*		*35 - 108*	*08/20/14 10:04*	*08/25/14 19:04*	*1*
2-Fluorophenol	*85*		*26 - 100*	*08/20/14 10:04*	*08/25/14 19:04*	*1*
Nitrobenzene-d5	*84*		*37 - 104*	*08/20/14 10:04*	*08/25/14 19:04*	*1*
Phenol-d5	*76*		*30 - 102*	*08/20/14 10:04*	*08/25/14 19:04*	*1*
Terphenyl-d14 (Surr)	*88*		*25 - 130*	*08/20/14 10:04*	*08/25/14 19:04*	*1*

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			08/14/14 12:33	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			08/14/14 12:33	1
Benzene	ND		0.20	0.023	ug/L			08/14/14 12:33	1
Ethylbenzene	ND		0.20	0.029	ug/L			08/14/14 12:33	1
Isopropylbenzene	ND		0.20	0.027	ug/L			08/14/14 12:33	1
Methyl tert-butyl ether	**0.10**	**J**	0.40	0.044	ug/L			08/14/14 12:33	1
m,p-Xylene	ND		0.40	0.054	ug/L			08/14/14 12:33	1
n-Butylbenzene	ND		0.20	0.031	ug/L			08/14/14 12:33	1
n-Propylbenzene	ND		0.20	0.13	ug/L			08/14/14 12:33	1
o-Xylene	ND		0.20	0.027	ug/L			08/14/14 12:33	1
p-Cymene	ND		0.20	0.030	ug/L			08/14/14 12:33	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			08/14/14 12:33	1
Toluene	ND		0.20	0.036	ug/L			08/14/14 12:33	1
Xylenes, Total	ND		0.40	0.054	ug/L			08/14/14 12:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*91*		*63 - 145*		*08/14/14 12:33*	*1*
4-Bromofluorobenzene	*91*		*64 - 141*		*08/14/14 12:33*	*1*

Method: 608 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.049	0.0065	ug/L		08/19/14 08:24	08/20/14 13:14	1
alpha-BHC	ND		0.049	0.0065	ug/L		08/19/14 08:24	08/20/14 13:14	1
beta-BHC	ND		0.049	0.024	ug/L		08/19/14 08:24	08/20/14 13:14	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-65462-1

Client Sample ID: Post-Carbon
Date Collected: 08/13/14 08:30
Date Received: 08/13/14 10:45

Lab Sample ID: 480-65462-1
Matrix: Wastewater

Method: 608 - Organochlorine Pesticides in Water (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
delta-BHC	ND		0.049	0.0099	ug/L		08/19/14 08:24	08/20/14 13:14	1
gamma-BHC (Lindane)	ND		0.049	0.0059	ug/L		08/19/14 08:24	08/20/14 13:14	1
Chlordane (technical)	ND		0.49	0.29	ug/L		08/19/14 08:24	08/20/14 13:14	1
4,4'-DDD	ND		0.049	0.0091	ug/L		08/19/14 08:24	08/20/14 13:14	1
4,4'-DDE	ND		0.049	0.011	ug/L		08/19/14 08:24	08/20/14 13:14	1
4,4'-DDT	**0.011**	**J**	0.049	0.011	ug/L		08/19/14 08:24	08/20/14 13:14	1
Dieldrin	ND		0.049	0.0097	ug/L		08/19/14 08:24	08/20/14 13:14	1
Endosulfan I	ND		0.049	0.011	ug/L		08/19/14 08:24	08/20/14 13:14	1
Endosulfan II	ND		0.049	0.012	ug/L		08/19/14 08:24	08/20/14 13:14	1
Endosulfan sulfate	ND		0.049	0.015	ug/L		08/19/14 08:24	08/20/14 13:14	1
Endrin	ND		0.049	0.014	ug/L		08/19/14 08:24	08/20/14 13:14	1
Endrin aldehyde	ND		0.049	0.016	ug/L		08/19/14 08:24	08/20/14 13:14	1
Heptachlor	ND		0.049	0.0084	ug/L		08/19/14 08:24	08/20/14 13:14	1
Heptachlor epoxide	ND		0.049	0.0052	ug/L		08/19/14 08:24	08/20/14 13:14	1
Toxaphene	ND		0.49	0.12	ug/L		08/19/14 08:24	08/20/14 13:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*85*		*23 - 120*	*08/19/14 08:24*	*08/20/14 13:14*	*1*
Tetrachloro-m-xylene	*81*		*36 - 120*	*08/19/14 08:24*	*08/20/14 13:14*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10.0	3.0	ug/L		08/17/14 08:58	08/21/14 15:31	1
Iron	**131**		100	9.5	ug/L		08/17/14 08:58	08/21/14 15:31	1
Manganese	**161**		15.0	0.12	ug/L		08/17/14 08:58	08/21/14 15:31	1
Zinc	**2.5**	**J**	20.0	1.0	ug/L		08/17/14 08:58	08/21/14 15:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	ND		5.0	1.4	mg/L		08/24/14 22:58	08/24/14 23:50	1
Cyanide, Total	**0.18**		0.010	0.0050	mg/L		08/25/14 13:41	08/26/14 03:20	1
Phenolics, Total Recoverable	ND		0.010	0.0050	mg/L		08/14/14 08:27	08/18/14 20:10	1
Total Dissolved Solids	**528**		10.0	4.0	mg/L			08/15/14 17:17	1
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			08/14/14 15:57	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	4.0	mg/L			08/15/14 14:43	1
pH	**7.54**	**HF**	0.100	0.100	SU			08/14/14 09:24	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-65462-1

Client Sample ID: Post-Carbon 2
Date Collected: 08/13/14 08:40
Date Received: 08/13/14 10:45

Lab Sample ID: 480-65462-2
Matrix: Wastewater

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**0.047**	**J**	0.20	0.035	ug/L			08/14/14 13:08	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			08/14/14 13:08	1
Ethylbenzene	**1.2**		0.20	0.029	ug/L			08/14/14 13:08	1
Isopropylbenzene	ND		0.20	0.027	ug/L			08/14/14 13:08	1
Methyl tert-butyl ether	**2.8**		0.40	0.044	ug/L			08/14/14 13:08	1
m,p-Xylene	ND		0.40	0.054	ug/L			08/14/14 13:08	1
n-Butylbenzene	ND		0.20	0.031	ug/L			08/14/14 13:08	1
n-Propylbenzene	ND		0.20	0.13	ug/L			08/14/14 13:08	1
o-Xylene	**0.33**		0.20	0.027	ug/L			08/14/14 13:08	1
p-Cymene	ND		0.20	0.030	ug/L			08/14/14 13:08	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			08/14/14 13:08	1
Toluene	**10**		0.20	0.036	ug/L			08/14/14 13:08	1
Xylenes, Total	**0.33**	**J**	0.40	0.054	ug/L			08/14/14 13:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*94*		*63 - 145*		*08/14/14 13:08*	*1*
4-Bromofluorobenzene	*94*		*64 - 141*		*08/14/14 13:08*	*1*

Method: 8021B - Volatile Organic Compounds (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**450**		10	1.2	ug/L			08/15/14 10:01	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*92*		*63 - 145*		*08/15/14 10:01*	*50*
4-Bromofluorobenzene	*96*		*64 - 141*		*08/15/14 10:01*	*50*

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-65462-1

Client Sample ID: Post-Carbon 1
Date Collected: 08/13/14 08:45
Date Received: 08/13/14 10:45

Lab Sample ID: 480-65462-3
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	5.1		0.20	0.035	ug/L			08/14/14 13:42	1
1,3,5-Trimethylbenzene	1.3		0.20	0.15	ug/L			08/14/14 13:42	1
Isopropylbenzene	0.51		0.20	0.027	ug/L			08/14/14 13:42	1
Methyl tert-butyl ether	4.3		0.40	0.044	ug/L			08/14/14 13:42	1
m,p-Xylene	35		0.40	0.054	ug/L			08/14/14 13:42	1
n-Butylbenzene	ND		0.20	0.031	ug/L			08/14/14 13:42	1
n-Propylbenzene	ND		0.20	0.13	ug/L			08/14/14 13:42	1
o-Xylene	19		0.20	0.027	ug/L			08/14/14 13:42	1
p-Cymene	ND		0.20	0.030	ug/L			08/14/14 13:42	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			08/14/14 13:42	1
Xylenes, Total	54		0.40	0.054	ug/L			08/14/14 13:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*90*		*63 - 145*		*08/14/14 13:42*	*1*
4-Bromofluorobenzene	*91*		*64 - 141*		*08/14/14 13:42*	*1*

Method: 8021B - Volatile Organic Compounds (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2800		40	4.7	ug/L			08/15/14 10:35	200
Ethylbenzene	48		40	5.7	ug/L			08/15/14 10:35	200
Toluene	250		40	7.1	ug/L			08/15/14 10:35	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*92*		*63 - 145*		*08/15/14 10:35*	*200*
4-Bromofluorobenzene	*93*		*64 - 141*		*08/15/14 10:35*	*200*

Client Sample ID: Pre-Carbon

Date Collected: 08/13/14 09:15
Date Received: 08/13/14 10:45

Lab Sample ID: 480-65466-1

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		100	82	ug/L			08/19/14 14:57	100
1,1,2,2-Tetrachloroethane	ND		100	21	ug/L			08/19/14 14:57	100
1,1,2-Trichloroethane	ND		100	23	ug/L			08/19/14 14:57	100
1,1-Dichloroethane	ND		100	38	ug/L			08/19/14 14:57	100
1,1-Dichloroethene	ND		100	29	ug/L			08/19/14 14:57	100
1,2-Dichloroethane	ND		100	21	ug/L			08/19/14 14:57	100
1,2-Dichloroethene, Total	ND		200	81	ug/L			08/19/14 14:57	100
1,2-Dichloropropane	ND		100	72	ug/L			08/19/14 14:57	100
2-Hexanone	ND		500	120	ug/L			08/19/14 14:57	100
2-Butanone (MEK)	ND		1000	130	ug/L			08/19/14 14:57	100
4-Methyl-2-pentanone (MIBK)	ND		500	210	ug/L			08/19/14 14:57	100
Acetone	ND		1000	300	ug/L			08/19/14 14:57	100
Benzene	**5200**		100	41	ug/L			08/19/14 14:57	100
Bromodichloromethane	ND		100	39	ug/L			08/19/14 14:57	100
Bromoform	ND		100	26	ug/L			08/19/14 14:57	100
Bromomethane	ND		100	69	ug/L			08/19/14 14:57	100
Carbon disulfide	ND		100	19	ug/L			08/19/14 14:57	100
Carbon tetrachloride	ND		100	27	ug/L			08/19/14 14:57	100
Chlorobenzene	ND		100	75	ug/L			08/19/14 14:57	100
Dibromochloromethane	ND		100	32	ug/L			08/19/14 14:57	100
Chloroethane	ND		100	32	ug/L			08/19/14 14:57	100
Chloroform	**110**		100	34	ug/L			08/19/14 14:57	100
Chloromethane	ND	*	100	35	ug/L			08/19/14 14:57	100
cis-1,3-Dichloropropene	ND		100	36	ug/L			08/19/14 14:57	100
Ethylbenzene	**700**		100	74	ug/L			08/19/14 14:57	100
Methylene Chloride	**57**	**J**	100	44	ug/L			08/19/14 14:57	100
Styrene	ND		100	73	ug/L			08/19/14 14:57	100
Tetrachloroethene	ND		100	36	ug/L			08/19/14 14:57	100
Toluene	**1800**		100	51	ug/L			08/19/14 14:57	100
trans-1,3-Dichloropropene	ND		100	37	ug/L			08/19/14 14:57	100
Trichloroethene	ND		100	46	ug/L			08/19/14 14:57	100
Vinyl chloride	ND		100	90	ug/L			08/19/14 14:57	100
Vinyl acetate	ND		500	85	ug/L			08/19/14 14:57	100
Xylenes, Total	**420**		200	66	ug/L			08/19/14 14:57	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*66 - 137*		*08/19/14 14:57*	*100*
Toluene-d8 (Surr)	*106*		*71 - 126*		*08/19/14 14:57*	*100*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*08/19/14 14:57*	*100*

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**21**	**J**	100	17	ug/L			08/14/14 11:09	500
1,3,5-Trimethylbenzene	ND		100	75	ug/L			08/14/14 11:09	500
Benzene	**4300**		100	12	ug/L			08/14/14 11:09	500
Ethylbenzene	**600**		100	14	ug/L			08/14/14 11:09	500
Isopropylbenzene	ND		100	14	ug/L			08/14/14 11:09	500
Methyl tert-butyl ether	ND		200	22	ug/L			08/14/14 11:09	500
m,p-Xylene	**230**		200	27	ug/L			08/14/14 11:09	500
n-Butylbenzene	ND		100	15	ug/L			08/14/14 11:09	500

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-65462-1

Client Sample ID: Pre-Carbon
Date Collected: 08/13/14 09:15
Date Received: 08/13/14 10:45

Lab Sample ID: 480-65466-1
Matrix: Wastewater

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	ND		100	65	ug/L			08/14/14 11:09	500
o-Xylene	**160**		100	14	ug/L			08/14/14 11:09	500
p-Cymene	ND		100	15	ug/L			08/14/14 11:09	500
sec-Butylbenzene	ND		100	10	ug/L			08/14/14 11:09	500
Toluene	**1500**		100	18	ug/L			08/14/14 11:09	500
Xylenes, Total	**390**		200	27	ug/L			08/14/14 11:09	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*95*		*63 - 145*		*08/14/14 11:09*	*500*
4-Bromofluorobenzene	*94*		*64 - 141*		*08/14/14 11:09*	*500*

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**900**		100	9.5	ug/L		08/17/14 08:58	08/21/14 15:37	1
Sodium	**44700**	**B**	5000	23.3	ug/L		08/17/14 08:58	08/21/14 15:37	1
Potassium	**3880**	**J**	5000	41.8	ug/L		08/17/14 08:58	08/21/14 15:37	1
Calcium	**85700**		5000	6.9	ug/L		08/17/14 08:58	08/21/14 15:37	1
Magnesium	**42600**		5000	27.5	ug/L		08/17/14 08:58	08/21/14 15:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	**308**		100	40.0	mg/L			08/26/14 00:27	10
Sulfate	**104**		25.0	7.5	mg/L			08/21/14 00:08	5
Chloride	**71.2**		2.0	0.92	mg/L			08/20/14 22:51	2

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-65462-1

Client Sample ID: OUTSIDE SUMP
Date Collected: 08/13/14 09:00
Date Received: 08/13/14 10:45

Lab Sample ID: 480-65466-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**41**	**J**	100	17	ug/L			08/14/14 11:43	500
1,3,5-Trimethylbenzene	ND		100	75	ug/L			08/14/14 11:43	500
Benzene	**6900**		100	12	ug/L			08/14/14 11:43	500
Ethylbenzene	**790**		100	14	ug/L			08/14/14 11:43	500
Isopropylbenzene	ND		100	14	ug/L			08/14/14 11:43	500
Methyl tert-butyl ether	ND		200	22	ug/L			08/14/14 11:43	500
m,p-Xylene	**330**		200	27	ug/L			08/14/14 11:43	500
n-Butylbenzene	ND		100	15	ug/L			08/14/14 11:43	500
n-Propylbenzene	ND		100	65	ug/L			08/14/14 11:43	500
o-Xylene	**160**		100	14	ug/L			08/14/14 11:43	500
p-Cymene	ND		100	15	ug/L			08/14/14 11:43	500
sec-Butylbenzene	ND		100	10	ug/L			08/14/14 11:43	500
Toluene	**2300**		100	18	ug/L			08/14/14 11:43	500
Xylenes, Total	**490**		200	27	ug/L			08/14/14 11:43	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*95*		*63 - 145*		*08/14/14 11:43*	*500*
4-Bromofluorobenzene	*95*		*64 - 141*		*08/14/14 11:43*	*500*

Client Sample ID: Post-Carbon

Lab Sample ID: 480-65462-1

Date Collected: 08/13/14 08:30

Matrix: Wastewater

Date Received: 08/13/14 10:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	199659	08/26/14 16:42	CXM	TAL BUF
Total/NA	Prep	3520C			115413	08/20/14 10:04	BJT	TAL PIT
Total/NA	Analysis	8270D		1	115899	08/25/14 19:04	VVP	TAL PIT
Total/NA	Analysis	8021B		1	197786	08/14/14 12:33	DGB	TAL BUF
Total/NA	Prep	3510C			198518	08/19/14 08:24	JLS	TAL BUF
Total/NA	Analysis	608		1	198717	08/20/14 13:14	MAN	TAL BUF
Total Recoverable	Prep	200.7			114982	08/17/14 08:58	SLB	TAL PIT
Total Recoverable	Analysis	200.7 Rev 4.4		1	115668	08/21/14 15:31	RJG	TAL PIT
Total/NA	Prep	1664A			199364	08/24/14 22:58	LAW	TAL BUF
Total/NA	Analysis	1664A		1	199366	08/24/14 23:50	LAW	TAL BUF
Total/NA	Prep	Distill/CN			199462	08/25/14 13:41	MDL	TAL BUF
Total/NA	Analysis	335.4		1	199559	08/26/14 03:20	JTS	TAL BUF
Total/NA	Prep	Distill/Phenol			197962	08/14/14 08:27	RP	TAL BUF
Total/NA	Analysis	420.4		1	198485	08/18/14 20:10	JMB	TAL BUF
Total/NA	Analysis	SM 2540C		1	198207	08/15/14 17:17	KS	TAL BUF
Total/NA	Analysis	SM 2540D		1	198167	08/15/14 14:43	KS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	197831	08/14/14 09:24	KS	TAL BUF
Total/NA	Analysis	SM 5210B		1	197957	08/14/14 15:57	CLT	TAL BUF

Client Sample ID: Post-Carbon 2

Lab Sample ID: 480-65462-2

Date Collected: 08/13/14 08:40

Matrix: Wastewater

Date Received: 08/13/14 10:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	197786	08/14/14 13:08	DGB	TAL BUF
Total/NA	Analysis	8021B	DL	50	198060	08/15/14 10:01	DGB	TAL BUF

Client Sample ID: Post-Carbon 1

Lab Sample ID: 480-65462-3

Date Collected: 08/13/14 08:45

Matrix: Water

Date Received: 08/13/14 10:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	197786	08/14/14 13:42	DGB	TAL BUF
Total/NA	Analysis	8021B	DL	200	198060	08/15/14 10:35	DGB	TAL BUF

Client Sample ID: Pre-Carbon

Lab Sample ID: 480-65466-1

Date Collected: 08/13/14 09:15

Matrix: Wastewater

Date Received: 08/13/14 10:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	198527	08/19/14 14:57	CXM	TAL BUF
Total/NA	Analysis	8021B		500	197786	08/14/14 11:09	DGB	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-65462-1

Client Sample ID: Pre-Carbon

Lab Sample ID: 480-65466-1

Date Collected: 08/13/14 09:15

Matrix: Wastewater

Date Received: 08/13/14 10:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			114982	08/17/14 08:58	SLB	TAL PIT
Total Recoverable	Analysis	200.7 Rev 4.4		1	115668	08/21/14 15:37	RJG	TAL PIT
Total/NA	Analysis	310.2		10	199558	08/26/14 00:27	JTS	TAL BUF
Total/NA	Analysis	D516-90, 02		5	198880	08/21/14 00:08	JTS	TAL BUF
Total/NA	Analysis	SM 4500 Cl- E		2	198882	08/20/14 22:51	JTS	TAL BUF

Client Sample ID: OUTSIDE SUMP

Lab Sample ID: 480-65466-2

Date Collected: 08/13/14 09:00

Matrix: Water

Date Received: 08/13/14 10:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		500	197786	08/14/14 11:43	DGB	TAL BUF

Laboratory References:

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

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Certification Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-65462-1

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-15

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8021B		Wastewater	m,p-Xylene
8021B		Wastewater	o-Xylene
8021B		Water	m,p-Xylene
8021B		Water	o-Xylene
8260C		Wastewater	1,2-Dichloroethene, Total
SM 4500 H+ B		Wastewater	pH

Laboratory: TestAmerica Pittsburgh

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-15
California	State Program	9	2891	03-31-15
Connecticut	State Program	1	PH-0688	09-30-14 *
Florida	NELAP	4	E871008	06-30-15
Illinois	NELAP	5	002602	06-30-15
Kansas	NELAP	7	E-10350	01-31-15
Louisiana	NELAP	6	04041	06-30-15
New Hampshire	NELAP	1	203011	04-04-15
New Jersey	NELAP	2	PA005	06-30-15
New York	NELAP	2	11182	03-31-15
North Carolina (WW/SW)	State Program	4	434	12-31-14
Pennsylvania	NELAP	3	02-00416	04-30-15
South Carolina	State Program	4	89014	04-30-15
Texas	NELAP	6	T104704528	03-31-15
US Fish & Wildlife	Federal		LE94312A-1	11-30-14
USDA	Federal		P330-10-00139	05-23-16
Utah	NELAP	8	STLP	05-31-15
Virginia	NELAP	3	460189	09-14-14 *
West Virginia DEP	State Program	3	142	01-31-15
Wisconsin	State Program	5	998027800	08-31-14 *

* Certification renewal pending - certification considered valid.

Method Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-65462-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PIT
8021B	Volatile Organic Compounds (GC)	SW846	TAL BUF
608	Organochlorine Pesticides in Water	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL PIT
1664A	HEM and SGT-HEM	1664A	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
420.4	Phenolics, Total Recoverable	MCAWW	TAL BUF
D516-90, 02	Sulfate	ASTM	TAL BUF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL BUF
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
SM 4500 Cl- E	Chloride, Total	SM	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
SM 5210B	BOD, 5-Day	SM	TAL BUF

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

ASTM = ASTM International

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Sample Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-65462-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-65462-1	Post-Carbon	Wastewater	08/13/14 08:30	08/13/14 10:45
480-65462-2	Post-Carbon 2	Wastewater	08/13/14 08:40	08/13/14 10:45
480-65462-3	Post-Carbon 1	Water	08/13/14 08:45	08/13/14 10:45
480-65466-1	Pre-Carbon	Wastewater	08/13/14 09:15	08/13/14 10:45
480-65466-2	OUTSIDE SUMP	Water	08/13/14 09:00	08/13/14 10:45

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: M. Reisch	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-43976-1178.1
Client Contact: Thomas Palmer	Phone: 716 860 9934	E-Mail: brian.fischer@testamericainc.com		Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc				Job #:

Address: 495 Aero Drive Suite 3	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Cheektowaga	TAT Requested (days): STD		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: NY, 14225			
Phone:	PO #: Purchase Order not requir		Other:
Email: tpalmer@gesonline.com	WO #:		
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Qtrly Post-Car	Project #: 48002525		
Site: New York	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7 - (MOD) Local Method	1664A_Calc - Oil & Grease	420.4 - Phenolics, Total Recoverable	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS List - VOA - 8021	608_Pest - Priority Pollutant Pesticides	8270C - (MOD) TCL SVOA - OLM04.2	5210B - Biochemical Oxygen Demand	2540C_Calcd - Total Dissolved Solids	2540D - Total Suspended Solids	335.4 - Cyanide, Total	SM4500_H+ - pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	S	S	A	A	N	N	N	N	N	B	N		
Post-Carbon	8/13/14	830	G	Water	N	N	1	1	1	1	1	1	1	1	1	1	1	1		
		~~0840~~			N	N														
Post carbon 2	8/13/14	0840	G	water	N	N					1									
Post carbon 1	8/13/14	0845	G	water	N	N					1									

480-65462 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☑ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 8/13/14 1015	Company GES	Received by:	Date/Time: 8/13/14 1045	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: #1 2.4

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8/29/2014

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: M. Vleisn	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-43980-1179.1
Client Contact: Thomas Palmer	Phone: 716 860 4934	E-Mail: brian.fischer@testamericainc.com		Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc				Job #:

Address: 495 Aero Drive Suite 3	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Cheektowaga	TAT Requested (days): STD		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: NY, 14225			
Phone:	PO #: Purchase Order not requir		
Email: tpalmer@gesonline.com	WO #:		Other:
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Qtrly Pre-Carb	Project #: 48002525		
Site: New York	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0_28D - (MOD) Local Method	200.7 - (MOD) Local Method	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS List - VOA - 8021	310.2 - Alkalinity, Total	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	A	A	N		
Pre-Carbon	8/13/14	0915	G	Water	N	N	X	X	X	X	X		
Outside Sump	8/13/14	0900	G	water	N	N				X			

480-65466 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☑ Unknown ☐ Radiological	☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 8/13/14 1045	Company: GES	Received by:	Date/Time: 8/13/14 1045	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: #1 3.8

8/20/2014

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-18545.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: brian.fischer@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Analysis Requested		Job #: 480-65462-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 8/25/2014			Preservation Codes:
City: Pittsburgh	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: PA, 15238				Other:
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:			
Email:	WO #:			
Project Name: NYSDEC-Gastown WWTP: Site# 915171	Project #: 48002525			
Site: Gastown WWTP	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7/200.7_P_TR (MOD) Local Method	8270D/3520C (MOD) TCL SVOA - OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
Post-Carbon (480-65462-1)	8/13/14	08:30 Eastern		Water			X	X	3	

480-65462 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Lauren Wallace	8-14-14 1700	TAB		08/16/14 900	TAP
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

8/29/2014

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-18546.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: brian.fischer@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Analysis Requested		Job #: 480-65462-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 8/25/2014			Preservation Codes:
City: Pittsburgh	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: PA, 15238				
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:			Other:
Email:	WO #:			
Project Name: NYSDEC-Gastown WWTP: Site# 915171	Project #: 48002525			
Site: Gastown WWTP	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7/200.7_P_TR (MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Pre-Carbon (480-65466-1)	8/13/14	09:15 Eastern		Water			X		

480-65466 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Carmen Wallace	8-14-14 1700	TAB		08/15/14 0900	TAB
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-65462-1

Login Number: 65462

List Source: TestAmerica Buffalo

List Number: 1

Creator: Robison, Zachary J

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	GES
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	True	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-65462-1

Login Number: 65462
List Number: 2
Creator: Butcher, Ryan M

List Source: TestAmerica Pittsburgh
List Creation: 08/16/14 01:29 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are 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 containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-65462-1

Login Number: 65466

List Source: TestAmerica Buffalo

List Number: 1

Creator: Robison, Zachary J

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	GES
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-65462-1

Login Number: 65466
List Number: 2
Creator: Butcher, Ryan M

List Source: TestAmerica Pittsburgh
List Creation: 08/16/14 01:33 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are 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 containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

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: 480-67006-1
Client Project/Site: NYSDEC-Gastown WWTP: Site# 915171
Sampling Event: Mthly Post-Carbon
Mthly Pre-Carbon

For:
New York State D.E.C.
270 Michigan Avenue
Buffalo, New York 14203

Attn: Mr. Glenn May

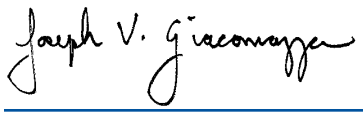
Joseph V. Giacomazza

Authorized for release by:
9/25/2014 11:49:09 AM
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

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
9/25/2014 11:49:09 AM

Table of Contents

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.

GC 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.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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)

Job ID: 480-67006-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-67006-1

Receipt
The samples were received on 9/10/2014 11:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.3º C and 2.5º C.

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

HPLC/IC
Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-67009-1). 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.

GC VOA
Method(s) 8021B: The following samples were diluted to bring the concentration of target analytes within the calibration range: Outside Sump (480-67009-2), Post-Carbon 1 (480-67006-3), Post-Carbon 2 (480-67006-2), Post-Carbon 3 (480-67006-1), Pre-Carbon (480-67009-1), Sump (480-67009-3). Elevated reporting limits (RLs) are provided.

Method(s) 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 203562 were outside control limits. Sample non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 8021B: The following sample was diluted to bring the concentration of target analytes within the calibration range: (480-67009-3 MS), (480-67009-3 MSD), Sump (480-67009-3). 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.

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

General Chemistry
Method(s) 9040C, SM 4500 H+ B: The following sample(s) was received outside of holding time: Post-Carbon 3 (480-67006-1).

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

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-67006-1

Client Sample ID: Post-Carbon 3
Date Collected: 09/10/14 10:30
Date Received: 09/10/14 11:45

Lab Sample ID: 480-67006-1
Matrix: Wastewater

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			09/21/14 20:17	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/21/14 20:17	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/21/14 20:17	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			09/21/14 20:17	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/21/14 20:17	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/21/14 20:17	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			09/21/14 20:17	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			09/21/14 20:17	1
2-Hexanone	ND		5.0	1.2	ug/L			09/21/14 20:17	1
2-Butanone (MEK)	ND		10	1.3	ug/L			09/21/14 20:17	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			09/21/14 20:17	1
Acetone	ND		10	3.0	ug/L			09/21/14 20:17	1
Benzene	ND		1.0	0.41	ug/L			09/21/14 20:17	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/21/14 20:17	1
Bromoform	ND		1.0	0.26	ug/L			09/21/14 20:17	1
Bromomethane	ND		1.0	0.69	ug/L			09/21/14 20:17	1
Carbon disulfide	ND		1.0	0.19	ug/L			09/21/14 20:17	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/21/14 20:17	1
Chlorobenzene	ND		1.0	0.75	ug/L			09/21/14 20:17	1
Dibromochloromethane	ND		1.0	0.32	ug/L			09/21/14 20:17	1
Chloroethane	ND		1.0	0.32	ug/L			09/21/14 20:17	1
Chloroform	**0.51**	**J**	1.0	0.34	ug/L			09/21/14 20:17	1
Chloromethane	ND		1.0	0.35	ug/L			09/21/14 20:17	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			09/21/14 20:17	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/21/14 20:17	1
Methylene Chloride	ND		1.0	0.44	ug/L			09/21/14 20:17	1
Styrene	ND		1.0	0.73	ug/L			09/21/14 20:17	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/21/14 20:17	1
Toluene	ND		1.0	0.51	ug/L			09/21/14 20:17	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			09/21/14 20:17	1
Trichloroethene	ND		1.0	0.46	ug/L			09/21/14 20:17	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/21/14 20:17	1
Vinyl acetate	ND		5.0	0.85	ug/L			09/21/14 20:17	1
Xylenes, Total	ND		2.0	0.66	ug/L			09/21/14 20:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*66 - 137*		*09/21/14 20:17*	*1*
Toluene-d8 (Surr)	*99*		*71 - 126*		*09/21/14 20:17*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*09/21/14 20:17*	*1*

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			09/17/14 12:55	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			09/17/14 12:55	1
Benzene	ND		0.20	0.023	ug/L			09/17/14 12:55	1
Ethylbenzene	ND		0.20	0.029	ug/L			09/17/14 12:55	1
Isopropylbenzene	ND		0.20	0.027	ug/L			09/17/14 12:55	1
Methyl tert-butyl ether	ND		0.40	0.044	ug/L			09/17/14 12:55	1
m,p-Xylene	ND		0.40	0.054	ug/L			09/17/14 12:55	1
n-Butylbenzene	ND		0.20	0.031	ug/L			09/17/14 12:55	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-67006-1

Client Sample ID: Post-Carbon 3
Date Collected: 09/10/14 10:30
Date Received: 09/10/14 11:45

Lab Sample ID: 480-67006-1
Matrix: Wastewater

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	ND		0.20	0.13	ug/L			09/17/14 12:55	1
o-Xylene	ND		0.20	0.027	ug/L			09/17/14 12:55	1
p-Cymene	ND		0.20	0.030	ug/L			09/17/14 12:55	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			09/17/14 12:55	1
Toluene	ND		0.20	0.036	ug/L			09/17/14 12:55	1
Xylenes, Total	ND		0.40	0.054	ug/L			09/17/14 12:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*102*		*63 - 145*		*09/17/14 12:55*	*1*
4-Bromofluorobenzene	*103*		*64 - 141*		*09/17/14 12:55*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**154**		50.0	19.3	ug/L		09/11/14 10:41	09/11/14 21:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.28**		0.010	0.0050	mg/L		09/22/14 08:45	09/22/14 20:06	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.16**	**HF**	0.100	0.100	SU			09/11/14 13:48	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-67006-1

Client Sample ID: Post-Carbon 2
Date Collected: 09/10/14 10:35
Date Received: 09/10/14 11:45

Lab Sample ID: 480-67006-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		10	1.7	ug/L			09/17/14 14:06	50
1,3,5-Trimethylbenzene	ND		10	7.5	ug/L			09/17/14 14:06	50
Benzene	**220**		10	1.2	ug/L			09/17/14 14:06	50
Ethylbenzene	ND		10	1.4	ug/L			09/17/14 14:06	50
Isopropylbenzene	ND		10	1.4	ug/L			09/17/14 14:06	50
Methyl tert-butyl ether	ND		20	2.2	ug/L			09/17/14 14:06	50
m,p-Xylene	ND		20	2.7	ug/L			09/17/14 14:06	50
n-Butylbenzene	ND		10	1.5	ug/L			09/17/14 14:06	50
n-Propylbenzene	ND		10	6.5	ug/L			09/17/14 14:06	50
o-Xylene	ND		10	1.4	ug/L			09/17/14 14:06	50
p-Cymene	ND		10	1.5	ug/L			09/17/14 14:06	50
sec-Butylbenzene	ND		10	1.0	ug/L			09/17/14 14:06	50
Toluene	ND		10	1.8	ug/L			09/17/14 14:06	50
Xylenes, Total	ND		20	2.7	ug/L			09/17/14 14:06	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*105*		*63 - 145*		*09/17/14 14:06*	*50*
4-Bromofluorobenzene	*104*		*64 - 141*		*09/17/14 14:06*	*50*

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-67006-1

Client Sample ID: Post-Carbon 1
Date Collected: 09/10/14 10:40
Date Received: 09/10/14 11:45

Lab Sample ID: 480-67006-3
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		40	6.9	ug/L			09/17/14 14:40	200
1,3,5-Trimethylbenzene	ND		40	30	ug/L			09/17/14 14:40	200
Benzene	**450**		40	4.7	ug/L			09/17/14 14:40	200
Ethylbenzene	ND		40	5.7	ug/L			09/17/14 14:40	200
Isopropylbenzene	ND		40	5.4	ug/L			09/17/14 14:40	200
Methyl tert-butyl ether	ND		80	8.7	ug/L			09/17/14 14:40	200
m,p-Xylene	ND		80	11	ug/L			09/17/14 14:40	200
n-Butylbenzene	ND		40	6.2	ug/L			09/17/14 14:40	200
n-Propylbenzene	ND		40	26	ug/L			09/17/14 14:40	200
o-Xylene	ND		40	5.4	ug/L			09/17/14 14:40	200
p-Cymene	ND		40	5.9	ug/L			09/17/14 14:40	200
sec-Butylbenzene	ND		40	4.1	ug/L			09/17/14 14:40	200
Toluene	**24**	**J**	40	7.1	ug/L			09/17/14 14:40	200
Xylenes, Total	ND		80	11	ug/L			09/17/14 14:40	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*103*		*63 - 145*		*09/17/14 14:40*	*200*
4-Bromofluorobenzene	*102*		*64 - 141*		*09/17/14 14:40*	*200*

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-67006-1

Client Sample ID: Pre-Carbon
Date Collected: 09/10/14 11:00
Date Received: 09/10/14 11:45

Lab Sample ID: 480-67009-1
Matrix: Wastewater

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		100	17	ug/L			09/17/14 15:15	500
1,3,5-Trimethylbenzene	ND		100	75	ug/L			09/17/14 15:15	500
Benzene	**820**		100	12	ug/L			09/17/14 15:15	500
Ethylbenzene	**61**	**J**	100	14	ug/L			09/17/14 15:15	500
Isopropylbenzene	ND		100	14	ug/L			09/17/14 15:15	500
Methyl tert-butyl ether	ND		200	22	ug/L			09/17/14 15:15	500
m,p-Xylene	ND		200	27	ug/L			09/17/14 15:15	500
n-Butylbenzene	ND		100	15	ug/L			09/17/14 15:15	500
n-Propylbenzene	ND		100	65	ug/L			09/17/14 15:15	500
o-Xylene	ND		100	14	ug/L			09/17/14 15:15	500
p-Cymene	ND		100	15	ug/L			09/17/14 15:15	500
sec-Butylbenzene	ND		100	10	ug/L			09/17/14 15:15	500
Toluene	**170**		100	18	ug/L			09/17/14 15:15	500
Xylenes, Total	ND		200	27	ug/L			09/17/14 15:15	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*99*		*63 - 145*		*09/17/14 15:15*	*500*
4-Bromofluorobenzene	*100*		*64 - 141*		*09/17/14 15:15*	*500*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**124000**		500	100	ug/L		09/11/14 10:41	09/11/14 21:13	1
Iron	**1480**		50.0	19.3	ug/L		09/11/14 10:41	09/11/14 21:13	1
Magnesium	**85700**		200	43.4	ug/L		09/11/14 10:41	09/11/14 21:13	1
Potassium	**4840**		500	100	ug/L		09/11/14 10:41	09/11/14 21:13	1
Sodium	**68500**		1000	324	ug/L		09/11/14 10:41	09/11/14 21:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**138**		2.5	1.4	mg/L			09/18/14 21:35	5
Sulfate	**166**		10.0	1.7	mg/L			09/18/14 21:35	5
Alkalinity, Total	**431**		100	40.0	mg/L			09/18/14 08:06	10

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-67006-1

Client Sample ID: Outside Sump
Date Collected: 09/10/14 11:05
Date Received: 09/10/14 11:45

Lab Sample ID: 480-67009-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		100	17	ug/L			09/17/14 15:48	500
1,3,5-Trimethylbenzene	ND		100	75	ug/L			09/17/14 15:48	500
Benzene	**1600**		100	12	ug/L			09/17/14 15:48	500
Ethylbenzene	**150**		100	14	ug/L			09/17/14 15:48	500
Isopropylbenzene	ND		100	14	ug/L			09/17/14 15:48	500
Methyl tert-butyl ether	ND		200	22	ug/L			09/17/14 15:48	500
m,p-Xylene	ND		200	27	ug/L			09/17/14 15:48	500
n-Butylbenzene	ND		100	15	ug/L			09/17/14 15:48	500
n-Propylbenzene	ND		100	65	ug/L			09/17/14 15:48	500
o-Xylene	ND		100	14	ug/L			09/17/14 15:48	500
p-Cymene	ND		100	15	ug/L			09/17/14 15:48	500
sec-Butylbenzene	ND		100	10	ug/L			09/17/14 15:48	500
Toluene	**370**		100	18	ug/L			09/17/14 15:48	500
Xylenes, Total	ND		200	27	ug/L			09/17/14 15:48	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*104*		*63 - 145*		*09/17/14 15:48*	*500*
4-Bromofluorobenzene	*104*		*64 - 141*		*09/17/14 15:48*	*500*

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-67006-1

Client Sample ID: Sump
Date Collected: 09/10/14 11:15
Date Received: 09/10/14 11:45

Lab Sample ID: 480-67009-3
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**41**		2.0	0.35	ug/L			09/17/14 16:23	10
1,3,5-Trimethylbenzene	**13**		2.0	1.5	ug/L			09/17/14 16:23	10
Isopropylbenzene	**5.1**		2.0	0.27	ug/L			09/17/14 16:23	10
Methyl tert-butyl ether	**19**		4.0	0.44	ug/L			09/17/14 16:23	10
m,p-Xylene	**320**		4.0	0.54	ug/L			09/17/14 16:23	10
n-Butylbenzene	ND		2.0	0.31	ug/L			09/17/14 16:23	10
n-Propylbenzene	ND		2.0	1.3	ug/L			09/17/14 16:23	10
o-Xylene	ND		2.0	0.27	ug/L			09/17/14 16:23	10
p-Cymene	ND		2.0	0.30	ug/L			09/17/14 16:23	10
sec-Butylbenzene	ND		2.0	0.20	ug/L			09/17/14 16:23	10
Xylenes, Total	**320**		4.0	0.54	ug/L			09/17/14 16:23	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*105*		*63 - 145*		*09/17/14 16:23*	*10*
4-Bromofluorobenzene	*106*		*64 - 141*		*09/17/14 16:23*	*10*

Method: 8021B - Volatile Organic Compounds (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**7300**		100	12	ug/L			09/22/14 11:28	500
Ethylbenzene	**670**		100	14	ug/L			09/22/14 11:28	500
Toluene	**1900**		100	18	ug/L			09/22/14 11:28	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*103*		*63 - 145*		*09/22/14 11:28*	*500*
4-Bromofluorobenzene	*104*		*64 - 141*		*09/22/14 11:28*	*500*

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-67006-1

Client Sample ID: Post-Carbon 3

Lab Sample ID: 480-67006-1
Matrix: Wastewater
Date Collected: 09/10/14 10:30
Date Received: 09/10/14 11:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	203519	09/21/14 20:17	NMD1	TAL BUF
Total/NA	Analysis	8021B		1	202758	09/17/14 12:55	DGB	TAL BUF
Total/NA	Prep	200.7			201874	09/11/14 10:41	SLB	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	202062	09/11/14 21:02	AMH	TAL BUF
Total/NA	Prep	Distill/CN			203684	09/22/14 08:45	LAW	TAL BUF
Total/NA	Analysis	335.4		1	203736	09/22/14 20:06	RS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	201975	09/11/14 13:48	KMF	TAL BUF

Client Sample ID: Post-Carbon 2

Lab Sample ID: 480-67006-2
Matrix: Water
Date Collected: 09/10/14 10:35
Date Received: 09/10/14 11:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		50	202758	09/17/14 14:06	DGB	TAL BUF

Client Sample ID: Post-Carbon 1

Lab Sample ID: 480-67006-3
Matrix: Water
Date Collected: 09/10/14 10:40
Date Received: 09/10/14 11:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		200	202758	09/17/14 14:40	DGB	TAL BUF

Client Sample ID: Pre-Carbon

Lab Sample ID: 480-67009-1
Matrix: Wastewater
Date Collected: 09/10/14 11:00
Date Received: 09/10/14 11:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		500	202758	09/17/14 15:15	DGB	TAL BUF
Total/NA	Prep	200.7			201874	09/11/14 10:41	SLB	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	202062	09/11/14 21:13	AMH	TAL BUF
Total/NA	Analysis	300.0		5	202899	09/18/14 21:35	DGB	TAL BUF
Total/NA	Analysis	310.2		10	203086	09/18/14 08:06	NCH	TAL BUF

Client Sample ID: Outside Sump

Lab Sample ID: 480-67009-2
Matrix: Water
Date Collected: 09/10/14 11:05
Date Received: 09/10/14 11:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		500	202758	09/17/14 15:48	DGB	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-67006-1

Client Sample ID: Sump
Date Collected: 09/10/14 11:15
Date Received: 09/10/14 11:45

Lab Sample ID: 480-67009-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		10	202758	09/17/14 16:23	DGB	TAL BUF
Total/NA	Analysis	8021B	DL	500	203562	09/22/14 11:28	DGB	TAL BUF

Laboratory References:

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

Certification Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-67006-1

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-15

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8021B		Wastewater	m,p-Xylene
8021B		Wastewater	o-Xylene
8021B		Water	m,p-Xylene
8021B		Water	o-Xylene
8260C		Wastewater	1,2-Dichloroethene, Total
SM 4500 H+ B		Wastewater	pH

Method Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-67006-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8021B	Volatile Organic Compounds (GC)	SW846	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-67006-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-67006-1	Post-Carbon 3	Wastewater	09/10/14 10:30	09/10/14 11:45
480-67006-2	Post-Carbon 2	Water	09/10/14 10:35	09/10/14 11:45
480-67006-3	Post-Carbon 1	Water	09/10/14 10:40	09/10/14 11:45
480-67009-1	Pre-Carbon	Wastewater	09/10/14 11:00	09/10/14 11:45
480-67009-2	Outside Sump	Water	09/10/14 11:05	09/10/14 11:45
480-67009-3	Sump	Water	09/10/14 11:15	09/10/14 11:45

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Mike Kausek	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-43994-1177.1
Client Contact: Thomas Palmer	Phone: 716 866 3590	E-Mail: brian.fischer@testamericainc.com		Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc				Job #:

Analysis Requested

Address: 495 Aero Drive Suite 3	Due Date Requested:
City: Cheektowaga	TAT Requested (days): STD.
State, Zip: NY, 14225	
Phone:	PO #: Purchase Order not requir
Email: tpalmer@gesonline.com	WO #:
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Post-Ca	Project #: 48002525
Site: New York	SSOW#:

480-67006 Chain of Custody

Preservation Codes:

L	M - Hexane
OH	N - None
Acetate	O - AsNaO2
ric Acid	P - Na2O4S
HSO4	Q - Na2SO3
OH	R - Na2S2SO3
nchlor	S - H2SO4
corbic Acid	T - TSP Dodecahydrate
	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7 - Iron	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS List - VOA - 8021	335.4 - Cyanide, Total	SM4500_H+ - pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	A	A	B	N		
Post-Carbon - 3	9/10/14	1030	G	Water	U	N	/	/	X	/	/		
Post carbon 2	1	1035	G	water	N	N			X				
Post carbon-1	1	1040	G	water	N	N			X				

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	9/10/14 1145	GES		9/10/14 11:45	TA Buff
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		#1 2.5

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Cust

480-67009 Chain of Custody

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: MR	Lab PM: Fischer, Brian J	COC No: 480-43986-1176.1
Client Contact: Thomas Palmer	Phone: 716 866 3590	E-Mail: brian.fischer@testamericainc.com	Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc		**Analysis Requested**	Job #:
Address: 495 Aero Drive Suite 3	**Due Date Requested:**		**Preservation Codes:**
City: Cheektowaga	**TAT Requested (days):** STD.		
State, Zip: NY, 14225			
Phone:	PO #: Purchase Order not requir		
Email: tpalmer@gesonline.com	WO #:		
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Pre-Car	Project #: 48002525		
Site: New York	SSOW#:		Other:

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0_28D - (MOD) Local Method	200.7 - (MOD) Local Method	310.2 - Alkalinity, Total	6021b (mod) STARS list VOA 8021	Total Number of containers	Special Instructions/Note:
				Preservation Code:			N	D	N			
Pre-Carbon	9/10/14	1100	G	Water	N	N	/	/	/	X		
outside sump	9/10/14	1105	G	water	N	N				X		
Sump	9/10/14	1115	G	water	N	N				X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For ______ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	9/10/14 1145	GES	[signature]	9/10/14 11:45	TA Buff
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: #1 2.3

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-67006-1

Login Number: 67006

List Source: TestAmerica Buffalo

List Number: 1

Creator: Stau, Brandon 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.	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.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-67006-1

Login Number: 67009

List Source: TestAmerica Buffalo

List Number: 1

Creator: Stau, Brandon 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.	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.	N/A	
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: 480-69461-1
Client Project/Site: NYSDEC-Gastown WWTP: Site# 915171
Sampling Event: Mthly Post-Carbon
Mthly Pre-Carbon

For:
New York State D.E.C.
270 Michigan Avenue
Buffalo, New York 14203

Attn: Mr. Glenn May

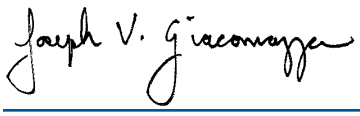
Joseph V. Giacomazza

Authorized for release by:
10/28/2014 12:10:36 PM
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

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
10/28/2014 12:10:36 PM

Table of Contents

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.

GC 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.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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)

Job ID: 480-69461-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-69461-1

Receipt
The samples were received on 10/16/2014 3:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.3º C and 2.5º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 210114 recovered outside acceptance criteria, low biased, for Carbon Disulfide. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

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

HPLC/IC
Method(s) 300.0: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-69463-1). 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.

GC VOA
Method(s) 8021B: The following samples were diluted to bring the concentration of target analytes within the calibration range: Post-Carbon-1 (480-69461-3), Post-Carbon-2 (480-69461-2). Elevated reporting limits (RLs) are provided.

Method(s) 8021B: The following samples were diluted to bring the concentration of target analytes within the calibration range: Outside Sump (480-69463-2), Pre-Carbon (480-69463-1). 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.

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

General Chemistry
Method(s) SM 4500 H+ B: The following sample(s) was received outside of holding time: Post-Carbon-3 (480-69461-1).

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

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-69461-1

Client Sample ID: Post-Carbon-3
Date Collected: 10/16/14 13:45
Date Received: 10/16/14 15:15

Lab Sample ID: 480-69461-1
Matrix: Wastewater

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			10/27/14 01:30	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			10/27/14 01:30	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			10/27/14 01:30	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			10/27/14 01:30	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			10/27/14 01:30	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/27/14 01:30	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			10/27/14 01:30	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			10/27/14 01:30	1
2-Hexanone	ND		5.0	1.2	ug/L			10/27/14 01:30	1
2-Butanone (MEK)	ND		10	1.3	ug/L			10/27/14 01:30	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			10/27/14 01:30	1
Acetone	ND		10	3.0	ug/L			10/27/14 01:30	1
Benzene	ND		1.0	0.41	ug/L			10/27/14 01:30	1
Bromodichloromethane	ND		1.0	0.39	ug/L			10/27/14 01:30	1
Bromoform	ND		1.0	0.26	ug/L			10/27/14 01:30	1
Bromomethane	ND		1.0	0.69	ug/L			10/27/14 01:30	1
Carbon disulfide	ND		1.0	0.19	ug/L			10/27/14 01:30	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			10/27/14 01:30	1
Chlorobenzene	ND		1.0	0.75	ug/L			10/27/14 01:30	1
Dibromochloromethane	ND		1.0	0.32	ug/L			10/27/14 01:30	1
Chloroethane	ND		1.0	0.32	ug/L			10/27/14 01:30	1
Chloroform	**0.52**	**J**	1.0	0.34	ug/L			10/27/14 01:30	1
Chloromethane	**0.38**	**J**	1.0	0.35	ug/L			10/27/14 01:30	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			10/27/14 01:30	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/27/14 01:30	1
Methylene Chloride	ND		1.0	0.44	ug/L			10/27/14 01:30	1
Styrene	ND		1.0	0.73	ug/L			10/27/14 01:30	1
Tetrachloroethene	ND		1.0	0.36	ug/L			10/27/14 01:30	1
Toluene	ND		1.0	0.51	ug/L			10/27/14 01:30	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			10/27/14 01:30	1
Trichloroethene	ND		1.0	0.46	ug/L			10/27/14 01:30	1
Vinyl chloride	ND		1.0	0.90	ug/L			10/27/14 01:30	1
Vinyl acetate	ND		5.0	0.85	ug/L			10/27/14 01:30	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/27/14 01:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*66 - 137*		*10/27/14 01:30*	*1*
Toluene-d8 (Surr)	*103*		*71 - 126*		*10/27/14 01:30*	*1*
4-Bromofluorobenzene (Surr)	*87*		*73 - 120*		*10/27/14 01:30*	*1*

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			10/17/14 14:26	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			10/17/14 14:26	1
Benzene	ND		0.20	0.023	ug/L			10/17/14 14:26	1
Ethylbenzene	ND		0.20	0.029	ug/L			10/17/14 14:26	1
Isopropylbenzene	ND		0.20	0.027	ug/L			10/17/14 14:26	1
Methyl tert-butyl ether	ND		0.40	0.044	ug/L			10/17/14 14:26	1
m,p-Xylene	ND		0.40	0.054	ug/L			10/17/14 14:26	1
n-Butylbenzene	ND		0.20	0.031	ug/L			10/17/14 14:26	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-69461-1

Client Sample ID: Post-Carbon-3
Date Collected: 10/16/14 13:45
Date Received: 10/16/14 15:15

Lab Sample ID: 480-69461-1
Matrix: Wastewater

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	ND		0.20	0.13	ug/L			10/17/14 14:26	1
o-Xylene	ND		0.20	0.027	ug/L			10/17/14 14:26	1
p-Cymene	ND		0.20	0.030	ug/L			10/17/14 14:26	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			10/17/14 14:26	1
Toluene	ND		0.20	0.036	ug/L			10/17/14 14:26	1
Xylenes, Total	ND		0.40	0.054	ug/L			10/17/14 14:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*103*		*63 - 145*		*10/17/14 14:26*	*1*
4-Bromofluorobenzene	*104*		*64 - 141*		*10/17/14 14:26*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**210**		50.0	19.3	ug/L		10/20/14 14:40	10/21/14 23:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.40**		0.010	0.0050	mg/L		10/23/14 09:00	10/23/14 16:59	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.46**	**HF**	0.100	0.100	SU			10/17/14 02:37	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-69461-1

Client Sample ID: Post-Carbon-2
Date Collected: 10/16/14 13:50
Date Received: 10/16/14 15:15

Lab Sample ID: 480-69461-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		1.0	0.17	ug/L			10/17/14 15:00	5
1,3,5-Trimethylbenzene	ND		1.0	0.75	ug/L			10/17/14 15:00	5
Benzene	**280**		1.0	0.12	ug/L			10/17/14 15:00	5
Ethylbenzene	**0.19**	**J**	1.0	0.14	ug/L			10/17/14 15:00	5
Isopropylbenzene	ND		1.0	0.14	ug/L			10/17/14 15:00	5
Methyl tert-butyl ether	**1.8**	**J**	2.0	0.22	ug/L			10/17/14 15:00	5
m,p-Xylene	ND		2.0	0.27	ug/L			10/17/14 15:00	5
n-Butylbenzene	ND		1.0	0.15	ug/L			10/17/14 15:00	5
n-Propylbenzene	ND		1.0	0.65	ug/L			10/17/14 15:00	5
o-Xylene	ND		1.0	0.14	ug/L			10/17/14 15:00	5
p-Cymene	ND		1.0	0.15	ug/L			10/17/14 15:00	5
sec-Butylbenzene	ND		1.0	0.10	ug/L			10/17/14 15:00	5
Toluene	**4.3**		1.0	0.18	ug/L			10/17/14 15:00	5
Xylenes, Total	ND		2.0	0.27	ug/L			10/17/14 15:00	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*105*		*63 - 145*		*10/17/14 15:00*	*5*
4-Bromofluorobenzene	*105*		*64 - 141*		*10/17/14 15:00*	*5*

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-69461-1

Client Sample ID: Post-Carbon-1
Date Collected: 10/16/14 13:55
Date Received: 10/16/14 15:15

Lab Sample ID: 480-69461-3
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**5.8**	**J**	10	1.7	ug/L			10/17/14 15:34	50
1,3,5-Trimethylbenzene	ND		10	7.5	ug/L			10/17/14 15:34	50
Benzene	**2600**		10	1.2	ug/L			10/17/14 15:34	50
Ethylbenzene	**78**		10	1.4	ug/L			10/17/14 15:34	50
Isopropylbenzene	ND		10	1.4	ug/L			10/17/14 15:34	50
Methyl tert-butyl ether	ND		20	2.2	ug/L			10/17/14 15:34	50
m,p-Xylene	**46**		20	2.7	ug/L			10/17/14 15:34	50
n-Butylbenzene	ND		10	1.5	ug/L			10/17/14 15:34	50
n-Propylbenzene	ND		10	6.5	ug/L			10/17/14 15:34	50
o-Xylene	**26**		10	1.4	ug/L			10/17/14 15:34	50
p-Cymene	ND		10	1.5	ug/L			10/17/14 15:34	50
sec-Butylbenzene	ND		10	1.0	ug/L			10/17/14 15:34	50
Toluene	**360**		10	1.8	ug/L			10/17/14 15:34	50
Xylenes, Total	**72**		20	2.7	ug/L			10/17/14 15:34	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*105*		*63 - 145*		*10/17/14 15:34*	*50*
4-Bromofluorobenzene	*105*		*64 - 141*		*10/17/14 15:34*	*50*

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-69461-1

Client Sample ID: Pre-Carbon
Date Collected: 10/16/14 14:00
Date Received: 10/16/14 15:15

Lab Sample ID: 480-69463-1
Matrix: Wastewater

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**50**	**J**	100	17	ug/L			10/17/14 16:08	500
1,3,5-Trimethylbenzene	ND		100	75	ug/L			10/17/14 16:08	500
Benzene	**6100**		100	12	ug/L			10/17/14 16:08	500
Ethylbenzene	**480**		100	14	ug/L			10/17/14 16:08	500
Isopropylbenzene	ND		100	14	ug/L			10/17/14 16:08	500
Methyl tert-butyl ether	ND		200	22	ug/L			10/17/14 16:08	500
m,p-Xylene	**280**		200	27	ug/L			10/17/14 16:08	500
n-Butylbenzene	ND		100	15	ug/L			10/17/14 16:08	500
n-Propylbenzene	ND		100	65	ug/L			10/17/14 16:08	500
o-Xylene	**120**		100	14	ug/L			10/17/14 16:08	500
p-Cymene	ND		100	15	ug/L			10/17/14 16:08	500
sec-Butylbenzene	ND		100	10	ug/L			10/17/14 16:08	500
Toluene	**1600**		100	18	ug/L			10/17/14 16:08	500
Xylenes, Total	**400**		200	27	ug/L			10/17/14 16:08	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*105*		*63 - 145*		*10/17/14 16:08*	*500*
4-Bromofluorobenzene	*106*		*64 - 141*		*10/17/14 16:08*	*500*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**126000**		500	100	ug/L		10/20/14 14:40	10/21/14 23:56	1
Iron	**1570**		50.0	19.3	ug/L		10/20/14 14:40	10/21/14 23:56	1
Magnesium	**83900**		200	43.4	ug/L		10/20/14 14:40	10/21/14 23:56	1
Potassium	**4900**		500	100	ug/L		10/20/14 14:40	10/21/14 23:56	1
Sodium	**74200**		1000	324	ug/L		10/20/14 14:40	10/21/14 23:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**120**		2.5	1.4	mg/L			10/24/14 19:30	5
Sulfate	**152**		10.0	1.7	mg/L			10/24/14 19:30	5
Alkalinity, Total	**475**		5.0	0.79	mg/L			10/24/14 01:29	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-69461-1

Client Sample ID: Outside Sump
Date Collected: 10/16/14 14:10
Date Received: 10/16/14 15:15

Lab Sample ID: 480-69463-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**37**	**J**	100	17	ug/L			10/17/14 16:42	500
1,3,5-Trimethylbenzene	ND		100	75	ug/L			10/17/14 16:42	500
Benzene	**10000**		100	12	ug/L			10/17/14 16:42	500
Ethylbenzene	**950**		100	14	ug/L			10/17/14 16:42	500
Isopropylbenzene	ND		100	14	ug/L			10/17/14 16:42	500
Methyl tert-butyl ether	ND		200	22	ug/L			10/17/14 16:42	500
m,p-Xylene	**330**		200	27	ug/L			10/17/14 16:42	500
n-Butylbenzene	ND		100	15	ug/L			10/17/14 16:42	500
n-Propylbenzene	ND		100	65	ug/L			10/17/14 16:42	500
o-Xylene	ND		100	14	ug/L			10/17/14 16:42	500
p-Cymene	ND		100	15	ug/L			10/17/14 16:42	500
sec-Butylbenzene	ND		100	10	ug/L			10/17/14 16:42	500
Toluene	**2300**		100	18	ug/L			10/17/14 16:42	500
Xylenes, Total	**330**		200	27	ug/L			10/17/14 16:42	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*102*		*63 - 145*		*10/17/14 16:42*	*500*
4-Bromofluorobenzene	*103*		*64 - 141*		*10/17/14 16:42*	*500*

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-69461-1

Client Sample ID: Post-Carbon-3

Lab Sample ID: 480-69461-1
Matrix: Wastewater
Date Collected: 10/16/14 13:45
Date Received: 10/16/14 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	210114	10/27/14 01:30	LCH	TAL BUF
Total/NA	Analysis	8021B		1	208334	10/17/14 14:26	DGB	TAL BUF
Total/NA	Prep	200.7			208647	10/20/14 14:40	SLB	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	209219	10/21/14 23:51	LMH	TAL BUF
Total/NA	Prep	Distill/CN			209610	10/23/14 09:00	EKB	TAL BUF
Total/NA	Analysis	335.4		1	209714	10/23/14 16:59	RS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	208296	10/17/14 02:37	VAJ	TAL BUF

Client Sample ID: Post-Carbon-2

Lab Sample ID: 480-69461-2
Matrix: Water
Date Collected: 10/16/14 13:50
Date Received: 10/16/14 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		5	208334	10/17/14 15:00	DGB	TAL BUF

Client Sample ID: Post-Carbon-1

Lab Sample ID: 480-69461-3
Matrix: Water
Date Collected: 10/16/14 13:55
Date Received: 10/16/14 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		50	208334	10/17/14 15:34	DGB	TAL BUF

Client Sample ID: Pre-Carbon

Lab Sample ID: 480-69463-1
Matrix: Wastewater
Date Collected: 10/16/14 14:00
Date Received: 10/16/14 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		500	208334	10/17/14 16:08	DGB	TAL BUF
Total/NA	Prep	200.7			208647	10/20/14 14:40	SLB	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	209219	10/21/14 23:56	LMH	TAL BUF
Total/NA	Analysis	300.0		5	209864	10/24/14 19:30	NDB	TAL BUF
Total/NA	Analysis	SM 2320B		1	209733	10/24/14 01:29	VAJ	TAL BUF

Client Sample ID: Outside Sump

Lab Sample ID: 480-69463-2
Matrix: Water
Date Collected: 10/16/14 14:10
Date Received: 10/16/14 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		500	208334	10/17/14 16:42	DGB	TAL BUF

Laboratory References:

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

Certification Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-69461-1

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-15

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8021B		Wastewater	m,p-Xylene
8021B		Wastewater	o-Xylene
8021B		Water	m,p-Xylene
8021B		Water	o-Xylene
8260C		Wastewater	1,2-Dichloroethene, Total
SM 4500 H+ B		Wastewater	pH

Method Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-69461-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8021B	Volatile Organic Compounds (GC)	SW846	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 2320B	Alkalinity	SM	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-69461-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-69461-1	Post-Carbon-3	Wastewater	10/16/14 13:45	10/16/14 15:15
480-69461-2	Post-Carbon-2	Water	10/16/14 13:50	10/16/14 15:15
480-69461-3	Post-Carbon-1	Water	10/16/14 13:55	10/16/14 15:15
480-69463-1	Pre-Carbon	Wastewater	10/16/14 14:00	10/16/14 15:15
480-69463-2	Outside Sump	Water	10/16/14 14:10	10/16/14 15:15

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

480-69461 Chain of Custody

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: D. REDDICK	Lab PM: Fischer, Brian J	COC No: 480-43995-1177.1
Client Contact: Thomas Palmer	Phone: T-Palmer (716)866-3590	E-Mail: brian.fischer@testamericainc.com	Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc			Job #:
Address: 495 Aero Drive Suite 3	Due Date Requested:		
City: Cheektowaga	TAT Requested (days): 10-Day		
State, Zip: NY, 14225	PO #: Purchase Order not requir		
Phone:	WO #:		
Email: tpalmer@gesonline.com	Project #: 48002525		
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Post-Ca	SSOW#:		
Site: New York			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7 - Iron	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS List - VOA - 8021	335.4 - Cyanide, Total	SM4500_H+ - pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	A	A	B	N		
Post-Carbon - 3	10-16-14	1345		Water			X	X	X	X	X		
Post-Carbon 2	"	1350							X				
Post-Carbon 1	"	1355							X				

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	D. Reddick	10-16-14 / 1515	GES		10/16/14 1515	TA BUF
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 1.2.5

Page 16 of 19

10/28/2014

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

480-69463 Chain of Custody

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: D. REDDICK	Lab PM: Fischer, Brian J	COC No: 480-43987-1176.1
Client Contact: Thomas Palmer	Phone: T. Palmer (716)866-7268	E-Mail: brian.fischer@testamericainc.com	Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc		Analysis Requested	Job #:
Address: 495 Aero Drive Suite 3	Due Date Requested:		Preservation Codes:
City: Cheektowaga	TAT Requested (days): 10-day		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: NY, 14225			
Phone: (800)287-7857	PO #: Purchase Order not requir		Other:
Email: tpalmer@gesonline.com	WO #:		
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Pre-Carl	Project #: 48002525		
Site: New York	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0_28D - (MOD) Local Method	200.7 - (MOD) Local Method	310.2 - Alkalinity, Total	8081B(MOD) STARS List - Vol	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	N			
Pre-Carbon	10-16-14	1400	G	Water			X	X	X	X		
Outside Sump	1	1410	1	1						X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	D. Reddick	10-16-14 / 1515	GES		10/16/14 1515	TA Buff
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: #1 2.3

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-69461-1

Login Number: 69461

List Source: TestAmerica Buffalo

List Number: 1

Creator: Stau, Brandon 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.	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.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-69461-1

Login Number: 69463

List Source: TestAmerica Buffalo

List Number: 1

Creator: Stau, Brandon 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.	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.	N/A	
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: 480-71248-1
Client Project/Site: NYSDEC-Gastown WWTP: Site# 915171
Sampling Event: Qtrly Post-Carbon
Qtrly Pre-Carbon

For:
New York State D.E.C.
270 Michigan Avenue
Buffalo, New York 14203

Attn: Mr. Glenn May

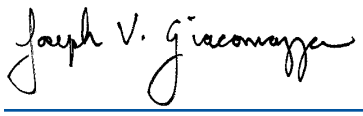
Joseph V. Giacomazza

Authorized for release by:
12/3/2014 2:29:31 PM
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

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
12/3/2014 2:29:31 PM

Table of Contents

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.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits

GC 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.

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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)

Job ID: 480-71248-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-71248-1

Receipt
The samples were received on 11/12/2014 3:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.3º C and 2.7º C.

GC/MS VOA
Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-71248-1). 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.

GC/MS Semi VOA
Method(s) 8270D: The large number of analytes included in the continuing calibration verification (CCV) gives a high probability that one or more analytes will be outside acceptance criteria. As indicated in the reference method, analysis may proceed as long as no more than 10% of the analytes of interest are outside the method-defined %D criteria.

Method(s) 8270D: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch214525 recovered outside control limits for the following analytes: Benzo(b)fluoranthene and Benzo(g,h,i)perylene.

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

HPLC/IC
Method(s) 300.0: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: (480-71266-8 MS), MHDP (480-71266-8), Pre-Carbon (480-71248-1). 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.

GC VOA
Method(s) 8021B: The following samples were diluted to bring the concentration of target analytes within the calibration range: (480-71251-3 MS), (480-71251-3 MSD), OUTSIDE SUMP (480-71248-2), Post-Carbon-1 (480-71251-3), Post-Carbon-2 (480-71251-2), Pre-Carbon (480-71248-1). Elevated reporting limits (RLs) are provided.

Method(s) 8021B: The following samples were diluted to bring the concentration of target analytes within the calibration range: (480-71251-3 MS), (480-71251-3 MSD), Post-Carbon-1 (480-71251-3). 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.

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

Metals
Method(s) 200.7 Rev 4.4: The continuing calibration blank (CCB) for analytical batch 480-214271 contained Total Iron above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples Pre-Carbon (480-71248-1) was not performed.

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

General Chemistry
Method(s) SM 2540C: Due to the matrix, the initial volume(s) used for the following sample(s) deviated from the standard procedure: (480-71251-1 DU), Post-Carbon-3 (480-71251-1). The reporting limits (RLs) have been adjusted proportionately.

Method(s) 9040C, SM 4500 H+ B: The following sample(s) was received outside of holding time: Post-Carbon-3 (480-71251-1).

Job ID: 480-71248-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

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

Organic Prep

Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 214527.

Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 214525.

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

Client Sample ID: Pre-Carbon
Date Collected: 11/12/14 14:10
Date Received: 11/12/14 15:45

Lab Sample ID: 480-71248-1
Matrix: Wastewater

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			11/25/14 06:55	200
1,1,2,2-Tetrachloroethane	ND		200	42	ug/L			11/25/14 06:55	200
1,1,2-Trichloroethane	ND		200	46	ug/L			11/25/14 06:55	200
1,1-Dichloroethane	ND		200	76	ug/L			11/25/14 06:55	200
1,1-Dichloroethene	ND		200	58	ug/L			11/25/14 06:55	200
1,2-Dichloroethane	ND		200	42	ug/L			11/25/14 06:55	200
1,2-Dichloroethene, Total	ND		400	160	ug/L			11/25/14 06:55	200
1,2-Dichloropropane	ND		200	140	ug/L			11/25/14 06:55	200
2-Hexanone	ND		1000	250	ug/L			11/25/14 06:55	200
2-Butanone (MEK)	ND		2000	260	ug/L			11/25/14 06:55	200
4-Methyl-2-pentanone (MIBK)	ND		1000	420	ug/L			11/25/14 06:55	200
Acetone	ND		2000	600	ug/L			11/25/14 06:55	200
Benzene	**11000**		200	82	ug/L			11/25/14 06:55	200
Bromodichloromethane	ND		200	78	ug/L			11/25/14 06:55	200
Bromoform	ND		200	52	ug/L			11/25/14 06:55	200
Bromomethane	ND		200	140	ug/L			11/25/14 06:55	200
Carbon disulfide	ND		200	38	ug/L			11/25/14 06:55	200
Carbon tetrachloride	ND		200	54	ug/L			11/25/14 06:55	200
Chlorobenzene	ND		200	150	ug/L			11/25/14 06:55	200
Dibromochloromethane	ND		200	64	ug/L			11/25/14 06:55	200
Chloroethane	ND		200	64	ug/L			11/25/14 06:55	200
Chloroform	**180**	**J**	200	68	ug/L			11/25/14 06:55	200
Chloromethane	ND		200	70	ug/L			11/25/14 06:55	200
cis-1,3-Dichloropropene	ND		200	72	ug/L			11/25/14 06:55	200
Ethylbenzene	**880**		200	150	ug/L			11/25/14 06:55	200
Methylene Chloride	ND		200	88	ug/L			11/25/14 06:55	200
Styrene	ND		200	150	ug/L			11/25/14 06:55	200
Tetrachloroethene	ND		200	72	ug/L			11/25/14 06:55	200
Toluene	**1900**		200	100	ug/L			11/25/14 06:55	200
trans-1,3-Dichloropropene	ND		200	74	ug/L			11/25/14 06:55	200
Trichloroethene	ND		200	92	ug/L			11/25/14 06:55	200
Vinyl chloride	ND		200	180	ug/L			11/25/14 06:55	200
Vinyl acetate	ND		1000	170	ug/L			11/25/14 06:55	200
Xylenes, Total	ND		400	130	ug/L			11/25/14 06:55	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*66 - 137*		*11/25/14 06:55*	*200*
Toluene-d8 (Surr)	*91*		*71 - 126*		*11/25/14 06:55*	*200*
4-Bromofluorobenzene (Surr)	*111*		*73 - 120*		*11/25/14 06:55*	*200*

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		100	17	ug/L			11/13/14 12:20	500
1,3,5-Trimethylbenzene	ND		100	75	ug/L			11/13/14 12:20	500
Benzene	**9100**		100	12	ug/L			11/13/14 12:20	500
Ethylbenzene	**780**		100	14	ug/L			11/13/14 12:20	500
Isopropylbenzene	ND		100	14	ug/L			11/13/14 12:20	500
Methyl tert-butyl ether	ND		200	22	ug/L			11/13/14 12:20	500
m,p-Xylene	ND		200	27	ug/L			11/13/14 12:20	500
n-Butylbenzene	ND		100	15	ug/L			11/13/14 12:20	500

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-71248-1

Client Sample ID: Pre-Carbon
Date Collected: 11/12/14 14:10
Date Received: 11/12/14 15:45

Lab Sample ID: 480-71248-1
Matrix: Wastewater

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	ND		100	65	ug/L			11/13/14 12:20	500
o-Xylene	**78**	**J**	100	14	ug/L			11/13/14 12:20	500
p-Cymene	ND		100	15	ug/L			11/13/14 12:20	500
sec-Butylbenzene	ND		100	10	ug/L			11/13/14 12:20	500
Toluene	**1800**		100	18	ug/L			11/13/14 12:20	500
Xylenes, Total	**78**	**J**	200	27	ug/L			11/13/14 12:20	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*108*		*63 - 145*		*11/13/14 12:20*	*500*
4-Bromofluorobenzene	*108*		*64 - 141*		*11/13/14 12:20*	*500*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**134000**		500	100	ug/L		11/14/14 08:17	11/14/14 17:25	1
Iron	**2510**	**^**	50.0	19.3	ug/L		11/14/14 08:17	11/14/14 17:25	1
Magnesium	**103000**		200	43.4	ug/L		11/14/14 08:17	11/14/14 17:25	1
Potassium	**5380**		500	100	ug/L		11/14/14 08:17	11/14/14 17:25	1
Sodium	**80100**	**B**	1000	324	ug/L		11/14/14 08:17	11/14/14 17:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**137**		10.0	5.6	mg/L			12/02/14 15:42	20
Sulfate	**154**		40.0	7.0	mg/L			12/02/14 15:42	20
Alkalinity, Total	**466**		60.0	24.0	mg/L			11/24/14 20:09	6

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-71248-1

Client Sample ID: OUTSIDE SUMP
Date Collected: 11/12/14 14:25
Date Received: 11/12/14 15:45

Lab Sample ID: 480-71248-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**49**	**J**	100	17	ug/L			11/13/14 12:54	500
1,3,5-Trimethylbenzene	ND		100	75	ug/L			11/13/14 12:54	500
Benzene	**14000**		100	12	ug/L			11/13/14 12:54	500
Ethylbenzene	**1500**		100	14	ug/L			11/13/14 12:54	500
Isopropylbenzene	ND		100	14	ug/L			11/13/14 12:54	500
Methyl tert-butyl ether	ND		200	22	ug/L			11/13/14 12:54	500
m,p-Xylene	**460**		200	27	ug/L			11/13/14 12:54	500
n-Butylbenzene	ND		100	15	ug/L			11/13/14 12:54	500
n-Propylbenzene	ND		100	65	ug/L			11/13/14 12:54	500
o-Xylene	**260**		100	14	ug/L			11/13/14 12:54	500
p-Cymene	ND		100	15	ug/L			11/13/14 12:54	500
sec-Butylbenzene	ND		100	10	ug/L			11/13/14 12:54	500
Toluene	**3200**		100	18	ug/L			11/13/14 12:54	500
Xylenes, Total	**720**		200	27	ug/L			11/13/14 12:54	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*108*		*63 - 145*		*11/13/14 12:54*	*500*
4-Bromofluorobenzene	*108*		*64 - 141*		*11/13/14 12:54*	*500*

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-71248-1

Client Sample ID: Post-Carbon-3
Date Collected: 11/12/14 13:45
Date Received: 11/12/14 15:45

Lab Sample ID: 480-71251-1
Matrix: Wastewater

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			11/24/14 11:37	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/24/14 11:37	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/24/14 11:37	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/24/14 11:37	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/24/14 11:37	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/24/14 11:37	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			11/24/14 11:37	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/24/14 11:37	1
2-Hexanone	ND		5.0	1.2	ug/L			11/24/14 11:37	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/24/14 11:37	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/24/14 11:37	1
Acetone	ND		10	3.0	ug/L			11/24/14 11:37	1
Benzene	ND		1.0	0.41	ug/L			11/24/14 11:37	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/24/14 11:37	1
Bromoform	ND		1.0	0.26	ug/L			11/24/14 11:37	1
Bromomethane	ND		1.0	0.69	ug/L			11/24/14 11:37	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/24/14 11:37	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/24/14 11:37	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/24/14 11:37	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/24/14 11:37	1
Chloroethane	ND		1.0	0.32	ug/L			11/24/14 11:37	1
Chloroform	**0.56**	**J**	1.0	0.34	ug/L			11/24/14 11:37	1
Chloromethane	ND		1.0	0.35	ug/L			11/24/14 11:37	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/24/14 11:37	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/24/14 11:37	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/24/14 11:37	1
Styrene	ND		1.0	0.73	ug/L			11/24/14 11:37	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/24/14 11:37	1
Toluene	ND		1.0	0.51	ug/L			11/24/14 11:37	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/24/14 11:37	1
Trichloroethene	ND		1.0	0.46	ug/L			11/24/14 11:37	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/24/14 11:37	1
Vinyl acetate	ND		5.0	0.85	ug/L			11/24/14 11:37	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/24/14 11:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*66 - 137*		*11/24/14 11:37*	*1*
Toluene-d8 (Surr)	*94*		*71 - 126*		*11/24/14 11:37*	*1*
4-Bromofluorobenzene (Surr)	*111*		*73 - 120*		*11/24/14 11:37*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		4.8	0.58	ug/L		11/17/14 14:52	11/23/14 00:29	1
Acenaphthene	ND		4.8	0.39	ug/L		11/17/14 14:52	11/23/14 00:29	1
Acenaphthylene	ND		4.8	0.36	ug/L		11/17/14 14:52	11/23/14 00:29	1
Anthracene	ND		4.8	0.27	ug/L		11/17/14 14:52	11/23/14 00:29	1
Benzo[a]anthracene	ND		4.8	0.35	ug/L		11/17/14 14:52	11/23/14 00:29	1
Benzo[a]pyrene	ND		4.8	0.45	ug/L		11/17/14 14:52	11/23/14 00:29	1
Benzo[b]fluoranthene	ND	*	4.8	0.33	ug/L		11/17/14 14:52	11/23/14 00:29	1
Benzo[g,h,i]perylene	ND	*	4.8	0.34	ug/L		11/17/14 14:52	11/23/14 00:29	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-71248-1

Client Sample ID: Post-Carbon-3
Date Collected: 11/12/14 13:45
Date Received: 11/12/14 15:45

Lab Sample ID: 480-71251-1
Matrix: Wastewater

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	ND		4.8	0.70	ug/L		11/17/14 14:52	11/23/14 00:29	1
Biphenyl	ND		4.8	0.63	ug/L		11/17/14 14:52	11/23/14 00:29	1
Bis(2-ethylhexyl) phthalate	ND		4.8	1.7	ug/L		11/17/14 14:52	11/23/14 00:29	1
Carbazole	ND		4.8	0.29	ug/L		11/17/14 14:52	11/23/14 00:29	1
Chrysene	ND		4.8	0.32	ug/L		11/17/14 14:52	11/23/14 00:29	1
Dibenz(a,h)anthracene	ND		4.8	0.40	ug/L		11/17/14 14:52	11/23/14 00:29	1
Dibenzofuran	ND		9.6	0.49	ug/L		11/17/14 14:52	11/23/14 00:29	1
Fluoranthene	ND		4.8	0.38	ug/L		11/17/14 14:52	11/23/14 00:29	1
Fluorene	ND		4.8	0.35	ug/L		11/17/14 14:52	11/23/14 00:29	1
Indeno[1,2,3-cd]pyrene	ND		4.8	0.45	ug/L		11/17/14 14:52	11/23/14 00:29	1
Naphthalene	ND		4.8	0.73	ug/L		11/17/14 14:52	11/23/14 00:29	1
Pentachlorophenol	ND		9.6	2.1	ug/L		11/17/14 14:52	11/23/14 00:29	1
Phenanthrene	ND		4.8	0.42	ug/L		11/17/14 14:52	11/23/14 00:29	1
Phenol	ND		4.8	0.37	ug/L		11/17/14 14:52	11/23/14 00:29	1
Pyrene	ND		4.8	0.33	ug/L		11/17/14 14:52	11/23/14 00:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*103*		*52 - 132*	*11/17/14 14:52*	*11/23/14 00:29*	*1*
2-Fluorobiphenyl	*87*		*48 - 120*	*11/17/14 14:52*	*11/23/14 00:29*	*1*
2-Fluorophenol	*43*		*20 - 120*	*11/17/14 14:52*	*11/23/14 00:29*	*1*
Nitrobenzene-d5	*73*		*46 - 120*	*11/17/14 14:52*	*11/23/14 00:29*	*1*
p-Terphenyl-d14	*87*		*67 - 150*	*11/17/14 14:52*	*11/23/14 00:29*	*1*
Phenol-d5	*29*		*16 - 120*	*11/17/14 14:52*	*11/23/14 00:29*	*1*

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			11/13/14 13:43	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			11/13/14 13:43	1
Benzene	ND		0.20	0.023	ug/L			11/13/14 13:43	1
Ethylbenzene	ND		0.20	0.029	ug/L			11/13/14 13:43	1
Isopropylbenzene	ND		0.20	0.027	ug/L			11/13/14 13:43	1
Methyl tert-butyl ether	ND		0.40	0.044	ug/L			11/13/14 13:43	1
m,p-Xylene	ND		0.40	0.054	ug/L			11/13/14 13:43	1
n-Butylbenzene	ND		0.20	0.031	ug/L			11/13/14 13:43	1
n-Propylbenzene	ND		0.20	0.13	ug/L			11/13/14 13:43	1
o-Xylene	ND		0.20	0.027	ug/L			11/13/14 13:43	1
p-Cymene	ND		0.20	0.030	ug/L			11/13/14 13:43	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			11/13/14 13:43	1
Toluene	ND		0.20	0.036	ug/L			11/13/14 13:43	1
Xylenes, Total	ND		0.40	0.054	ug/L			11/13/14 13:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*108*		*63 - 145*		*11/13/14 13:43*	*1*
4-Bromofluorobenzene	*110*		*64 - 141*		*11/13/14 13:43*	*1*

Method: 608 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.049	0.0064	ug/L		11/17/14 15:02	11/18/14 20:08	1
alpha-BHC	ND		0.049	0.0064	ug/L		11/17/14 15:02	11/18/14 20:08	1
beta-BHC	ND		0.049	0.024	ug/L		11/17/14 15:02	11/18/14 20:08	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-71248-1

Client Sample ID: Post-Carbon-3
Date Collected: 11/12/14 13:45
Date Received: 11/12/14 15:45

Lab Sample ID: 480-71251-1
Matrix: Wastewater

Method: 608 - Organochlorine Pesticides in Water (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
delta-BHC	ND		0.049	0.0098	ug/L		11/17/14 15:02	11/18/14 20:08	1
gamma-BHC (Lindane)	ND		0.049	0.0059	ug/L		11/17/14 15:02	11/18/14 20:08	1
Chlordane (technical)	ND		0.49	0.28	ug/L		11/17/14 15:02	11/18/14 20:08	1
4,4'-DDD	ND		0.049	0.0090	ug/L		11/17/14 15:02	11/18/14 20:08	1
4,4'-DDE	ND		0.049	0.011	ug/L		11/17/14 15:02	11/18/14 20:08	1
4,4'-DDT	ND		0.049	0.011	ug/L		11/17/14 15:02	11/18/14 20:08	1
Dieldrin	ND		0.049	0.0096	ug/L		11/17/14 15:02	11/18/14 20:08	1
Endosulfan I	ND		0.049	0.011	ug/L		11/17/14 15:02	11/18/14 20:08	1
Endosulfan II	ND		0.049	0.012	ug/L		11/17/14 15:02	11/18/14 20:08	1
Endosulfan sulfate	ND		0.049	0.015	ug/L		11/17/14 15:02	11/18/14 20:08	1
Endrin	ND		0.049	0.013	ug/L		11/17/14 15:02	11/18/14 20:08	1
Endrin aldehyde	ND		0.049	0.016	ug/L		11/17/14 15:02	11/18/14 20:08	1
Heptachlor	ND		0.049	0.0083	ug/L		11/17/14 15:02	11/18/14 20:08	1
Heptachlor epoxide	ND		0.049	0.0052	ug/L		11/17/14 15:02	11/18/14 20:08	1
Toxaphene	ND		0.49	0.12	ug/L		11/17/14 15:02	11/18/14 20:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*69*		*23 - 120*	*11/17/14 15:02*	*11/18/14 20:08*	*1*
Tetrachloro-m-xylene	*82*		*36 - 120*	*11/17/14 15:02*	*11/18/14 20:08*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10.0	5.6	ug/L		11/14/14 08:17	11/14/14 17:28	1
Iron	**194**		50.0	19.3	ug/L		11/14/14 08:17	11/17/14 13:20	1
Manganese	**250**		3.0	0.40	ug/L		11/14/14 08:17	11/14/14 17:28	1
Zinc	**5.4**	**J B**	10.0	1.5	ug/L		11/14/14 08:17	11/14/14 17:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	ND		5.0	1.4	mg/L		11/15/14 13:05	11/15/14 13:19	1
Cyanide, Total	**0.45**		0.010	0.0050	mg/L		11/22/14 13:20	11/24/14 13:45	1
Phenolics, Total Recoverable	ND		0.010	0.0050	mg/L		11/25/14 09:30	12/01/14 12:58	1
Total Dissolved Solids	**840**		20.0	8.0	mg/L			11/18/14 16:57	1
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			11/12/14 18:49	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	4.0	mg/L			11/17/14 17:50	1
pH	**7.45**	**HF**	0.100	0.100	SU			11/14/14 09:38	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-71248-1

Client Sample ID: Post-Carbon-2
Date Collected: 11/12/14 14:00
Date Received: 11/12/14 15:45

Lab Sample ID: 480-71251-2
Matrix: Wastewater

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		2.0	0.35	ug/L			11/13/14 14:17	10
1,3,5-Trimethylbenzene	ND		2.0	1.5	ug/L			11/13/14 14:17	10
Benzene	**400**		2.0	0.23	ug/L			11/13/14 14:17	10
Ethylbenzene	**1.0**	**J**	2.0	0.29	ug/L			11/13/14 14:17	10
Isopropylbenzene	ND		2.0	0.27	ug/L			11/13/14 14:17	10
Methyl tert-butyl ether	**2.7**	**J**	4.0	0.44	ug/L			11/13/14 14:17	10
m,p-Xylene	ND		4.0	0.54	ug/L			11/13/14 14:17	10
n-Butylbenzene	ND		2.0	0.31	ug/L			11/13/14 14:17	10
n-Propylbenzene	ND		2.0	1.3	ug/L			11/13/14 14:17	10
o-Xylene	ND		2.0	0.27	ug/L			11/13/14 14:17	10
p-Cymene	ND		2.0	0.30	ug/L			11/13/14 14:17	10
sec-Butylbenzene	ND		2.0	0.20	ug/L			11/13/14 14:17	10
Toluene	**6.7**		2.0	0.36	ug/L			11/13/14 14:17	10
Xylenes, Total	ND		4.0	0.54	ug/L			11/13/14 14:17	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*105*		*63 - 145*		*11/13/14 14:17*	*10*
4-Bromofluorobenzene	*106*		*64 - 141*		*11/13/14 14:17*	*10*

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-71248-1

Client Sample ID: Post-Carbon-1
Date Collected: 11/12/14 14:05
Date Received: 11/12/14 15:45

Lab Sample ID: 480-71251-3
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**5.4**	**J**	10	1.7	ug/L			11/13/14 14:51	50
1,3,5-Trimethylbenzene	ND		10	7.5	ug/L			11/13/14 14:51	50
Ethylbenzene	**150**		10	1.4	ug/L			11/13/14 14:51	50
Isopropylbenzene	ND		10	1.4	ug/L			11/13/14 14:51	50
Methyl tert-butyl ether	ND		20	2.2	ug/L			11/13/14 14:51	50
m,p-Xylene	**49**		20	2.7	ug/L			11/13/14 14:51	50
n-Butylbenzene	ND		10	1.5	ug/L			11/13/14 14:51	50
n-Propylbenzene	ND		10	6.5	ug/L			11/13/14 14:51	50
o-Xylene	**31**		10	1.4	ug/L			11/13/14 14:51	50
p-Cymene	ND		10	1.5	ug/L			11/13/14 14:51	50
sec-Butylbenzene	ND		10	1.0	ug/L			11/13/14 14:51	50
Toluene	**500**		10	1.8	ug/L			11/13/14 14:51	50
Xylenes, Total	**80**		20	2.7	ug/L			11/13/14 14:51	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*109*		*63 - 145*		*11/13/14 14:51*	*50*
4-Bromofluorobenzene	*109*		*64 - 141*		*11/13/14 14:51*	*50*

Method: 8021B - Volatile Organic Compounds (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**3800**		20	2.3	ug/L			11/18/14 12:08	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*108*		*63 - 145*		*11/18/14 12:08*	*100*
4-Bromofluorobenzene	*109*		*64 - 141*		*11/18/14 12:08*	*100*

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-71248-1

Client Sample ID: Pre-Carbon

Lab Sample ID: 480-71248-1

Date Collected: 11/12/14 14:10

Matrix: Wastewater

Date Received: 11/12/14 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		200	215746	11/25/14 06:55	RAS	TAL BUF
Total/NA	Analysis	8021B		500	213794	11/13/14 12:20	DGB	TAL BUF
Total/NA	Prep	200.7			213961	11/14/14 08:17	LED	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	214271	11/14/14 17:25	TRB	TAL BUF
Total/NA	Analysis	300.0		20	216989	12/02/14 15:42	NDB	TAL BUF
Total/NA	Analysis	310.2		6	215755	11/24/14 20:09	MRF	TAL BUF

Client Sample ID: OUTSIDE SUMP

Lab Sample ID: 480-71248-2

Date Collected: 11/12/14 14:25

Matrix: Water

Date Received: 11/12/14 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		500	213794	11/13/14 12:54	DGB	TAL BUF

Client Sample ID: Post-Carbon-3

Lab Sample ID: 480-71251-1

Date Collected: 11/12/14 13:45

Matrix: Wastewater

Date Received: 11/12/14 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	215604	11/24/14 11:37	GTG	TAL BUF
Total/NA	Prep	3510C			214525	11/17/14 14:52	CPH	TAL BUF
Total/NA	Analysis	8270D		1	215454	11/23/14 00:29	LMW	TAL BUF
Total/NA	Analysis	8021B		1	213794	11/13/14 13:43	DGB	TAL BUF
Total/NA	Prep	3510C			214527	11/17/14 15:02	CPH	TAL BUF
Total/NA	Analysis	608		1	214795	11/18/14 20:08	JRL	TAL BUF
Total/NA	Prep	200.7			213961	11/14/14 08:17	LED	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	214271	11/14/14 17:28	TRB	TAL BUF
Total/NA	Prep	200.7			213961	11/14/14 08:17	LED	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	214626	11/17/14 13:20	TRB	TAL BUF
Total/NA	Prep	1664A			214307	11/15/14 13:05	KC	TAL BUF
Total/NA	Analysis	1664A		1	214311	11/15/14 13:19	KC	TAL BUF
Total/NA	Prep	Distill/CN			215502	11/22/14 13:20	EKB	TAL BUF
Total/NA	Analysis	335.4		1	215718	11/24/14 13:45	KMF	TAL BUF
Total/NA	Prep	Distill/Phenol			215955	11/25/14 09:30	RMZ	TAL BUF
Total/NA	Analysis	420.4		1	216625	12/01/14 12:58	NCH	TAL BUF
Total/NA	Analysis	SM 2540C		1	214783	11/18/14 16:57	RP	TAL BUF
Total/NA	Analysis	SM 2540D		1	214553	11/17/14 17:50	JMB	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	214133	11/14/14 09:38	VAJ	TAL BUF
Total/NA	Analysis	SM 5210B		1	213741	11/12/14 18:49	CLT	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-71248-1

Client Sample ID: Post-Carbon-2

Lab Sample ID: 480-71251-2

Date Collected: 11/12/14 14:00

Matrix: Wastewater

Date Received: 11/12/14 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		10	213794	11/13/14 14:17	DGB	TAL BUF

Client Sample ID: Post-Carbon-1

Lab Sample ID: 480-71251-3

Date Collected: 11/12/14 14:05

Matrix: Water

Date Received: 11/12/14 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		50	213794	11/13/14 14:51	DGB	TAL BUF
Total/NA	Analysis	8021B	DL	100	214633	11/18/14 12:08	DGB	TAL BUF

Laboratory References:

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

Certification Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-71248-1

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-15

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8021B		Wastewater	m,p-Xylene
8021B		Wastewater	o-Xylene
8021B		Water	m,p-Xylene
8021B		Water	o-Xylene
8260C		Wastewater	1,2-Dichloroethene, Total
SM 4500 H+ B		Wastewater	pH

Method Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-71248-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8021B	Volatile Organic Compounds (GC)	SW846	TAL BUF
608	Organochlorine Pesticides in Water	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
1664A	HEM and SGT-HEM	1664A	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
420.4	Phenolics, Total Recoverable	MCAWW	TAL BUF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL BUF
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
SM 5210B	BOD, 5-Day	SM	TAL BUF

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-71248-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-71248-1	Pre-Carbon	Wastewater	11/12/14 14:10	11/12/14 15:45
480-71248-2	OUTSIDE SUMP	Water	11/12/14 14:25	11/12/14 15:45
480-71251-1	Post-Carbon-3	Wastewater	11/12/14 13:45	11/12/14 15:45
480-71251-2	Post-Carbon-2	Wastewater	11/12/14 14:00	11/12/14 15:45
480-71251-3	Post-Carbon-1	Water	11/12/14 14:05	11/12/14 15:45

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: T. Palmer	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-43981-1179.1
Client Contact: Thomas Palmer	Phone: (716) 866-3590	E-Mail: brian.fischer@testamericainc.com		Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc				Job #:

Address: 495 Aero Drive Suite 3	Due Date Requested:	
City: Cheektowaga	TAT Requested (days): 10-day	
State, Zip: NY, 14225		
Phone:	PO #: Purchase Order not requir	
Email: tpalmer@gesonline.com	WO #:	
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Qtrly Pre-Carb	Project #: 48002525	
Site: New York	SSOW#:	

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0_28D - (MOD) Local Method	200.7 - (MOD) Local Method	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS List - VOA - 8021	310.2 - Alkalinity, Total	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	A	A	N		
Pre-Carbon	11-12-14	1410	G	Water	N	N	X	X	X	X	X		
Outside Sump	1	1425	G	W	N	N				X			

480-71248 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	11-12-14 1545	GES		11/12/14 1545	TABUF
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 1 2.7

12/3/2014

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: T. Palmer	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-43977-1178.1
Client Contact: Thomas Palmer	Phone: (716) 866-3590	E-Mail: brian.fischer@testamericainc.com		Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc				Job #:

Address: 495 Aero Drive Suite 3	Due Date Requested:
City: Cheektowaga	TAT Requested (days): 10-day
State, Zip: NY, 14225	PO #: Purchase Order not requir
Phone:	WO #:
Email: tpalmer@gesonline.com	Project #: 48002525
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Qtrly Post-Car	SSOW#:
Site: New York	

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastefoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7 - (MOD) Local Method	1664A_Calc - Oil & Grease	420.4 - Phenolics, Total Recoverable	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS List - VOA - 8021	608_Pest - Priority Pollutant Pesticides	8270C - (MOD) TCL SVOA - OLM04.2	6210B - Biochemical Oxygen Demand	2540C_Calcd - Total Dissolved Solids	2540D - Total Suspended Solids	335.4 - Cyanide, Total	SM4500_H+ - pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	S	S	A	A	N	N	N	N	N	B	N		
Post-Carbon -3	11-12-14	1345	G	Water	N	N	X	X	X	X	X	X	X	X	X	X	X	X		
Post-Carbon-2	1	1400	G	W	N	N					X									
Post-Carbon-1	1	1405	G	W	N	N					X									

480-71251 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		11-12-14 / 1545	GES	Michael Castillo	11/12/14 1545	TA-BUF
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: #1 2.3

12/3/2014

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-71248-1

Login Number: 71248

List Source: TestAmerica Buffalo

List Number: 1

Creator: Robison, Zachary J

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	GES
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-71248-1

Login Number: 71251

List Source: TestAmerica Buffalo

List Number: 1

Creator: Robison, Zachary J

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	GES
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
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: 480-73351-1
Client Project/Site: NYSDEC-Gastown WWTP: Site# 915171
Sampling Event: Mthly Post-Carbon
Mthly Pre-Carbon

For:
New York State D.E.C.
270 Michigan Avenue
Buffalo, New York 14203

Attn: Mr. Glenn May

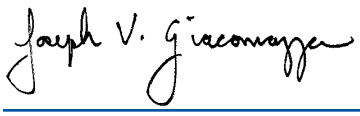
Joseph V. Giacomazza

Authorized for release by:
1/7/2015 10:14:47 AM
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

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
1/7/2015 10:14:47 AM

Table of Contents

Qualifiers

GC 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.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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)

Job ID: 480-73351-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-73351-1

Receipt
The samples were received on 12/19/2014 1:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.3º C and 2.5º C.

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

HPLC/IC
Method(s) 300.0: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-73351-1). 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.

GC VOA
Method(s) 8021B: The following samples were diluted to bring the concentration of target analytes within the calibration range: Outside Sump (480-73351-2), Post-Carbon 1 (480-73352-3), Post-Carbon 2 (480-73352-2). 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.

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

General Chemistry
Method(s) 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample(s) has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Post-Carbon 3 (480-73352-1).

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

Client Sample Results

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-73351-1

Client Sample ID: Pre-Carbon

Date Collected: 12/19/14 13:20
Date Received: 12/19/14 13:50

Lab Sample ID: 480-73351-1

Matrix: Wastewater

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	132000		500	100	ug/L		12/22/14 09:25	12/23/14 14:03	1
Iron	2380		50.0	19.3	ug/L		12/22/14 09:25	12/23/14 14:03	1
Magnesium	74200		200	43.4	ug/L		12/22/14 09:25	12/23/14 14:03	1
Potassium	4620		500	100	ug/L		12/22/14 09:25	12/23/14 14:03	1
Sodium	73800		1000	324	ug/L		12/22/14 09:25	12/23/14 14:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	120		10.0	5.6	mg/L			01/05/15 18:35	20
Sulfate	141		40.0	7.0	mg/L			01/05/15 18:35	20
Alkalinity, Total	513		100	40.0	mg/L			12/31/14 10:57	10

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-73351-1

Client Sample ID: Outside Sump
Date Collected: 12/19/14 13:30
Date Received: 12/19/14 13:50

Lab Sample ID: 480-73351-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**82**	**J**	100	17	ug/L			12/22/14 19:17	500
1,3,5-Trimethylbenzene	ND		100	75	ug/L			12/22/14 19:17	500
Benzene	**4800**		100	12	ug/L			12/22/14 19:17	500
Ethylbenzene	**580**		100	14	ug/L			12/22/14 19:17	500
Isopropylbenzene	ND		100	14	ug/L			12/22/14 19:17	500
Methyl tert-butyl ether	ND		200	22	ug/L			12/22/14 19:17	500
m,p-Xylene	**300**		200	27	ug/L			12/22/14 19:17	500
n-Butylbenzene	ND		100	15	ug/L			12/22/14 19:17	500
n-Propylbenzene	ND		100	65	ug/L			12/22/14 19:17	500
o-Xylene	ND		100	14	ug/L			12/22/14 19:17	500
p-Cymene	ND		100	15	ug/L			12/22/14 19:17	500
sec-Butylbenzene	ND		100	10	ug/L			12/22/14 19:17	500
Toluene	**1400**		100	18	ug/L			12/22/14 19:17	500
Xylenes, Total	**300**		200	27	ug/L			12/22/14 19:17	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*104*		*63 - 145*		*12/22/14 19:17*	*500*
4-Bromofluorobenzene	*102*		*64 - 141*		*12/22/14 19:17*	*500*

Client Sample ID: Post-Carbon 3

Date Collected: 12/19/14 13:00
Date Received: 12/19/14 13:50

Lab Sample ID: 480-73352-1

Matrix: Wastewater

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			12/31/14 02:42	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/31/14 02:42	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/31/14 02:42	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/31/14 02:42	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/31/14 02:42	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/31/14 02:42	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			12/31/14 02:42	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/31/14 02:42	1
2-Hexanone	ND		5.0	1.2	ug/L			12/31/14 02:42	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/31/14 02:42	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/31/14 02:42	1
Acetone	ND		10	3.0	ug/L			12/31/14 02:42	1
Benzene	ND		1.0	0.41	ug/L			12/31/14 02:42	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/31/14 02:42	1
Bromoform	ND		1.0	0.26	ug/L			12/31/14 02:42	1
Bromomethane	ND		1.0	0.69	ug/L			12/31/14 02:42	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/31/14 02:42	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/31/14 02:42	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/31/14 02:42	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/31/14 02:42	1
Chloroethane	ND		1.0	0.32	ug/L			12/31/14 02:42	1
Chloroform	**1.4**		1.0	0.34	ug/L			12/31/14 02:42	1
Chloromethane	ND		1.0	0.35	ug/L			12/31/14 02:42	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/31/14 02:42	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/31/14 02:42	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/31/14 02:42	1
Styrene	ND		1.0	0.73	ug/L			12/31/14 02:42	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/31/14 02:42	1
Toluene	ND		1.0	0.51	ug/L			12/31/14 02:42	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/31/14 02:42	1
Trichloroethene	ND		1.0	0.46	ug/L			12/31/14 02:42	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/31/14 02:42	1
Vinyl acetate	ND		5.0	0.85	ug/L			12/31/14 02:42	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/31/14 02:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*66 - 137*		*12/31/14 02:42*	*1*
Toluene-d8 (Surr)	*97*		*71 - 126*		*12/31/14 02:42*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*12/31/14 02:42*	*1*

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			12/22/14 19:51	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			12/22/14 19:51	1
Benzene	**0.11**	**J**	0.20	0.023	ug/L			12/22/14 19:51	1
Ethylbenzene	ND		0.20	0.029	ug/L			12/22/14 19:51	1
Isopropylbenzene	ND		0.20	0.027	ug/L			12/22/14 19:51	1
Methyl tert-butyl ether	ND		0.40	0.044	ug/L			12/22/14 19:51	1
m,p-Xylene	ND		0.40	0.054	ug/L			12/22/14 19:51	1
n-Butylbenzene	ND		0.20	0.031	ug/L			12/22/14 19:51	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-73351-1

Client Sample ID: Post-Carbon 3
Date Collected: 12/19/14 13:00
Date Received: 12/19/14 13:50

Lab Sample ID: 480-73352-1
Matrix: Wastewater

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	ND		0.20	0.13	ug/L			12/22/14 19:51	1
o-Xylene	ND		0.20	0.027	ug/L			12/22/14 19:51	1
p-Cymene	ND		0.20	0.030	ug/L			12/22/14 19:51	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			12/22/14 19:51	1
Toluene	ND		0.20	0.036	ug/L			12/22/14 19:51	1
Xylenes, Total	ND		0.40	0.054	ug/L			12/22/14 19:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*107*		*63 - 145*		*12/22/14 19:51*	*1*
4-Bromofluorobenzene	*107*		*64 - 141*		*12/22/14 19:51*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**168**		50.0	19.3	ug/L		12/22/14 09:25	12/23/14 14:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.32**		0.010	0.0050	mg/L		12/23/14 11:23	12/23/14 18:10	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.57**	**HF**	0.100	0.100	SU			12/22/14 14:29	1

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-73351-1

Client Sample ID: Post-Carbon 2
Date Collected: 12/19/14 13:05
Date Received: 12/19/14 13:50

Lab Sample ID: 480-73352-2
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		10	1.7	ug/L			12/22/14 20:26	50
1,3,5-Trimethylbenzene	ND		10	7.5	ug/L			12/22/14 20:26	50
Benzene	**790**		10	1.2	ug/L			12/22/14 20:26	50
Ethylbenzene	**8.8**	**J**	10	1.4	ug/L			12/22/14 20:26	50
Isopropylbenzene	ND		10	1.4	ug/L			12/22/14 20:26	50
Methyl tert-butyl ether	ND		20	2.2	ug/L			12/22/14 20:26	50
m,p-Xylene	ND		20	2.7	ug/L			12/22/14 20:26	50
n-Butylbenzene	ND		10	1.5	ug/L			12/22/14 20:26	50
n-Propylbenzene	ND		10	6.5	ug/L			12/22/14 20:26	50
o-Xylene	**2.2**	**J**	10	1.4	ug/L			12/22/14 20:26	50
p-Cymene	ND		10	1.5	ug/L			12/22/14 20:26	50
sec-Butylbenzene	ND		10	1.0	ug/L			12/22/14 20:26	50
Toluene	**47**		10	1.8	ug/L			12/22/14 20:26	50
Xylenes, Total	**6.7**	**J**	20	2.7	ug/L			12/22/14 20:26	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*110*		*63 - 145*		*12/22/14 20:26*	*50*
4-Bromofluorobenzene	*110*		*64 - 141*		*12/22/14 20:26*	*50*

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-73351-1

Client Sample ID: Post-Carbon 1
Date Collected: 12/19/14 13:10
Date Received: 12/19/14 13:50

Lab Sample ID: 480-73352-3
Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	**35**	**J**	40	6.9	ug/L			12/22/14 21:00	200
1,3,5-Trimethylbenzene	ND		40	30	ug/L			12/22/14 21:00	200
Benzene	**3300**		40	4.7	ug/L			12/22/14 21:00	200
Ethylbenzene	**290**		40	5.7	ug/L			12/22/14 21:00	200
Isopropylbenzene	ND		40	5.4	ug/L			12/22/14 21:00	200
Methyl tert-butyl ether	ND		80	8.7	ug/L			12/22/14 21:00	200
m,p-Xylene	**180**		80	11	ug/L			12/22/14 21:00	200
n-Butylbenzene	ND		40	6.2	ug/L			12/22/14 21:00	200
n-Propylbenzene	ND		40	26	ug/L			12/22/14 21:00	200
o-Xylene	ND		40	5.4	ug/L			12/22/14 21:00	200
p-Cymene	ND		40	5.9	ug/L			12/22/14 21:00	200
sec-Butylbenzene	ND		40	4.1	ug/L			12/22/14 21:00	200
Toluene	**810**		40	7.1	ug/L			12/22/14 21:00	200
Xylenes, Total	**180**		80	11	ug/L			12/22/14 21:00	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*104*		*63 - 145*		*12/22/14 21:00*	*200*
4-Bromofluorobenzene	*105*		*64 - 141*		*12/22/14 21:00*	*200*

Lab Chronicle

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-73351-1

Client Sample ID: Pre-Carbon
Lab Sample ID: 480-73351-1
Date Collected: 12/19/14 13:20
Matrix: Wastewater
Date Received: 12/19/14 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			220362	12/22/14 09:25	TAS	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	220773	12/23/14 14:03	JRK	TAL BUF
Total/NA	Analysis	300.0		20	221786	01/05/15 18:35	NDB	TAL BUF
Total/NA	Analysis	310.2		10	221419	12/31/14 10:57	ELR	TAL BUF

Client Sample ID: Outside Sump
Lab Sample ID: 480-73351-2
Date Collected: 12/19/14 13:30
Matrix: Water
Date Received: 12/19/14 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		500	220333	12/22/14 19:17	DGB	TAL BUF

Client Sample ID: Post-Carbon 3
Lab Sample ID: 480-73352-1
Date Collected: 12/19/14 13:00
Matrix: Wastewater
Date Received: 12/19/14 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	221272	12/31/14 02:42	RAS	TAL BUF
Total/NA	Analysis	8021B		1	220333	12/22/14 19:51	DGB	TAL BUF
Total/NA	Prep	200.7			220362	12/22/14 09:25	TAS	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	220773	12/23/14 14:05	JRK	TAL BUF
Total/NA	Prep	Distill/CN			220617	12/23/14 11:23	EKB	TAL BUF
Total/NA	Analysis	335.4		1	220709	12/23/14 18:10	RS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	220477	12/22/14 14:29	KMF	TAL BUF

Client Sample ID: Post-Carbon 2
Lab Sample ID: 480-73352-2
Date Collected: 12/19/14 13:05
Matrix: Water
Date Received: 12/19/14 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		50	220333	12/22/14 20:26	DGB	TAL BUF

Client Sample ID: Post-Carbon 1
Lab Sample ID: 480-73352-3
Date Collected: 12/19/14 13:10
Matrix: Water
Date Received: 12/19/14 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		200	220333	12/22/14 21:00	DGB	TAL BUF

Laboratory References:

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

Certification Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-73351-1

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-15

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8021B		Wastewater	m,p-Xylene
8021B		Wastewater	o-Xylene
8021B		Water	m,p-Xylene
8021B		Water	o-Xylene
8260C		Wastewater	1,2-Dichloroethene, Total
SM 4500 H+ B		Wastewater	pH

Method Summary

Client: New York State D.E.C.
Project/Site: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-73351-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8021B	Volatile Organic Compounds (GC)	SW846	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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: NYSDEC-Gastown WWTP: Site# 915171

TestAmerica Job ID: 480-73351-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-73351-1	Pre-Carbon	Wastewater	12/19/14 13:20	12/19/14 13:50
480-73351-2	Outside Sump	Water	12/19/14 13:30	12/19/14 13:50
480-73352-1	Post-Carbon 3	Wastewater	12/19/14 13:00	12/19/14 13:50
480-73352-2	Post-Carbon 2	Water	12/19/14 13:05	12/19/14 13:50
480-73352-3	Post-Carbon 1	Water	12/19/14 13:10	12/19/14 13:50

TestAmerica Buffalo
10 Hazel... Drive
Amherst...
Phone ...

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

480-73351 Chain of Custody

Client Information	Sampler: (signature)	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-43988-1176.1
Client Contact: Thomas...	Phone:	E-Mail: brian.fischer@testamericainc.com		Page: Page 1 of 1
Company: Groundwater & Environmental Services...				Job #:
Address: 495 Aero Drive Suite 3	Due Date Requested:			
City: Cheektowaga	TAT Requested (days): STD			
State, Zip: NY, 14225				
Phone:	PO #: Purchase Order not requir			
Email: tpalmer@gesonline.com	WO #:			
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Pre-Carb	Project #: 48002525			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0_28D - (MOD) Local Method	200.7 - (MOD) Local Method	310.2 - Alkalinity, Total	8021 b (mod) Stars list VOA 8021	Total Number of containers	Special Instructions/Note:
				Preservation Code:			N	D	N			
Pre-Carbon	12/19	1320	G	Water	N	N	/	/	/			
outside sump	12/19	1330	G	water	N	N				/		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☑ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For ______ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
(signature)	12/19/14 1350	GES	(signature)	12/19/14 1350	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: #2 2.3

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1/7/2015

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:
Client Contact: Thomas Palmer	Phone:	Fischer, Brian J E-Mail: brian.fischer@testamericainc.com		480-43996-1177.1 Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc				Job #:

Address: 495 Aero Drive Suite 3	Due Date Requested:	Analysis Requested
City: Cheektowaga	TAT Requested (days): STD	
State, Zip: NY, 14225	PO #: Purchase Order not requir	
Phone:	WO #:	
Email: tpalmer@gesonline.com	Project #: 48002525	
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Post-Ca	SSOW#:	
Site: New York		

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - Di Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7 - Iron	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS List - VOA - 8021	335.4 - Cyanide, Total	SM4500_H+ - pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	A	A	B	N		
Post-Carbon -3	12/19/14	1300	G	Water	N	N	/	/	/	/	/		
Post carbon-2	12/19/14	1305	G	water					X				
Post carbon -1	12/19/14	1310	G	water					X				

480-73352 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☑ Unknown ☐ Radiological	☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		12/19 1350	GES		12/19/14 1350	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: #2 2.5

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-73351-1

Login Number: 73351

List Source: TestAmerica Buffalo

List Number: 1

Creator: Janish, Carl 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.	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.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-73351-1

Login Number: 73352

List Source: TestAmerica Buffalo

List Number: 1

Creator: Robison, Zachary J

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	GES
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	