# FORMER GASTOWN MGP SITE SITE NO. 915171

# 2014 LAB REPORTS FOR THE GROUNDWATER COLLECTION & TREATMENT SYSTEM

All lab reports for 2014 are available.



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. Giacomogya

Authorized for release by: 1/24/2014 12:46:46 PM Joe Giacomazza, Project Management Assistant II joe.giacomazza@testamericainc.com

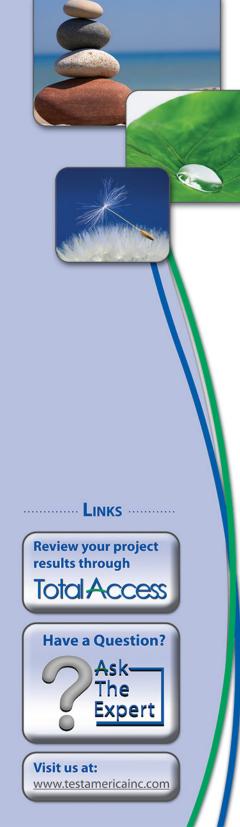
Designee for

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

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

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

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



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

> 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.

Joseph V. Giacomage

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

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

# 3

# Qualifiers

GC	/MAC	VO	
GU	1113	VU	F

GC/MS VOA		
Qualifier	Qualifier Description	
*	LCS or LCSD exceeds the control limits	5
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 Ch	emistry	
Qualifier	Qualifier Description	
HF	Field parameter with a holding time of 15 minutes	8

# 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)

# 1 2 3 4 5 6 7 8 9

# 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 2.7° C and 2.7° 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

01/16/14 09:20 01/17/14 22:22

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

# **Client Sample ID: Pre-Carbon** Date Collected: 01/15/14 14:25

Date Received: 01/15/14 16:00

Potassium

Method: 8021B - Volatile Orga	anic 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 - Metal	s (ICP)								
Analyte		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

Sodium	60300	1000	324 u	ug/L		01/16/14 09:20	01/17/14 22:22	1
General Chemistry								
Analyte	Result Qualifier	RL	MDL U	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	105	2.5	1.4 n	mg/L			01/16/14 17:38	5
Sulfate	140	10.0	1.7 n	mg/L			01/16/14 17:38	5
Alkalinity, Total	445	100	40.0 n	mg/L			01/17/14 10:45	10

500

100 ug/L

4680

1

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

**Client Sample ID: Outside Sump** 

Date Collected: 01/15/14 14:35

Date Received: 01/15/14 16:00

TestAmerica Job ID: 480-53321-1

Lab Sample ID: 480-53321-2 Matrix: Water 5

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

# Client Sample ID: Post-Carbon-3

Date Collected: 01/15/14 14:10 Date Received: 01/15/14 16:00

Isopropylbenzene

m,p-Xylene

n-Butylbenzene

Methyl tert-butyl ether

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-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	
1,2-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		ug/L			01/16/14 05:28	
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/16/14 05:28	1
Acetone	ND		10		ug/L			01/16/14 05:28	1
Benzene	ND		1.0		ug/L			01/16/14 05:28	
Bromodichloromethane	ND		1.0		ug/L			01/16/14 05:28	1
Bromoform	ND		1.0		ug/L			01/16/14 05:28	1
Bromomethane	ND		1.0		ug/L			01/16/14 05:28	
Carbon disulfide	ND		1.0		ug/L			01/16/14 05:28	1
Carbon tetrachloride	ND		1.0		ug/L			01/16/14 05:28	1
Chlorobenzene	ND		1.0		ug/L			01/16/14 05:28	
Dibromochloromethane	ND		1.0		ug/L			01/16/14 05:28	1
Chloroethane	ND		1.0		ug/L			01/16/14 05:28	1
Chloroform	ND		1.0		ug/L			01/16/14 05:28	
Chloromethane	ND		1.0		ug/L			01/16/14 05:28	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			01/16/14 05:28	1
Ethylbenzene	ND		1.0		ug/L			01/16/14 05:28	
Methylene Chloride	ND		1.0		ug/L			01/16/14 05:28	1
Styrene	ND		1.0		ug/L			01/16/14 05:28	1
Tetrachloroethene	ND		1.0		ug/L			01/16/14 05:28	····· 1
Toluene	ND		1.0		ug/L			01/16/14 05:28	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			01/16/14 05:28	1
Trichloroethene	ND		1.0		ug/L			01/16/14 05:28	· · · · · · · · 1
	ND		1.0		-			01/16/14 05:28	1
Vinyl chloride			5.0		ug/L				
Vinyl acetate	ND				ug/L			01/16/14 05:28	1
Xylenes, Total	ND		2.0	0.00	ug/L			01/16/14 05:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)			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 Orga	nic Compounds	(GC)							
Analyte		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	
- 					-				

TestAmerica Job ID: 480-53321-1

Lab Sample ID: 480-53322-1

Matrix: Wastewater

TestAmerica Buffalo

1

1

1

1

01/20/14 12:30

01/20/14 12:30

01/20/14 12:30

01/20/14 12:30

0.20

0.40

0.40

0.20

0.027 ug/L

0.044 ug/L

0.054 ug/L

0.031 ug/L

ND

ND

ND

ND

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

# **Client Sample ID: Post-Carbon-3** Date Collected: 01/15/14 14:10

Date Collected: 01/15/14 14:10						Matrix: Wa	stewater
Date Received: 01/15/14 16:00							
Method: 8021B - Volatile Orgal	nic Compounds (GC) (Continued)	)					
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac

						•	-	
ND		0.20	0.13	ug/L			01/20/14 12:30	1
ND		0.20	0.027	ug/L			01/20/14 12:30	1
ND		0.20	0.030	ug/L			01/20/14 12:30	1
ND		0.20	0.020	ug/L			01/20/14 12:30	1
ND		0.20	0.036	ug/L			01/20/14 12:30	1
ND		0.60	0.054	ug/L			01/20/14 12:30	1
%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
86		63 - 145					01/20/14 12:30	1
86		64 - 141					01/20/14 12:30	1
<b>)</b>								
	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
124		50.0	19.3	ug/L		01/16/14 09:20	01/16/14 19:06	1
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	ND ND ND ND ND <b>%Recovery</b> 86 86 86 2) Result 124	ND ND ND ND ND %Recovery 86 86 86 2) Result Qualifier	ND         0.20           ND         0.20           ND         0.20           ND         0.20           ND         0.20           ND         0.60           %Recovery         Qualifier         Limits           86         63 - 145           86         64 - 141           P)         Result         Qualifier           124         50.0	$\begin{array}{c ccccc} ND & 0.20 & 0.027 \\ ND & 0.20 & 0.030 \\ ND & 0.20 & 0.020 \\ ND & 0.20 & 0.036 \\ ND & 0.60 & 0.054 \\ \hline \\ \hline $\frac{\% Recovery}{86} & \frac{Qualifier}{63.145} \\ \hline $86 & 64.141 \\ \hline \\ $	$\begin{tabular}{ c c c c c c c } \hline ND & 0.20 & 0.027 & ug/L \\ \hline ND & 0.20 & 0.030 & ug/L \\ \hline ND & 0.20 & 0.020 & ug/L \\ \hline ND & 0.20 & 0.036 & ug/L \\ \hline ND & 0.60 & 0.054 & ug/L \\ \hline \end{tabular} \\ \hline tabul$	$\frac{ND}{ND} = 0.20 = 0.027 \text{ ug/L}}{0.027 \text{ ug/L}}$ $\frac{ND}{ND} = 0.20 = 0.030 \text{ ug/L}}{0.020 \text{ ug/L}}$ $\frac{ND}{ND} = 0.20 = 0.036 \text{ ug/L}}{0.054 \text{ ug/L}}$ $\frac{\% \text{Recovery}}{86} = \frac{\text{Qualifier}}{63 - 145}$ $\frac{63 - 145}{86} = 64 - 141$ $\frac{\text{P}}{124} = \frac{\text{RL}}{50.0} = \frac{\text{MDL}}{19.3 \text{ ug/L}} = \frac{\text{D}}{19.3 \text{ ug/L}}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

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
рН	7.57	HF	0.100	0.100	SU			01/16/14 02:55	1

TestAmerica Job ID: 480-53321-1

Lab Sample ID: 480-53322-1

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

# **Client Sample ID: Post-Carbon-2**

Date Collected: 01/15/14 14:15 Date Received: 01/15/14 16:00

4-Bromofluorobenzene

Method: 8021B - Volatile Or	• •	• •							
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

64 - 141

90

1/24/2014

Matrix: Water

TestAmerica Job ID: 480-53321-1

Lab Sample ID: 480-53322-2

01/20/14 13:05

Client: New York State D.E.C. Project/Site: NYSDEC-Gastown WWTP: Site# 915171 TestAmerica Job ID: 480-53321-1

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

5

Date Collected: 01/15/14 14:20 Date Received: 01/15/14 16:00

**Client Sample ID: Post-Carbon-1** 

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

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
			00 115			-		01/21/14 11:09	50
a,a,a-Trifluorotoluene	87		63 - 145					01/21/14 11.09	50

Dilution

Factor

100

1

1

5

10

Run

Batch

Number

162253

161848

162288

161848

162498

161910

162160

Prepared

or Analyzed

01/20/14 15:45

01/16/14 09:20

01/17/14 22:22

01/16/14 09:20

01/20/14 14:33

01/16/14 17:38

01/17/14 10:45

Analyst

DGB

NMD2

LMH

NMD2

LMH

KRC

NCH

Lab

TAL BUF

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

Batch

Method

8021B

200 7

200.7

300.0

310.2

200.7 Rev 4.4

200.7 Rev 4.4

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

Batch

Туре

Prep

Prep

Analysis

Analysis

Analysis

Analysis

Analysis

Date Received: 01/15/14 16:00

Prep Type

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

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

# Client Sample ID: Outside Sump

Date Collected: 01/15/14 14:35

Date	Rece	ived:	01/15	/14 1	16:00

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

# **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

Lab Sample ID: 480-53322-2

Lab Sample ID: 480-53322-3

Matrix: Water

Matrix: Water

Lab Sample ID: 480-53321-2

Matrix: Water

### Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number or Analyzed Analyst Lab 01/16/14 05:28 Total/NA Analysis 8260C 161805 GTG TAL BUF 1 Total/NA 8021B 01/20/14 12:30 Analysis 1 162253 DGB TAL BUF Total/NA Prep 200 7 161852 01/16/14 09:20 NMD2 TAL BUE Total/NA Analysis 200.7 Rev 4.4 162047 01/16/14 19:06 LMH TAL BUF 1 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 IAW TAL BUF Total/NA 335.4 NCH TAL BUF Analysis 1 162555 01/21/14 11:16

# Client Sample ID: Post-Carbon-2

Date Collected: 01/15/14 14:15

Date Received: 01/15/14 16:00

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

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

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	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

TestAmerica Buffalo

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

# Laboratory References:

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

TestAmerica Buffalo

# **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	
Laboratory: restAmerica Danaio	

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
owa	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
Vinnesota	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

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

Method Description

Metals (ICP)

Cyanide, Total

EPA = US Environmental Protection Agency

Alkalinity

pН

Volatile Organic Compounds by GC/MS

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

Volatile Organic Compounds (GC)

Anions, Ion Chromatography

Laboratory

TAL BUF

Protocol

SW846

SW846

MCAWW

MCAWW

MCAWW

SM

EPA

5
0

8 9 10

# Laboratory References:

Protocol References:

Method

8260C

8021B

300.0

310.2

335.4

200.7 Rev 4.4

SM 4500 H+ B

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

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

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

TestAmerica Buffalo

Sample Summary

Client: New York State D.E.C. Project/Site: NYSDEC-Gastown WWTP: Site# 915171 TestAmerica Job ID: 480-53321-1

ab Sample ID	Client Sample ID	Matrix	Collected	Received
80-53321-1	Pre-Carbon	Wastewater	01/15/14 14:25	01/15/14 16:00
80-53321-2	Outside Sump	Water	01/15/14 14:35	01/15/14 16:00
80-53322-1	Post-Carbon-3	Wastewater	01/15/14 14:10	01/15/14 16:00
80-53322-2	Post-Carbon-2	Water	01/15/14 14:15	01/15/14 16:00
80-53322-3	Post-Carbon-1	Water	01/15/14 14:20	01/15/14 16:00

TestAmerica Buffalo																		Т	Cost A	main	ina
10 Hazelwood Drive			(	Chain d	of C	us	stoc	iv I	Rec	ord									<b>TestA</b>	me	ica
Amherst, NY 14228-2298								· · ·										1	HE LUADER IN F	NURGNMENT	A TESTING
Phone (716) 691-2600 Fax (716) 691-7991	Sampler			Lab	M			_				Corr	ier Tra	cking	No(e)			CC	DC No:		
Client Information	T.te	almen			her, B	Brian	J					Can		ioning	140(3)				30-30381-1176	5.1	
Client Contact. Thomas Palmer	Phone (716	er T. P. I. W. 1 (716) 866:3540 ate Requested: $10 - 70$ equested (days): 10 - 4a hase Order not requir 14 2525 # hple Date Sample G=grab) $0^{-1}$ $10^{-1}$				ner@	testarr	erica	inc.co	m									age age 1 of 1		
Company					1-														b#		
Groundwater & Environmental Services Inc Address	Due Date Date				-				An	alysis	Re	ques	sted				- 1.22	+			
495 Aero Drive Suite 3		+0	τP															40	reservation Co	des: M - Hexane	
City Cheektowaga	TAT Requested (d	1							1728									В	- NaOH - Zn Acetate	N - None O - AsNaO2	1
State, Zip. NY, 14225		10-40	3						UcA-									E	- Nitric Acid - NaHSO4 - MeOH	P - Na2O4S Q - Na2SO3 R - Na2S2S	3
Phone (SW)287-7857		not requir			6													G	- Amchlor - Ascorbic Acid	S - H2SO4 T - TSP Dod	
Email tpalmer@gesonline.com	WO #.				or N	<b>e</b> 1 3			te 1										- Ice - DI Water	U - Acetone V - MCAA	
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Pre-Car	Project # 48002525				20S	S OF NO	Poq		Stress										- EDTA - EDA	W - ph 4-5 Z - other (sp	ecify)
Site: New York	SSOW#				mpie	THE MISING (Yes of No	200.7 - (MOD) Local Method	Total									5.025	200000	ther:		
				Martin	S pe		Loc	Alkalinity, Total	(McD)												
				Matrix (www.ater,	liter		- OW	Aikal	0									Number			
		Sample		S=solid, O=wasta/oil,	L P	Pertorm		310.2 - /	81538									2			
Sample Identification	Sample Date	Time		BT=Tissue, A=Air		Pero	<u>8</u>	310	8								1	Total	Special Ir	nstructions/	Note:
Real and the second	$\geq$	$\geq$	Preserva	ation Code:	$\boxtimes$	N	D	N	A				1.				D	$\triangleleft$	19. 9	-	
Pre-Carbon	1-15 14	GG	1425	Water	NN	1   >	< >	$\left \right $	X												
Outside Swmp	1-15-14	GK	71435	WITY	M	N			X			1		-							
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					Π																
Possible Hazard Identification																			nger than 1 m	onth)	
Non-Hazard Flammable Skin Irritant Poison	B Onknow	n Rac	liological			<u> </u>	Retun	n To (	Client		Ъ	ispos	al By	Lab			Archi	ive Fo	or	Months	
Deliverable Requested: I, II, III, IV, Other (specify)					s	specia	al Instr	uction	ns/QC	Requir	emen	nts:									
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Δ Yes Δ No										_			-			_			#3	$-\sigma$	
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Page 17 of 20

TestAmerica Buffalo

1/24/2014

# . TestAmerica Buffalo 10 Hazeiwood Drive

# Chain of Custody Record



Amherst, NY 14228-2298 Phone (716) 691-2600 Fax (716) 691-7991

Client Information	Sampler La				v er, Briar						Ca	rrier Tra	icking	No(s).			COC No. 480-30390-117	COC No. 480-30390-1177.1			
Client Contact Thomas Palmer		566 34	590	E-Mail				opine									Page.	Page. Page 1 of 1			
Company				Drian.	lischere	ylesia	amen							_	_		Job #				
Groundwater & Environmental Services Inc	Due Date Request							/	Analy	sis R	eque	sted				12					
Address. 495 Aero Drive Suite 3	Due Date Request	ea:															Preservation C				
City.	TAT Requested (da	ays):														Ľ	A - HCL B - NaOH	M - Hexane N - None			
Cheektowaga	10 -	la.															C - Zn Acetate D - Nitric Acid	O - AsNaO2 P - Na2O4S			
NY, 14225	10										[						E - NaHSO4 F - MeOH	Q - Na2SO3 R - Na2S2SO3			
Phone: (SOU) 387-7857	PO # Purchase Order	not requir						5								ß	G - Amchlor	S - H2SO4			
Email	WO #	notirequil			or No)			- 2021								8	H - Ascorbic Acid	U - Acetone	rate		
tpalmer@gesonline.com					NO O		8 8	5									J - DI Water K - EDTA	V - MCAA W - ph 4-5			
Project Name NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Post-Ca	Project # 48002525				e (Yes es or N		OLM04.2	List - VOA									K - EDTA L - EDA Other:	Z - other (specify)			
Site.	SSOW#				) (X																
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			Compie /	atrix	MS N	5	(IOOM)-	8021B - (MOD) S IARS 336.4 - Cvanida, Total	÷ +								Special				
		Sample	s spec	water, solid,	E P	ž –											ž				
Sample Identification	Sample Date	Time	G≈grab) BT-TIs	aste/oil, sue, A=Air )	Per	200.7 - Iron	8260B	335	SM4500_H+ -								Special	Instructions/Note:			
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Post-Carbon - 3	1-15-4	1410	GV	/ater	NN	×	×  '	× ×	$  \mathbf{k}  $												
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Possible Hazard Identification					San	nple D	Disno	sal ()	A fee r	nav be	asse	ssed h	f sam	nies	are re	atain	ed longer than 1	month)			
Non-Hazard Flammable Skin Irritant Poiso			diological					o Clie				isal By				Arch	ive For	Months			
Deliverable Requested: I, II, III, IV, Other (specify)					Spe					quirem	ents:										
Empty Kit Relinquished by:		Date:			Time:	-	_					Meth	od of	Shipm	ent	_					
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Custody Seals Intact: Custody Seal No.:					٦	Cooler	Temp	erature	(s)°Ca	nd Other	Remar	ks	t	ť'	5	)	2.1				
Δ Yes Δ No							_			_					$\sim$						

1/24/2014

Client: New York State D.E.C.

# Login Number: 53321

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	

Job Number: 480-53321-1

List Source: TestAmerica Buffalo

Client: New York State D.E.C.

# Login Number: 53322

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	
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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	

Job Number: 480-53321-1

List Source: TestAmerica Buffalo



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. Giacomogya

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

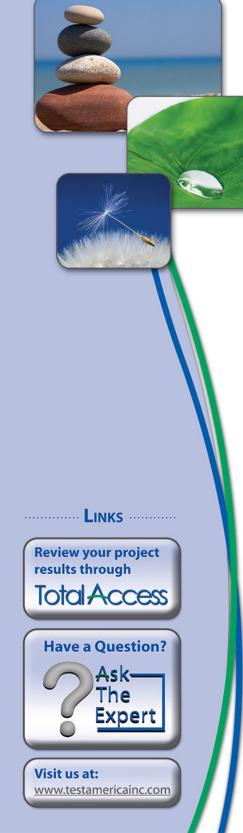
Designee for

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

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

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

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



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

> 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.

Joseph V. Giacomage

Joe Giacomazza Project Management Assistant II 2/26/2014 4:55:26 PM

# **Table of Contents**

Cover Page	1
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Case Narrative	5
Client Sample Results	
Chronicle	15
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Sample Summary	19
Chain of Custody	20
Receipt Checklists	22

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

# 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.	5
Metals		
Qualifier	Qualifier Description	
В	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 Ch	nemistry	
Qualifier	Qualifier Description	8
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 3.0° C and 3.3° 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

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

# Job ID: 480-54582-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

No other analytical or quality issues were noted.

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

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

Date Received: 02/12/14 14:05

ND ND ND ND ND ND ND ND ND ND ND ND ND N		100 100 100 100 100 200 100 500 1000 500	21 23 38 29 21 81 72 120 130 210	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L		02/13/14 19:54 02/13/14 19:54 02/13/14 19:54 02/13/14 19:54 02/13/14 19:54 02/13/14 19:54 02/13/14 19:54 02/13/14 19:54 02/13/14 19:54	100 100 100 100 100 100 100 100 100
ND ND ND ND ND ND ND ND ND ND ND ND ND		100 100 100 200 100 500 1000 500 1000	23 38 29 21 81 72 120 130 210	ug/L ug/L ug/L ug/L ug/L ug/L ug/L		02/13/14 19:54 02/13/14 19:54 02/13/14 19:54 02/13/14 19:54 02/13/14 19:54 02/13/14 19:54 02/13/14 19:54	100 100 100 100 100 100
ND ND ND ND ND ND ND ND ND ND ND		100 100 200 100 500 1000 500 1000	38 29 21 81 72 120 130 210	ug/L ug/L ug/L ug/L ug/L ug/L		02/13/14 19:54 02/13/14 19:54 02/13/14 19:54 02/13/14 19:54 02/13/14 19:54 02/13/14 19:54	100 100 100 100 100
ND ND ND ND ND ND ND ND ND ND		100 100 200 100 500 1000 500 1000	29 21 81 72 120 130 210	ug/L ug/L ug/L ug/L ug/L ug/L		02/13/14 19:54 02/13/14 19:54 02/13/14 19:54 02/13/14 19:54 02/13/14 19:54	100 100 100 100
ND ND ND ND ND ND 6600 ND ND		100 200 100 500 1000 500 1000	21 81 72 120 130 210	ug/L ug/L ug/L ug/L ug/L		02/13/14 19:54 02/13/14 19:54 02/13/14 19:54 02/13/14 19:54	100 100 100
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ND ND ND ND <b>6600</b> ND ND		100 500 1000 500 1000	72 120 130 210	ug/L ug/L ug/L		02/13/14 19:54 02/13/14 19:54	100
ND ND ND 6600 ND ND		500 1000 500 1000	120 130 210	ug/L ug/L		02/13/14 19:54	
ND ND 6600 ND ND		1000 500 1000	130 210	ug/L			100
ND ND 6600 ND ND		500 1000	210	-		02/12/14 10.54	
ND 6600 ND ND		1000		ua/l		02/13/14 19:54	100
6600 ND ND			200	uy/L		02/13/14 19:54	100
ND ND			300	ug/L		02/13/14 19:54	100
ND		100	41	ug/L		02/13/14 19:54	100
		100		ug/L		02/13/14 19:54	100
		100	26	ug/L		02/13/14 19:54	100
ND		100	69	ug/L		02/13/14 19:54	100
ND		100	19	ug/L		02/13/14 19:54	100
ND		100	27	ug/L		02/13/14 19:54	100
ND		100	75	ug/L		02/13/14 19:54	100
ND		100	32	ug/L		02/13/14 19:54	100
ND		100	32	ug/L		02/13/14 19:54	100
ND		100	34	ug/L		02/13/14 19:54	100
ND		100	35	ug/L		02/13/14 19:54	100
ND		100	36	ug/L		02/13/14 19:54	100
650		100	74	ug/L		02/13/14 19:54	100
ND		100	44	ug/L		02/13/14 19:54	100
250		100	73	ug/L		02/13/14 19:54	100
ND		100	36	ug/L		02/13/14 19:54	100
2200		100	51	ug/L		02/13/14 19:54	100
ND		100	37	ug/L		02/13/14 19:54	100
ND		100	46	ug/L		02/13/14 19:54	100
ND		100	90	ug/L		02/13/14 19:54	100
ND		500	85	ug/L		02/13/14 19:54	100
500		200	66	ug/L		02/13/14 19:54	100
	Qualifier	Limits			Prepared	Analyzed	Dil Fac
102		66 - 137				02/13/14 19:54	100
99		71 - 126				02/13/14 19:54	100
96		73 - 120				02/13/14 19:54	100
						<b>.</b>	<b>-</b> <i>v</i> -
	Qualifier				D Prepared		Dil Fac
47							100
				-			100
							100
ND				-		02/14/14 10:16	100
	J	40		-		02/14/14 10:16	100
370		40				02/14/14 10:16	100
ND		20	3.1	ug/L		02/14/14 10:16	100
	ND ND ND ND ND ND ND 250 ND 2200 ND 2200 ND 2200 ND 2200 ND ND 500 %Recovery 102 99 96 Compounds ( Result 47 ND 690 ND 8.6 370	ND         ND         ND         ND         ND         ND         ND         ND         ND         S00         %Recovery         Qualifier         102         99         96         Compounds (GC)         Result         Qualifier         47         ND         690         ND         8.6         370         ND	ND         100           S50         100           ND         100           250         100           ND         200           S00         200           %Recovery         Qualifier         Limits           102         66 - 137           99         71 - 126           96         73 - 120           Compounds (GC)         20           ND         20           690         20           ND         20	ND         100         19           ND         100         27           ND         100         32           ND         100         32           ND         100         32           ND         100         32           ND         100         34           ND         100         34           ND         100         35           ND         100         36           650         100         74           ND         100         36           250         100         73           ND         100         36           2200         100         51           ND         100         36           2200         100         51           ND         100         36           200         100         36           200         200         66 <i>%Recovery</i> Qualifier         Limits           102         66.137         3.5           99         71.126         96           96         73.120         3.5           Compounds (GC)         20         2.7	ND         100         19         ug/L           ND         100         27         ug/L           ND         100         75         ug/L           ND         100         32         ug/L           ND         100         32         ug/L           ND         100         32         ug/L           ND         100         34         ug/L           ND         100         35         ug/L           ND         100         35         ug/L           ND         100         36         ug/L           ND         100         44         ug/L           ND         100         44         ug/L           ND         100         36         ug/L           ND         100         90         ug/L           ND         200         85         ug/L	ND         100         19         ug/L           ND         100         27         ug/L           ND         100         75         ug/L           ND         100         32         ug/L           ND         100         32         ug/L           ND         100         32         ug/L           ND         100         34         ug/L           ND         100         35         ug/L           ND         100         36         ug/L           ND         100         36         ug/L           ND         100         44         ug/L           250         100         73         ug/L           ND         100         36         ug/L           ND         100         36         ug/L           ND         100         37         ug/L           ND         100         37         ug/L           ND         100         90         ug/L           ND         100         90         ug/L           ND         500         85         ug/L           500         200         66         ug/L	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

TestAmerica Buffalo

Lab Sample ID: 480-54582-1

Matrix: Wastewater

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

# **Client Sample ID: Pre-Carbon** Date Collected: 02/12/14 13:00

Date Received: 02/12/14 14:05

4-Bromofluorobenzene

Method: 8021B - Volatile O	rganic Compounds	(GC) (Conti	nued)						
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

64 - 141

87

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

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TestAmerica Job ID: 480-54582-1

Lab Sample ID: 480-54582-1

02/14/14 10:16

Matrix: Wastewater

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

**Client Sample ID: OUTSIDE SUMP** 

Date Collected: 02/12/14 13:10

Date Received: 02/12/14 14:05

# TestAmerica Job ID: 480-54582-1

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

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

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	Analvzed	Dil Fac
-	-								
a,a,a-Trifluorotoluene	86		63 - 145					02/17/14 10:44	500

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

# **Client Sample ID: Post-Carbon-3**

Date Collected: 02/12/14 12:40 Date Received: 02/12/14 14:05

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
rans-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
√inyl chloride	ND		1.0	0.90	ug/L			02/13/14 19:33	1
/inyl 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

TestAmerica Buffalo

TestAmerica Job ID: 480-54582-1

Lab Sample ID: 480-54583-1

Matrix: Wastewater

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

Date Received: 02/12/14 14:05

TestAmerica Job ID: 480-54582-1

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

atrix: Wastewater

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-Tribromonhenol			52 122				02/14/14 08:14	02/15/14 11:56	1

2-Filoorobiphenyl         82         48 - 120         02/14/14 08:14         02/15/14           2-Filoorophenol         47         20 - 120         02/14/14 08:14         02/15/14	Sui	Analy	ilyzed	Dil
2-Fluorophenol 47 20 - 120 02/14/14 08:14 02/15/14	2,4,	02/15/14	14 11:56	
	2-F	02/15/14	14 11:56	
Nitrobenzene-d5 78 46 - 120 02/14/14 08:14 02/15/14	2-F	02/15/14	14 11:56	
	Nitr	02/15/14	14 11:56	
p-Terphenyl-d14 96 67_150 02/14/14 08:14 02/15/14	p-T	02/15/14	14 11:56	
Phenol-d5 31 16 - 120 02/14/14 08:14 02/15/14	Phe	02/15/14	14 11:56	

# 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

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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

64 - 141

TestAmerica Buffalo

1

02/14/14 15:59

RL

0.048

MDL Unit

0.0097 ug/L

D

Prepared

02/14/14 08:20

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

Method: 608 - Organochlorine Pesticides in Water (Continued)

Result Qualifier

ND

7.33 HF

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

Analyte

рΗ

delta-BHC

TestAmerica Job ID: 480-54582-1

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

Analyzed

02/18/14 09:59

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			0.010	0.0001	~g, _		02/10/100020		•
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									
Analyte		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	JB	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

02/12/14 17:52

1

0.100

0.100 SU

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

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 Fa
a,a,a-Trifluorotoluene	86		63 _ 145			-		02/14/14 16:33	1
4-Bromofluorobenzene	88		64 - 141					02/14/14 16:33	÷

2/26/2014

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

# **Client Sample ID: Post-Carbon-1**

Date Collected: 02/12/14 12:55 Date Received: 02/12/14 14:05

4-Bromofluorobenzene

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

64 - 141

88

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

02/14/14 17:41

50

TestAmerica Buffalo

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

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

**Client Sample ID: Pre-Carbon** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	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

Date Collected: 02/12/14 13:10

Date Received: 02/12/14 14:05

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	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 Date Collected: 02/12/14 12:40 Date Received: 02/12/14 14:05

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

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

Lab Sample ID: 480-54582-2

Matrix: Water

Lab Sample ID: 480-54583-2

Lab Sample ID: 480-54583-3

Matrix: Water

Matrix: Water

# 6

TestAmerica Buffalo

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

- 2		12,14 14.00	<b>.</b>						
ſ	-	Batch	Batch		Dilution	Batch	Prepared		
	Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
	Total/NA	Analysis	8021B		1	165968	02/14/14 16:33	DGB	TAL BUF

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

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	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

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
lowa	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
Vichigan	State Program	5	9937	04-01-14
Vinnesota	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
JSDA	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 Description

Metals (ICP)

Alkalinity

Cyanide, Total

HEM and SGT-HEM

Anions, Ion Chromatography

Phenolics, Total Recoverable

Solids, Total Dissolved (TDS)

Solids, Total Suspended (TSS)

Volatile Organic Compounds by GC/MS

Volatile Organic Compounds (GC)

Organochlorine Pesticides in Water

Semivolatile Organic Compounds (GC/MS)

Laboratory

TAL BUF

Protocol

SW846

SW846

SW846

EPA

1664A

MCAWW MCAWW

MCAWW

MCAWW

SM

SM

SM

SM

40CFR136A

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8
0

Protocol References:

Method

8260C

8270D

8021B

1664A

300.0

310.2

335.4

420.4

SM 2540C

SM 2540D

SM 5210B

SM 4500 H+ B

200.7 Rev 4.4

608

1664A = EPA-821-98-002

pН

BOD, 5-Day

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

Client: New York St Project/Site: NYSD	tate D.E.C. EC-Gastown WWTP: Site# 915171		TestAmerica Job ID:										
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									
				8									
				9									

# TestAmerica Buffalo

10 Hazelwood Drive

Page 20 of 23

2/26/2014

# Chain of Custody Record

Amherst, NY 14228-2298

Phone (716) 691-2600 Fax (716) 691-7991									_			_		_							
Client Information	Phone. (716)	Palner		Fis	PM cher, E	Brian	J					с с	arrier	Tracki	ng No	o(s):			COC No <sup>.</sup> 480-43978-1179.1		
Client Contact Thomas Palmer	Phone. (716)	866	3590	E-M bria		her@	testan	nericai	nc.co	m									Page: Page 1 of 1		
Company Groundwater & Environmental Services Inc									Ar	nalys	is F	Requ	est	ed					Jop #		
Address	Due Date Reques	ted:			1										Τ			27.5	Preservation Cod	ies:	
495 Aero Drive Suite 3 City:	TAT Requested (c	ays):			-	<u>.</u>					1								A - HCL B - NaOH	M - Hexane N - None	
Cheektowaga						-		1 1			- 1								C - Zn Acetate	O - AsNaO2	
State, Zip: NY, 14225		ID																	D - Nitnc Acid E - NaHSO4 F - MeOH	P - Na2O4S Q - Na2SO3 R - Na2S2SO3	
Phone	PO # Purchase Order	r not requir							51										G - Amchlor H - Ascorbic Acid	S - H2SO4 T - TSP Dodecahydrate	
Email:	WO #:				Or No				A - 8021										1 - ice	U - Acetone	
tpalmer@gesonline.com Project Name:	Project #.				- 8	ž	Method hod	A04.2	\$									SIel	J - DI Water K - EDTA	V - MCAA W - ph 4-5	
NYSDEC - Gastown WWTP/Gastown Event Desc: Qtrly Pre-Cart	48002525				کے ا	8	al Me	OLN OLN	List	_								containers	L - EDA	Z - other (specify)	
Site. New York	SSOW#.				Samp	2D C	- (MOD) Local Me D) Local Method	- (MOD) TCL list OLM04.2	- (MOD) STARS List - VOA	, Total								of col			
			Sample	Matrix	Per	NS		l e	ĝ	Alkalinity,								nber			
		1	Туре	(W-water, S=solid,	Filte	E	300.0_28D - (N 200.7 - (MOD)	Ĩ.	W) -	- Alk							1	Total Number			
Sample Identification	Sample Date	Sample Time		O=waste/oll, BT=Tissue, A=Al	1		0 0	8260B	8021B	310.2 -								otal	Special in	structions/Note:	
	Sample Date			ation Code:	爱	XN				N	7	13. K		rka, 1			1	1	Special in	structions/Note:	
Pre-Carbon	2-12-14	1300		Water	fΫ		**		0.4.000	×				1994 <b>1</b> 200			+	T		des 202	
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Possible Hazard Identification	L			ļ	Ц,	Sami	nie Die	DOSA		ee m	av h		esse	d if s	amn	les a	re ret	taine	d longer than 1 m	onth)	
Non-Hazard Flammable Skin Irritant Poisor		vn 🖵	adiological		ľ		Retur				, Ľ	Disp					5	rchiv	ve For	Months	
Deliverable Requested: 1, II, III, IV, Other (specify)			adiological		-	Speci	ial Inst				uirer			272							
Empty Kit Relinquished by:		Date:			Tim						_		Ν	lethod	of SI	ipmen	t				
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Relinquished by	Date/Time	/	<u></u>	Company			eceived	by:	2		~	5~	_			ate/Tir			7_/907_	Comparty	
Relinquished by	Date/Time			Company	_	R	eceived	by.							D	ate/Tir	ne			Company	
Custody Seals Intact: Custody Seal No.:						с	ooler Te	mperati	ure(s)	°C and	Othe	er Rem	arks			3	, O ·	8/1			
Δ Yes Δ No									_	-			2	6		0	Ť	1	0 4		

### TestAmerica Buffalo .

### 10 Hazelwood Drive Amherst, NY 14228-2298 Ph

# **Chain of Custody Record**



IF LEADER IN ENVIRONMENTAL TESTING

M - Hexane

O - AsNaO2

P - Na2O4S

Q - Na2SO3

S - H2SO4

V - MCAA

W - ph 4-5

Special Instructions/Note:

Months

Company THS

Company

Company

Z - other (specify)

R - Na2S2SO3

T - TSP Dodecahydrate U - Acetone

N - None

Phone (716) 691-2600 Fax (716) 691-7991		•																		THE LEADER IN	ENVIRO
Client Information	Sampler:	Pahr		Lab Fisc		Brian	٦J						Car	tier Tr	rackir	ng No(	<b>s)</b> :	COC No: 480-43974-117	78.1		
Client Contact: Thomas Palmer	Phone: (710	6)866	-359D	E-Ma		ill: n.fischer@testamericainc.com					1							Page: Page 1 of 1			
Company:				Una		cherte	ylesi							- 4						Job #:	
Groundwater & Environmental Services Inc Address:	Due Date Reques	ted:			3.78					Ana	iysi	s Re	que	stee					1.24	Descention	
495 Aero Drive Suite 3	Due Date Reques	iteu.																		Preservation C	odes: M - I
City: Cheektowaga	TAT Requested (	lays):																	100	B - NaOH C - Zn Acetate	N - I O - /
State, Zip: NY, 14225	-	10																	6.622	D - Nitric Acid E - NaHSO4	P-1 Q-1
Phone:	PO #: Purchase Orde	r not requir									;	0							200	F - MeOH G - Amchlor	R-1 S-1
Email:	WO #:	i not i equi			- <sup>2</sup>			4		FC08	2 pick	17	Demand	olids						H - Ascorbic Acid	ד-ד 1 ע-ע
tpalmer@gesonline.com					s of	No)				M04.2			۲ ۲	d S b	1				2	J - DI Water	V - M
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Qtrly Post-C	Project #: ar 48002525				<u>ک</u> ،	IS OF	Method	t Grease Total Decoverable		list OLM04.2 DC   1et - VOV	444	0 - V(	rygen	solve	A Solide				taine	K - EDTA L - EDA	W - Z - d
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Custody Seals Intact: Custody Seal No.: ∆ Yes ∆ No						C	Cooler	Tempe	rature	ə(s) °C	and (	Other R	emark	(S:		3	、ጌ	ų,	1		

2/26/2014



Client: New York State D.E.C.

# Login Number: 54582

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	

Job Number: 480-54582-1

List Source: TestAmerica Buffalo

Client: New York State D.E.C.

# Login Number: 54583

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	

Job Number: 480-54582-1

List Source: TestAmerica Buffalo



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

Joeph V. Giscomogra

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

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

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

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



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

Joseph V. Giacomagge

Joe Giacomazza Project Management Assistant II 2/27/2014 12:01:40 PM

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# 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.	5
Metals		<b>.</b>
Qualifier	Qualifier Description	
В	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 Ch	nemistry	
Qualifier	Qualifier Description	8
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 3.0° C and 3.3° 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: New York State D.E.C. Project/Site: NYSDEC-Gastown WWTP: Site# 915171

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

Date Received: 02/12/14 14:05

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		ug/L			02/13/14 19:54	100
4-Methyl-2-pentanone (MIBK)	ND		500		ug/L			02/13/14 19:54	100
Acetone	ND		1000		ug/L			02/13/14 19:54	100
Benzene	6600		100		ug/L			02/13/14 19:54	100
Bromodichloromethane	ND		100		ug/L			02/13/14 19:54	100
Bromoform	ND		100		ug/L			02/13/14 19:54	100
Bromomethane	ND		100		ug/L			02/13/14 19:54	100
Carbon disulfide	ND		100		ug/L			02/13/14 19:54	100
Carbon tetrachloride	ND		100		ug/L			02/13/14 19:54	100
Chlorobenzene	ND		100		ug/L			02/13/14 19:54	100
Dibromochloromethane	ND		100		ug/L			02/13/14 19:54	100
Chloroethane	ND		100		ug/L			02/13/14 19:54	100
Chloroform	ND		100		ug/L			02/13/14 19:54	100
Chloromethane	ND		100		-			02/13/14 19:54	100
	ND		100		ug/L			02/13/14 19:54	100
cis-1,3-Dichloropropene					ug/L				
Ethylbenzene Mathulana Oblasida	650		100		ug/L			02/13/14 19:54	100
Methylene Chloride	ND		100		ug/L			02/13/14 19:54	100
Styrene	250		100		ug/L			02/13/14 19:54	100
Tetrachloroethene	ND		100		ug/L			02/13/14 19:54	100
Toluene	2200		100		ug/L			02/13/14 19:54	100
trans-1,3-Dichloropropene	ND		100		ug/L			02/13/14 19:54	100
Trichloroethene	ND		100		ug/L			02/13/14 19:54	100
Vinyl chloride	ND		100		ug/L			02/13/14 19:54	100
Vinyl acetate	ND		500		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 Orga	nic Compounds	(GC)							
Analyte		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		ug/L			02/14/14 10:16	100
Ethylbenzene	690		20		ug/L			02/14/14 10:16	100
Isopropylbenzene	ND		20		ug/L			02/14/14 10:16	100
Methyl tert-butyl ether	8.6	J	40		ug/L			02/14/14 10:16	100
m,p-Xylene	370	-	40		ug/L			02/14/14 10:16	100
n-Butylbenzene	ND		20		ug/L			02/14/14 10:16	100
	ND		20	5.1	ag/L			02/14/14 10.10	100

TestAmerica Buffalo

TestAmerica Job ID: 480-54582-1

Lab Sample ID: 480-54582-1

Matrix: Wastewater

# 2 3 4 5 6 7

9

Client: New York State D.E.C. Project/Site: NYSDEC-Gastown WWTP: Site# 915171 TestAmerica Job ID: 480-54582-1

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

5

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

**Client Sample ID: Pre-Carbon** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
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 Fa
a,a,a-Trifluorotoluene	84		63 - 145					02/14/14 10:16	10
4-Bromofluorobenzene	87		64 - 141					02/14/14 10:16	100
Method: 8021B - Volatile Or	ganic Compounds	(GC) - DL							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	6400		100	12	ug/L			02/17/14 10:10	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
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 - Met	tals (ICP)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Calcium	127000		500	100	ug/L		02/13/14 09:30	02/14/14 02:25	
Iron	1140		50.0	19.3	ug/L		02/13/14 09:30	02/14/14 02:25	
Magnesium	80500		200	43.4	ug/L		02/13/14 09:30	02/14/14 02:25	
Potassium	4580		500	100	ug/L		02/13/14 09:30	02/14/14 02:25	
Sodium	64000		1000	324	ug/L		02/13/14 09:30	02/14/14 02:25	
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Chloride	103		2.5	1.4	mg/L			02/13/14 17:18	į
Sulfate	168		10.0	1.7	mg/L			02/13/14 17:18	ę
Alkalinity, Total	457		100	40.0	mg/L			02/19/14 11:04	1(

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

**Client Sample ID: OUTSIDE SUMP** 

Date Collected: 02/12/14 13:10

Date Received: 02/12/14 14:05

# TestAmerica Job ID: 480-54582-1

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

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

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 Org	ganic 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

# **Client Sample ID: Post-Carbon-3**

Date Collected: 02/12/14 12:40 Date Received: 02/12/14 14:05

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
Fetrachloroethene	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
rans-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
/inyl chloride	ND		1.0	0.90	ug/L			02/13/14 19:33	1
/inyl 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

# TestAmerica Buffalo

Page 10 of 23

2/27/2014

TestAmerica Job ID: 480-54582-1

Lab Sample ID: 480-54583-1

Matrix: Wastewater

# 2 3 4 5 6 7

RL

4.8

4.8

4.8

4.8

4.8

4.8

9.5

4.8

4.8

4.8

4.8

9.5

4.8

MDL Unit

0.69 ug/L

0.62 ug/L

1.7 ug/L

0.29 ug/L

0.31 ug/L

0.40 ug/L

0.48 ug/L

0.38 ug/L

0.34 ug/L

0.45 ug/L

0.72 ug/L

2.1 ug/L

0.42 ug/L

D

Prepared

02/14/14 08:14

02/14/14 08:14

02/14/14 08:14

02/14/14 08:14

02/14/14 08:14

02/14/14 08:14

02/14/14 08:14

02/14/14 08:14

02/14/14 08:14

02/14/14 08:14

02/14/14 08:14

02/14/14 08:14

02/14/14 08:14

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

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

Result Qualifier

ND

86

# **Client Sample ID: Post-Carbon-3** Date Collected: 02/12/14 12:40

Date Received: 02/12/14 14:05

Analyte

Biphenyl

Carbazole

Chrysene

Dibenzofuran

Fluoranthene

Naphthalene

Phenanthrene

Fluorene

Benzo[k]fluoranthene

Bis(2-ethylhexyl) phthalate

Dibenz(a,h)anthracene

Indeno[1,2,3-cd]pyrene

Pentachlorophenol

TestAmerica Job ID: 480-54582-1

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

Analyzed

02/15/14 11:56

02/15/14 11:56

02/15/14 11:56

02/15/14 11:56

02/15/14 11:56

02/15/14 11:56

02/15/14 11:56

02/15/14 11:56

02/15/14 11:56

02/15/14 11:56

02/15/14 11:56

02/15/14 11:56

02/15/14 11:56

Dil Fac

1

1

1

1

1

1

1

1

1

1

8
9

1 1 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

I						
I	4-Bromo	fluc	probe	enz	ene	

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

64 - 141

TestAmerica Buffalo

02/14/14 15:59

RL

MDL Unit

D

Prepared

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

Method: 608 - Organochlorine Pesticides in Water (Continued)

Result Qualifier

7.33 HF

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

Analyte

рΗ

TestAmerica Job ID: 480-54582-1

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

Analyzed

	~	/ C	210	51		
I	D	il	Fa	ac		5
				1	1	
				1		6
				1		
				1		
				1		
				1		9
				1		0
				1		0
				1		ð
				1		

Analyto	rtoount		112				rioparoa	Analyzou	2
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									
Analyte		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	JB	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

02/12/14 17:52

1

0.100

0.100 SU

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

# TestAmerica Job ID: 480-54582-1

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

Date Collected: 02/12/14 12:50 Date Received: 02/12/14 14:05

**Client Sample ID: Post-Carbon-2** 

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	2	64 - 141					02/14/14 16:33	1

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

**Client Sample ID: Post-Carbon-1** 

Date Collected: 02/12/14 12:55

TestAmerica Job ID: 480-54582-1

2 Lab Sample ID: 480-54583-3 Matrix: Water 4

Dil Fac

50 50

50 50

50 50

50

50 50

50

50 50

50

Dil Fac

5

Date Received: 02/12/14 14:05								maa
- Method: 8021B - Volatile Org	ganic Compounds ((	GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed
1,2,4-Trimethylbenzene	12		10	1.7	ug/L			02/14/14 17:41
1,3,5-Trimethylbenzene	ND		10	7.5	ug/L			02/14/14 17:41
Ethylbenzene	230		10	1.4	ug/L			02/14/14 17:41
Isopropylbenzene	ND		10	1.4	ug/L			02/14/14 17:41
Methyl tert-butyl ether	ND		20	2.2	ug/L			02/14/14 17:41
m,p-Xylene	120		20	2.7	ug/L			02/14/14 17:41
n-Butylbenzene	ND		10	1.5	ug/L			02/14/14 17:41
n-Propylbenzene	ND		10	6.5	ug/L			02/14/14 17:41
o-Xylene	ND		10	1.4	ug/L			02/14/14 17:41
p-Cymene	ND		10	1.5	ug/L			02/14/14 17:41
sec-Butylbenzene	ND		10	1.0	ug/L			02/14/14 17:41
Toluene	880		10	1.8	ug/L			02/14/14 17:41
Xylenes, Total	120		30	2.7	ug/L			02/14/14 17:41
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed
a,a,a-Trifluorotoluene	86		63 - 145			-		02/14/14 17:41

Method: 8021B - Volatile Organic Compound					DUE
	ds (GC) - DL				
4-Bromofluorobenzene	88	64 - 141		02/14/14 17:41	50
a,a,a-Trifluorotoluene	86	63 - 145	-	02/14/14 17:41	50

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 Sample ID: 480-54582-1 Matrix: Wastewater

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

**Client Sample ID: Pre-Carbon** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	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

Date Collected: 02/12/14 13:10

Date Received: 02/12/14 14:05

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	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 Date Collected: 02/12/14 12:40 Date Received: 02/12/14 14:05

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

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

Lab Sample ID: 480-54582-2

Matrix: Water

Date Received: 02/12/14 14:05

Prep Type

Total/NA

Total/NA

Laboratory References:

Batch

Туре

Analysis

Analysis

Batch

Method

8021B

8021B

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

# 5 6

TestAmerica Buffalo

ie ID: Post-	Carbon-2					L	_ab Sample	ID: 480-54583-2
: 02/12/14 12:	50							Matrix: Wate
02/12/14 14:0	5							
Batch	Batch		Dilution	Batch	Prepared			
Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Analysis	8021B		1	165968	02/14/14 16:33	DGB	TAL BUF	
	: 02/12/14 12:5 02/12/14 14:0 Batch Type	: 02/12/14 12:50 02/12/14 14:05 Batch Batch Type Method	: 02/12/14 12:50 02/12/14 14:05 Batch Batch Type Method Run	: 02/12/14 12:50 02/12/14 14:05 Batch Batch Dilution Type Method Run Factor	: 02/12/14 12:50 02/12/14 14:05 Batch Batch Dilution Batch Type Method Run Factor Number	: 02/12/14 12:50 02/12/14 14:05 Batch Batch Dilution Batch Prepared Type Method Run Factor Number or Analyzed	: 02/12/14 12:50 02/12/14 14:05 Batch Batch Dilution Batch Prepared Type Method Run Factor Number or Analyzed Analyst	: 02/12/14 12:50 02/12/14 14:05 Batch Batch Dilution Batch Prepared Type Method Run Factor Number or Analyzed Analyst Lab

Dilution

Factor

50

100

Run

DL

Batch

Number

165968

166182

Prepared

or Analyzed

02/14/14 17:41

02/17/14 11:19

Analyst

DGB

DGB

Lab

TAL BUF

TAL BUF

# **Certification Summary**

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

# TestAmerica Job ID: 480-54582-1

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
lowa	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
_ouisiana	NELAP	6	02031	06-30-14
Vaine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-14
Massachusetts	State Program	1	M-NY044	06-30-14
Vichigan	State Program	5	9937	04-01-14
Vinnesota	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
Dregon	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
JSDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Nest Virginia DEP	State Program	3	252	03-31-14
Wisconsin	State Program	5	998310390	08-31-14

Method Description

Metals (ICP)

Alkalinity

Cyanide, Total

HEM and SGT-HEM

Anions, Ion Chromatography

Phenolics, Total Recoverable

Solids, Total Dissolved (TDS)

Solids, Total Suspended (TSS)

Volatile Organic Compounds by GC/MS

Volatile Organic Compounds (GC)

Organochlorine Pesticides in Water

Semivolatile Organic Compounds (GC/MS)

Laboratory

TAL BUF

Protocol

SW846

SW846

SW846

EPA

1664A

MCAWW MCAWW

MCAWW

MCAWW

SM

SM

SM

SM

40CFR136A

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	0

Protocol References:

Method

8260C

8270D

8021B

1664A

300.0

310.2

335.4

420.4

SM 2540C

SM 2540D

SM 5210B

SM 4500 H+ B

200.7 Rev 4.4

608

1664A = EPA-821-98-002

pН

BOD, 5-Day

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

Client: New York St Project/Site: NYSD	tate D.E.C. EC-Gastown WWTP: Site# 915171		TestAmerica Job ID	2: 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
				8
				9

# TestAmerica Buffalo

# Chain of Custody Record

TestAmerica

10 Hazelwood Drive Amherst, NY 14228-2298

Page 20 of 23

2/27/2014

Phone (716) 691-2600 Fax (716) 691-7991

Client Information					PM cher.	er, Brian J								Trackir	ng No(	s):	_		COC No <sup>-</sup> 480-43978-1179.1		
Client Contact Thomas Palmer	Phone. (716)		3590	E-M	tail.	cher@testamericainc.com													Page: Page 1 of 1		
Company Groundwater & Environmental Services Inc					T	Analysis Requested									_				Job #:		
Address	Due Date Request	ed:				-	Т		T						Т	1	1		Preservation Cod	les:	
495 Aero Drive Suite 3 City:	TAT Requested (d	ays):			-1-1												1		A - HCL B - NaOH	M - Hexane N - None	
Cheektowaga State, Zip:		D				1.1.1													C - Zn Acetate D - Nitnc Acid	O - AsNaO2 P - Na2O4S	
NY, 14225 Phone	PO #					11													E - NaHSO4 F - MeOH	Q - Na2SO3 R - Na2S2SO3	
	Purchase Order	not requir			- Ŷ				8021									11.00	G - Amchlor H - Ascorbic Acid	S - H2SO4 T - TSP Dodecahyo	drate
Email: tpalmer@gesonline.com	WO #:				9 or	No)	Method	5.2	NOV								1	81	I - Ice J - DI Water K - EDTA	U - Acetone V - MCAA W - ph 4-5	
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Qtrly Pre-Cart	Project #. 48002525				20		al Me		List - VOA									containers	L - EDA	Z - other (specify)	
Site. New York	SSOW#.					SD Q		CL list O	TARS	, Total								of col	Other:		
			Sample	Matrix	Per	W/SH	300.0_28D - (MOD)	200./ - (MOD) Local Method 8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS	- Alkalinity,								nber			
		Sample	Type (C=comp,	(W=water, S=soild,	d Filt	Perform	0_28D	(DOW) - 1	N - 8	2 - Alk								Total Num			
Sample Identification	Sample Date	Time	G=grab)			· · · ·			1. Bass	310.2	243							Tot	Special In	structions/Note:	
		$\geq$	Solution Colored	tion Code:	Å	~~~~¥	ND			×	Mar		1				120	X			. Carriel
Pre-Carbon	2-12-14	1300	G	Water	++		**	· እ	-			$\rightarrow$	$\rightarrow$		-			1			
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					Ш													53			
Possible Hazard Identification	B Onknow	"	diological				Retu				nay b			d if sa By La	-	es are	e retai	ined	longer than 1 m	onth) Months	
Deliverable Requested: I, II, III, IV, Other (specify)	BOIKIIOW		ululugical		-	Spe	cial In:	structi	ions/Q	C Re	quire			by La	<i>D</i>			Crive	; F0/	Wohuis	
Empty Kit Relinquished by:		Date:			Tin	ne:				_	_		N	lethod							_
Relinquished by Man Mu	Date/Time 2.12-14	1 140	5	Company 6	365		Receive	ed by	2		2		2	_	Da	te/Tim フ _	e 17-	- 11	1 1465	Company	<u></u>
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Relinquished by	Date/Time			Company	_	-+	Receiv	ad by							Da	te/Tim	e	_		Company	_
Custody Seals Intact: Custody Seal No.:	L					-	Cooler	Temper	rature(s	s) °C ar	nd Oth	er Rem	arks			3	0 8	1			
Δ Yes Δ No										_		TF	1	(0)		<u>)</u>		,	ைப		51

### TestAmerica Buffalo -

# 10 Hazelwood Drive Amherst, NY 14228-2298

# Chain of Custody Record



THE LEADER IN ENVIRONMENTAL TESTING

Phone (716) 691-2600 Fax (716) 691-7991

Client Information	Sampler: T. Paher Lab PM: Fischer, Bri				rian J	an J						Carrier Tracking No(s):						COC No: 480-43974-1178.1		
Client Contact:		)866-	3 550	Ë-Mai	il:							-							Page:	
Thomas Palmer	0.110	7 200	5510	briar	n.fisch	er@tes	stame	ericain	c.col	m									Page 1 of 1	
Company: Groundwater & Environmental Services Inc							equested							Job #:						
Address:	Due Date Request	ed:		_									T					est.	Preservation Codes:	
495 Aero Drive Suite 3	TAT Beguested (d)	TAT Requested (days):				ĉ												1994 - 19 1995 - 19	A-HCL	M - Hexane
Cheektowaga	TAT Requested (u																		B - NaOH C - Zn Acetate	N - None O - AsNaO2
State, Zip:		10																	D - Nitric Acid	P - Na2O4S
NY, 14225 Phone:	PO #:																		E - NaHSO4 F - MeOH	Q - Na2SO3 R - Na2S2SO3
Phone.	Purchase Order	not requir			-					8021 idee	3							1	G - Amchlor H - Ascorbic Acid	S - H2SO4 T - TSP Dodecahydrate
Email:	WO #:	•		_	Ň.	_		able		V - 8(		ua l	olidi		1				1-lce	U - Acetone
tpalmer@gesonline.com					0 80	lou l		over	04.2	Ô a		Ā	ed S	lids				ę	J - DI Water K - EDTA	V - MCAA W - ph 4-5
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Qtrly Post-Car	Project #: 48002525				ž	bod	36	420.4 - Phenolics, Total Recoverable	OLM04.2	8021B - (MOD) STARS List - VOA - 802 608 Davi - Drivity Dolliviant Daviticidae	2200 - MORVICI SVOA - OLMAN 2	5210B - Blochemical Oxygen Demand	2540C_Calcd - Total Dissolved Solids	2540D - Total Suspended Solids				tain		Z - other (specify)
Site:	SSOW#:				id w	Wei	Grease	otal	list	RSI		ļ		epue	Ē			con	Other:	
New York					Sal	-oca	a II	Cs.	<b>1</b>	STA	Ĩ	l i	Tota	dsn	, To	Ŧ		jo 1		
			Sample	Matrix	bered Moli	200.7 - (MOD) Local Method	Calc - OII &	nol	8260B - (MOD) TCL list	<b>6</b>	Ē	Ì	ġ	tal S	335.4 - Cyanide, Total	SM4500_H+ - pH		Total Number		
				W=water, S=solid,		Ŭ,	ö	H I		W tag		Ē	5	۴,	Š	1 H		Ž		
Comple Identification	Commite Data	Sample		wasta/oli,	Pe	200.7 - (M	1664A_	20.4	2608	218			100	105	35.4	M45(		(ag		
Sample Identification	Sample Date	Time	G=grab) вт- Preservation	Code			· · · · · · · · · · · · · · · · · · ·	-		a a N	N	i id N	N N		B	N N	1	5	Special Ins	tructions/Note:
Post-Carbon -3	2.12.14	1240			f¥		(*******							N X	12-12-2	N	186 M.		and the second se	1. 2. 2. 3 M
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Post Carbon - 2 Post Carbon - 1		1250		1					-   <sup>·</sup>	×								an.		
Post Carbon-1		1255			П					×										
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Possible Hazard Identification					4	ample	Disn	osal (	A fe	e mai	be.	35565	sed	fsar	noles	are	retair	her	longer than 1 mo	nth)
Non-Hazard Flammable Skin Irritant Poison	B Unknow		liological		ľ			To Cli		/~ ///j		Dispo				Ľ	Arc	hive	For	Months
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Relinquished by	Date/Time:		Cor	ipany		Recei	ived b	y:							Date	/Time:				Company
Custody Seals Intact: Custody Seal No.:						Coole	rTem	perature	e(s) °	Cand	)ther I	Remark	s.				1			
$\Delta$ Yes $\Delta$ No						00010			,			Cornel P			3.	י ל	•			

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2/27/2014

Client: New York State D.E.C.

# Login Number: 54582

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	

Job Number: 480-54582-1

List Source: TestAmerica Buffalo

Client: New York State D.E.C.

# Login Number: 54583

List Number: 1 Creator: Janish, Carl M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below packground	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or ampered 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	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and he 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	
/OA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
f 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	

Job Number: 480-54582-1

List Source: TestAmerica Buffalo



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. Giacomogya

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

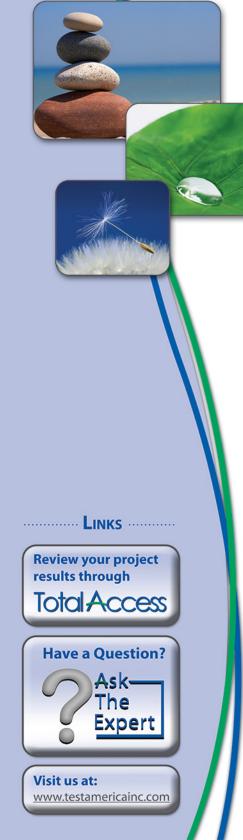
Designee for

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

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

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

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



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

Joseph V. Giacomage

Joe Giacomazza Project Management Assistant II 3/26/2014 10:26:18 AM

# **Table of Contents**

Cover Page	1
Table of Contents	3
Definitions	4
Case Narrative	5
Client Sample Results	6
Chronicle	12
Certification Summary	14
Method Summary	15
Sample Summary	16
Chain of Custody	17
Receipt Checklists	19

# 3

# Qualifiers

GC/MS VOA       Qualifier Description         J       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 Description         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 Description         HE       Eight parameter with a bolding time of 15 minutes			
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 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 Description         Qualifier       Qualifier Description			
GC VOA     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	Qualifier	Qualifier Description	
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	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	5
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	GC VOA		
General Chemistry       Qualifier       Qualifier Description	Qualifier	Qualifier Description	6
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 Che	mistry	
HE Field parameter with a holding time of 15 minutes	Qualifier	Qualifier Description	
The parameter with a holding time of 15 minutes	HF	Field parameter with a holding time of 15 minutes	8

# 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 3.0° C and 3.6° 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

Sulfate

Alkalinity, Total

Lab Sample	<b>)  </b>	D:	4	80-5	60	67-1

Matrix: Wastewater

5

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 - Met	als (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
								00/40/44 05 50	
Chloride	109		2.5	1.4	mg/L			03/18/14 05:50	5

10.0

100

150

543

1.7 mg/L

40.0 mg/L

03/18/14 05:50

03/19/14 11:51

5

10

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

# Client Sample ID: OUTSIDE SUMP

Date Collected: 03/14/14 13:20 Date Received: 03/14/14 13:50

Toluene

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

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

100

18 ug/L

1900

Lab Sample ID: 480-56067-2

Matrix: Water

5

TestAmerica Job ID: 480-56067-1

03/17/14 11:45

500

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

# **Client Sample ID: Post-Carbon-3**

Date Collected: 03/14/14 12:45 Date Received: 03/14/14 13:50

n-Butylbenzene

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		ug/L			03/17/14 23:11	1
Acetone	ND		10		ug/L			03/17/14 23:11	1
Benzene	ND		1.0		ug/L			03/17/14 23:11	1
Bromodichloromethane	ND		1.0		ug/L			03/17/14 23:11	1
Bromoform	ND		1.0		ug/L			03/17/14 23:11	1
Bromomethane	ND		1.0		ug/L			03/17/14 23:11	
Carbon disulfide	ND		1.0		ug/L			03/17/14 23:11	1
Carbon tetrachloride	ND		1.0		ug/L			03/17/14 23:11	1
Chlorobenzene	ND		1.0		ug/L			03/17/14 23:11	
Dibromochloromethane	ND		1.0		ug/L			03/17/14 23:11	1
Chloroethane	ND		1.0		ug/L			03/17/14 23:11	1
Chloroform	0.68		1.0		ug/L			03/17/14 23:11	
Chloromethane	0.08 ND	3	1.0		ug/L			03/17/14 23:11	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			03/17/14 23:11	1
Ethylbenzene	ND		1.0		ug/L			03/17/14 23:11	1
•	ND				-			03/17/14 23:11	1
Methylene Chloride	ND		1.0 1.0		ug/L				1
Styrene					ug/L			03/17/14 23:11	· · · · · · · · · · ·
Tetrachloroethene	ND		1.0		ug/L			03/17/14 23:11	1
Toluene	ND		1.0		ug/L			03/17/14 23:11	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			03/17/14 23:11	1
Trichloroethene	ND		1.0		ug/L			03/17/14 23:11	1
Vinyl chloride	ND		1.0		ug/L			03/17/14 23:11	1
Vinyl acetate	ND		5.0		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)			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
								00,11,1,1,20,11	
Method: 8021B - Volatile Orga	nic 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

TestAmerica Job ID: 480-56067-1

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

TestAmerica Buffalo

1

0.20

0.031 ug/L

ND

03/17/14 14:02

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

# Client Sample ID: Post-Carbon-3 Date Collected: 03/14/14 12:45

Date Received: 03/14/14 13:50

Analyte

рΗ

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

RL

0.100

RL Unit

0.100 SU

Prepared

D

Result Qualifier

7.49 HF

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

Analyzed

03/14/14 23:04

Dil Fac

1

TestAmerica Job ID: 480-56067-1

Client: New York State D.E.C. Project/Site: NYSDEC-Gastown WWTP: Site# 915171 TestAmerica Job ID: 480-56067-1

# Lab Sample ID: 480-56068-2

Matrix: Water

5

Date Collected: 03/14/14 12:50
Date Received: 03/14/14 13:50

Client Sample ID: Post-Carbon-2

Method: 8021B - Volatile Org	ganic 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

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

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

**Client Sample ID: Post-Carbon-1** 

Date Collected: 03/14/14 12:55

Date Received: 03/14/14 13:50

TestAmerica Job ID: 480-56067-1

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

5

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

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

Lab Sample ID: 480-56068-1

Lab Sample ID: 480-56068-2

Matrix: Water

**Matrix: Wastewater** 

ate Collected	le ID: Pre-C : 03/14/14 13:1 : 03/14/14 13:5	10						Lab Sample ID: 480-5606 Matrix: Wastew
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
lient Samp	le ID: OUTS	IDE SUMP						Lab Sample ID: 480-5606
	: 03/14/14 13:2 : 03/14/14 13:5							Matrix: W

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

## **Client Sample ID: Post-Carbon-3**

#### Date Collected: 03/14/14 12:45 Date Received: 03/14/14 13:50

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	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

Date Collected: 03/14/14 12:50 Date Received: 03/14/14 13:50

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

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

#### 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: T	estAmerica Buffalo
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Unless otherwise noted,	all analytes for this lat	boratory were covered	under each certification below.

thority	Program		EPA Region	Certification ID	Expiration Date					
w York	NELAP		2	10026	03-31-14 *					
The following analytes a	are included in this report, bu	t are not certified under th	is certification:							
Analysis Method	Prep Method	Matrix	Analyt	e						
8021B		Wastewater	sec-Bu	sec-Butylbenzene						
8021B		Water	sec-Bi	ıtylbenzene						
Analysis Method	Prep Method	Matrix	Analyt	0						
8021B		Wastewater	m,p-X							
8021B		Wastewater Wastewater	m,p-Xyle							
				ne						
8021B		Wastewater	o-Xyle	ne /lene						
8021B 8021B		Wastewater Water	o-Xyle m,p-X o-Xyle	ne /lene						
8021B 8021B 8021B		Wastewater Water Water	o-Xyle m,p-X o-Xyle 1,2-Diu	ne ylene ne						
8021B 8021B 8021B 8260C		Wastewater Water Water Wastewater	o-Xyle m,p-X o-Xyle 1,2-Diu	ne /lene ne chloroethene, Total						

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

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

2 3 4 5 6 7	
2 3 4 5	
4 5	
4 5	
4 5	
5	
	5

# 8 9 10

Method Method Description Protocol Laboratory 8260C Volatile Organic Compounds by GC/MS SW846 TAL BUF Volatile Organic Compounds (GC) SW846 8021B 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 SM TAL BUF pН

#### 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

Client: New York St Project/Site: NYSD	tate D.E.C. EC-Gastown WWTP: Site# 915171	915171 TestAmerica Job ID: 480-5606					
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	5		
480-56068-2	Post-Carbon-2	Water	03/14/14 12:50	03/14/14 13:50	J		
480-56068-3	Post-Carbon-1	Water	03/14/14 12:55	03/14/14 13:50			
					8		
					9		

TestAmerica Buffaio 10 Hazelwood Drive Amherst, NY 14228-2298 Phone (716) 691-2600 Fax (716) 691-7991	Chain of Custody Record																		· ••••		
	Sampler:	Palm			PM:	Deire						Carrier	4	80-560	67 Cha	in of Cu	ustody				٦
Client Information	Phone: 7	10,000	7500	-		Brian	J								-	L aa	<b>5</b> . <sup>-</sup>				-
Thomas Palmer		4 7 866	-3590	bria	an.fis	cher@	testame	ericain	ic.com	n						Pag	je 1 of 1				
Company: Groundwater & Environmental Services Inc									Ana	alvsis	Rea	ueste	d			Job	#.				
Address:	Due Date Reques	ted:				165.jú.				Ť				Π		🔅 Pre	servation	Codes:			1
495 Aero Drive Suite 3	TAT Requested (o	lawa)r			- 1	32			1903-								HCL		Hexane		
City: Cheektowaga	TAT Requested (C	$-\tau \Lambda$			10. 10.	2 <u>1</u>			1							С-	NaOH Zn Acetate	0-	None AsNaO2		
State, Zip:	7 D	IP			33	<b>*</b>			ton ten								Nitric Acid NaHSO4		Na2O4S Na2SO3		
NY, 14225 Phone:	PO #:								2							🔆 F-I	MeOH Amchlor	R-	Na2S2SO H2SO4	3	
	Purchase Order	not requir			Î			-	2							🕷 Н-	Ascorbic Ad	cid T-	TSP Dode	cahydrate	
Email: tpalmer@gesonline.com	WO #:				or P	6	3	Ċ	STAKS								DI Water	V -	Acetone MCAA		
Project Name:	Project #:				- XeX	or h	po	Ĩ	P							E K-I	edta Eda		- ph 4-5 other (spe	cifv)	
NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Pre-Ca					ple (	Yes	Vethe	= /	$\sim$							Contain Othe		_			
Site: New York	SSOW#:				Sam	as a	cal	, Total	(MOI)							5					
			Comula	Matrix	red	Perform MS/MSD (Yes or No)	200.7 - (MOD) Local Method									Total Number					1
			Sample Type	(W=water,	Filte	Nu	Ŵ	Alka	-91608							Nun					
		Sample	(C=comp,	S=solid, O=waste/oil,	eld I	ito,	0.7 -	0.2 -	09							Stal					
Sample Identification	Sample Date	Time	G=grab)	BT=Tissue, A=Ai		1 080	1000 . 200. 00. 21		50 A	. 080		204	_			1 Dania Las	Specia	al Instru	ctions/N	ote:	331
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Possible Hazard Identification	- <u> </u>									e may l							ger than '				
Non-Hazard Flammable Skin Irritant Poisc Deliverable Requested: I, II, III, IV, Other (specify)	n B Unknow	n Rac	liological				<i>Return</i> al Instru			Require		sposal I s:	By Lab		Arc	hive For		MOI	nths		-
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3/26/2014

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Phone (716) 691-2600 Fax (716) 691-7991	Chain of Cust										stody Record										
	Sampler	almer			ib PM:	: r, Bria							Car	TÍE	480	-560	68 Ch	ain c	of Custody		
Client Information		) 8663	CGN	E-	Mail:			<del>-</del> -											Page:	<u></u>	
Thomas Palmer	C III	) 2003	570	br	ian.fi	an.fischer@testamericainc.com							1						Page 1 of 1 Job #:		
Company: Groundwater & Environmental Services Inc										An	alysi	s Re	eque	sted					300 <del>m</del> .		
Address: 495 Aero Drive Suite 3	Due Date Request	ed:			, i								-					2000 2000 2000	Preservation Cod		
City:	TAT Requested (d	ays):			1														A - HCL B - NaOH	M - Hexane N - None	
Cheektowaga State, Zip:	SI															C - Zn Acetate D - Nitric Acid	0 - AsNaO2 P - Na2O4S				
NY, 14225	<u> </u>	·V\				: 25												Ì	E - NaHSO4 F - MeOH	Q - Na2SO3 R - Na2S2SO	03
Phone:	PO #: Purchase Order	1.0	5			021									12	G - Amchlor H - Ascorbic Acid	S - H2SO4 T - TSP Dode	ecahvdrate			
Email:	WO #:				72	2 J N		2	94 - 8									_	I - Ice	U - Acetone V - MCAA	
tpalmer@gesonline.com Project Name:	Project#:				-,*	(Yes or No)		OLM04.2	t- V0									containers	K-EDTA L-EDA	W - ph 4-5 Z - other (spe	ecify)
NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Post-Ca	48002525 SSOW#:					Yes		st ol	S LIs	_		1						onta	Other:		Sollyy
Site: New York	55UW#.				Sam			10	STAR	Tota	<b>_</b>				2			<u>ک</u>	sk.		
		Sample	Sample Type (C=comp,	Matrix (w=water, s=solid,	1 milte	Perform MS/MSD	200.7 - Iron	8260B - (MOD) TCL list	8021B - (MOD) STARS List - VOA - 8021	336.4 - Cyanide, Total	SM4500_H+ - pH							Total Number			
Sample Identification	Sample Date	Time	G=grab)		Air) u	Per	200.			336.	SM4							Tot	Special Ins	structions/N	lote:
	$\searrow$	$\geq$		ation Code	$\mathbb{N}$	(X)	D			B I	<b>V</b>	(U) 477	3.00				93, XI	$\mathbb{X}$		Mellinger (* 1999) 1999 - 1999 Children (* 1997) 1997 - 1997	and the states
Post-Carbon -3	3-14-14	1245	G	Water			x	8	X	X	X										
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Possible Hazard Identification						Sar	nole	Disp	osal	ĭ∽A fe	e ma	/ be a	asses	 sed if	sam	oles a	are ret	ainec	l l longer than 1 mc	onth)	
Non-Hazard Flammable Skin Irritant Poison	B Unknow	n Rad	iological					eturn		· ·			Dispos							Months	
Deliverable Requested: I, II, III, IV, Other (specify)				· · · · · · · · · · · · · · · · · · ·		Spe					Requi										
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3/26/2014

Client: New York State D.E.C.

#### Login Number: 56067 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	

11

List Source: TestAmerica Buffalo

Client: New York State D.E.C.

# Login Number: 56068

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	

Job Number: 480-56067-1

List Source: TestAmerica Buffalo



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. Giacomogya

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

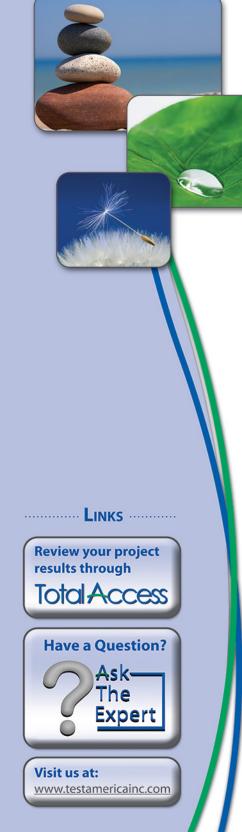
Designee for

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

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

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

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



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

> 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.

Joseph V. Giacomage

Joe Giacomazza Project Management Assistant II 4/18/2014 9:51:44 AM

# **Table of Contents**

Cover Page	1
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Client Sample Results	6
Chronicle	12
Certification Summary	14
Method Summary	15
Sample Summary	16
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#### Client: New York State D.E.C. Project/Site: NYSDEC-Gastown WWTP: Site# 915171

# 1 2 3 4 5 6 7 8

# 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 Ch	emistry	
Qualifier	Qualifier Description	
HF	Field parameter with a holding time of 15 minutes	
В	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 4.2° C and 4.2° 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

# Client Sample ID: Post-Carbon #3

Date Collected: 04/09/14 10:15 Date Received: 04/09/14 11:20

Method: 8260C - Volatile Orga Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82				04/16/14 15:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	•			04/16/14 15:44	1
1,1,2-Trichloroethane	ND		1.0	0.23				04/16/14 15:44	1
1,1-Dichloroethane	ND		1.0		ug/L			04/16/14 15:44	1
1,1-Dichloroethene	ND		1.0	0.29				04/16/14 15:44	1
1,2-Dichloroethane	ND		1.0	0.21				04/16/14 15:44	1
1,2-Dichloroethene, Total	ND		2.0		ug/L			04/16/14 15:44	1
1,2-Dichloropropane	ND		1.0		ug/L			04/16/14 15:44	1
2-Hexanone	ND		5.0		ug/L			04/16/14 15:44	1
2-Butanone (MEK)	ND		10		ug/L			04/16/14 15:44	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			04/16/14 15:44	1
Acetone	ND		10		ug/L			04/16/14 15:44	1
Benzene	23		1.0	0.41				04/16/14 15:44	
Bromodichloromethane	ND		1.0		ug/L			04/16/14 15:44	1
Bromoform	ND		1.0		ug/L			04/16/14 15:44	1
Bromomethane	ND		1.0		ug/L			04/16/14 15:44	
Carbon disulfide	ND		1.0		ug/L			04/16/14 15:44	1
Carbon tetrachloride	ND		1.0		ug/L			04/16/14 15:44	1
Chlorobenzene	ND		1.0		ug/L			04/16/14 15:44	
Dibromochloromethane	ND		1.0		ug/L			04/16/14 15:44	1
Chloroethane	ND		1.0		ug/L			04/16/14 15:44	1
Chloroform			1.0		ug/L			04/16/14 15:44	
Chloromethane	5.5 ND		1.0		ug/L			04/16/14 15:44	1
	ND		1.0		0			04/16/14 15:44	1
cis-1,3-Dichloropropene					ug/L				1
Ethylbenzene Mathylana Chlarida	ND		1.0		ug/L			04/16/14 15:44	
Methylene Chloride	ND		1.0		ug/L			04/16/14 15:44	1
Styrene	ND		1.0		ug/L			04/16/14 15:44	1
Tetrachloroethene	ND		1.0		ug/L			04/16/14 15:44	1
Toluene	ND		1.0		ug/L			04/16/14 15:44	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			04/16/14 15:44	1
	ND		1.0		ug/L			04/16/14 15:44	1
Vinyl chloride	ND		1.0	0.90				04/16/14 15:44	1
Vinyl acetate	ND		5.0	0.85				04/16/14 15:44	1
Xylenes, Total	ND		2.0	0.00	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 Orga	nic Compounde	(GC)							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035				04/10/14 12:07	1
1,3,5-Trimethylbenzene	ND		0.20		ug/L			04/10/14 12:07	1
Benzene	19		0.20	0.023	-			04/10/14 12:07	1
Ethylbenzene	ND		0.20	0.029				04/10/14 12:07	
Isopropylbenzene	ND		0.20	0.023	-			04/10/14 12:07	1
Methyl tert-butyl ether	0.38	a.	0.40	0.027				04/10/14 12:07	1
m,p-Xylene	ND	• • • • • • • • • • • • •	0.40	0.054				04/10/14 12:07	
m n-Xviene									

# Lab Sample ID: 480-57564-1

TestAmerica Job ID: 480-57564-1

Matrix: Wastewater

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

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

Date Received: 04/09/14 11:20

Analyte

рН

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	

RL

0.100

RL Unit

0.100 SU

D

Prepared

Result Qualifier

7.62 HF

TestAmerica Job ID: 480-57564-1

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

5

Dil Fac

1

Analyzed

04/10/14 02:18

Client: New York State D.E.C. Project/Site: NYSDEC-Gastown WWTP: Site# 915171 TestAmerica Job ID: 480-57564-1

Lab Sample ID: 480-57564-2

Matrix: Water

# Client Sample ID: Post-Carbon #2

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

Method: 8021B - Volatile Org	anic 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
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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

Lab Sample ID: 480-57564-3

Matrix: Water

# Client Sample ID: Post-Carbon #1

Date Collected: 04/09/14 10:25 Date Received: 04/09/14 11:20

Method: 8021B - Volatile Organic 0	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 Organi	c 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
								04/10/14 13:43	50

RL

100

100

100

100

100

200

200

100

100

100

100

MDL Unit

17 ug/L

75 ug/L

12 ug/L

14 ug/L

14 ug/L

22 ug/L

15 ug/L

65 ug/L

14 ug/L

15 ug/L

27 ug/L D

Prepared

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

Method: 8021B - Volatile Organic Compounds (GC)

Result Qualifier

52 J

ND

3600

270

ND

ND

200

ND

ND

ND

ND

**Client Sample ID: Pre-Carbon** 

Date Collected: 04/09/14 10:45

Date Received: 04/09/14 11:20

1,2,4-Trimethylbenzene

1,3,5-Trimethylbenzene

Analyte

Benzene

Ethylbenzene

m,p-Xylene

o-Xylene

p-Cymene

n-Butylbenzene

n-Propylbenzene

Isopropylbenzene

Methyl tert-butyl ether

TestAmerica Job ID: 480-57564-1

Lab Sample ID: 480-57566-1

Analyzed

04/10/14 16:34

04/10/14 16:34

04/10/14 16:34

04/10/14 16:34

04/10/14 16:34

04/10/14 16:34

04/10/14 16:34

04/10/14 16:34 04/10/14 16:34

04/10/14 16:34

04/10/14 16:34

**Matrix: Wastewater** 

# 5

500	
500	
500	
500	8
500	
500	9
500	
500	
500	
500	

Dil Fac

500

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 - Metal	s (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	в	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

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

5

Date Collected: 04/09/14 10:40 Date Received: 04/09/14 11:20

**Client Sample ID: Outside Sump** 

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

Dilution

Factor

1

1

1

1

1

Run

Batch

Number

176122

174888

174989

175586

175762

176157

174833

Prepared

or Analyzed

04/16/14 15:44

04/10/14 12:07

04/10/14 12:40

04/11/14 14:30

04/14/14 17:10

04/15/14 23:42

04/10/14 02:18 KS

Analyst

NMD1

DGB

EHD

LMH

CLT

KMF

Lab

TAL BUF

TAL BUF

TAL BUF

TAL BUF

TAL BUF

TAL BUF TAL BUF

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

Batch

Method

8260C

8021B

200.7

335.4

200.7 Rev 4.4

SM 4500 H+ B

Distill/CN

**Client Sample ID: Post-Carbon #3** 

Batch

Туре

Analysis

Analysis

Analysis

Analysis

Analysis

Prep

Prep

Date Collected: 04/09/14 10:15

Date Received: 04/09/14 11:20

Prep Type

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

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

5 6

# Client Sample ID: Post-Carbon #2

Date Collected: 04/09/14 10:20

Date	Received:	04/09/14 11:20

	Batch	Batch		Dilution		Prepared		
Prep Type	Туре	Method	Run	Factor	Number	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

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 Analvzed	Analvst	Lab
Total/NA	Analysis	8021B	Kuli	10 <b>Factor</b>	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**

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

Batch Batch

Prep Type	Туре	Method	Run	Factor	Number	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

Dilution

Batch

Prepared

# **Client Sample ID: Outside Sump** Date Collected: 04/09/14 10:40

Date Received: 04/09/14 11:20

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

TestAmerica Buffalo

Matrix: Water

Lab Sample ID: 480-57564-3

Lab Sample ID: 480-57564-2

Matrix: Water

Matrix: Water

## Lab Sample ID: 480-57566-1 Matrix: Wastewater

Lab Sample ID: 480-57566-2

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

#### Laboratory References:

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

# **Certification Summary**

EPA Region

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Certification ID

88-0686

1169CA

PH-0568

E87672

200003

E-10187

90029

02031

294

9937

2337

NY455

10026

R-176

9421

NY200003

68-00281

LAO00328

TN02970

460185

998310390

C784

252

T104704412-11-2

P330-11-00386

NY00044

M-NY044

036-999-337

30

N/A

374

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

#### Laboratory: TestAmerica Buffalo

Authority

California

Florida

Georgia

Illinois

lowa

Kansas

Louisiana

Maryland

Michigan

Minnesota

New Jersey

North Dakota

Pennsylvania

Rhode Island

Tennessee

Texas

USDA

Virginia

Washington

Wisconsin

West Virginia DEP

New York

Oklahoma

Oregon

Massachusetts

New Hampshire

Maine

Kentucky (DW)

Kentucky (UST)

Connecticut

Arkansas DEQ

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

Program

NELAP

Federal

NELAP

State Program

**Expiration Date** 

07-06-14

09-30-14

09-30-14

06-30-14

03-31-15

09-30-14

03-01-15

01-31-15 \*

12-31-14

03-31-15

06-30-14

12-04-14

03-31-15

06-30-14

04-01-14 \*

12-31-14

11-17-14

06-30-14

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03-31-14 \*

08-31-14

06-09-14

07-31-14

12-30-14

03-31-15

07-31-14

11-22-14

09-14-14

02-10-15

05-31-14

08-31-14

5 6 7

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* Expired certification is currently pending	renewal and is considered valid.
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## Client: New York State D.E.C. Project/Site: NYSDEC-Gastown WWTP: Site# 915171

Method Description

Metals (ICP)

Alkalinity

pН

Volatile Organic Compounds by GC/MS

Volatile Organic Compounds (GC)

Anions, Ion Chromatography

Laboratory

TAL BUF

Protocol

SW846

SW846

MCAWW

MCAWW

MCAWW

EPA

SM

2 3 4 5 6 7	
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6 7	
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7	

## Protocol References:

Method

8260C

8021B

300.0

310.2

335.4

200.7 Rev 4.4

SM 4500 H+ B

EPA = US Environmental Protection Agency

Cyanide, Total

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

Client: New York St Project/Site: NYSD	tate D.E.C. EC-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

## **FestAmerica Buffalo**

10 Hazelwood Drive

Amherst, NY 14228-2298

# Chain of Custody Record

مريطي فالتوجيعات بالمشتهدة

TestAmerica

THE LEACER IN ENVIRONMENTAL TESTING

Phone (716) 691-2600 Fax (716) 691-7991		/																		\$\$\$\$\$\$\$\$\$\$\$\$\$\$ \$	(\$231824
Client Information	Sampler.	Vars	>	Lab Fisc	PM: cher, Bi	rian J				1		Carrie	er Trac	king No	o(s):			COC No <sup>.</sup> 480-43991-1	177.1		
Client Contact: Thomas Palmer	Phone: 484 GL	15 230	7_	E-Ma bria	ail: In.fisch	er@te	estame	ericair	nc.cor	n .							-	Page: Page 1 of 1			
Company: Groundwater & Environmental Services Inc										alysis	s Rec	jues	ted					Job #:			
Address:	Due Date Request	ed:	·····		21 201	<u>*</u>				<u> </u>		İΙ						Preservation	Codes:	····	
495 Aero Drive Suite 3										:							y, iski V	A - HCL	М	- Hexane	
City: Cheektowaga	TAT Requested (d					111											- y <sup>e</sup>	B - NaOH C - Zn Acetate		- None - AsNaO2	
State, Zip:	570																	D - Nitric Acid	P	Na2O4S	
NY, 14225																		E - NaHSO4 F - MeOH		- Na2SO3 - Na2S2SO3	
Phone:	PO #: Purchase Order	not requir				2		5		1	1			1			meni	G - Amchlor H - Ascorbic A		H2SO4 TSP Dodeca	abudrato
Email:	WO #:				-20	2		A - 8021									ani.	1-lce	U-	Acetone	silyulate
tpalmer@gesonline.com					No		04.2	۶,									ers	J - DI Water K - EDTA		- MCAA - ph 4-5	
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Post-Ca	Project <i>#</i> : 48002525				<ul> <li>I I I</li> <li>Field Filtered Sample (Yes or Partorin MS/MSD (Yes or NO)</li> </ul>		OLM04.2	List - VOA									containei	L-EDA		other (specif	íy)
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New York					d Sam		ТĊ	ST/	e, Tc	ъ I							r of				
			oumpic	Matrix	ere NS		. (qow) -	(QOM) -	Cyanide, Total	SM4500_H+ - pH						-	Total Number				
			ijpe	W=water, S=solid,	E	- Iron	- -		ŝ	<u>.</u>							N.				
Sample Identification	Sample Date	Sample Time	(C=comp, о G=grab) вт=т	rwaste/oil, iccue ArtAir	Dar Field	200.7	8260B	8021B	335.4 -	SM46							r o ta	Specia	al Instru	ctions/Not	te:
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4/18/2014

# TestAmerica Buffalo

#### 10 Hazelwood Drive

^ Amherst, NY 14228-2298

# Chain of Custody Record



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THE LEADER SACANERSANENTAL TESTING

Phone (716) 691-2600 Fax (716) 691-7991

	Sampler	$\sqrt{1}$		Lab								Carrie	Trackin	g No(s)			COC No:	
Client Information	Dhanai	and		Fisc E-Ma	her, B	rian J											480-43983-1176 Page:	
Thomas Palmer	484	645 2	302		n.fisch	er@t	estam	ericai	nc.co	n							Page 1 of 1	
Company:	<u> </u>								۸n	alysis							Job #	
Groundwater & Environmental Services Inc Address:	Due Date Request	ed.			1.0	1	1		<u></u>	alysis		luest	eu				Preservation Co	des:
495 Aero Drive Suite 3	Bue Bute Request	.cu.				×ijų živij	1		hist-Uon-Boz							2000	A - HCL	M - Hexane
City:	TAT Requested (d	ays):			1 18				9.8								B - NaOH	N - None
Cheektowaga		TVJ_							2								C - Zn Acetate D - Nitric Acid	O - AsNaO2 P - Na2O4S
State, Zip: NY, 14225		100-				) (			Ŀ								E - NaHSO4	Q - Na2SO3
Phone:	PO#:								5				·			×.	F - MeOH G - Amchlor	R - Na2S2SO3 S - H2SO4
	Purchase Order	not requir			<u> </u>				5							100	H - Ascorbic Acid	T ~ TSP Dodecahydrate
Email:	WO #:				N 10	- I			MK								l - Ice J - Di Water	U - Acetone V - MCAA
tpalmer@gesonline.com Project Name:	Project#:				- 8 Z	etho	_		STWRS	:						)ers	K - EDTA	W-ph 4-5
NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Pre-Car	48002525				le (Yes of As or No)	Local Method	thoc		_							containei	L-EDA	Z - other (specify)
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			Sample	Matrix	Field Filtered Sam	300.0_28D - (MOD)	- (MOD) Local Method	- Alkalinity, Total	2							Total Number		
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		Sample	(C=comp,	O=waste/oil,	eld A	0.0	200.7	310.2	502							otal		
Sample Identification	Sample Date	Time	G=grab)	BT=Tissue, A=Air									_			Ě	Special In	structions/Note:
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Pre-Carbon	4/9/14	1045	6	Water	WW	1	1	1	/	i.								
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Possible Hazard Identification					S					e may							longer than 1 m	onth)
Non-Hazard Flammable Skin Irritant Poisor		n Rac	liological				Return						By Lal	b	<u>`</u> _A	rchive	For	Months
Deliverable Requested: I, II, III, IV, Other (specify)					S	pecia	l Instru	uction	is/QC	Requir	ement	s:						
Empty Kit Relinquished by:		Date:	·····		Time	c				1		IN	lethod o	f Shîpm	ent			
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Relinquished by:	7/7// Date/Time:	4 1/2		Company		Red	erved t		<u> </u>	/ :				Date/	1. 1.11	1	1100	Company
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$\Delta$ Yes $\Delta$ No													7	2 >	<del>年1</del> ~	fle		
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Client: New York State D.E.C.

# Login Number: 57564

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	

List Source: TestAmerica Buffalo

Client: New York State D.E.C.

# Login Number: 57566

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	

List Source: TestAmerica Buffalo



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

Joeph V. Giacomaya

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

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

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

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



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

Joseph V. Giacomagge

Joe Giacomazza Project Management Assistant II 5/30/2014 9:43:38 AM

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# 3

# Qualifiers

GC	MS	VOA
00		

Qualifier       Qualifier Description         *       CC/MS Semi VOA         Qualifier       Qualifier Description         *       RPD of the LCS and LCSD exceeds the control limits         GC VOA       Qualifier Description         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 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       Compound was found in the blank and sample.	GC/WIS VUP		
GC/MS Semi VOA         Qualifier       Qualifier Description         *       RPD of the LCS and LCSD exceeds the control limits         GC VOA       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 Description         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.	Qualifier	Qualifier Description	
Qualifier       Qualifier Description         *       RPD of the LCS and LCSD exceeds the control limits         GC VOA       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 Description         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.	*	LCS or LCSD exceeds the control limits	_
*       RPD of the LCS and LCSD exceeds the control limits         GC VOA       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 Description         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.	GC/MS Sem	i VOA	
GC VOA       Qualifier Description         Qualifier Mesult is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.         Metals         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.	Qualifier	Qualifier Description	
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 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.	ł	RPD of the LCS and LCSD exceeds the control limits	_
J       Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.         Metals       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.	GC VOA		
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.	Qualifier	Qualifier Description	
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.	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
Compound was found in the blank and sample. Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	Metals		
J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	Qualifier	Qualifier Description	
	3	Compound was found in the blank and sample.	
General Chemistry	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
	General Ch	emistry	

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  $4.3^{\circ}$  C and  $4.4^{\circ}$  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.

RL

MDL Unit

D

Prepared

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

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

Result Qualifier

**Client Sample ID: Pre-Carbon** 

Date Collected: 05/15/14 10:15

Date Received: 05/15/14 10:55

Analyte

n-Butylbenzene

TestAmerica Job ID: 480-59933-1

Lab Sample ID: 480-59933-1

Analyzed

Matrix: Wastewater

Dil Fac

5

Analyte	Result	Quaimer	IXE.	NIDL	Unit		riepaieu	Analyzeu	Dirrac	
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	8
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	Q
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		ug/L			05/20/14 13:59	50	
Bromoform	ND		50		ug/L			05/20/14 13:59	50	
Bromomethane	ND		50	35	ug/L			05/20/14 13:59	50	
Carbon disulfide	ND		50		ug/L			05/20/14 13:59	50	
Carbon tetrachloride	ND		50		ug/L			05/20/14 13:59	50	
Chlorobenzene	ND		50		ug/L			05/20/14 13:59	50	
Dibromochloromethane	ND		50		ug/L			05/20/14 13:59	50	
Chloroethane	ND		50		ug/L			05/20/14 13:59	50	
Chloroform	ND		50		ug/L			05/20/14 13:59	50	
Chloromethane	ND		50		ug/L			05/20/14 13:59	50	
cis-1,3-Dichloropropene	ND		50		ug/L			05/20/14 13:59	50	
Ethylbenzene	380		50		ug/L			05/20/14 13:59	50	
Methylene Chloride	62		50		ug/L			05/20/14 13:59	50	
Styrene	230		50		ug/L			05/20/14 13:59	50	
Tetrachloroethene	ND		50		ug/L			05/20/14 13:59	50	
Toluene	1700		50		ug/L			05/20/14 13:59	50	
trans-1,3-Dichloropropene	ND		50		ug/L			05/20/14 13:59	50	
Trichloroethene	ND		50		ug/L			05/20/14 13:59	50	
Vinyl chloride	ND		50		ug/L			05/20/14 13:59	50	
Vinyl acetate	ND		250		ug/L			05/20/14 13:59	50	
Xylenes, Total	380		100		ug/L			05/20/14 13:59	50	
Aylenes, rotai	000				49/L			00,20,11,0000		
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 Orga	nic Compounds	(GC)								
Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac	
1,2,4-Trimethylbenzene	61	J	100		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	
- D - 1			100	· -				0 - 10 0 14 4 4 0		

TestAmerica Buffalo

500

05/20/14 10:34

100

15 ug/L

ND

Client: New York State D.E.C. Project/Site: NYSDEC-Gastown WWTP: Site# 915171 TestAmerica Job ID: 480-59933-1

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

Date Collected: 05/15/14 10:15 Date Received: 05/15/14 10:55

**Client Sample ID: Pre-Carbon** 

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 - Meta	als (ICP)								
	als (ICP)								
Method: 200.7 Rev 4.4 - Meta Analyte	Result	Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fac
Method: 200.7 Rev 4.4 - Meta Analyte Calcium	Result 120000	Qualifier	500	100	ug/L	D	05/16/14 08:40	05/16/14 16:22	Dil Fac
Method: 200.7 Rev 4.4 - Meta Analyte	Result	Qualifier	500 50.0	100 19.3	ug/L ug/L	D	05/16/14 08:40 05/16/14 08:40	05/16/14 16:22 05/16/14 16:22	Dil Fac
Method: 200.7 Rev 4.4 - Meta Analyte Calcium	Result 120000	Qualifier	500	100	ug/L ug/L	D	05/16/14 08:40	05/16/14 16:22	Dil Fac 1 1
Method: 200.7 Rev 4.4 - Meta Analyte Calcium Iron	Result 120000 637		500 50.0	100 19.3 43.4	ug/L ug/L	D	05/16/14 08:40 05/16/14 08:40	05/16/14 16:22 05/16/14 16:22	Dil Fac 1 1 1 1
Method: 200.7 Rev 4.4 - Meta Analyte Calcium Iron Magnesium	Result 120000 637 59300		500 50.0 200	100 19.3 43.4 100	ug/L ug/L ug/L	<u>D</u>	05/16/14 08:40 05/16/14 08:40 05/16/14 08:40	05/16/14 16:22 05/16/14 16:22 05/16/14 16:22	Dil Fac 1 1 1 1 1 1
Method: 200.7 Rev 4.4 - Meta Analyte Calcium Iron Magnesium Potassium	Result 120000 637 59300 4320		500 50.0 200 500	100 19.3 43.4 100	ug/L ug/L ug/L ug/L	D	05/16/14 08:40 05/16/14 08:40 05/16/14 08:40 05/16/14 08:40	05/16/14 16:22 05/16/14 16:22 05/16/14 16:22 05/16/14 16:22	Dil Fac 1 1 1 1 1 1
Method: 200.7 Rev 4.4 - Meta Analyte Calcium Iron Magnesium Potassium Sodium	Result 120000 637 59300 4320 56800		500 50.0 200 500	100 19.3 43.4 100	ug/L ug/L ug/L ug/L ug/L	D	05/16/14 08:40 05/16/14 08:40 05/16/14 08:40 05/16/14 08:40	05/16/14 16:22 05/16/14 16:22 05/16/14 16:22 05/16/14 16:22	Dil Fac 1 1 1 1 1 1 Dil Fac
Method: 200.7 Rev 4.4 - Meta Analyte Calcium Iron Magnesium Potassium Sodium General Chemistry	Result 120000 637 59300 4320 56800	B	500 50.0 200 500 1000	100 19.3 43.4 100 324	ug/L ug/L ug/L ug/L ug/L		05/16/14 08:40 05/16/14 08:40 05/16/14 08:40 05/16/14 08:40 05/16/14 08:40	05/16/14 16:22 05/16/14 16:22 05/16/14 16:22 05/16/14 16:22 05/16/14 16:22	1 1 1 1 1
Method: 200.7 Rev 4.4 - Meta Analyte Calcium Iron Magnesium Potassium Sodium General Chemistry Analyte	Result	B	500 50.0 200 500 1000 <b>RL</b>	100 19.3 43.4 100 324 MDL	ug/L ug/L ug/L ug/L Unit		05/16/14 08:40 05/16/14 08:40 05/16/14 08:40 05/16/14 08:40 05/16/14 08:40	05/16/14 16:22 05/16/14 16:22 05/16/14 16:22 05/16/14 16:22 05/16/14 16:22 05/16/14 16:22 Analyzed	1 1 1 1 1 <b>Dil Fac</b>

Client: New York State D.E.C. Project/Site: NYSDEC-Gastown WWTP: Site# 915171 TestAmerica Job ID: 480-59933-1

Lab Sample ID: 480-59933-2

# Client Sample ID: Outside Sump

Date Collected: 05/15/14 10:20 Date Received: 05/15/14 10:55

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

Matrix: Water

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

# Client Sample ID: Post-Carbon-3

Date Collected: 05/15/14 09:50 Date Received: 05/15/14 10:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
,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
I,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/19/14 17:23	1
I,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
I,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
Fetrachloroethene	ND		1.0	0.36	ug/L			05/19/14 17:23	1
Foluene	ND		1.0	0.51	ug/L			05/19/14 17:23	1
rans-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
/inyl chloride	ND		1.0	0.90	ug/L			05/19/14 17:23	1
/inyl acetate	ND		5.0	0.85	ug/L			05/19/14 17:23	1
Kylenes, Total	ND		2.0		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

.. . \_ ....

TestAmerica Buffalo

TestAmerica Job ID: 480-59933-1

Lab Sample ID: 480-59935-1

Matrix: Wastewater

RL

4.8

4.8

4.8

4.8

4.8

4.8

9.7

4.8

4.8

4.8

4.8

9.7

4.8

4.8

4.8

MDL Unit

0.71 ug/L

0.63 ug/L

1.7 ug/L

0.29 ug/L

0.32 ug/L

0.41 ug/L

0.49 ug/L

0.39 ug/L

0.35 ug/L

0.45 ug/L

0.73 ug/L

2.1 ug/L

0.43 ug/L

0.38 ug/L

0.33 ug/L

D

Prepared

05/19/14 11:28

05/19/14 11:28

05/19/14 11:28

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

Result Qualifier

ND

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

Analyte

Biphenyl

Carbazole

Chrysene

Fluoranthene

Naphthalene

Phenanthrene

Phenol

Pyrene

Fluorene

Benzo[k]fluoranthene

Bis(2-ethylhexyl) phthalate

Dibenz(a,h)anthracene Dibenzofuran

Indeno[1,2,3-cd]pyrene

Pentachlorophenol

TestAmerica Job ID: 480-59933-1

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

Analyzed

05/20/14 11:06

05/20/14 11:06

05/20/14 11:06

Dil Fac

1

1	
1	
1	
1	8
1	
1	0
1	
1	
1	

1	
1	8
1	
1	0
1	
1	
1	

05/19/14 11:28	05/20/14 11:06	1
05/19/14 11:28	05/20/14 11:06	1
05/19/14 11:28	05/20/14 11:06	1
05/19/14 11:28	05/20/14 11:06	1
05/19/14 11:28	05/20/14 11:06	1
05/19/14 11:28	05/20/14 11:06	1
05/19/14 11:28	05/20/14 11:06	1
05/19/14 11:28	05/20/14 11:06	1
05/19/14 11:28	05/20/14 11:06	1
05/19/14 11:28	05/20/14 11:06	1
05/19/14 11:28	05/20/14 11:06	1
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 Pes	sticides in Wa	ter					
Analyte	Result	Qualifier	RL	MDL	Unit	D	 Prepa

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

TestAmerica Job ID: 480-59933-1

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

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 - Metal	s (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
		HF	0.100	0.100				05/15/14 23:38	1

5/30/2014

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

# **Client Sample ID: Post-Carbon-2**

Date Collected: 05/15/14 10:05 Date Received: 05/15/14 10:55

Method: 8021B - Volatile Org	anic 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

5/30/2014

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

Client: New York State D.E.C. Project/Site: NYSDEC-Gastown WWTP: Site# 915171 TestAmerica Job ID: 480-59933-1

Lab Sample ID: 480-59935-3

5

Matrix: Water

# Client Sample ID: Post-Carbon-1

Date Collected: 05/15/14 10:10 Date Received: 05/15/14 10:55

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

Dilution

Factor

50

500

1

5

10

Run

Batch

Number

182982

182992

182453

182798

182558

183393

Prepared

or Analyzed

05/20/14 13:59

05/20/14 10:34

05/16/14 08:40

05/16/14 16:22

05/17/14 04:41

05/21/14 13:40 NCH

Analyst

GTG

DGB

EHD

LMH

KRC

Lab

TAL BUF

TAL BUF

TAL BUF

TAL BUF

TAL BUF

TAL BUF

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

Batch

Туре

Analysis

Analysis

Analysis

Analysis

Analysis

Prep

Batch

Method

8260C

8021B

200.7

300.0

310.2

200.7 Rev 4.4

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

Lab Sample ID: 480-59933-2

Matrix: Water

Date Collected: 05/15/14 10:20 Date Received: 05/15/14 10:55

**Client Sample ID: Outside Sump** 

**Client Sample ID: Pre-Carbon** 

Date Collected: 05/15/14 10:15

Date Received: 05/15/14 10:55

Prep Type

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

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

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

Date Received: 05/15/14 10:55

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	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 Sample ID: 480-59935-1 Matrix: Wastewater

Lab Sample ID: 480-59935-2

# Client Sample ID: Post-Carbon-2

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

# Date Collected: 05/15/14 10:10 Date Received: 05/15/14 10:55

_								
	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	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
lowa	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 Description

Metals (ICP)

Alkalinity

Cyanide, Total

HEM and SGT-HEM

Anions, Ion Chromatography

Phenolics, Total Recoverable

Solids, Total Dissolved (TDS)

Solids, Total Suspended (TSS)

Volatile Organic Compounds by GC/MS

Volatile Organic Compounds (GC)

Organochlorine Pesticides in Water

Semivolatile Organic Compounds (GC/MS)

Laboratory

TAL BUF

Protocol

SW846

SW846

SW846

EPA

1664A

MCAWW MCAWW

MCAWW

MCAWW

SM

SM

SM

SM

40CFR136A

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9

# Protocol References:

Method

8260C

8270D

8021B

1664A

300.0

310.2

335.4

420.4

SM 2540C

SM 2540D

SM 5210B

SM 4500 H+ B

200.7 Rev 4.4

608

1664A = EPA-821-98-002

pН

BOD, 5-Day

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

Client: New York St Project/Site: NYSD	tate D.E.C. EC-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	5
480-59935-2	Post-Carbon-2	Water	05/15/14 10:05	05/15/14 10:55	5
480-59935-3	Post-Carbon-1	Water	05/15/14 10:10	05/15/14 10:55	
					8
					9

TesťAmerica Buffalo																			innigent, is at		*
10 Hazelwood Drive				(	Chain c	of C	Cu	sto	l vt	Re	cor	d						ET FOLLI			<u>:0</u>
Amherst, NY 14228-2298 Phone (716) 691-2600 Fax (716) 691-7991									,												8771633
		Sampler:	Palmer		Lab F								Car	rier Tra							
Client Information		1				her, E	Briar	IJ					_								
Thomas Palmer		(71	6)866	-3590	-		her@	@testar	nerica	linc.co	om	_				480-:	5993.		ain of Custody		
Company: Groundwater & Environmental Services Inc	2									A	nalvs	sis R	eque	sted					Job #:		
Address:	-	Due Date Request	ed:		·····			-					1					1	Preservation Cod	es:	
495 Aero Drive Suite 3 City:		TAT Requested (d	avel				Š.												A-HCL	M - Hexane	
Cheektowaga		IAI Requested (d	1D																B - NaOH C - Zn Acetate	N - None O - AsNaO2	
State, Zip: NY, 14225			10				200												D - Nitric Acid E - NaHSO4	P - Na2O4S Q - Na2SO3	
Phone:		PO#:																1	F - MeOH G - Amchlor	R - Na2S2SC S - H2SO4	03
E maile		Purchase Order	not requir			ĝ	NIS.			- 8021									H - Ascorbic Acid	T - TSP Dode	ecahydrate
Email: tpalmer@gesonline.com		WO #:				ō	ĝ	p j	5	- YO								9	I - Ice J - DI Water	U - Acetone V - MCAA	
Project Name: NYSDEC - Gastown WWTP/Gastown Ev	ant Dana: Atrix Dra Cark	Project #:				Sample (Yes	Yes of	Net Nod	TWO	st - V								tainers	K-EDTA L-EDA	W - ph 4-5 Z - other (spe	cify)
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New York						Sar	S	OD)1	덛	STAI	Ę, T							ō	1		
				Sample	Matrix	Filtered	Perform MS/MSD	300.0_28D - (MOD) Local Method 200.7 - (MOD) Local Method	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS List - VOA	310.2 - Alkalinity, Total							Total Number			
			Comula	Туре	(W=water, S=solid,	Ē	E.	- S	С. В-	Ч)- В	- All							Nu			
Sample Identification		Sample Date	Sample Time	(C=comp, G=grab)	O=waste/oil, BT=Tissue, A=Air	Field	E.	300.0	8260	8021	310.2	ŀ						Tota	Special Ins	structions/N	ote:
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Outsile Sump			1020	G	Water	N/	N			×											
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Possible Hazard Identification		<u> </u>	·			1	Sam	ple Dis	posa	i(Ai	fee m					ples a	re ret	aine	d longer than 1 mo	onth)	
	skin Irritant Poison	B Unknow	n Rac	diological				Retur					Dispos	sal By	Lab		A	rchiv	re For	Months	
Deliverable Requested: I, II, III, IV, Other (s	specify)					ľ	Spec	ial Inst	ruction	ns/QC	Req	uireme	ents:								
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Page 19 of 22

5/30/2014

<b>TestAmerica Buffal</b>
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10 Hazelv	vood Drive	
Amherst,	NY 14228-2298	

Phone (716) 691-2600 Fax (716) 691-7991

# Chain of Custody Record



Client Information		Sampler.	-Palmi	-		PM: cher.	Brian	J					C	Carrier	Track	ing	48	30-59	935	Chain of Custo	ialaina (  1  1  1  1  1  1  1  1  1  1  1  1  1
Client Contact Thomas Palmer			3)866		E-M			tostan	orioo	ino or						-	-			Page:	
Company:				0010		an.nsc	nei@	testan	nenca											Page 1 of 1 Job #:	
Groundwater & Environmental Services I Address:	nc									A	naly	sis R	equ	ieste	ed						
Address: 495 Aero Drive Suite 3		Due Date Reques	ted:																1	Preservation Co	
City:		TAT Requested (o	lays):			12	\$ <b>~</b> _													A - HCL B - NaOH	M - Hexane N - None
Cheektowaga State, Zip:		4	1D			Î	Sec. Stati												1.12	C - Zn Acetate D - Nitric Acid	0 - AsNaO2 P - Na2O4S
NY, 14225		-																1	200	E - NaHSO4 F - MeOH	Q - Na2SO3 R - Na2S2SO3
Phone:		PO #: Purchase Order	not requir								8021	88		_					100	G - Amchlor	S - H2SO4
Email:		WO #.				- S			able		•	ticid	04.2	mane	olids				1.15	H - Ascorbic Acid [ - Ice	T - TSP Dodecahydrate U - Acetone
tpalmer@gesonline.com Project Name:		Project#:				- 88	es or No)	_	over	104.2	107-	t Pes	- OLM04.2	å i	/ed S	olids			ers	J - DI Water K - EDTA	V - MCAA W - ph 4-5
NYSDEC - Gastown WWTP/Gastown E	event Desc: Qtrly Post-Ca					کا ف	0S C	Grease	Total Recoverable	OLA	STARS List - VOA	lutan	- SVOA -	xyge	330	eq S			container	L - EDA	Z - other (specify)
Site: New York		SSOW#:				<b>J</b>	N D D	& Gre		L Hst	ARS	/ Pol	L SV	cal O		bend	Otal		00	Other:	
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				Sample Type	Matrix (w=water,	liter	Perform MS/N	Calc .	420.4 - Phenolics,	8260B - (MOD) TCL Hst OLM04.2	8021B - (MOD)	608_Pest - Priority Pollutant Pesticide	8270C - (MOD) TCL	5210B - Blochemical Oxygen Demand	2640C_Calcd - Total Dissolved Solids	2540D - Total Suspended Solids	330.4 - Суаписе, тотат SM4500 H+ - pH		Total Number		
			Sample	(C=comp,	S=solid, O=waste/oil,	a pi	rfori	1664A_Calc	4 - 5	- B	18-	Pes	ģ	8			4200		tál N		
Sample Identification	14 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Sample Date	Time		BT=Tissue, A=Air			1.0 1 1	1 :	1								1. 	Ê	Special I	nstructions/Note:
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5/30/2014

Client: New York State D.E.C.

# Login Number: 59933 List Number: 1

Creator: Stau, Brandon M

background The cooler's custody seal, if present, is intact. True tampered with. Samples were received on ice. True Cooler Temperature is acceptable. True Cooler Temperature is acceptable. True Cooler Temperature is acceptable. True COC is present. True COC is present. True COC is filled out in ink and legible. True COC is filled out with all pertinent information. True Sample's name present on COC? True There are no discrepancies between the sample IDs on the containers and the COC. Sample containers have legible labels. True Containers are not broken or leaking. True Sample containers have legible labels. True Containers are not broken or leaking. True Sample containers have legible labels. True Containers are not broken or leaking. True Sample containers have legible labels. True Containers are not broken or leaking. True Containers are not broken or leaking. True Sample containers have legible labels. True Containers are not broken or leaking. True Sample containers have legible labels. True Containers are not broken or leaking. True Sample containers have legible labels. True Containers are not broken or leaking. True Sample containers have legible labels. True Containers are not broken or leaking. True Sample containers have legible labels. True Sample containers are used. True Sample broken or have headspace or bubble is <6mm (14") in diameter. True Sample vals do not have headspace or bubble is <6mm (14") in diameter. Sample vals do not have headspace or bubble is <6mm (14") in diameter. Sample vals do not have headspace or bubble is <6mm (14") in diameter. Sample vals do not have headspace or bubble is <6mm (14") in diameter. Samples vals do not have headspace or bubble is <6mm (14") in diameter. Samples do not neaken informed of any short hold time or quick TAT needs Samples Company provide. True Samples Company provide. Tru	Question	Answer	Comment
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Sample Preservation Verified       True         There is sufficient vol. for all requested analyses, incl. any requested       True         MS/MSDs       True         VOA sample vials do not have headspace or bubble is <6mm (1/4") in	Appropriate sample containers are used.	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.	Sample bottles are completely filled.	True	
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Samples requiring field filtration have been filtered in the field. N/A	Sampling Company provided.	True	ges
	Samples received within 48 hours of sampling.	True	
Chlorine Residual checked. N/A	Samples requiring field filtration have been filtered in the field.	N/A	
	Chlorine Residual checked.	N/A	

List Source: TestAmerica Buffalo

Client: New York State D.E.C.

# Login Number: 59935 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	

Job Number: 480-59933-1

List Source: TestAmerica Buffalo



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

Joeph V. Giacomaya

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

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

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

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



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

Joseph V. Giacomagge

Joe Giacomazza Project Management Assistant II 6/25/2014 11:39:37 AM

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# Qualifiers

Qualifiers	\$	3
GC/MS VOA	Α	
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.	5
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 Ch	emistry	
Qualifier	Qualifier Description	
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.	8

# Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
ĩ	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
ИL	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
ſEF	Toxicity Equivalent Factor (Dioxin)
ΓEQ	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 2.0° C and 2.5° 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

Lab Sample ID: 480-61687-1

06/12/14 09:35 06/14/14 15:29

Matrix: Wastewater

Date Collected: 06/11/14 11:30 Date Received: 06/11/14 12:10

Potassium

**Client Sample ID: Pre-Carbon** 

Method: 8021B - Volatile Or									
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 - Met	als (ICP)								
Analyte		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

Sodium	8100	1000	324	ug/L		06/12/14 09:35	06/14/14 15:29	1
General Chemistry								
Analyte F	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

500

100 ug/L

4480

TestAmerica Buffalo

1

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

**Client Sample ID: OUTSIDE SUMP** 

Date Collected: 06/11/14 11:40

Date Received: 06/11/14 12:10

# TestAmerica Job ID: 480-61687-1

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

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

# Client Sample ID: Post-Carbon-3

Date Collected: 06/11/14 11:15 Date Received: 06/11/14 12:10

m,p-Xylene

n-Butylbenzene

Method: 8260C - Volatile Orga	nic 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		ug/L			06/24/14 00:49	1
Bromomethane	ND		1.0		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		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		ug/L			06/24/14 00:49	1
Ethylbenzene	ND		1.0		ug/L			06/24/14 00:49	
Methylene Chloride	ND		1.0	0.44	ug/L			06/24/14 00:49	1
Styrene	ND		1.0		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		ug/L			06/24/14 00:49	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/24/14 00:49	1
Trichloroethene	ND		1.0		ug/L			06/24/14 00:49	1
Vinyl chloride	ND		1.0		ug/L			06/24/14 00:49	1
Vinyl acetate	ND		5.0		ug/L			06/24/14 00:49	1
Xylenes, Total	ND		2.0		ug/L			06/24/14 00:49	
					•				
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 Orga Analyte		(GC) Qualifier	RL	мы	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035			Ticparcu	06/13/14 10:23	1
1,3,5-Trimethylbenzene	ND		0.20		ug/L			06/13/14 10:23	1
Benzene	ND		0.20	0.023	-			06/13/14 10:23	1
Ethylbenzene	ND		0.20	0.023				06/13/14 10:23	· · · · · · · · · · · · · · · · · · ·
•	ND		0.20		-				1
Isopropylbenzene Methyl tert hutyl ether				0.027	-			06/13/14 10:23	1
Methyl tert-butyl ether	ND		0.40	0.044	uy/L			06/13/14 10:23	٦ م

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

TestAmerica Buffalo

1

1

06/13/14 10:23

06/13/14 10:23

0.40

0.20

0.054 ug/L

0.031 ug/L

ND

ND

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

# Client Sample ID: Post-Carbon-3 Date Collected: 06/11/14 11:15

Date Received: 06/11/14 12:10

рΗ

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 (ICF	2)								
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

0.100

7.65 HF

0.100 SU

TestAmerica Job ID: 480-61687-1

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

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

Lab Sample ID: 480-61688-2

Matrix: Water

# **Client Sample ID: Post-Carbon-2**

Date Collected: 06/11/14 11:20 Date Received: 06/11/14 12:10

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 Orga	anic 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

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Client: New York State D.E.C. Project/Site: NYSDEC-Gastown WWTP: Site# 915171 TestAmerica Job ID: 480-61687-1

Lab Sample ID: 480-61688-3

Matrix: Water

# Client Sample ID: Post-Carbon-1

Date Collected: 06/11/14 11:25 Date Received: 06/11/14 12:10

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 Sample ID: 480-61687-1 Matrix: Wastewater

Date Collected: 06/11/14 11:30 Date Received: 06/11/14 12:10

**Client Sample ID: Pre-Carbon** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	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**

Date Collected: 06/11/14 11:40 Date Received: 06/11/14 12:10

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

# **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** 

Lab Sample ID: 480-61688-2

Lab Sample ID: 480-61688-3

Matrix: Water

Matrix: Water

Lab

TAL BUF

Lab Sample ID: 480-61687-2

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	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**

Date Collected: 06/11/14 11:20

Date Received: 06/11/14 12:10

	Batch	Batch		Dilution Batch		Prepared		
Prep Type	Туре	Method	Run	Factor	Number	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** Date Collected: 06/11/14 11:25 Date Received: 06/11/14 12:10

		Batch	Batch		Dilution	Batch	Prepared		
Pi	ер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
To	otal/NA	Analysis	8021B		50	187474	06/13/14 11:32	DGB	TAL BUF

TestAmerica Buffalo

# 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
lowa	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.

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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	На	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

Client: New York St Project/Site: NYSD	tate D.E.C. EC-Gastown WWTP: Site# 915171		TestAmerica Job ID: 480-616									
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																		X toc	merica
10 Hazelwood Drive			C	Chain c	of C	us	toc	ly [											
Amherst, NY 14228-2298 Phone (716) 691-2600 Fax (716) 691-7991		F																.ಶೂರಣನ ೫೫ ೯೫	NRONADITAL TESTING
Client Information	Sampler: T-F	âm			her, B	rian .	J		_									lo: 3984-1176.1	1
Client Contact Thomas Palmer	Phone: (716	) 866 -	3590	E-Ma bria		ner@	testarr	nerica	i	480-6	61687	Chair	n of C	ustoo	żγ		-	1 of 1 ئى	
Company:					T	-			<b>-</b> .	alysi			tod				Ţ	lob #:	
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NY, 14225 Phone:	PO #:		)						14			:				1.405		F - MeOH G - Amchlor	R - Na2S2SO3 S - H2SO4
	Purchase Order	not requir			-Q	Ç.			21									H - Ascorbic Acid I - Ice	T - TSP Dodecahydrate U - Acetone
Email: tpalmer@gesonline.com	WO #:				<u>ان</u>	Method			STARS								9		V – MCAA W – ph 4–5
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Non-Hazard Flammable Skin Irritant Poisor	n B Unknow	in Rad	diological				Retur	n To (	Client		<b>D</b>	isposa	al By L			Arci	hive	For	Months
Deliverable Requested: I, II, III, IV, Other (specify)					S	Speci	al Insti	ructio	ns/QC	C Requi	remer	nts:				~~			
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6/25/2014

TestAmerica Buffalo																				Trath	merica
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Amherst, NY 14228-2298 Phone (716) 691-2600 Fax (716) 691-7991																				THE CASER -	TYUROWNERTAL TESTING
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Client Contact: Thomas Palmer	Phone:	(716	)866-	3590			ische	r@te	stan		480-	61688	3 Ch	ain of	Cust	oay	-			Page: Page 1 of 1	
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tpalmer@gesonline.com	Device						r No		104.2	٥,									ers	J - DI Water K - EDTA	V – MCAA W – ph 4-5
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				Sample	Matrix	6 6.00	Perform MS/MSD (Yes of No)	5	8260B - (MOD)	8021B - (MOD) STARS List - VOA - 8021	335.4 - Cyanide, Total	SM4500_H+ - pH							Total Number		
			Sample	Type (C=comp,	W=water, S=solid, O=waste/oil	ä	E D	7 - Iron	)- El	1B - (	4-C	1500							al N		
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6/25/2014

Client: New York State D.E.C.

# Login Number: 61687

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	

Job Number: 480-61687-1

List Source: TestAmerica Buffalo

Client: New York State D.E.C.

# Login Number: 61688

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	

Job Number: 480-61687-1

List Source: TestAmerica Buffalo



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. Giacomoya

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

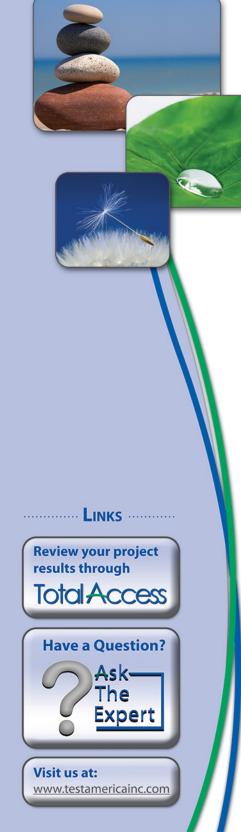
Designee for

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

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

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

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



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

Joseph V. Giacomage

Joe Giacomazza Project Management Assistant II 7/31/2014 12:19:59 PM

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# 3

# Qualifiers

		1.1
GC/MS VOA		Ē
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	
В	Compound was found in the blank and sample.	
General Ch	emistry	
Qualifier	Qualifier Description	
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.	
Glossary		

# 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 3.1° C and 3.6° 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.

RL

100

100

100

MDL Unit

17 ug/L

75 ug/L

12 ug/L

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

Method: 8021B - Volatile Organic Compounds (GC)

Result Qualifier

120

ND

16000

**Client Sample ID: Pre-Carbon** 

Date Collected: 07/18/14 12:10

Date Received: 07/18/14 15:15

1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene

Analyte

Benzene

TestAmerica Job ID: 480-64047-1

Lab Sample ID: 480-64047-1

Analyzed

07/23/14 16:03

07/23/14 16:03

07/23/14 16:03

Prepared

D

**Matrix: Wastewater** 

5

Dil Fac

500

500

Calcium	154000		500	100	ua/L		07/21/14 08:30	07/21/14 17:44	1
Method: 200.7 Rev 4.4 - Meta Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		64 - 141					07/23/14 16:03	500
a,a,a-Trifluorotoluene	92		63 - 145					07/23/14 16:03	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Xylenes, Total	1200		300	27	ug/L			07/23/14 16:03	500
Toluene	4800		100	18	ug/L			07/23/14 16:03	500
sec-Butylbenzene	ND		100	10	ug/L			07/23/14 16:03	500
p-Cymene	ND		100	15	ug/L			07/23/14 16:03	500
o-Xylene	370		100	14	ug/L			07/23/14 16:03	500
n-Propylbenzene	ND		100	65	ug/L			07/23/14 16:03	500
n-Butylbenzene	ND		100	15	ug/L			07/23/14 16:03	500
m,p-Xylene	800		200	27	ug/L			07/23/14 16:03	500
Methyl tert-butyl ether	ND		200	22	ug/L			07/23/14 16:03	500
Isopropylbenzene	ND		100	14	ug/L			07/23/14 16:03	500
Ethylbenzene	1600		100	14	ug/L			07/23/14 16:03	500

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	В	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

Lab Sample ID: 480-64047-2

Matrix: Water

# Client Sample ID: Outside Sump

Date Collected: 07/18/14 12:20 Date Received: 07/18/14 15:15

- Method: 8021B - Volatile Org	anic Compounds	(GC)							
Analyte	•	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

# Client Sample ID: Post-Carbon-3

Date Collected: 07/18/14 11:50 Date Received: 07/18/14 15:15

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

TestAmerica Job ID: 480-64047-1

Lab Sample ID: 480-64048-1

Matrix: Wastewater

# 2 3 4 5 6 7 8

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

# Client Sample ID: Post-Carbon-2

Date Collected: 07/18/14 11:55 Date Received: 07/18/14 15:15

n-Butylbenzene

Method: 8260C - Volatile Orga Analyte		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	•			07/29/14 02:10	5
1,1,2-Trichloroethane	ND		5.0		ug/L			07/29/14 02:10	5
1,1-Dichloroethane	ND		5.0		ug/L			07/29/14 02:10	5
1,1-Dichloroethene	ND		5.0		ug/L			07/29/14 02:10	5
1,2-Dichloroethane	ND		5.0		ug/L			07/29/14 02:10	5
1,2-Dichloroethene, Total	ND		10		ug/L			07/29/14 02:10	5
1,2-Dichloropropane	ND		5.0		ug/L ug/L			07/29/14 02:10	5
2-Hexanone	ND		25		ug/L			07/29/14 02:10	5
2-Butanone (MEK)	ND		50		ug/L			07/29/14 02:10	5
4-Methyl-2-pentanone (MIBK)	ND		25		ug/L			07/29/14 02:10	5
Acetone	ND		50		ug/L			07/29/14 02:10	5
Benzene	280		5.0		ug/L			07/29/14 02:10	5
Bromodichloromethane	ND		5.0		ug/L			07/29/14 02:10	5
Bromoform	ND		5.0		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		ug/L			07/29/14 02:10	5
Tetrachloroethene	ND		5.0		ug/L			07/29/14 02:10	5
Toluene	6.4		5.0		ug/L			07/29/14 02:10	5
trans-1,3-Dichloropropene	ND		5.0		ug/L			07/29/14 02:10	5
Trichloroethene	ND		5.0		ug/L			07/29/14 02:10	5
Vinyl chloride	ND		5.0		ug/L			07/29/14 02:10	5
Vinyl acetate	ND		25		ug/L			07/29/14 02:10	5
· · · · · · · · · · · · · · · · · · ·									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
								0	Ū.
Method: 8021B - Volatile Orga	nic Compounds	(GC)							
Analyte		Qualifier	RL		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		ug/L			07/23/14 17:11	10
Ethylbenzene	0.48	J	2.0		ug/L			07/23/14 17:11	10
Isopropylbenzene	ND		2.0		ug/L			07/23/14 17:11	10
Methyl tert-butyl ether	ND		4.0		ug/L			07/23/14 17:11	10
m,p-Xylene	ND		4.0		ug/L			07/23/14 17:11	10
	ND			0.04				0	.0

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

5

TestAmerica Buffalo

10

07/23/14 17:11

2.0

0.31 ug/L

ND

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

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

Date Received: 07/18/14 15:15

TestAmerica	Job ID:	480-64047	7-1

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

5

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
		HF	0.100	0.100				07/19/14 01:59	

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

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

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ent: New York oject/Site: NYS		wn WWTP: Site# 9 <sup>.</sup>	15171					TestAmerica J	
lient Sample									ID: 480-64047-1
ate Collected: ate Received:								I	Matrix: Wastewater
-	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Batch Type	Batch Method	Run	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 00:30	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								Lab Sample	ID: 480-64047-2
Date Collected:									Matrix: Water
Date Received:	07/18/14 15:1	5							
	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst		
Total/NA	Analysis	8021B		500	194267	07/23/14 16:37	DGB	TAL BUF	
Vient Sample	· ID· Post-(	Parhon_3						Lab Sample	480-64048-1
Date Collected:	07/18/14 11:5	50							ID: 480-64048-1 Matrix: Wastewater
Date Collected:	07/18/14 11:5	50		Dilution	Batch	Prepared			
Date Collected:	07/18/14 11:5 07/18/14 15:1	50  5	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab	
Date Collected: Date Received:	07/18/14 11:5 07/18/14 15:1 Batch	50  5 Batch	Run			•			
Total/NA	07/18/14 11:5 07/18/14 15:1 Batch Type Analysis	50 5 Batch Method 8260C	Run	Factor	Number	or Analyzed	Analyst GTG	Lab TAL BUF	Matrix: Wastewater
Date Collected: Date Received: Prep Type Total/NA Client Sample	07/18/14 11:5 07/18/14 15:1 Batch Type Analysis e ID: Post-C	50 5 Batch Method 8260C Carbon-2	Run	Factor	Number	or Analyzed	Analyst GTG	Lab TAL BUF	Matrix: Wastewater
Date Collected: Date Received: Prep Type Total/NA Client Sample Date Collected:	07/18/14 11:5 07/18/14 15:1 Batch Type Analysis e ID: Post-C 07/18/14 11:5	50 5 Batch <u>Method</u> 8260C Carbon-2 55	Run	Factor	Number	or Analyzed	Analyst GTG	Lab TAL BUF	Matrix: Wastewater
Date Collected: Date Received: Prep Type Total/NA Client Sample Date Collected:	07/18/14 11:5 07/18/14 15:1 Batch Type Analysis e ID: Post-C 07/18/14 11:5	50 5 Batch <u>Method</u> 8260C Carbon-2 55	Run	Factor	Number	or Analyzed	Analyst GTG	Lab TAL BUF	Matrix: Wastewater
Date Collected: Date Received: Prep Type	07/18/14 11:5 07/18/14 15:1 Batch Type Analysis e ID: Post-C 07/18/14 11:5 07/18/14 15:1	50 5 Batch Method 8260C Carbon-2 55 5	Run	Factor1	Number 194786	or Analyzed 07/25/14 20:17	Analyst GTG	Lab TAL BUF	Matrix: Wastewater
Date Collected: Date Received: Prep Type Total/NA Client Sample Date Collected: Date Received:	07/18/14 11:5 07/18/14 15:1 Batch Type Analysis e ID: Post-C 07/18/14 11:5 07/18/14 15:1 Batch	50 5 Batch Method 8260C Carbon-2 55 5 Batch Batch		1	Number 194786 Batch	or Analyzed 07/25/14 20:17 Prepared	Analyst GTG	Lab TAL BUF	Matrix: Wastewater
Date Collected: Date Received: Prep Type Total/NA Client Sample Date Collected: Date Received: Prep Type	07/18/14 11:5 07/18/14 15:1 Batch Type Analysis e ID: Post-C 07/18/14 11:5 07/18/14 15:1 Batch Type	50 5 Batch Method 8260C Carbon-2 55 5 5 Batch Method		Dilution Factor	Number 194786 Batch Number	or Analyzed 07/25/14 20:17 Prepared or Analyzed	Analyst GTG Analyst	Lab TAL BUF	Matrix: Wastewater
Prep Type Total/NA Client Sample Date Collected: Date Received: Prep Type Total/NA	07/18/14 11:5 07/18/14 15:1 Batch Type Analysis e ID: Post-C 07/18/14 11:5 07/18/14 15:1 Batch Type Analysis	50 5 Batch Method 8260C Carbon-2 55 5 Batch Method 8260C		Factor         1         1         Dilution         Factor         5	Number 194786 Batch Number 195142	or Analyzed 07/25/14 20:17 Prepared or Analyzed 07/29/14 02:10	Analyst GTG Analyst LCH	Lab TAL BUF Lab Sample	Matrix: Wastewater
Date Collected: Date Received: Prep Type Total/NA Client Sample Date Collected: Date Received: Prep Type Total/NA Total/NA	07/18/14 11:5 07/18/14 15:1 Batch Type Analysis e ID: Post-C 07/18/14 11:5 07/18/14 15:1 Batch Type Analysis Analysis	50 5 Batch Method 8260C Carbon-2 55 5 5 Batch Method 8260C 8021B		Factor         1         1         Dilution         Factor         5	Number           194786           Batch           Number           195142           194267	or Analyzed 07/25/14 20:17 Prepared or Analyzed 07/29/14 02:10 07/23/14 17:11	Analyst GTG Analyst LCH DGB	Lab TAL BUF Lab Sample Lab TAL BUF TAL BUF	Matrix: Wastewater
Date Collected: Date Received: Prep Type Total/NA Client Sample Date Collected: Date Received: Date Received: Prep Type Total/NA Total/NA Total/NA	07/18/14 11:5 07/18/14 15:1 Batch Type Analysis e ID: Post-C 07/18/14 11:5 07/18/14 15:1 Batch Type Analysis Analysis Prep	50 5 Batch Method 8260C Carbon-2 55 5 5 5 5 5 8 8 8 8 8 8 1 8 1 8 1 1 1 1 1 1 1 1 1 1 1 1 1		Factor       1	Number           194786           Batch           Number           195142           194267           193790	or Analyzed 07/25/14 20:17 Prepared or Analyzed 07/29/14 02:10 07/23/14 17:11 07/21/14 08:30	Analyst GTG Analyst LCH DGB EHD	Lab TAL BUF Lab Sample	Matrix: Wastewater
Prep Type Total/NA Client Sample Date Collected: Date Received: Date Received: Total/NA Total/NA Total/NA Total/NA	07/18/14 11:5 07/18/14 15:1 Batch Type Analysis e ID: Post-C 07/18/14 11:5 07/18/14 15:1 Batch Type Analysis Analysis Prep Analysis	50 5 5 5 5 5 5 5 5 5 5 5 5 5		Factor       1	Number           194786           Batch           Number           195142           194267           193790           194095	or Analyzed 07/25/14 20:17 Prepared or Analyzed 07/29/14 02:10 07/23/14 17:11 07/21/14 08:30 07/21/14 17:46	Analyst GTG Analyst LCH DGB EHD JRK	Lab TAL BUF Lab Sample Lab Sample TAL BUF TAL BUF TAL BUF TAL BUF TAL BUF	Matrix: Wastewater
Date Collected: Date Received: Prep Type Total/NA Client Sample Date Collected: Date Received: Date Received: Date Received: Date Received: Total/NA Total/NA Total/NA Total/NA	07/18/14 11:5 07/18/14 15:1 Batch Type Analysis e ID: Post-C 07/18/14 11:5 07/18/14 15:1 Batch Type Analysis Analysis Prep Analysis Prep	50 5 Batch Method 8260C Carbon-2 55 5 5 5 8 8 8 8 260C 8 200.7 200.7 Rev 4.4 Distill/CN		Factor       1       1       1       1       1       1       1       1	Number           194786           Batch           Number           195142           194267           193790           194095           194909	or Analyzed 07/25/14 20:17 Prepared or Analyzed 07/29/14 02:10 07/23/14 17:11 07/21/14 08:30 07/21/14 17:46 07/25/14 17:00	Analyst GTG Analyst LCH DGB EHD JRK JMB	Lab TAL BUF Lab Sample	Matrix: Wastewater
Date Collected: Date Received: Prep Type Total/NA Client Sample Date Collected: Date Received: Date Received: Date Received: Total/NA Total/NA Total/NA Total/NA Total/NA	07/18/14 11:5 07/18/14 15:1 Batch Type Analysis e ID: Post-C 07/18/14 11:5 07/18/14 15:1 Batch Type Analysis Analysis Prep Analysis Prep Analysis	50 5 Batch Method 8260C Carbon-2 55 5 5 5 5 8 8 8 8 8		Factor 1 Dilution Factor 5 10 1 1	Number           194786           Batch           Number           195142           194267           193790           194095           194906	or Analyzed 07/25/14 20:17 Prepared or Analyzed 07/29/14 02:10 07/23/14 17:11 07/21/14 08:30 07/21/14 17:46 07/25/14 17:00 07/28/14 01:42	Analyst GTG Analyst LCH DGB EHD JRK JMB JTS	Lab TAL BUF Lab Sample	Matrix: Wastewater
Date Collected: Date Received: Prep Type Total/NA Client Sample Date Collected: Date Received: Date Received: Prep Type Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA	07/18/14 11:5 07/18/14 15:1 Batch Type Analysis e ID: Post-C 07/18/14 11:5 07/18/14 11:5 07/18/14 15:1 Batch Type Analysis Prep Analysis Prep Analysis Prep Analysis Prep Analysis e ID: Post-C	50 5 Batch Method 8260C Carbon-2 55 5 5 5 5 5 5 5 5 5 5 5 5		Factor 1 Dilution Factor 5 10 1 1	Number           194786           Batch           Number           195142           194267           193790           194095           194906	or Analyzed 07/25/14 20:17 Prepared or Analyzed 07/29/14 02:10 07/23/14 17:11 07/21/14 08:30 07/21/14 17:46 07/25/14 17:00 07/28/14 01:42	Analyst GTG Analyst LCH DGB EHD JRK JMB JTS KS	Lab TAL BUF Lab Sample	Matrix: Wastewater
Date Collected: Date Received: Total/NA Client Sample Date Collected: Date Received: Date Received: Date Received: Date Received: Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Cotal/NA	07/18/14 11:5 07/18/14 15:1 Batch Type Analysis e ID: Post-C 07/18/14 11:5 07/18/14 11:5 07/18/14 15:1 Batch Type Analysis Prep Analysis Prep Analysis Prep Analysis Analysis e ID: Post-C 07/18/14 12:0	50 5 5 5 5 5 5 5 5 5 5 5 5 5		Factor 1 Dilution Factor 5 10 1 1	Number           194786           Batch           Number           195142           194267           193790           194095           194906	or Analyzed 07/25/14 20:17 Prepared or Analyzed 07/29/14 02:10 07/23/14 17:11 07/21/14 08:30 07/21/14 17:46 07/25/14 17:00 07/28/14 01:42	Analyst GTG Analyst LCH DGB EHD JRK JMB JTS KS	Lab TAL BUF Lab Sample	Matrix: Wastewater ID: 480-64048-2 Matrix: Water
Date Collected: Date Received: Prep Type Total/NA Client Sample Date Collected: Date Received: Date Received: Prep Type Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA	07/18/14 11:5 07/18/14 15:1 Batch Type Analysis e ID: Post-C 07/18/14 11:5 07/18/14 11:5 07/18/14 15:1 Batch Type Analysis Prep Analysis Prep Analysis Prep Analysis Analysis e ID: Post-C 07/18/14 12:0	50 5 5 5 5 5 5 5 5 5 5 5 5 5		Factor 1 Dilution Factor 5 10 1 1	Number           194786           Batch           Number           195142           194267           193790           194095           194906	or Analyzed 07/25/14 20:17 Prepared or Analyzed 07/29/14 02:10 07/23/14 17:11 07/21/14 08:30 07/21/14 17:46 07/25/14 17:00 07/28/14 01:42	Analyst GTG Analyst LCH DGB EHD JRK JMB JTS KS	Lab TAL BUF Lab Sample	Matrix: Wastewater ID: 480-64048-2 Matrix: Water ID: 480-64048-3
Date Collected: Date Received: Total/NA Client Sample Date Collected: Date Received: Date Received: Date Received: Date Received: Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Cotal/NA	07/18/14 11:5 07/18/14 15:1 Batch Type Analysis e ID: Post-C 07/18/14 11:5 07/18/14 11:5 07/18/14 15:1 Batch Type Analysis Prep Analysis Prep Analysis Prep Analysis Analysis e ID: Post-C 07/18/14 12:0	50 5 5 5 5 5 5 5 5 5 5 5 5 5		Factor 1 Dilution Factor 5 10 1 1	Number           194786           Batch           Number           195142           194267           193790           194095           194906	or Analyzed 07/25/14 20:17 Prepared or Analyzed 07/29/14 02:10 07/23/14 17:11 07/21/14 08:30 07/21/14 17:46 07/25/14 17:00 07/28/14 01:42	Analyst GTG Analyst LCH DGB EHD JRK JMB JTS KS	Lab TAL BUF Lab Sample	Matrix: Wastewater ID: 480-64048-2 Matrix: Water ID: 480-64048-3
Date Collected: Date Received: Total/NA Client Sample Date Collected: Date Received: Date Received: Date Received: Date Received: Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Cotal/NA	07/18/14 11:5 07/18/14 15:1 Batch Type Analysis e ID: Post-C 07/18/14 11:5 07/18/14 15:1 Batch Type Analysis Analysis Prep Analysis Prep Analysis Analysis e ID: Post-C 07/18/14 12:0 07/18/14 15:1	50 5 Batch Method 8260C Carbon-2 55 5 Batch Method 8260C 8021B 200.7 200.7 Rev 4.4 Distill/CN 335.4 SM 4500 H+ B Carbon-1 0 5		Factor       1       1       1       5       10       1       1       1       1	Number           194786           Batch           Number           195142           194267           193790           194095           194909           194966           193693	or Analyzed 07/25/14 20:17 Prepared or Analyzed 07/29/14 02:10 07/29/14 02:10 07/23/14 17:11 07/21/14 08:30 07/21/14 17:46 07/25/14 17:00 07/25/14 01:42 07/19/14 01:59	Analyst GTG Analyst LCH DGB EHD JRK JMB JTS KS	Lab TAL BUF Lab Sample	Matrix: Wastewater ID: 480-64048-2 Matrix: Water ID: 480-64048-3

# **Certification Summary**

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

# 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.

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Method Laboratory Method Description Protocol 8260C Volatile Organic Compounds by GC/MS SW846 TAL BUF Volatile Organic Compounds (GC) SW846 8021B 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 SM TAL BUF pН

# 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

Client: New York St Project/Site: NYSD	tate D.E.C. EC-Gastown WWTP: Site# 915171		TestAmerica Job ID: 480-64047-7								
				i							
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



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E LEADER A ENVIRONMENTAL TESTING

Phone (716) 691-2600 Fax (716) 691-7991	Sampler:	<u></u>		Lab	D14-	_			11	1111111111 20-640								~	No:			
Client Information	Sampler.	Palmer	(G6Ŝ	) Fisc	cher, B	Brian	J		40	30-640	547 C	Chain	of CL	istod	ly				13985-117	76.1		
Client Contact:		866-3		E-M							+	T				-		ge:				
Thomas Palmer	C riu	1 200.0	510	bria	n fisch	ner@	testam	nericain	IC.CO	m								Page	1 of 1			
Company:							-	-	A				a to d					Job #:				
Groundwater & Environmental Services Inc Address:	Due Date Request								An	alysi	s Re	que	stea				E					
495 Aero Drive Suite 3	Due Date Request	eu.															1.00	1	ervation C			
City:	TAT Requested (d	ays):				200											<u>R</u>	A - H B - N	СL ЭОН	M - Hexa N - None		
Cheektowaga		10			1			<	49									🖉 C – Zr	n Acetate	O - AsNa	02	
State, Zip:		10							2								8		itric Acid aHSO4	P - Na2O Q - Na2S		
NY, 14225	PO#:					¢.			7								1	F-M		R - Na2S	2803	
Phone:	Purchase Order	not requir							Ê			{							mchlor scorbic Acid	S - H2SO T - TSP E		budeete
Email:	WO #:				-2	<u>.</u>		1	- 1								1	I-lce		U - Aceto		iyulale
tpalmer@gesonline.com					s or	2			SS I								S		Water	V - MCAA		
Project Name:	Project #:				٦ <del>گ</del>	5	od Met	K	5								Ine	L-EL		W - ph 4- Z - other		n)
NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Pre-Car Site:	\$48002525 SSOW#:				-83	Š I	Meth	TR	$\sim$								contair	Other				
New York	33077#.				Sample (Yes	k) dsi	at la	Total	non			1					ofo					
						W/SW	200.7 - (MOD) Local Method	310.2 - Alkalinity,	٤													
	1		Sample	Matrix		ŝ.	5	Ikali									, and a second	1				
		Comula	Туре	(W=water, S≈solid,	E .	E		A O	¥1			1	1				Ň	Ж				
Sample Identification	Sample Date	Sample Time	(C=comp, G=grab)	O=waste/oil, BT=Tissue, A=Air	Fleid	Pertorm	00.7	10.2	80416								Total Number		Special	Instruction	s/Note	<b></b>
Sample identification				ation Code:	$\infty$	ŻN			Â					290		C	$\overline{\mathbf{N}}$		Opecial	1150 acuon	12000	
	CORCUMANT CO			1	M					Ball, i f 1 mil		V.L. 1. 1999			in the second	· »jn	$-\mathbf{K}$	<u> <u> </u></u>		1888/d. / . ' N.		1009.5
Pre-Carbon	7-18-19	1210	G	Water	11611	8	88	×	3		╢	_				+		<u></u>				
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7/31/2014

# TéstAmerica Buffalo

10 Hazelwood Drive Anmerst, NY 14228-2298

Phone	(716)	691-2600	Fax	(716)	691-	-7991
none	(110)	001-2000	I GLA	(110)	001	1001

Chain of Custouy I	Chain	of	Custody	ľ
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**stAmerica** 

BAREF O ENVIRONMENTAL TESTING

Client Information	Sampler.	Palmer G	(63)		PM: cher, E	Brian			-						etody	il <b>Hirr</b> i	<b>             </b>	1		1	
Client Contact:	Phone: (716	866-359	0	E-M	ail:	_			-	48	30-64	048 C	hain c	51 00	0 1			15	Page:		
Thomas Palmer Company:					an.fisch	ner@	testan	nerica	linc										Page 1 of 1 Job #:		
Groundwater & Environmental Services Inc	Due Date Reque				140.0			-	Ar	nalys	sis R	eque	sted	<u></u>	<del></del>		- 12	Lay.			<u> </u>
495 Aero Drive Suite 3																			Preservation Cod A - HCL	M - Hexane	
City: Cheektowaga	TAT Requested																R	Six.	B - NaOH C - Zn Acetate	N - None O - AsNaO2	
State, Zip:	1	10															۲۲ 	3.	D - Nitric Acid E - NaHSO4	P - Na2O4S Q - Na2SO3	6
NY, 14225 Phone:	PO#:																Ģ	÷.	F - MeOH G - Amchior	R - Na2S2S S - H2SO4	SO3
Email:	Purchase Ord	er not requir			or No)			- 8021										¢ .	H - Ascorbic Acid	T - TSP Doc U - Acetone	decahydrate
tpalmer@gesonline.com	WO #.	_			ာင်	or No)	4.2											97 I -	J - DI Water K - EDTA	V - MCAA W - ph 4-5	5
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Post-Ca	Project#: 48002525			-	٦ <del>گ</del>	5 S	OLMO	List - VOA									20		L-EDA	Z - other (sp	vecify)
Site:	SSOW#:					ΣD (X	TCL list OLM04.2	STARS L	otal										Other:		
New York	<b>!</b>	1	r —		S	SMNS	0) TCI	) ST/	de, T	Hd -								5 F			
			Sample Type	Matrix (w=water,	liter	Pertorm MS/W	8260B - (MOD)	8021B - (MOD)	335.4 - Cyanide, Total	±								Total Number			
		Sample	(C=comp	S≕solid, 7 O=waste/oil,	Field F	Pertorm M	60B -	21B -	5.4 - 1	SM4500_H+						Ì		žaj			
Sample Identification	Sample Date	e Time	G=grab) Presen	BT=Tissue, A=Air			a a		33 33				·	1.44		9655 L		Ĭ	Special Ins	structions/	Note:
Post-Carbon -3	7.18-14	1150	ß	Water	ŕΥ	T	×	1	D ind	14	**************************************		<u></u>	"ken."	1 <sup>6</sup> 1			7	<u></u>		3
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Describle Usered Identification					Щ																<u> </u>
Possible Hazard Identification			liological		s	<b></b>	le Dis <sub>l</sub> Returr					asses Dispo:					Arch		longer than 1 mo For	onth) Months	
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Client: New York State D.E.C.

# Login Number: 64047 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	

11

List Source: TestAmerica Buffalo

Client: New York State D.E.C.

# Login Number: 64048 List Number: 1

Creator: Stau, Brandon M

ctivity either was not measured or, if measured, is at or below bund oler's custody seal, if present, is intact. oler or samples do not appear to have been compromised or ed with. s were received on ice. Temperature is acceptable. Temperature is recorded.	True True True True	
oler or samples do not appear to have been compromised or ed with. s were received on ice. Temperature is acceptable. Temperature is recorded.	True	
ed with. s were received on ice. Temperature is acceptable. Temperature is recorded.		
Temperature is acceptable. Temperature is recorded.	True	
Temperature is recorded.		
	True	
	True	
present.	True	
filled out in ink and legible.	True	
filled out with all pertinent information.	True	
ield Sampler's name present on COC?	True	
re no discrepancies between the sample IDs on the containers and C.	True	
s are received within Holding Time.	True	
containers have legible labels.	True	
ers are not broken or leaking.	True	
collection date/times are provided.	True	
riate sample containers are used.	True	
bottles are completely filled.	True	
Preservation Verified	True	
s sufficient vol. for all requested analyses, incl. any requested Ds	True	
mple vials do not have headspace or bubble is <6mm (1/4") in er.	True	
sary, staff have been informed of any short hold time or quick TAT	True	
asic samples are not present.	True	
s do not require splitting or compositing.	True	
ng Company provided.	True	ges
s received within 48 hours of sampling.	True	
s requiring field filtration have been filtered in the field.	N/A	
e Residual checked.	N/A	

List Source: TestAmerica Buffalo



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

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

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

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

LINKS Review your project results through TOTOLACCESS Have a Question? Ask The Expert

Visit us at: www.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

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3

# Qualifiers

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Gi		MS	v	OA
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GC/MS VOA	A	
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 VO	OA	
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.	[1
В	Compound was found in the blank and sample.	
General Ch	emistry	

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 2.4° C and 3.8° 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 (480-65462-2), Post-Carbon 2 (480-65462-2)

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).

# 1 2 3 4 5 6 7 8 9

# 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 Sample ID: Post-Carbon

Date Collected: 08/13/14 08:30 Date Received: 08/13/14 10:45

ND         1.0         0.21         ug/L         08/26/14           1,1,2-Trichoroethane         ND         1.0         0.23         ug/L         08/26/14           1,1-Dichoroethane         ND         1.0         0.28         ug/L         08/26/14           1,1-Dichoroethane         ND         1.0         0.29         ug/L         08/26/14           1,2-Dichoroethane, Total         ND         1.0         0.21         ug/L         08/26/14           1,2-Dichoroethane, Total         ND         1.0         0.72         ug/L         08/26/14           1,2-Dichoroethane, Total         ND         5.0         1.2         ug/L         08/26/14           2-Dichoroethane, Total         ND         5.0         2.1         ug/L         08/26/14           2-Dichoroethane         ND         1.0         0.30         ug/L         08/26/14           2-Dichoroethane         ND         1.0 <th>alyzed C</th> <th>Analyzed</th> <th>Prepared</th> <th>D</th> <th>Unit</th> <th>MDL</th> <th>RL</th> <th>Qualifier</th> <th>Result</th> <th>Analyte</th>	alyzed C	Analyzed	Prepared	D	Unit	MDL	RL	Qualifier	Result	Analyte
1,2-Trichloroethane         ND         1.0         0.23         ug/L         08/28/14           1,1-Dichloroethane         ND         1.0         0.35         ug/L         06/28/14           1,1-Dichloroethane         ND         1.0         0.22         ug/L         06/28/14           1,2-Dichloroethane         ND         1.0         0.21         ug/L         06/28/14           1,2-Dichloropthane         ND         1.0         0.72         ug/L         06/28/14           2,2-Dichloropthane         ND         1.0         0.72         ug/L         06/28/14           2,2-Dichloropthane         ND         1.0         0.72         ug/L         06/28/14           4-Butanone (MEK)         ND         1.0         0.30         ug/L         06/28/14           4-Butanone (MEK)         ND         1.0         0.31         ug/L         06/28/14           Koatone         ND         1.0         0.31         ug/L         06/28/14           Koatone         ND         1.0         0.31         ug/L         06/28/14           Koatone         ND         1.0         0.32         ug/L         06/28/14           Storoodichioromethane         ND         1.0	/14 16:42	08/26/14 16:42			ug/L	0.82	1.0		ND	,1,1-Trichloroethane
T-Dichlorozethane         ND         1.0         0.38         ug/L         08/28/14           1-Dichlorozethane         ND         1.0         0.29         ug/L         08/28/14           2-Dichlorozethane         ND         1.0         0.21         ug/L         08/28/14           2-Dichlorozethane         ND         1.0         0.21         ug/L         08/28/14           2-Dichlorozethane         ND         1.0         0.72         ug/L         08/28/14           2-Dichlorozethane         ND         1.0         0.72         ug/L         08/28/14           -Reanone         ND         1.0         1.1         ug/L         08/28/14           -Butanone (MEK)         ND         1.0         0.41         ug/L         08/28/14           -Methyl-zentanone (MIBK)         ND         1.0         0.41         ug/L         08/28/14           recerce         ND         1.0         0.41         ug/L         08/28/14         08/28/14           recorden         ND         1.0         0.59         ug/L         08/28/14         08/28/14           recorden         ND         1.0         0.50         ug/L         08/28/14         08/28/14 <t< td=""><td>/14 16:42</td><td>08/26/14 16:42</td><td></td><td></td><td>ug/L</td><td>0.21</td><td>1.0</td><td></td><td>ND</td><td>,1,2,2-Tetrachloroethane</td></t<>	/14 16:42	08/26/14 16:42			ug/L	0.21	1.0		ND	,1,2,2-Tetrachloroethane
1-Dichloroethane         ND         1.0         0.29         ugl,         08/26/14           2-Dichloroethane         ND         1.0         0.21         ugl,         08/26/14           2-Dichloroethane, Total         ND         2.0         0.81         ugl,         08/26/14           2-Dichloropthene, Total         ND         2.0         0.81         ugl,         08/26/14           -Hexanone         ND         5.0         1.2         ugl,         08/26/14           -Hexanone (MEK)         ND         10         3.0         ugl,         08/26/14           -Hexanone (MEK)         ND         10         3.0         ugl,         08/26/14           -Hexanone (MEK)         ND         1.0         0.39         ugl,         08/26/14           -Controndichloromethane         ND         1.0         0.39         ugl,         08/26/14           iromodichloromethane         ND         1.0         0.49         ugl,         08/26/14           iromodichloromethane         ND         1.0         0.27         ugl,         08/26/14           iromodichloromethane         ND         1.0         0.32         ugl,         08/26/14           iromodichloromethane <td< td=""><td>/14 16:42</td><td>08/26/14 16:42</td><td></td><td></td><td>ug/L</td><td>0.23</td><td>1.0</td><td></td><td>ND</td><td>,1,2-Trichloroethane</td></td<>	/14 16:42	08/26/14 16:42			ug/L	0.23	1.0		ND	,1,2-Trichloroethane
2.2 Dichloroethane         ND         1.0         0.21         ug/L         08/26/14           2.2 Dichloroethen, Total         ND         2.0         0.81         ug/L         0.08/26/14           2.2 Dichloropropane         ND         1.0         0.72         ug/L         0.8/26/14           2.2 Dichloropropane         ND         5.0         1.2         ug/L         0.8/26/14           Hexanone (MEK)         ND         10         1.3         ug/L         0.8/26/14           -Methyl-2-pentanone (MIBK)         ND         1.0         0.41         ug/L         0.8/26/14           Korondichoromethane         ND         1.0         0.41         ug/L         0.8/26/14           Korondichoromethane         ND         1.0         0.41         ug/L         0.8/26/14           Korondichoromethane         ND         1.0         0.49         ug/L         0.8/26/14           Koronoethane         ND         1.0         0.49         ug/L         0.8/26/14           Koronoethane         ND         1.0         0.27         ug/L         0.8/26/14           Koronoethane         ND         1.0         0.23         ug/L         0.8/26/14           Koronoethane	/14 16:42	08/26/14 16:42			ug/L	0.38	1.0		ND	,1-Dichloroethane
2-Dichloroethene, Total         ND         2.0         0.81         ug/L         08/26/14           2-Dichloropropane         ND         1.0         0.72         ug/L         08/26/14           Hexanone         ND         5.0         1.2         ug/L         08/26/14           Hexanone (MEK)         ND         10         1.3         ug/L         08/26/14           Methyl-2-pentanone (MEK)         ND         10         3.0         ug/L         08/26/14           Keetone         ND         10         3.0         ug/L         08/26/14           Keetone         ND         1.0         0.41         ug/L         08/26/14           Kromodichloromethane         ND         1.0         0.39         ug/L         08/26/14           Kromodichloromethane         ND         1.0         0.66         ug/L         08/26/14           Kromodichloromethane         ND         1.0         0.75         ug/L         08/26/14           Arbon disulfide         ND         1.0         0.27         ug/L         08/26/14           Arbon disulfide         ND         1.0         0.32         ug/L         08/26/14           Difororobenzene         ND         1.0	/14 16:42	08/26/14 16:42			ug/L	0.29	1.0		ND	,1-Dichloroethene
12-Dichloropropane         ND         1.0         0.72         ug/L         08/26/14           2-Hexanone         ND         5.0         1.2         ug/L         08/26/14           2-Butanone (MEK)         ND         10         1.3         ug/L         08/26/14           2-Butanone (MEK)         ND         10         3.0         ug/L         08/26/14           Vettry-Lepentanone (MIBK)         ND         1.0         0.41         ug/L         08/26/14           Vettry-Lepentanone (MIBK)         ND         1.0         0.49         ug/L         08/26/14           Vettry-Lepentanone         ND         1.0         0.26         ug/L         08/26/14           Vettry-Lepentanone         ND         1.0         0.27         ug/L         08/26/14           Shoreotenane         ND         1.0         0.32         ug/L         08/26/14           Shorootenane	/14 16:42	08/26/14 16:42			ug/L	0.21	1.0		ND	,2-Dichloroethane
EHexanone         ND         5.0         1.2         ug/L         08/26/14           4-Butanone (MEK)         ND         10         1.3         ug/L         08/26/14           Hethyl-2-pentanone (MIBK)         ND         5.0         2.1         ug/L         08/26/14           Kestone         ND         10         3.0         ug/L         08/26/14         08/26/14           Kestone         ND         1.0         0.41         ug/L         08/26/14         08/26/14           Karomotichbromethane         ND         1.0         0.39         ug/L         08/26/14         08/26/14           Karomotichbromethane         ND         1.0         0.26         ug/L         08/26/14         08/26/14           Stromomethane         ND         1.0         0.27         ug/L         08/26/14         08/26/14           Carbon tetrachloride         ND         1.0         0.75         ug/L         08/26/14         08/26/14           Carbon tetrachloride         ND         1.0         0.32         ug/L         08/26/14         08/26/14           Chorobernane         ND         1.0         0.35         ug/L         08/26/14         08/26/14         08/26/14         08/26/14	/14 16:42	08/26/14 16:42			ug/L	0.81	2.0		ND	,2-Dichloroethene, Total
Butanone (MEK)         ND         10         1.3         ug/L         08/26/14           HMethyl-2-pentanone (MIBK)         ND         5.0         2.1         ug/L         08/26/14           Koetone         ND         10         3.0         ug/L         08/26/14           Benzene         ND         1.0         0.41         ug/L         08/26/14           Bromodichloromethane         ND         1.0         0.39         ug/L         08/26/14           Bromodichloromethane         ND         1.0         0.26         ug/L         08/26/14           Bromomethane         ND         1.0         0.26         ug/L         08/26/14           Bromomethane         ND         1.0         0.27         ug/L         08/26/14           Carbon tetrachloride         ND         1.0         0.27         ug/L         08/26/14           Carbon tetrachloride         ND         1.0         0.32         ug/L         08/26/14           Choronochloromethane         ND         1.0         0.32         ug/L         08/26/14           Choronochloromethane         ND         1.0         0.33         ug/L         08/26/14           Choroform         0.56         J <td>/14 16:42</td> <td>08/26/14 16:42</td> <td></td> <td></td> <td>ug/L</td> <td>0.72</td> <td>1.0</td> <td></td> <td>ND</td> <td>,2-Dichloropropane</td>	/14 16:42	08/26/14 16:42			ug/L	0.72	1.0		ND	,2-Dichloropropane
L-Methyl-2-pentanone (MIBK)         ND         5.0         2.1         ug/L         08/26/14           Acetone         ND         10         3.0         ug/L         08/26/14           Sternel         ND         1.0         0.41         ug/L         08/26/14           Sternel         ND         1.0         0.39         ug/L         08/26/14           Stromodichioromethane         ND         1.0         0.39         ug/L         08/26/14           Stromoform         ND         1.0         0.26         ug/L         08/26/14           Stromoform         ND         1.0         0.59         ug/L         08/26/14           Stromoform         ND         1.0         0.59         ug/L         08/26/14           Stromoform         0.61         ND         1.0         0.27         ug/L         08/26/14           Chorobenzene         ND         1.0         0.32         ug/L         08/26/14           Chorobenzene         ND         1.0         0.32         ug/L         08/26/14           Shorobenzene         ND         1.0         0.34         ug/L         08/26/14           Shorobenzene         ND         1.0         0.35	/14 16:42	08/26/14 16:42			ug/L	1.2	5.0		ND	2-Hexanone
ND         10         3.0         ug/L         08/26/14           Barzene         ND         1.0         0.41         ug/L         08/26/14           Barzene         ND         1.0         0.39         ug/L         08/26/14           Barzene         ND         1.0         0.39         ug/L         08/26/14           Barzene         ND         1.0         0.26         ug/L         08/26/14           Barzene         ND         1.0         0.59         ug/L         08/26/14           Barzene         ND         1.0         0.59         ug/L         08/26/14           Barzene         ND         1.0         0.75         ug/L         08/26/14           Carbon disulfide         ND         1.0         0.75         ug/L         08/26/14           Shioroethane         ND         1.0         0.32         ug/L         08/26/14           Shioroethane         ND         1.0         0.32         ug/L         08/26/14           Shioroethane         ND         1.0         0.34         ug/L         08/26/14           Shioroethane         ND         1.0         0.35         ug/L         08/26/14           Shioro	/14 16:42	08/26/14 16:42			ug/L	1.3	10		ND	2-Butanone (MEK)
Senzene         ND         1.0         0.41         ug/L         08/26/14           Aromodichloromethane         ND         1.0         0.39         ug/L         08/26/14           Aromodichloromethane         ND         1.0         0.26         ug/L         08/26/14           Aromomethane         ND         1.0         0.69         ug/L         08/26/14           Aroton disulfide         ND         1.0         0.69         ug/L         08/26/14           Carbon disulfide         ND         1.0         0.70         ug/L         08/26/14           Carbon disulfide         ND         1.0         0.71         ug/L         08/26/14           Chrobenzene         ND         1.0         0.72         ug/L         08/26/14           Chrobenzene         ND         1.0         0.32         ug/L         08/26/14           Chrobenzene         ND         1.0         0.32         ug/L         08/26/14           Chrobenzene         ND         1.0         0.32         ug/L         08/26/14           Chrobenzene         ND         1.0         0.34         ug/L         08/26/14           Chrobenzene         ND         1.0         0.35	/14 16:42	08/26/14 16:42			ug/L	2.1	5.0		ND	I-Methyl-2-pentanone (MIBK)
Bromodichloromethane         ND         1.0         0.39         u/L         08/26/14           Aromoform         ND         1.0         0.26         ug/L         08/26/14           Aromotorm         ND         1.0         0.69         ug/L         08/26/14           Aromotermane         ND         1.0         0.69         ug/L         08/26/14           Sarbon tetrachloride         ND         1.0         0.72         ug/L         08/26/14           Sarbon tetrachloride         ND         1.0         0.72         ug/L         08/26/14           Shlorobenzene         ND         1.0         0.72         ug/L         08/26/14           Shlorobenzene         ND         1.0         0.75         ug/L         08/26/14           Shlorobenzene         ND         1.0         0.32         ug/L         08/26/14           Shlorobenzene         ND         1.0         0.33         ug/L         08/26/14           Shlorobenzene         ND         1.0         0.35         ug/L         08/26/14           Shlorobenzene         ND         1.0         0.35         ug/L         08/26/14           Shlorobenzene         ND         1.0         0.35 <td>/14 16:42</td> <td>08/26/14 16:42</td> <td></td> <td></td> <td>ug/L</td> <td>3.0</td> <td>10</td> <td></td> <td>ND</td> <td>Acetone</td>	/14 16:42	08/26/14 16:42			ug/L	3.0	10		ND	Acetone
Bromoform         ND         1.0         0.26         ug/L         08/26/14           Bromomethane         ND         1.0         0.69         ug/L         08/26/14           Bromomethane         ND         1.0         0.19         ug/L         08/26/14           Carbon tetrachloride         ND         1.0         0.19         ug/L         08/26/14           Chorobenzene         ND         1.0         0.27         ug/L         08/26/14           Chorobenzene         ND         1.0         0.32         ug/L         08/26/14           Chorobenzene         ND         1.0         0.32         ug/L         08/26/14           Chorobenzene         ND         1.0         0.32         ug/L         08/26/14           Chorobenzene         ND         1.0         0.34         ug/L         08/26/14           Chorobenzene         ND         1.0         0.35         ug/L         08/26/14           Chorobenzene         ND         1.0         0.34         ug/L         08/26/14           Choroben         ND         1.0         0.35         ug/L         08/26/14           Chorobene         ND         1.0         0.36         ug/L	/14 16:42	08/26/14 16:42			ug/L	0.41	1.0		ND	3enzene
Stromomethane         ND         1.0         0.69         ug/L         08/26/14           Carbon disulfide         ND         1.0         0.19         ug/L         08/26/14           Carbon tetrachloride         ND         1.0         0.27         ug/L         08/26/14           Chloroberzene         ND         1.0         0.75         ug/L         08/26/14           Obtromochloromethane         ND         1.0         0.32         ug/L         08/26/14           Chloroform         0.56         J         1.0         0.32         ug/L         08/26/14           Chloroform         0.56         J         1.0         0.32         ug/L         08/26/14           Chloroform         0.56         J         1.0         0.34         ug/L         08/26/14           Chloroform         0.56         J         1.0         0.35         ug/L         08/26/14           Chloroform         0.56         J         1.0         0.34         ug/L         08/26/14           Chlorofer         ND         1.0         0.36         ug/L         08/26/14         08/26/14           Chlorofer         ND         1.0         0.73         ug/L         08/26/14 <td>/14 16:42</td> <td>08/26/14 16:42</td> <td></td> <td></td> <td>ug/L</td> <td>0.39</td> <td>1.0</td> <td></td> <td>ND</td> <td>Bromodichloromethane</td>	/14 16:42	08/26/14 16:42			ug/L	0.39	1.0		ND	Bromodichloromethane
Darbon disulfide         ND         1.0         0.19         ug/L         08/26/14           Carbon tetrachloride         ND         1.0         0.27         ug/L         08/26/14           Chlorobenzene         ND         1.0         0.75         ug/L         08/26/14           Chlorobenzene         ND         1.0         0.75         ug/L         08/26/14           Chloroform         0.56         J         1.0         0.32         ug/L         08/26/14           Chloroform         0.56         J         1.0         0.32         ug/L         08/26/14           Chloroform         0.56         J         1.0         0.32         ug/L         08/26/14           Chloroform         0.56         J         1.0         0.35         ug/L         08/26/14           Chloroform         0.56         J         1.0         0.36         ug/L         08/26/14           Chloroden         ND         1.0         0.36         ug/L         08/26/14         08/26/14           Chlorode         ND         1.0         0.73         ug/L         08/26/14         08/26/14           Styrene         ND         1.0         0.37         ug/L <td< td=""><td>/14 16:42</td><td>08/26/14 16:42</td><td></td><td></td><td>ug/L</td><td>0.26</td><td>1.0</td><td></td><td>ND</td><td>Bromoform</td></td<>	/14 16:42	08/26/14 16:42			ug/L	0.26	1.0		ND	Bromoform
Carbon tetrachloride         ND         1.0         0.27         ug/L         08/26/14           Chlorobenzene         ND         1.0         0.75         ug/L         08/26/14           Dibromochloromethane         ND         1.0         0.32         ug/L         08/26/14           Dibromochloromethane         ND         1.0         0.32         ug/L         08/26/14           Chloroform         0.56         J         1.0         0.34         ug/L         08/26/14           Chloroform         0.56         J         1.0         0.35         ug/L         08/26/14           Chloroform         0.56         J         1.0         0.35         ug/L         08/26/14           Schoromethane         ND         1.0         0.35         ug/L         08/26/14           Schoromethane         ND         1.0         0.74         ug/L         08/26/14           Achtylene Chloride         ND         1.0         0.74         ug/L         08/26/14           Styrene         ND         1.0         0.73         ug/L         08/26/14           Ferachloroptopene         ND         1.0         0.36         ug/L         08/26/14           Styrene	/14 16:42	08/26/14 16:42			ug/L	0.69	1.0		ND	Bromomethane
ND         1.0         0.75         ug/L         08/26/14           Dibromochloromethane         ND         1.0         0.32         ug/L         08/26/14           Chloroethane         ND         1.0         0.32         ug/L         08/26/14           Chloroethane         ND         1.0         0.32         ug/L         08/26/14           Chloroethane         ND         1.0         0.34         ug/L         08/26/14           Chloroethane         ND         1.0         0.35         ug/L         08/26/14           Chlorophrethane         ND         1.0         0.35         ug/L         08/26/14           Schorophree         ND         1.0         0.36         ug/L         08/26/14           Schorophree         ND         1.0         0.74         ug/L         08/26/14           Acthylene Chloride         ND         1.0         0.74         ug/L         08/26/14           Styrene         ND         1.0         0.74         ug/L         08/26/14           Ferachloroethene         ND         1.0         0.73         ug/L         08/26/14           Styrene         ND         1.0         0.36         ug/L         08/26/14<	/14 16:42	08/26/14 16:42			ug/L	0.19	1.0		ND	Carbon disulfide
ND         1.0         0.32         ug/L         08/26/14           Chloroethane         ND         1.0         0.32         ug/L         08/26/14           Chloroethane         ND         1.0         0.34         ug/L         08/26/14           Chloroform         0.56         J         1.0         0.34         ug/L         08/26/14           Chloromethane         ND         1.0         0.35         ug/L         08/26/14           Schloropropene         ND         1.0         0.36         ug/L         08/26/14           Styrene         ND         1.0         0.74         ug/L         08/26/14           Attribuenzene         ND         1.0         0.74         ug/L         08/26/14           Attribuenzene         ND         1.0         0.73         ug/L         08/26/14           Attribuenzene         ND         1.0         0.73         ug/L         08/26/14           Oluene         ND         1.0         0.51         ug/L         08/26/14           Yoluene         ND         1.0         0.37         ug/L         08/26/14           Yoluene         ND         1.0         0.35         ug/L         08/26/14	/14 16:42	08/26/14 16:42			ug/L	0.27	1.0		ND	Carbon tetrachloride
ND         1.0         0.32         ug/L         08/26/14           Chloroform         0.56         J         1.0         0.34         ug/L         08/26/14           Chloroform         ND         1.0         0.35         ug/L         08/26/14           Chloroform         ND         1.0         0.35         ug/L         08/26/14           Schloropropene         ND         1.0         0.36         ug/L         08/26/14           Styrene         ND         1.0         0.74         ug/L         08/26/14           Astyrene         ND         1.0         0.74         ug/L         08/26/14           Styrene         ND         1.0         0.74         ug/L         08/26/14           Oluene         ND         1.0         0.73         ug/L         08/26/14           Oluene         ND         1.0         0.36         ug/L         08/26/14           Oluene         ND         1.0         0.37         ug/L         08/26/14           Oluene         ND         1.0         0.37         ug/L         08/26/14           Oluene-dt         ND         1.0         0.37 <thug l<="" th="">         08/26/14           <t< td=""><td>/14 16:42</td><td>08/26/14 16:42</td><td></td><td></td><td>ug/L</td><td>0.75</td><td>1.0</td><td></td><td>ND</td><td>Chlorobenzene</td></t<></thug>	/14 16:42	08/26/14 16:42			ug/L	0.75	1.0		ND	Chlorobenzene
Chloroform         0.56         J         1.0         0.34         ug/L         08/26/14           Chloromethane         ND         1.0         0.35         ug/L         08/26/14           Chloropropene         ND         1.0         0.36         ug/L         08/26/14           Strippene         ND         1.0         0.36         ug/L         08/26/14           Attributene         ND         1.0         0.74         ug/L         08/26/14           Attributene         ND         1.0         0.74         ug/L         08/26/14           Attributene         ND         1.0         0.74         ug/L         08/26/14           Attributene         ND         1.0         0.73         ug/L         08/26/14           Vertice         ND         1.0         0.36         ug/L         08/26/14           Solutione         ND         1.0         0.36         ug/L         08/26/14           Solutione         ND         1.0         0.37         ug/L         08/26/14           Chlorothene         ND         1.0         0.46         ug/L         08/26/14           Vinyl acetate         ND         5.0         0.85         ug/L <td>/14 16:42</td> <td>08/26/14 16:42</td> <td></td> <td></td> <td>ug/L</td> <td>0.32</td> <td>1.0</td> <td></td> <td>ND</td> <td>Dibromochloromethane</td>	/14 16:42	08/26/14 16:42			ug/L	0.32	1.0		ND	Dibromochloromethane
ND         1.0         0.35         ug/L         08/26/14           is-1,3-Dichloropropene         ND         1.0         0.36         ug/L         08/26/14           ithylbenzene         ND         1.0         0.74         ug/L         08/26/14           Aethylene Chloride         ND         1.0         0.74         ug/L         08/26/14           Styrene         ND         1.0         0.74         ug/L         08/26/14           Styrene         ND         1.0         0.73         ug/L         08/26/14           Styrene         ND         1.0         0.73         ug/L         08/26/14           'etrachloroethene         ND         1.0         0.36         ug/L         08/26/14           'oluene         ND         1.0         0.51         ug/L         08/26/14           'richloroethene         ND         1.0         0.37         ug/L         08/26/14           /inyl choride         ND         1.0         0.46         ug/L         08/26/14           /inyl catate         ND         2.0         0.66         ug/L         08/26/14           /yelnes, Total         ND         2.0         0.66         ug/L         08/26/14 <td>/14 16:42</td> <td>08/26/14 16:42</td> <td></td> <td></td> <td>ug/L</td> <td>0.32</td> <td>1.0</td> <td></td> <td>ND</td> <td>Chloroethane</td>	/14 16:42	08/26/14 16:42			ug/L	0.32	1.0		ND	Chloroethane
ND         1.0         0.36         ug/L         08/26/14           Atthylbenzene         ND         1.0         0.74         ug/L         08/26/14           Atthylbenzene         ND         1.0         0.74         ug/L         08/26/14           Atthylbenzene         ND         1.0         0.73         ug/L         08/26/14           Styrene         ND         1.0         0.36         ug/L         08/26/14           Styrene         ND         1.0         0.36         ug/L         08/26/14           'etrachloroethene         ND         1.0         0.36         ug/L         08/26/14           'oluene         ND         1.0         0.37         ug/L         08/26/14           'oluene         ND         1.0         0.37         ug/L         08/26/14           'richloroethene         ND         1.0         0.37         ug/L         08/26/14           /inyl choride         ND         1.0         0.90         ug/L         08/26/14           /inyl cactate         ND         2.0         0.66         ug/L         08/26/14           /yelenes, Total         ND         2.0         0.66         ug/L         08/26/14 <td>/14 16:42</td> <td>08/26/14 16:42</td> <td></td> <td></td> <td>ug/L</td> <td>0.34</td> <td>1.0</td> <td>J</td> <td>0.56</td> <td>Chloroform</td>	/14 16:42	08/26/14 16:42			ug/L	0.34	1.0	J	0.56	Chloroform
Ithylbenzene         ND         1.0         0.74         ug/L         08/26/14           Methylene Chloride         ND         1.0         0.44         ug/L         08/26/14           Styrene         ND         1.0         0.73         ug/L         08/26/14           Styrene         ND         1.0         0.73         ug/L         08/26/14           Tetrachloroethene         ND         1.0         0.36         ug/L         08/26/14           Toluene         ND         1.0         0.36         ug/L         08/26/14           Toluene         ND         1.0         0.37         ug/L         08/26/14           Toluene         ND         1.0         0.51         ug/L         08/26/14           Trichloroethene         ND         1.0         0.37         ug/L         08/26/14           /inyl chloride         ND         1.0         0.46         ug/L         08/26/14           /inyl acetate         ND         1.0         0.90         ug/L         08/26/14           Surrogate <u>%Recovery</u> Qualifier         Limits         Prepared         Analy           /_2-Dichloroethane-d4 (Surr)         103         66 - 137         08/	/14 16:42	08/26/14 16:42			ug/L	0.35	1.0		ND	Chloromethane
Vietnylene Chloride         ND         1.0         0.44         ug/L         08/26/14           Styrene         ND         1.0         0.73         ug/L         08/26/14           Styrene         ND         1.0         0.36         ug/L         08/26/14           Tetrachloroethene         ND         1.0         0.36         ug/L         08/26/14           Toluene         ND         1.0         0.51         ug/L         08/26/14           Toluene         ND         1.0         0.51         ug/L         08/26/14           Trichloroethene         ND         1.0         0.37         ug/L         08/26/14           Trichloroethene         ND         1.0         0.37         ug/L         08/26/14           Vinyl chloride         ND         1.0         0.46         ug/L         08/26/14           Vinyl acetate         ND         1.0         0.90         ug/L         08/26/14           Surrogate <u>%Recovery</u> Qualifier         Limits         Prepared         Analy           1/2-Dichloroethane-d4 (Surr)         103         66 - 137         08/26/14         08/26/14           Foluene-d8 (Surr)         104         73 - 120         0	/14 16:42	08/26/14 16:42			ug/L	0.36	1.0		ND	sis-1,3-Dichloropropene
ND         1.0         0.73         ug/L         08/26/14           Tetrachloroethene         ND         1.0         0.36         ug/L         08/26/14           Toluene         ND         1.0         0.51         ug/L         08/26/14           Taras-1,3-Dichloropropene         ND         1.0         0.51         ug/L         08/26/14           Trichloroethene         ND         1.0         0.37         ug/L         08/26/14           Trichloroethene         ND         1.0         0.37         ug/L         08/26/14           Vinyl chloride         ND         1.0         0.46         ug/L         08/26/14           Vinyl chloride         ND         1.0         0.90         ug/L         08/26/14           Vinyl acetate         ND         5.0         0.85         ug/L         08/26/14           Kylenes, Total         ND         2.0         0.66         ug/L         08/26/14           Surrogate <u>%Recovery</u> Qualifier         Limits         Prepared         Analy           '2-Dichloroethane-d4 (Surr)         103         66 - 137         08/26/14         08/26/14           'Foluene-d8 (Surr)         107         71 - 126         08/26/	/14 16:42	08/26/14 16:42			ug/L	0.74	1.0		ND	thylbenzene
Tetrachloroethene         ND         1.0         0.36         ug/L         08/26/14           Toluene         ND         1.0         0.51         ug/L         08/26/14           Trans-1,3-Dichloropropene         ND         1.0         0.37         ug/L         08/26/14           Trichloroethene         ND         1.0         0.37         ug/L         08/26/14           Vinyl chloride         ND         1.0         0.46         ug/L         08/26/14           Vinyl acetate         ND         1.0         0.90         ug/L         08/26/14           Vinyl acetate         ND         5.0         0.85         ug/L         08/26/14           Surrogate         %Recovery         Qualifier         Limits         Prepared         Analy           7.2-Dichloroethane-d4 (Surr)         103         66 - 137         08/26/14         08/26/14           7.2-Dichloroethane-d8 (Surr)         107         71 - 126         08/26/14         08/26/14           H-Bromofluorobenzene (Surr)         104         73 - 120         08/26/14         08/26/14	/14 16:42	08/26/14 16:42			ug/L	0.44	1.0		ND	lethylene Chloride
ND         1.0         0.51         ug/L         08/26/14           rans-1,3-Dichloropropene         ND         1.0         0.37         ug/L         08/26/14           Trichloroethene         ND         1.0         0.46         ug/L         08/26/14           Vinyl chloride         ND         1.0         0.46         ug/L         08/26/14           Vinyl chloride         ND         1.0         0.90         ug/L         08/26/14           Vinyl acetate         ND         5.0         0.85         ug/L         08/26/14           Kylenes, Total         ND         2.0         0.66         ug/L         08/26/14           Surrogate         %Recovery         Qualifier         Limits         Prepared         Analy           1/2-Dichloroethane-d4 (Surr)         103         66 - 137         08/26/14         08/26/14           1/2-Dichloroethane-d8 (Surr)         104         73 - 120         08/26/14         08/26/14	/14 16:42	08/26/14 16:42			ug/L	0.73	1.0		ND	Styrene
rans-1,3-Dichloropropene       ND       1.0       0.37       ug/L       08/26/14         Trichloroethene       ND       1.0       0.46       ug/L       08/26/14         /inyl chloride       ND       1.0       0.90       ug/L       08/26/14         /inyl acetate       ND       5.0       0.85       ug/L       08/26/14         /inyl acetate       ND       5.0       0.85       ug/L       08/26/14         (ylenes, Total       ND       2.0       0.66       ug/L       08/26/14         Surrogate       %Recovery       Qualifier       Limits       Prepared       Analy         1/2-Dichloroethane-d4 (Surr)       103       66 - 137       08/26/14       08/26/14         Foluene-d8 (Surr)       104       73 - 120       08/26/14       08/26/14	/14 16:42	08/26/14 16:42			ug/L	0.36	1.0		ND	etrachloroethene
ND         1.0         0.46         ug/L         08/26/14           Vinyl chloride         ND         1.0         0.90         ug/L         08/26/14           Vinyl chloride         ND         1.0         0.90         ug/L         08/26/14           Vinyl acetate         ND         5.0         0.85         ug/L         08/26/14           Kylenes, Total         ND         2.0         0.66         ug/L         08/26/14           Surrogate         %Recovery         Qualifier         Limits         Prepared         Analy           7.2-Dichloroethane-d4 (Surr)         103         66 - 137         08/26/14         08/26/14           Foluene-d8 (Surr)         107         71 - 126         08/26/14         08/26/14           H-Bromofluorobenzene (Surr)         104         73 - 120         08/26/14         08/26/14	/14 16:42	08/26/14 16:42			ug/L	0.51	1.0		ND	oluene
Vinyl chloride         ND         1.0         0.90         ug/L         08/26/14           Vinyl acetate         ND         5.0         0.85         ug/L         08/26/14           Vinyl acetate         ND         2.0         0.66         ug/L         08/26/14           Surrogate         %Recovery         Qualifier         Limits         Prepared         Analy           7.2-Dichloroethane-d4 (Surr)         103         66 - 137         08/26/14         08/26/14           Foluene-d8 (Surr)         107         71 - 126         08/26/14         08/26/14           H-Bromofluorobenzene (Surr)         104         73 - 120         08/26/14         08/26/14	/14 16:42	08/26/14 16:42			ug/L	0.37	1.0		ND	rans-1,3-Dichloropropene
Vinyl acetate         ND         5.0         0.85         ug/L         08/26/14           Vinyl acetate         ND         2.0         0.66         ug/L         08/26/14           Surrogate         %Recovery         Qualifier         Limits         Prepared         Analy           ', 2-Dichloroethane-d4 (Surr)         103         66 - 137         08/26/14         08/26/14           Foluene-d8 (Surr)         107         71 - 126         08/26/14         08/26/14           I-Bromofluorobenzene (Surr)         104         73 - 120         08/26/14         08/26/14	/14 16:42	08/26/14 16:42			ug/L	0.46	1.0		ND	richloroethene
Kylenes, Total         ND         2.0         0.66         ug/L         08/26/14           Surrogate         %Recovery         Qualifier         Limits         Prepared         Analy           1,2-Dichloroethane-d4 (Surr)         103         66 - 137         08/26/14         08/26/14           Foluene-d8 (Surr)         107         71 - 126         08/26/14         08/26/14           I-Bromofluorobenzene (Surr)         104         73 - 120         08/26/14         08/26/14	/14 16:42	08/26/14 16:42			ug/L	0.90	1.0		ND	/inyl chloride
Surrogate         %Recovery         Qualifier         Limits         Prepared         Analy           1,2-Dichloroethane-d4 (Surr)         103         66 - 137         08/26/14           Foluene-d8 (Surr)         107         71 - 126         08/26/14           I-Bromofluorobenzene (Surr)         104         73 - 120         08/26/14	/14 16:42	08/26/14 16:42			ug/L	0.85	5.0		ND	/inyl acetate
1,2-Dichloroethane-d4 (Surr)       103       66 - 137       08/26/14         Toluene-d8 (Surr)       107       71 - 126       08/26/14         4-Bromofluorobenzene (Surr)       104       73 - 120       08/26/14	/14 16:42	08/26/14 16:42			ug/L	0.66	2.0		ND	Kylenes, Total
Foluene-d8 (Surr)         107         71 - 126         08/26/14           II-Bromofluorobenzene (Surr)         104         73 - 120         08/26/14	alyzed L	Analyzed	Prepared				Limits	Qualifier	%Recovery	Surrogate
I-Bromofluorobenzene (Surr) 104 73 - 120 08/26/14	/14 16:42	08/26/14 16:42		_			66 - 137		103	,2-Dichloroethane-d4 (Surr)
	/14 16:42	08/26/14 16:42					71 - 126		107	Toluene-d8 (Surr)
Method: 8270D - Semivolatile Organic Compounds (GC/MS)	/14 16:42	08/26/14 16:42					73 - 120		104	4-Bromofluorobenzene (Surr)
	alvzed [	Analyzed								

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

TestAmerica Buffalo

TestAmerica Job ID: 480-65462-1

# Lab Sample ID: 480-65462-1 Matrix: Wastewater

RL

1.9

9.5

19

1.9

1.9

1.9

9.5

1.9

1.9

1.9

1.9

9.5

1.9

1.9

1.9

MDL Unit

0.52 ug/L

0.40 ug/L

12 ug/L

D

Prepared

08/20/14 10:04

08/20/14 10:04

08/20/14 10:04

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

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

Result Qualifier

ND

91

# **Client Sample ID: Post-Carbon** Date Collected: 08/13/14 08:30

Date Received: 08/13/14 10:45

Analyte

Biphenyl

Carbazole

Chrysene

Dibenzofuran

Fluoranthene

Naphthalene

Phenanthrene

Phenol

Pyrene

Fluorene

Benzo[k]fluoranthene

Bis(2-ethylhexyl) phthalate

Dibenz(a,h)anthracene

Indeno[1,2,3-cd]pyrene

Pentachlorophenol

TestAmerica Job ID: 480-65462-1

# Lab Sample ID: 480-65462-1 Matrix: Wastewater

Analyzed

08/25/14 19:04

08/25/14 19:04

08/25/14 19:04

Dil Fac

1

1	
1	
1	
1	8
1	0
1	0
1	3
•	
1	
1	

		Prepared	Analyzed	Dil Fac
0.15	ug/L	08/20/14 10:04	08/25/14 19:04	1
0.55	ug/L	08/20/14 10:04	08/25/14 19:04	1
0.41	ug/L	08/20/14 10:04	08/25/14 19:04	1
0.63	ug/L	08/20/14 10:04	08/25/14 19:04	1
0.13	ug/L	08/20/14 10:04	08/25/14 19:04	1
0.19	ug/L	08/20/14 10:04	08/25/14 19:04	1
0.21	ug/L	08/20/14 10:04	08/25/14 19:04	1
0.15	ug/L	08/20/14 10:04	08/25/14 19:04	1
0.59	ug/L	08/20/14 10:04	08/25/14 19:04	1
0.15	ug/L	08/20/14 10:04	08/25/14 19:04	1
0.13	ug/L	08/20/14 10:04	08/25/14 19:04	1
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	
4-DI UI I UI I UI UU UU UU EI IZEI IE	

# 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

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TestAmerica Buffalo

1

08/14/14 12:33

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

Method: 608 - Organochlorine Pesticides in Water (Continued)

# **Client Sample ID: Post-Carbon** Date Collected: 08/13/14 08:30 Date Received: 08/13/14 10:45

TestAmerica Job ID: 480-65462-1

# Lab Sample ID: 480-65462-1 Matrix: Wastewater

Dil Fac	5
1	
1	
1	
1	
1	
1	Q
1	0
1	
	9

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 - Meta	uls (ICP) - Total Red	coverable							
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									
Australia		o	-			_	<u> </u>		

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
рН	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

# Lab Sample ID: 480-65462-2 Matrix: Wastewater

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Date Collected: 08/13/14 08:40 Date Received: 08/13/14 10:45

**Client Sample ID: Post-Carbon 2** 

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 Organ	nic 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

Client: New York State D.E.C. Project/Site: NYSDEC-Gastown WWTP: Site# 915171 TestAmerica Job ID: 480-65462-1

Lab Sample ID: 480-65462-3

Matrix: Water

# **Client Sample ID: Post-Carbon 1**

Date Collected: 08/13/14 08:45 Date Received: 08/13/14 10:45

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

# 5

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

## Client Sample ID: Pre-Carbon

Date Collected: 08/13/14 09:15 Date Received: 08/13/14 10:45

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		ug/L		08/19/14 14:57	100
1,2-Dichloroethane	ND		100		ug/L		08/19/14 14:57	100
1,2-Dichloroethene, Total	ND		200		ug/L		08/19/14 14:57	100
1,2-Dichloropropane	ND		100		ug/L		08/19/14 14:57	100
2-Hexanone	ND		500		ug/L		08/19/14 14:57	100
2-Butanone (MEK)	ND		1000		ug/L		08/19/14 14:57	100
4-Methyl-2-pentanone (MIBK)	ND		500		ug/L		08/19/14 14:57	100
Acetone	ND		1000		ug/L		08/19/14 14:57	100
Benzene	5200		100		ug/L		08/19/14 14:57	100
Bromodichloromethane	5200 ND		100		ug/L		08/19/14 14:57	100
Bromoform	ND		100		ug/L ug/L		08/19/14 14:57	100
Bromomethane	ND		100		ug/L ug/L		08/19/14 14:57	100
Carbon disulfide	ND		100				08/19/14 14:57	100
					ug/L			
Carbon tetrachloride	ND		100		ug/L		08/19/14 14:57	100
Chlorobenzene	ND		100		ug/L		08/19/14 14:57	100
Dibromochloromethane	ND		100		ug/L		08/19/14 14:57	100
Chloroethane	ND		100		ug/L		08/19/14 14:57	100
Chloroform	110		100		ug/L		08/19/14 14:57	100
Chloromethane	ND	*	100		ug/L		08/19/14 14:57	100
cis-1,3-Dichloropropene	ND		100		ug/L		08/19/14 14:57	100
Ethylbenzene	700		100		ug/L		08/19/14 14:57	100
Methylene Chloride	57	J	100		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 Orga	nic Compounds	(GC)						
Analyte		Qualifier	RL	MDL	Unit	D Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	21		100	17	ug/L		08/14/14 11:09	500
1,3,5-Trimethylbenzene	ND		100		ug/L		08/14/14 11:09	500
Benzene	4300		100		ug/L		08/14/14 11:09	500
Ethylbenzene	600		100		ug/L		08/14/14 11:09	500
Isopropylbenzene	ND		100		ug/L		08/14/14 11:09	500
Methyl tert-butyl ether	ND		200		ug/L		08/14/14 11:09	500
m,p-Xylene	230		200		ug/L		08/14/14 11:09	500

TestAmerica Buffalo

TestAmerica Job ID: 480-65462-1

Lab Sample ID: 480-65466-1

Matrix: Wastewater

# 2 3 4 5 6 7

9

Client: New York State D.E.C. Project/Site: NYSDEC-Gastown WWTP: Site# 915171 TestAmerica Job ID: 480-65462-1

## Lab Sample ID: 480-65466-1 Matrix: Wastewater

Date Collected: 08/13/14 09:15 Date Received: 08/13/14 10:45

**Client Sample ID: Pre-Carbon** 

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
	94		64 - 141					08/14/14 11:09	500
4-Bromofluorobenzene Method: 200.7 Rev 4.4 - Met		coverable	0+- 1+1						
		coverable	04 - 141						
Method: 200.7 Rev 4.4 - Met Analyte	als (ICP) - Total Red Result	coverable Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fac
Method: 200.7 Rev 4.4 - Met Analyte Iron	als (ICP) - Total Rec Result 900	Qualifier	RL	9.5	ug/L	D	08/17/14 08:58	Analyzed 08/21/14 15:37	Dil Fac
Method: 200.7 Rev 4.4 - Met Analyte Iron	als (ICP) - Total Red Result	Qualifier	RL	9.5 23.3	ug/L ug/L	D	·	Analyzed	<b>Dil Fac</b> 1
Method: 200.7 Rev 4.4 - Met Analyte Iron Sodium	als (ICP) - Total Rec Result 900	Qualifier	RL	9.5	ug/L ug/L	D	08/17/14 08:58	Analyzed 08/21/14 15:37	Dil Fac 1 1 1
Method: 200.7 Rev 4.4 - Met Analyte Iron Sodium Potassium	als (ICP) - Total Rec Result 900 44700	Qualifier	RL	9.5 23.3 41.8	ug/L ug/L	<u> </u>	08/17/14 08:58 08/17/14 08:58	Analyzed 08/21/14 15:37 08/21/14 15:37	Dil Fac 1 1 1 1
Method: 200.7 Rev 4.4 - Met	als (ICP) - Total Rec Result 900 44700 3880	Qualifier	RL 100 5000 5000	9.5 23.3 41.8 6.9	ug/L ug/L ug/L	D	08/17/14 08:58 08/17/14 08:58 08/17/14 08:58	Analyzed 08/21/14 15:37 08/21/14 15:37 08/21/14 15:37	Dil Fac 1 1 1 1 1
Method: 200.7 Rev 4.4 - Met Analyte Iron Sodium Potassium Calcium	als (ICP) - Total Rec Result 900 44700 3880 85700	Qualifier	RL 100 5000 5000 5000	9.5 23.3 41.8 6.9	ug/L ug/L ug/L ug/L	<u>D</u>	08/17/14 08:58 08/17/14 08:58 08/17/14 08:58 08/17/14 08:58	Analyzed 08/21/14 15:37 08/21/14 15:37 08/21/14 15:37 08/21/14 15:37	Dil Fac 1 1 1 1 1 1
Method: 200.7 Rev 4.4 - Met Analyte Iron Sodium Potassium Calcium Magnesium General Chemistry	als (ICP) - Total Rec Result 900 44700 3880 85700 42600	Qualifier	RL 100 5000 5000 5000	9.5 23.3 41.8 6.9	ug/L ug/L ug/L ug/L ug/L	D	08/17/14 08:58 08/17/14 08:58 08/17/14 08:58 08/17/14 08:58	Analyzed 08/21/14 15:37 08/21/14 15:37 08/21/14 15:37 08/21/14 15:37	Dil Fac
Method: 200.7 Rev 4.4 - Met Analyte Iron Sodium Potassium Calcium Magnesium General Chemistry Analyte	als (ICP) - Total Rec Result 900 44700 3880 85700 42600	Qualifier B J	RL 100 5000 5000 5000 5000	9.5 23.3 41.8 6.9 27.5 MDL	ug/L ug/L ug/L ug/L ug/L		08/17/14 08:58 08/17/14 08:58 08/17/14 08:58 08/17/14 08:58 08/17/14 08:58	Analyzed 08/21/14 15:37 08/21/14 15:37 08/21/14 15:37 08/21/14 15:37 08/21/14 15:37	1 1 1 1 1
Method: 200.7 Rev 4.4 - Met Analyte Iron Sodium Potassium Calcium Magnesium	als (ICP) - Total Rec Result 900 44700 3880 85700 42600 Result	Qualifier B J	RL 100 5000 5000 5000 5000 8RL	9.5 23.3 41.8 6.9 27.5 <b>MDL</b> 40.0	ug/L ug/L ug/L ug/L Unit		08/17/14 08:58 08/17/14 08:58 08/17/14 08:58 08/17/14 08:58 08/17/14 08:58	Analyzed 08/21/14 15:37 08/21/14 15:37 08/21/14 15:37 08/21/14 15:37 08/21/14 15:37 Analyzed	1 1 1 1 <b>Dil Fac</b>

8/29/2014

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

#### Client Sample ID: OUTSIDE SUMP

Date Collected: 08/13/14 09:00 Date Received: 08/13/14 10:45

4-Bromofluorobenzene

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
lsopropylbenzene	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

64 - 141

95

Lab Sample ID: 480-65466-2

08/14/14 11:43

500

Matrix: Water

TestAmerica Buffalo

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

## Client Sample ID: Post-Carbon

Date Collected: 08/13/14 08:30 Date Received: 08/13/14 10:45

-	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	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**

Date Collected: 08/13/14 08:40 Date Received: 08/13/14 10:45 Lab Sample ID: 480-65462-2 Matrix: Wastewater

Lab Sample ID: 480-65462-3

Lab Sample ID: 480-65466-1

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	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

Date Collected: 08/13/14 08:45 Date Received: 08/13/14 10:45

_								
	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	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 Date Collected: 08/13/14 09:15 Date Received: 08/13/14 10:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	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

TestAmerica Buffalo

Matrix: Wastewater

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

				Lab Chro	onicle				
Client: New York S Project/Site: NYSD		wn WWTP: Site# 9 <sup>.</sup>	15171					TestAmerica Job ID: 480-65462-	-1
lient Sample I	ID: Pre-C	arbon						Lab Sample ID: 480-65466-	, <b>-1</b>
Date Collected: 08 Date Received: 08								Matrix: Wastewate	,er
	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	t 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 CI- E		2	198882	08/20/14 22:51	JTS	TAL BUF	
Client Sample I	ID: OUTS							Lab Sample ID: 480-65466-	-2
Date Collected: 08	8/13/14 09:C	10						Matrix: Wate	<i>e</i> r
Date Received: 08	3/13/14 10:4	,5							
-	Batch	Batch		Dilution	Batch	Prepared			
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	t 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

TestAmerica Buffalo

## **Certification Summary**

EPA Region

Analyte

m,p-Xylene

m,p-Xylene

o-Xylene

o-Xylene

pН

2

**Certification ID** 

10026

1,2-Dichloroethene, Total

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

Laboratory: TestAmerica Buffalo

Authority

New York

8021B

8021B

8021B

8021B

8260C

SM 4500 H+ B

Analysis Method

#### TestAmerica Job ID: 480-65462-1

**Expiration Date** 

03-31-15

## Laboratory: TestAmerica Pittsburgh

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

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

Program

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

Matrix

Water

Water

Wastewater

Wastewater

Wastewater

Wastewater

NELAP

Prep Method

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.

TestAmerica Buffalo

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

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8

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lethod	Method Description	Protocol	Laboratory
260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PIT
021B	Volatile Organic Compounds (GC)	SW846	TAL BUF
08	Organochlorine Pesticides in Water	40CFR136A	TAL BUF
00.7 Rev 4.4	Metals (ICP)	EPA	TAL PIT
664A	HEM and SGT-HEM	1664A	TAL BUF
10.2	Alkalinity	MCAWW	TAL BUF
35.4	Cyanide, Total	MCAWW	TAL BUF
20.4	Phenolics, Total Recoverable	MCAWW	TAL BUF
516-90, 02	Sulfate	ASTM	TAL BUF
M 2540C	Solids, Total Dissolved (TDS)	SM	TAL BUF
M 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
M 4500 CI- E	Chloride, Total	SM	TAL BUF
M 4500 H+ B	pH	SM	TAL BUF
M 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

Client: New York St Project/Site: NYSD	tate D.E.C. EC-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				
				8				
				9				

#### TestAmerica Buffalo

10 Hazelwood Drive

#### Amherst, NY 14228-2298 Phone (716) 691-2600 Fax (716) 691-7991

## Chain of Custody Record



THIS LEADER UP CREMINAL TESTING

Phone (716) 691-2600 Fax (716) 691-7991		14			<u> </u>																		, 3 cm o g
Client Information	Sampler:	1 leis d	1		cher,	Brian	J						Carrie	r Trac	king N	lo(s):			480	C No: 0-43976-11	178.1		
Client Contact: Thomas Palmer	Phone: 7168	26049	34	E-M bria		cher@	testar	nerica	ainc.c	om									Pag Pa	ge: ge 1 of 1			
Company: Groundwater & Environmental Services Inc									A	naly	sis I	Req	uest	ted					Job	#:			
Address: 495 Aero Drive Suite 3 City:	Due Date Reques							Τ							Τ			1. Q	а-	HCL	M	Hexane	·
Cheektowaga State, Zip:	1	sTD																	C -	NaOH Zn Acetate Nitric Acid	0 - P -	None AsNaO2 Na2O4S	
NY, 14225 Phone:	PO#				┦╢					5								\$ 	F-	NaHSO4 MeOH Amchlor	R- S-	Na2SO3 Na2S2SO3 H2SO4	
Email: tpalmer@gesonline.com	Purchase Order WO#:	not requir		<del></del> .	s or No)	or No)	ļ	verable	4.2	/OA - 8021	esticide	LM04.2	Demand	d Solids	ds			÷.	∦ I-1 J-	DI Water	U - V -	TSP Dodecah Acetone MCAA	ydrate
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Qtrly Post-Ca	Project <i>#</i> : 48002525				e (Ye	10.80	ase	I Reco	OLMO	List - \	utant F	0- 40	xygen	ssolve	ed Solids			containe	K- L-	EDTA EDA		- ph 4-5 other (specify)	)
Site: New York	SSOW#:				Samp	V) QSV	ocal Me Il & Gre	ss, Tota	TCL fist	STARS	rity Poll	LCL SV	mical O	Fotal Di	nspend	Total	+	To		er:			
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oll, BT=Tissue, A=Air	Field Filtered	Perform MS/N	200.7 - (MOD) Local Method 1664A_Calc - Oil & Grease	420.4 - Phenolics, Total Recoverable	8260B - (MOD) TCL IIst OLM04.2	8021B - (MOD) STARS List - VOA	608_Pest - Priority Pollutant Pesticide	8270C - (MOD) TCL SVOA - OLM04.2	5210B - Blochemical Oxygen Demand	2540C_Calcd - Total Dissolved	2540D - Total Suspended	335.4 - Cyanide, Total	SM4500_H+ - pH	Total Number		Specia	l Instru	ctions/Note	2'
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Deliverable Requested: I, II, III, IV, Other (specify)		<u> </u>	nological			Spec	ial Inst				quiren	nents	5: 5:	, Dy 1									
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Relinquished by:	Date/Time:			Company		R	eceived	i by:							Ľ	Date∕1	lime:				Co	mpany	
Custody Seals Intact: Custody Seal No.: Δ Yes Δ No						0	ooler Te	empera	nture(s)	°C an	d Othe	er Rem	arks:		î.	¥	1		2	4			

8/29/2014

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

## Chain of Custody Record



THE LEADER OF ENDEROMINAL TESTING

*Phone (716) 691-2600 Fax (716) 691-7991	Sampler:	1	Lab PM:						Carri	er Trac	king No	o(s):		COC No:	70.4
Client Information			Fischer, Bria	an J				<u> </u>	-					480-43980-117 Page:	/9.1
Thomas Palmer	Phone: 716 860 1	4934	brian.fische	r@testarr	nericai	nc.cor	n							Page 1 of 1	
Company: Groundwater & Environmental Services Inc						An	alvs	is Re	ques	ted				Job #:	
Address:	Due Date Requested:					T	Ť		1				1837	Preservation C	Codes:
495 Aero Drive Suite 3 City:	TAT Requested (days):													A - HCL B - NaOH	M - Hexane
Cheektowaga													100 A	C - Zn Acetate	N - None O - AsNaO2
State, Zip: NY, 14225	STD													D - Nitric Acid E - NaHSO4	P - Na2O4S Q - Na2SO3 R - Na2S2SO3
Phone:	PO#: Purchase Order not requi					121								F - MeOH G - Amchlor H - Ascorbic Acid	S - H2SO4
Email:	WO#:		or No)	-		A - 8021							2014	I - Ice	U - Acetone V - MCAA
tpalmer@gesonline.com Project Name:	Project #:		- jě ž	d letho	M04.2	8							containers	K-EDTA	W - ph 4-5
NYSDEC - Gastown WWTP/Gastown Event Desc: Qtrly Pre	-Carb 48002525		le (	cal N letho	L L L	3 List	_						ontal	L-EDA	Z - other (specify)
Site: New York	SSOW#:		e station in the second	300.0_28D - (MOD) Local Method 200.7 - (MOD) Local Method	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS List - VOA	310.2 - Alkalinity, Total		1				5		
		Sample Matr	rix Par	0W) (0	l (g	S (ac	linity						Total Number		
		Type (W=wat	ter, Lite	(MO	- (W	- (W	Alka						Nuc		
	Sample Data Time	ie (C≃comp, <sub>o=waste</sub>	A=Air)	0.00	260B	021B	10.2						otal	i Special	Instructions/Note:
Sample Identification	Sample Date Time	G=grab) BT=Tissue, Preservation Cod		N D			Nin.	2 8.18	in were i				~ \ <b>\</b>	Opecial	
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Possible Hazard Identification			Sa	mple Dis	posal	I ( A fe	e ma	ay be	asses	sed if	samp	les are	retaine	ed longer than 1	month)
	oison B Vonknown	Radiological			n To C	_			Dispos	al By	Lab		Archi	ve For	Months
Deliverable Requested: I, II, III, IV, Other (specify)			Sp	ecial Inst	ruction	ns/QC	Req	uireme	ents:						
Empty Kit Relinquished by:	Date:		Time:		$\Lambda$		,	11		Metho		nipment:	,	]	
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TestAmerica Buffalo			1																	TestA	mari	$\sim \sim$
10 Hazelwood Drive				Chair	ו of	Cu	iste	odv	/ Re	eco	rd									10317		
Amherst, NY 14228-2298			1	•				· J												THE LEADER BY E	SVIRONMENTAL "	TESTING
Phone (716) 691-2600 Fax (716) 691-7991			i		ab PM;								Corrie	er Trac	deline a	hle (e)						
Client Information (Sub Contract Lab)	Sampler					er, Bria	in J						Came	ernac	жing	NO(S).				COC No: 480-18545.1		
Client Contact:	Phone:			· · · · ·	-Mail:					-		- 1								Page:		
Shipping/Receiving			t t		orian.f	ischer	@tes	stame	ricainc	.com								_		Page 1 of 1		
Company: TestAmerica Laboratories, Inc.									A	Analy	/sis	Req	ues	sted						Job# 480-65462-1		
Address:	Due Date Request	ed:			14	2- <b>112</b>				1	<u> </u>				_			Γ	5-14F	Preservation Co	des:	
301 Alpha Drive, RIDC Park,	8/25/2014		1																	A-HCL	M - Hexane	
City: Pittsburgh	TAT Requested (d	ays):			2.2.4 2.4.4						-									B - NaOH	N - None	
State, Zip:					с. Ц						1									C - Zn Acetate D - Nitric Acid	0 - AsNaO2 P - Na2O4S	
PA, 15238					1.64														14	E - NaHSO4 F - MeOH	Q - Na2SO3 R - Na2S2SO3	
Phone:	PO#				6		-	64.2			1									G - Amchior	S - H2SO4	
412-963-7058(Tel) 412-963-2468(Fax) Email:	WO#:				<u> </u>		tho	DLM												H - Ascorbic Acid	T - TSP Dodeca U - Acetone	ahydrate
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8/29/2014

TestAmerica Buff	alo
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#### 10 Hazelwood Drive ADZ -

## **Chain of Custody Record**

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	Amherst, NY 14228-2298 Phone (716) 691-2600 Fax (716) 691-7991																	THE L	EADER IN	ENVIRONMENTAL TESTIN
	Client Information (Sub Contract Lab)	Sampler:			Lab F Fisc	PM: cher, Bria	an J					Carr	ier Tra	cking N	lo(s):			COC N 480-1	o: 8546.1	
	Client Contact: Shipping/Receiving	Phone:		_	E-Ma briar	ail: n.fischer	@tes	tamerio	ainc.	com		1						Page: Page		
1	Company: TestAmerica Laboratories, Inc.	1					<u>e</u>		-		sis R	eque	sted					Job #.	5462-1	
	Address: 301 Alpha Drive, RIDC Park,	Due Date Requeste 8/25/2014	əd:	i					T				T				1	Prese	rvation Co	
1	City: Pittsburgh State, Zip: PA, 15238	TAT Requested (da	ays):															A - HC B - Na C - Zn D - Nitu E - Nal	OH Acetate ric Acid	M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3
	Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:				No)	ethod											F-Me G-Am H-Aso I-Ice		R - Na2S2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone
	Project Name: NYSDEC-Gastown WWTP: Site# 915171	Project #:				(Yes or stor No)	P_TR (MOD) Local Method										tainers	J-DIV	TA	V - MCAA W - ph 4-5 Z - other (specify)
	Site: Gastown WWTP	SSOW#:				SD/(Y	R (MOI										ôf con	Other:		
	Sample Identification - Client ID (I ab 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 N Perform MS/MSD (Yes or No)	200.7/200.7_P_1										Total Number of containers		Special	Instructions/Note:
Page	Sample Identification - Client ID (Lab ID)				ation Code:					逐漸			193				X	-	Anger Palons	and manager and the second second second second second second second second second second second second second s
je 23	Pre-Carbon (480-65466-1)	8/13/14	09:15 Eastern		Water		x		<u> </u>				ļ						!	
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	Possible Hazard Identification	I		L	1	San	nple l	Díspos	al ( A	fee m	ay be	asse	ssed	if sar	nples	are i		<b>1</b> 13	ger than	1 month)
	Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify)				<del></del>	Sne		<i>tum To</i> nstructi					osal E	By Lat	<u>,</u>		Arch	hive Fo	<u>r</u>	Months
	Empty Kit Relinquished by:		Date:	. <u> </u>		Time:						-	Meth	od of S	hipme	nt				
8/2	Reinquished by: Camenan Willie Relinquished by:	Date/Time:		$\infty$	Company TAB Company		12	red by:	G	42	$\sim$	/			Date[] 1 Date/T	<u> ///</u>	11	4	690	Company Company
8/29/2014	Relinquished by:	Date/Time:			Company	4		ved by:							Date/T					Company
)14	Custody Seals Intact: Custody Seal No.:	l			L		Cooler	Temper	aturale	) °C and	Other	Remark	5.							

∆ Yes ∆ No

#### Login Number: 65462

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	

Job Number: 480-65462-1

List Source: TestAmerica Buffalo

## Login Number: 65462 List Number: 2

Creator: Butcher, Ryan M

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	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	

List Source: TestAmerica Pittsburgh

List Creation: 08/16/14 01:29 PM

#### Login Number: 65466

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	

Job Number: 480-65462-1

List Source: TestAmerica Buffalo

## Login Number: 65466 List Number: 2

Creator: Butcher, Ryan M

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	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	

Job Number: 480-65462-1

List Source: TestAmerica Pittsburgh

List Creation: 08/16/14 01:33 PM



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. Giacomogya

Authorized for release by: 9/25/2014 11:49:09 AM Joe Giacomazza, Project Management Assistant II joe.giacomazza@testamericainc.com

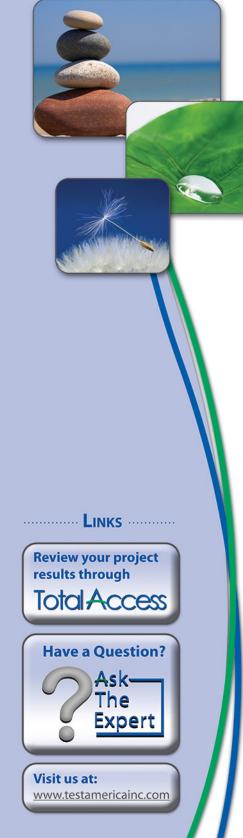
Designee for

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

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

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

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



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

> 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.

Joseph V. Giacomagge

Joe Giacomazza Project Management Assistant II 9/25/2014 11:49:09 AM

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

## Qualifiers

Qualifiers	\$	3
GC/MS VOA	Α.	Λ
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.	5
GC VOA		0
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 Ch	emistry	
Qualifier	Qualifier Description	
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.	8
Glossary		g

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

#### 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 2.3° C and 2.5° 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

## **Client Sample ID: Post-Carbon 3**

Date Collected: 09/10/14 10:30 Date Received: 09/10/14 11:45

n-Butylbenzene

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		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		ug/L			09/21/14 20:17	1
Xylenes, Total	ND		2.0		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 Orga	nic Compounds	(GC)							
Analyte	Result	Qualifier	RL		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		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
D I Have and									

Lab Sample ID: 480-67006-1

Matrix: Wastewater

TestAmerica Buffalo

1

09/17/14 12:55

0.20

0.031 ug/L

ND

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

## **Client Sample ID: Post-Carbon 3** Date Collected: 09/10/14 10:30

Date Received: 09/10/14 11:45

Method: 8021B - Volatile Or	ganic Compounds	(GC) (Conti	nued)						
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 - Met	als (ICP)								
Analyte		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
рН	7.16	HF	0.100	0.100	SU			09/11/14 13:48	1

TestAmerica Buffalo

5

TestAmerica Job ID: 480-67006-1

Lab Sample ID: 480-67006-1

Matrix: Wastewater

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

#### **Client Sample ID: Post-Carbon 2**

Date Collected: 09/10/14 10:35 Date Received: 09/10/14 11:45

4-Bromofluorobenzene

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

64 - 141

104

09/17/14 14:06

50

9/25/2014

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

#### **Client Sample ID: Post-Carbon 1**

Date Collected: 09/10/14 10:40 Date Received: 09/10/14 11:45

4-Bromofluorobenzene

Method: 8021B - Volatile Or	• •			MDI	11	-	Description	A	D11 E
Analyte		Qualifier	RL		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

64 - 141

102

TestAmerica Buffalo

TestAmerica Job ID: 480-67006-1

Lab Sample ID: 480-67006-3

09/17/14 14:40

200

Matrix: Water

# 2 3 4 5 6 7

Client: New York State D.E.C. Project/Site: NYSDEC-Gastown WWTP: Site# 915171 TestAmerica Job ID: 480-67006-1

Lab Sample ID: 480-67009-1

Matrix: Wastewater

## Client Sample ID: Pre-Carbon

Date Collected: 09/10/14 11:00 Date Received: 09/10/14 11:45

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 - Met	als (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

Analyte	Result	Quaimer	RL	WDL	Unit	U	Prepared	Analyzed	DirFac
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

## Client Sample ID: Outside Sump

Date Collected: 09/10/14 11:05 Date Received: 09/10/14 11:45

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
lsopropylbenzene	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

```
Lab Sample ID: 480-67009-2
Matrix: Water
```

TestAmerica Job ID: 480-67006-1

\_\_\_\_\_

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

Method: 8021B - Volatile Organic Compounds (GC)

Result Qualifier

TestAmerica Job ID: 480-67006-1

Analyzed

Lab Sample ID: 480-67009-3 Matrix: Water Dil Fac 10

	5
	8
	9

Client Sample ID: Sump
Date Collected: 09/10/14 11:15

Date Received: 09/10/14 11:45

Analyte

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 Org	•					_			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	7300		100	12	ug/L			09/22/14 11:28	500

RL

MDL Unit

D

Prepared

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 Qualifie	r 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 Chro	onicle				
	rk State D.E.C. /SDEC-Gastow	vn WWTP: Site# 9	15171					TestAmerica	Job ID: 480-67006-1
lient Samp	le ID: Post-C	Carbon 3						Lab Sample	e ID: 480-67006-1
	: 09/10/14 10:3 : 09/10/14 11:4								Matrix: Wastewate
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab	
Total/NA	Analysis	- <u>8260C</u>	Kuli		203519	09/21/14 20:17	NMD1		
Total/NA	Analysis	8021B		1	202758	09/17/14 12:55	DGB	TAL BUF	
Total/NA	Prep	200.7			202780	09/11/14 10:41	SLB	TAL BUF	
Total/NA	Analysis	200.7 200.7 Rev 4.4		1	2010/4	09/11/14 10:41	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	
	-					00/44/44 40 40			
Total/NA Client Sampl Date Collected:				1	201975	09/11/14 13:48	KMF	TAL BUF	
- Client Sampl	le ID: Post-C : 09/10/14 10:3 : 09/10/14 11:4	Carbon 2 35 5					KMF	-	
Client Sampl Date Collected: Date Received:	le ID: Post-0 : 09/10/14 10:3 : 09/10/14 11:4 Batch	Carbon 2 35 15 Batch		Dilution	Batch	Prepared		Lab Sample	
Client Sampl	le ID: Post-C : 09/10/14 10:3 : 09/10/14 11:4	Carbon 2 35 5	Run				KMF Analyst DGB	-	e ID: 480-67006-2 Matrix: Water
Client Sampl Date Collected: Date Received: Prep Type Total/NA	le ID: Post-C : 09/10/14 10:3 : 09/10/14 11:4 Batch Type Analysis	Carbon 2 35 5 Batch Method 8021B	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab Sample	Matrix: Water
Client Sampl Date Collected: Date Received: Prep Type Total/NA Client Sampl	le ID: Post-0 : 09/10/14 10:3 : 09/10/14 11:4 Batch Type Analysis le ID: Post-0	Carbon 2 35 5 Batch Method 8021B Carbon 1	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab Sample	Matrix: Water
Client Sampl Date Collected: Date Received: Prep Type Total/NA	le ID: Post-0 : 09/10/14 10:3 : 09/10/14 11:4 Batch Type Analysis Ie ID: Post-0 : 09/10/14 10:4	Carbon 2 35 5 Batch Method 8021B Carbon 1 40	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab Sample	Matrix: Water
Client Sampl Date Collected: Date Received: Prep Type Total/NA Client Sampl Date Collected:	le ID: Post-0 : 09/10/14 10:3 : 09/10/14 11:4 Batch Type Analysis Ie ID: Post-0 : 09/10/14 10:4	Carbon 2 35 5 Batch Method 8021B Carbon 1 40	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab Sample	Matrix: Water
Client Sampl Date Collected: Date Received: Date Received: Total/NA Client Sampl Date Collected: Date Received: Prep Type	le ID: Post-0 : 09/10/14 10:3 : 09/10/14 11:4 Batch Type Analysis le ID: Post-0 : 09/10/14 10:4 : 09/10/14 11:4	Carbon 2 35 5 Batch Method 8021B Carbon 1 40 45 Batch Method	Run	Dilution Factor 50 Dilution Factor	Batch Number 202758 Batch Number	Prepared or Analyzed 09/17/14 14:06 Prepared or Analyzed	Analyst DGB Analyst	Lab Sample	Matrix: Water
Client Sampl Date Collected: Date Received: Prep Type Total/NA Client Sampl Date Collected: Date Received:	le ID: Post-0 : 09/10/14 10:3 : 09/10/14 11:4 Batch Type Analysis Ie ID: Post-0 : 09/10/14 10:4 : 09/10/14 11:4 Batch	Carbon 2 35 5 Batch Method 8021B Carbon 1 40 5 Batch Batch		Dilution Factor 50 Dilution	Batch Number 202758 Batch	Prepared or Analyzed 09/17/14 14:06 Prepared	Analyst DGB	Lab Sample	Matrix: Water
Client Sampl Date Collected: Date Received: Date Received: Total/NA Client Sampl Date Collected: Date Received: Prep Type	le ID: Post-0 : 09/10/14 10:3 : 09/10/14 11:4 Batch Type Analysis le ID: Post-0 : 09/10/14 10:4 : 09/10/14 11:4 Batch Type Analysis	Carbon 2 35 5 Batch Method 8021B Carbon 1 40 5 Batch Method 8021B		Dilution Factor 50 Dilution Factor	Batch Number 202758 Batch Number	Prepared or Analyzed 09/17/14 14:06 Prepared or Analyzed	Analyst DGB Analyst	Lab Sample	Matrix: Water

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	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** Date Collected: 09/10/14 11:05 Date Received: 09/10/14 11:45

Γ		Batch	Batch		Dilution	Batch	Prepared		
Pr	ер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
To	otal/NA	Analysis	8021B		500	202758	09/17/14 15:48	DGB	TAL BUF

TestAmerica Buffalo

Matrix: Water

Lab Sample ID: 480-67009-2

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

Lab Sample ID: 480-67009-3

Matrix: Water

#### Client Sample ID: Sump Date Collected: 09/10/14 11:15

Date Received: 09/10/14 11:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	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

## 1 2 3 4 5 6 7 8 9 10 11

Laboratory: TestAmerica Buffalo

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

hority	Program		EPA Region	Certification ID	Expiration Date
v York	NELAP		2	10026	03-31-15
The following analytes a	are included in this report, bu	It certification is not offere	ed by the governing a	authority:	
Analysis Method	Prep Method	Matrix	Analyt	e	
8021B		Wastewater	m,p-X	ylene	
8021B		Wastewater	o-Xyle	ne	
3021B		Water	m,p-X	ylene	
8021B		Water	o-Xyle	ne	
8260C		Wastewater	1,2-Di	chloroethene, Total	
SM 4500 H+ B		Wastewater	pН		

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

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

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

Method Description

Metals (ICP)

Cyanide, Total

EPA = US Environmental Protection Agency

Alkalinity

pН

Volatile Organic Compounds by GC/MS

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

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

Volatile Organic Compounds (GC)

Anions, Ion Chromatography

Method

8260C

8021B

300.0

310.2

335.4

200.7 Rev 4.4

SM 4500 H+ B

Protocol References:

Laboratory References:

Laboratory

TAL BUF

Protocol

SW846

SW846

MCAWW

MCAWW

MCAWW

EPA

SM

5

# 8

TestAmerica Buffalo

Sample Summary

Client: New York State D.E.C. Project/Site: NYSDEC-Gastown WWTP: Site# 915171 TestAmerica Job ID: 480-67006-1

ab Sample ID	Client Sample ID	Matrix	Collected	Received
80-67006-1	Post-Carbon 3	Wastewater	09/10/14 10:30	09/10/14 11:45
80-67006-2	Post-Carbon 2	Water	09/10/14 10:35	09/10/14 11:45
80-67006-3	Post-Carbon 1	Water	09/10/14 10:40	09/10/14 11:45
80-67009-1	Pre-Carbon	Wastewater	09/10/14 11:00	09/10/14 11:45
80-67009-2	Outside Sump	Water	09/10/14 11:05	09/10/14 11:45
80-67009-3	Sump	Water	09/10/14 11:15	09/10/14 11:45

TestAmerica Buffalo

#### TestAmerica Buffalo

10 Hazelwood Drive

#### Amherst, NY 14228-2298

Phone (716) 691-2600 Fax (716) 691-7991

## Chain of Custody Record



THE LEADER IS ENVIRONMENTAL TESTING

Client Information	Sampler:	Carsel		Lab PM Fische		an J					C	arrier T	racking	) No(s)	:		COC 480-	No: 43994-11	77.1		
Client Contact Thomas Palmer	Phone:	66 35	ନ୍ତ	E-Mail: brian.f		r@te	stame	ricair		m							Page	: e1of1		,	
Company:	110 0		.0	I	noone		otarrio	noan					_				Job #				
Groundwater & Environmental Services Inc Address:	Due Dete Demuer	iod.		-+	\$638 <b>5</b>		. <u> </u>		Ana	alysis	Requ	este		1		P.C			Cadaa		
Address: 495 Aero Drive Suite 3	Due Date Reques	ieu:		16-1-1 1-1	2799 81.699  				•	, , ,	1 11 10 10 10 1	1	1	1		Ľ.	Pres	ervation (		1.1	
City:	TAT Requested (d	ays):																ïL ОН		- Hexane None	
Cheektowaga		l		9	84.1 124.9 1214	1									111.11			Acetate ric Acid		AsNaO2 Na2O4S	
State, Zip: NY, 14225	STO			20.2	914 <b>6</b> 490 914 4344			I.										HSO4	Q-	Na2SO3	
Phone:	PO #:	·						- I		480-67	11 <b>11 11</b> 11							:OH nchior		Na2S2SO3 H2SO4	
	Purchase Order	not requir			9			, 802 ,			000 (	Jiani	or Cu	stody	r			corbic Aci	id T-	TSP Dodeca	ahydrate
Email: tpalmer@gesonline.com	WO #:						2	Å	T	ΓÌ	Ξ.	Ī	Г	T	ЕГ	- 13	6 J-C	l Water		Acetone MCAA	
Project Name:	Project#:				Yes or or No)	9.00 m	TCL list OLM04.2	List - VOA - 8021								1	Containers Containers Containers	DTA		- ph 4-5 other (specif	50
NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Post-Ca	48002525				<u>)</u>		Ę	LIS.						1			E L		2	oniei (specii	.y)
Site: New York	SSOW#:					, in the second s	L IIs	ARS	otal									n.			
	Į	<u> </u>			SW		12	) ST	Je, T	H							er of				
		1	Sample Matr	1.	Field Filtered Sample ( Pertorm MS/MSD (Yes	E	8260B - (MOD)	8021B - (MOD) STARS	335.4 - Cyanide, Total	SM4500_H+ - pH							Total Number				
		Comula	Type (W=wa S=soli	88	ΞĘ	۲.	- - -	- 8	0 1	200							ž				
Sample Identification	Sample Date	Sample Time	(C=comp, O=waste G=grab) BT=Tissue,	e/oil, A=∆ir)	Perfo	200.7 - Iron	3260	3021	335.4	SM4		:					Tota	Specia	i Instru	ctions/No	te:
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Possible Hazard Identification	<u> </u>	1l	1	<u>+</u>	Sa	mple	Disp	osal	(Afe	e may b	e ass	essed	if san	nples	are r	etain	ed long	er than 1	1 month	n)	
Non-Hazard Flammable Skin Irritant Poison	B Honknov	n Radi	ological		] [	$\Box_R$	eturn	To Ci	lient	J	<b>Z</b> bisp	osal E	y Lab	)		Arch	nive For		Moi	nths	
Deliverable Requested: I, II, III, IV, Other (specify)	•				Sp	ecial	Instru	ctions	s/QC	Require											
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				-																	
Custody Seals Intact: Custody Seal No.: ∆ Yes ∆ No						Cool	er Temj	peratu	re(s) °(	C and Oth	er Rema	arks:					¥	1 0	$\chi <$	5	
														00							

9/25/2014

TestAmerica Buffalo           10 Hazelwood Drive           Amherst, NY 14228-2298           Phone (716) 691-2600 Fax (716) 691-7991				Chain c		ust	ţ												
Client Information	Sampler: M/L Phone: 716			Lab F	<sup>2</sup> M: her, B	rian J	-	190		09 Ch	ain of		4v			Т	COC No: 480-43986-1176.	1	
Client Contact:	Phone:	21		E-Ma	ail:		-					Cusio	лу			ł	Page:	·	
Thomas Palmer	-776	566	<u> </u>	bria	n.fisch	er@te	stame	ericaino	c.com		<u> </u>						Page 1 of 1		
Company: Groundwater & Environmental Services Inc									Ana	lysis	Reau	ested					Job #:		
Address;	Due Date Request	ed:			1991		1-1	T	-					-	1-1	×	Preservation Cod	es:	
495 Aero Drive Suite 3						· 約			1708							8039-1	A-HCL	M - Hexane	
City:	TAT Requested (d	ays):			11	1		1								τų,	B - NaOH	N - None	
CheektowagaState, Zip:	5	ŤŪ.						,	NON							1719 1	C - Zn Acetate D - Nitric Acid	0 - AsNaO2 P - Na2O4S	
NY, 14225									Z -							·5	E - NaHSO4	Q - Na2SO3	_
Phone:	PO#:				1.1%	0			<u> </u>							Ś.	F - MeOH G - Amchlor	R - Na2S2SO S - H2SO4	3
	Purchase Order	not requir			2 2			-	2								H - Ascorbic Acid I - Ice	T - TSP Dode	cahydrate
Email: tpalmer@gesonline.com	WO#:				s or	о М		5	3							so .		U - Acetone V - MCAA	
Project Name:	Project#:				- 8 7	let 1	Ţ	444	STRUS Inst							containers	K - EDTA L - EDA	W - ph 4-5 Z - other (spec	cif.()
NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Pre-Car						cal N	ethc									ntaj	L-EDA	z - outer (spec	ury)
Site: New York	SSOW#:				lu a	<u> </u>	al M	Tota	0								Other:		
		Sample	Sample Type (C=comp,	Matrix (w=water, s=solid,	Field Filtered S	300.0_28D - (MOD) Local Method	7 - (MOD) Local Method	Alka	1216/040							Total Number of			
Sample Identification	Sample Date	Time	G=grab)	O=waste/oil, BT=Tissue, A=Air					1203			· · · · · · · · · · · · · · · · · · ·				10	Special Ins	structions/N	ote:
			Preserva	ation Code:	¥Υ	10000.1	DX							<u>.</u>		X	alt 1.936a		
Pre-Carbon	9/10/14	1100	G	Water	NN	リア	1	17	X										
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outside sump Sump	9/10/14				MA	_			x			-†				-744			
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Possible Hazard Identification					s	÷				may b	e asse	ssed i	f sampl				longer than 1 mo	onth)	
Non-Hazard Flammable Skin Irritant Poison	B Onknow	m Ra	diological					To Cli			Disp	osal By	Lab		Arci	hive	For	Months	
Deliverable Requested: I, II, III, IV, Other (specify)					S	pecial	Instru	ictions/	/QC F	Require	ments:				-				
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Relinquished by:	Date/Time:			Company		Rece	eivea b	v. /						ite/Time	:			Company	
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Custody Seals Intact: Custody Seal No.:				·		Cool	ler Tem	perature	e(s) °C	and Oth	er Rema	rks:		步	}	~	2.3		
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7 9 **0** 

9/25/2014

#### Login Number: 67006 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 ampered 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	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and he 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	
f necessary, staff have been informed of any short hold time or quick TAT needs	True	
Nultiphasic 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	

List Source: TestAmerica Buffalo

Client: New York State D.E.C.

#### Login Number: 67009 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	

Job Number: 480-67006-1

List Source: TestAmerica Buffalo



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. Giscomayer

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

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

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

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



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

Joseph V. Giacomage

Joe Giacomazza Project Management Assistant II 10/28/2014 12:10:36 PM

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## Qualifiers

Qualifiers		3
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.	5
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 Che	emistry	
Qualifier	Qualifier Description	
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.	8

### Glossary

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

#### 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 2.3° C and 2.5° 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

## Client Sample ID: Post-Carbon-3

Date Collected: 10/16/14 13:45 Date Received: 10/16/14 15:15

Isopropylbenzene

m,p-Xylene

n-Butylbenzene

Methyl tert-butyl ether

Method: 8260C - Volatile Orgar Analyte	Result C		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,1,1-Trichloroethane	ND		1.0	0.82			• •	10/27/14 01:30	
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			10/27/14 01:30	
1,1,2-Trichloroethane	ND		1.0		ug/L			10/27/14 01:30	
1,1-Dichloroethane	ND		1.0		ug/L			10/27/14 01:30	
1,1-Dichloroethene	ND		1.0	0.29	-			10/27/14 01:30	
1,2-Dichloroethane	ND		1.0	0.21	-			10/27/14 01:30	
1,2-Dichloroethene, Total	ND		2.0		ug/L			10/27/14 01:30	
1,2-Dichloropropane	ND		1.0		ug/L			10/27/14 01:30	
2-Hexanone	ND		5.0		ug/L			10/27/14 01:30	
2-Butanone (MEK)	ND		10		ug/L			10/27/14 01:30	
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			10/27/14 01:30	
Acetone	ND		10		ug/L			10/27/14 01:30	
Benzene	ND		1.0		ug/L			10/27/14 01:30	
Bromodichloromethane	ND		1.0		ug/L			10/27/14 01:30	
Bromoform	ND		1.0		ug/L			10/27/14 01:30	
Bromomethane	ND		1.0		ug/L			10/27/14 01:30	
Carbon disulfide	ND		1.0		ug/L ug/L			10/27/14 01:30	
Carbon tetrachloride	ND		1.0		ug/L ug/L			10/27/14 01:30	
Chlorobenzene	ND		1.0		ug/L			10/27/14 01:30	
Dibromochloromethane	ND		1.0	0.75				10/27/14 01:30	
Chloroethane	ND		1.0	0.32				10/27/14 01:30	
			1.0		ug/L ug/L			10/27/14 01:30	
Chloroform	0.52 J		1.0	0.34	-			10/27/14 01:30	
Chloromethane	0.38 J ND	,	1.0					10/27/14 01:30	
cis-1,3-Dichloropropene			1.0 1.0		ug/L				
Ethylbenzene Methylene Chleride	ND				ug/L			10/27/14 01:30	
Methylene Chloride	ND		1.0		ug/L			10/27/14 01:30	
Styrene	ND		1.0		ug/L			10/27/14 01:30	
Tetrachloroethene	ND		1.0		ug/L			10/27/14 01:30	
Toluene	ND		1.0		ug/L			10/27/14 01:30	
trans-1,3-Dichloropropene	ND		1.0	0.37				10/27/14 01:30	
Trichloroethene	ND		1.0		ug/L			10/27/14 01:30	
Vinyl chloride	ND		1.0	0.90	-			10/27/14 01:30	
Vinyl acetate	ND		5.0	0.85				10/27/14 01:30	
Xylenes, Total	ND		2.0	0.66	ug/L			10/27/14 01:30	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1,2-Dichloroethane-d4 (Surr)			66 - 137			-	-	10/27/14 01:30	
Toluene-d8 (Surr)	103		71 - 126					10/27/14 01:30	
4-Bromofluorobenzene (Surr)	87		73 - 120					10/27/14 01:30	
Method: 8021B - Volatile Organ				MD	Unit	~	Bronavad	Analyzed	D:1 F-
Analyte	Result 0	auanner	RL			D	Prepared	Analyzed	Dil Fa
1,2,4-Trimethylbenzene	ND		0.20	0.035	-			10/17/14 14:26	
1,3,5-Trimethylbenzene	ND		0.20		ug/L			10/17/14 14:26	
Benzene	ND		0.20	0.023				10/17/14 14:26	
Ethylbenzene	ND		0.20	0.029	ug/L			10/17/14 14:26	

Lab Sample ID: 480-69461-1 Matrix: Wastewater

5

TestAmerica Buffalo

1

1

1

1

10/17/14 14:26

10/17/14 14:26

10/17/14 14:26

10/17/14 14:26

0.20

0.40

0.40

0.20

0.027 ug/L

0.044 ug/L

0.054 ug/L

0.031 ug/L

ND

ND

ND

ND

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

### Client Sample ID: Post-Carbon-3 Date Collected: 10/16/14 13:45 Date Received: 10/16/14 15:15

TestAmerica	Job	ID:	480-69461-1
1000 01100	000		100 00 101 1

Lab Sample ID: 480-69461-1 Matrix: Wastewater

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

## **Client Sample ID: Post-Carbon-2**

Date Collected: 10/16/14 13:50 Date Received: 10/16/14 15:15

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
<b>T</b> :0						-			

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

TestAmerica Job ID: 480-69461-1

Matrix: Water

TestAmerica Buffalo

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

_ Method: 8021B - Volatile Org	anic Compounds (	GC)							
Analyte		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

TestAmerica Buffalo

RL

MDL Unit

D

Prepared

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

Method: 8021B - Volatile Organic Compounds (GC)

TestAmerica Job ID: 480-69461-1

Analyzed

# Lab Sample ID: 480-69463-1 Matrix: Wastewater

5 Dil Fac 500

Client Sample ID: Pre-Carbon	
Dete Orille de la Antidata da An	

Result Qualifier

Date Collected: 10/16/14 14:00 Date Received: 10/16/14 15:15

Analyte

Analyte	Result	Quaimer	RL	MDL	Unit	U	Prepared	Analyzeu	DirFac
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 - Meta	lls (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

**Client Sample ID: Outside Sump** 

Date Collected: 10/16/14 14:10

Date Received: 10/16/14 15:15

TestAmerica Job ID: 480-69461-1

## Lab Sample ID: 480-69463-2

Matrix: Water

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 Sample ID: 480-69463-1

Lab Sample ID: 480-69463-2

Matrix: Wastewater

lient Sample ate Collected	10/16/14 13:4	45							D: 480-69461 latrix: Wastewat
ate Received:	Batch	Batch		Dilution	Batch	Prepared			
Prep Type Total/NA	Type	8260C	Run	Factor	210114	or Analyzed	Analyst LCH	Lab  TAL BUF	
	Analysis								
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	
lient Samp	e ID: Post-	Carbon-2						Lab Sample I	D: 480-69461
ate Collected	10/16/14 13:	50							Matrix: Wat
ate Received:	10/16/14 15:1	5							
	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	8021B		5	208334	10/17/14 15:00	DGB	TAL BUF	
		Carbon-1						Lab Sample I	

Date Received: 10/16/14 15:15

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		50	208334	10/17/14 15:34	DGB	TAL BUF

### Client Sample ID: Pre-Carbon Date Collected: 10/16/14 14:00 Date Received: 10/16/14 15:15

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	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 Date Collected: 10/16/14 14:10

### Date Received: 10/16/14 15:15

_	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	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

Matrix: Water

## **Certification Summary**

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

## Laboratory: TestAmerica Buffalo

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

thority	Program		EPA Region	Certification ID	Expiration Date
w York	NELAP	NELAP		10026	03-31-15
The following analytes a	are included in this report, bu	It certification is not offere	ed by the governing a	authority:	
Analysis Method	Prep Method	Matrix	Analyt	e	
8021B		Wastewater	m,p-X	ylene	
8021B		Wastewater	o-Xyle	ne	
8021B		Water	m,p-X	ylene	
8021B		Water	o-Xyle	ne	
8260C		Wastewater	1,2-Di	chloroethene, Total	
SM 4500 H+ B		Wastewater	рH		

TestAmerica Buffalo

Method Description

Metals (ICP)

Cyanide, Total

Alkalinity

pН

Volatile Organic Compounds by GC/MS

Volatile Organic Compounds (GC)

Anions, Ion Chromatography

Laboratory

TAL BUF

Protocol

SW846

SW846

MCAWW

MCAWW

EPA

SM

SM

1	
5	
8	

## Protocol References:

Method

8260C

8021B 200.7 Rev 4.4

300.0

335.4

SM 2320B

SM 4500 H+ B

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

TestAmerica Buffalo

Sample Summary

Client: New York State D.E.C. Project/Site: NYSDEC-Gastown WWTP: Site# 915171 TestAmerica Job ID: 480-69461-1

Client: New York St Project/Site: NYSD	tate D.E.C. EC-Gastown WWTP: Site# 915171		2: 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	5
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	
					8
					9

## TestAmerica Buffalo

19 Hazelwood Drive

Amherst, NY 14228-2298

Chain of Custody Record



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THE LEADER AS ENVIRONMENTAL TESTING

**TestAmerica** 

	Phone (716) 691-2600 Fax (716) 691-7991							_		Hill H							_	THE LEAKER A 6X	VICINIENTA	1. 165101.6
	Client Information	Sampler: D, RED Phone T-Palmer (	BICK			er, Bri	an J		480-	6946	1 Chair	of Cu	stody					COC No: 180-43995-1177.1	1	
	Client Contact: Thomas Palmer	Phone Planer (	16)866	-359D	E-Mail brian	: .fische	r@tes	tamer	icaino	c.com		Γ						Page: Page 1 of 1		
	Company: Groundwater & Environmental Services Inc									Anal	ysis F	Reques	sted				J	ob #:		
	Address: 495 Aero Drive Suite 3	Due Date Requeste	d:													1		Preservation Code		
	City: Cheektowaga	TAT Requested (day															<i>i</i> 1	A - HCL B - NaOH C - Zn Acetate	M - Hexane N - None O - AsNaO2	
	State, Zip: NY, 14225	10-0	Ja j			1990 1990											1	D – Nitric Acid E – NaHSO4	P - Na2O4S Q - Na2SO3	
	Phone:	PO#: Purchase Order r	not requir						24							4	· (	F - MeOH G - Amchlor	R - Na2S2SC S - H2SO4	1
	Email:	WO#:				or No) 0) : (0		8	04 - 80								1	H - Ascorbic Acid   - Ice J - DI Water	T - TSP Dode U - Acetone V - MCAA	ecanydrate
	tpalmer@gesonline.com Project Name:	Project #:				Yes.		LM04.	st - VO							1. A.	S. 1.	K - EDTA L - EDA	W - ph 4-5 Z - other (spe	cify)
	NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Post-Ca Site:	48002525 SSOW#:				mple D. (Yei		L list C		otal							~	Other:		
	New York				Matrix	ed Si S/MS		D) TC	D) ST	- pH							ber of			
				Sample Type	(W=water, S=solid,	Field Filtered Sample (Yes.or N 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	r					2.2%	Total Number			
P	Sample Identification	Sample Date	Sample Time	(C=comp, G=grab) B													Tot	Special Ins	structions/N	lote:
Page			$> \leq$	Preservati	on Code:	$X \! \times $	D	A A	( <sup>1</sup> B	N	* 1	· .			Nor we		$\times$	A CANADA AND A CANADA AND A CANADA AND A CANADA AND A CANADA AND A CANADA AND A CANADA AND A CANADA AND A CANADA		1999 - 1999 -
916	Post-Carbon - 3	10-16-14	1345		Water		$\mathbf{x}$		<u>&lt; X</u>	<u> </u>						0	n de			
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	Possible Hazard Identification	B Unknown	n Rad	iological				oispo eturn T				Dispos			les are	Arch	nive i	onger than 1 mo	Months	
	Deliverable Requested: I, II, III, IV, Other (specify)										equiren								,	
	Empty Kit Relinquished by:		Date:			Time:							Meth		hipment					
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/28/	Relinquished by:	Date/Time:			ompany		Recei	ived by:	7	17	7	<i></i>			Date/Time				Company	
10/28/2014	Relinquished by:	Date/Time:		c	ompany	Received by: Date/Time:						<del></del>		1 1 1	Company					
4	Custody Seals Intact: Custody Seal No.	1					Coole	r Temp	erature	e(s) °C :	and Othe	r Remark	s:	<u></u>		也	1	25	) )	
	4 162 A NO											_					<u>`</u>			

### **TestAmerica Buffalo**

10-Hazelwood Drive Amherst, NY 14228-2298

Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record



TestAmeric

WE LEADER IN ENVIRONMENTAL TESTING

	Client Information	Sampler: D. RE Phone: - Balver	EDDIC.	K	Lab F Fisc	her, Bi	rian .	48	0-694	163 CI	hain of	Cusi	loay					COC 480-4	No: 43987-1170	<b>ð.1</b>	
	Client Contact Thomas Palmer	Phone: - Ralmer	(716)8	64-7268	E-Ma briar		er@te	stame	ericain	c.com								Page: Page	e 1 of 1		
	Company: Groundwater & Environmental Services Inc									Ana	lysis	Req	uest	ed				Job #			
	Address: 495 Aero Drive Suite 3	Due Date Requeste	ed:			19100 000 1911 - 222 2014 - 222 2014 - 222	X										j.		ervation Co		
	City:	TAT Requested (da	ays):												:		555	A-H B-N		M - Hexa N - None	
	Cheektowaga	10-	١.				6			7									n Acetate itric Acid	O - AsNa P - Na2O	
	State, Zip: NY, 14225	N-	an				060 (§.)		5	20							2879 91-14	E - N	aHSO4	Q - Na2S	503
	Phone: (800)287-785	PO#: Purchase Order	not requir						q	à									eon mchlor scorbic Acid	R - Na2S S - H2SC T - TSP F	
	Email: tpalmer@gesonline.com	WO #:				Ž v	j p		4	2 CHC2 LG								I - ice		U - Aceto V - MCAA	one
	Project Name:	Project#:				Yes	Metho	Ţ	R	5							iner	K-E	DTA DA	W - ph 4- Z - other	
	NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Pre-Carl					ble Vae	ocal h	letho									onta	i K-E L-E Other	-	2 00101	(opcony)
	Site: New York	SSOW#:				Field Filtered Sample (Yes or No) Bartom MS/MSD (Yes of No)	- (MOD) Local Method	- (MOD) Local Method	310.2 - Alkalinity, Total	( CLOW) STIPOS							0		•		
		4		Sample	Matrix	ered	N)	D D	alinit	3							Total Number				
		í	_	Туре	(W≂water, S=solid,	E E	280	Ĕ,	- Alk	<b>₽</b>   .							NN I	2			
σ	Sample Identification	Sample Date	Sample Time	(C=comp, G=grab)	O=waste/oil, BT=Tissue, A=Air	Field	300.0_28D -	200.7	310.2	S.							Tota	1	Special I	nstruction	ns/Note:
Page		$\mathbb{N}$	$\geq$		ition Code:	$\bowtie$		D.	N.			al hereit			5 40 6000 Geo 4140	9 XY		a di vinente		Wall Street Land	1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.
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	Possible Hazard Identification	I		1	I	<u> </u> s	ample	e Disp	osal (	( A fee	may l	be as	sesse	d if s	ample	es are	retaine	d long	er than 1 i	nonth)	
	Non-Hazard Flammable Skin Irritant Poison	B Unknow	n Rad	liological					To Cl		[			'By La	ab	L	Archiv	ve For		Months	
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1 4																					
	Custody Seals Intact: Custody Seal No.:						Cooler Temperature(s) °C and Other Remarks:						ĺ.	Ó	2.3	<u> </u>					
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Client: New York State D.E.C.

#### Login Number: 69461 List Number: 1

Creator: Stau, Brandon M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below ackground	True	
he cooler's custody seal, if present, is intact.	True	
he cooler or samples do not appear to have been compromised or ampered 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	
s the Field Sampler's name present on COC?	True	
here are no discrepancies between the sample IDs on the containers and ne 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	
ppropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
here is sufficient vol. for all requested analyses, incl. any requested /IS/MSDs	True	
/OA sample vials do not have headspace or bubble is <6mm (1/4") in liameter.	True	
i necessary, staff have been informed of any short hold time or quick TAT needs	True	
<i>Iultiphasic samples are not present.</i>	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	

List Source: TestAmerica Buffalo

Client: New York State D.E.C.

#### Login Number: 69463 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	

Job Number: 480-69461-1

List Source: TestAmerica Buffalo



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

Joeph V. Giacomaya

Authorized for release by: 12/3/2014 2:29:31 PM Joe Giacomazza, Project Management Assistant II joe.giacomazza@testamericainc.com

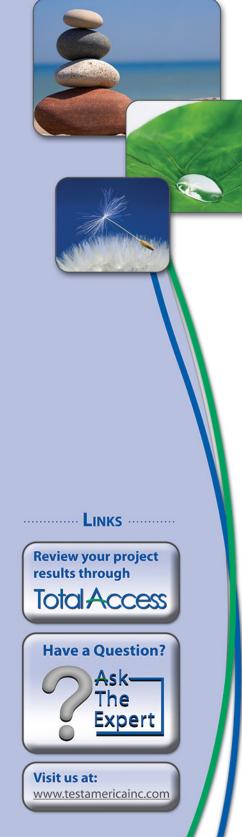
Designee for

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

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

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

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



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

Joseph V. Giacomage

Joe Giacomazza Project Management Assistant II 12/3/2014 2:29:31 PM

## **Table of Contents**

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Receipt Checklists	22

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Quali	fiers
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GC/MS VOA	N Contraction of the second second second second second second second second second second second second second	
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.	Ę
GC/MS Sem	ni 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		c c
Qualifier	Qualifier Description	
٨	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.	4
В	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.	
0		

#### **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 2.3° C and 2.7° 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: New York State D.E.C. Project/Site: NYSDEC-Gastown WWTP: Site# 915171 TestAmerica Job ID: 480-71248-1

Lab Sample ID: 480-71248-1

Matrix: Wastewater

## **Client Sample ID: Pre-Carbon** Date Collected: 11/12/14 14:10

Date Received: 11/12/14 15:45

Method: 8260C - Volatile Orga Analyte	-	Qualifier	RL	MDL	Unit	D Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		200		ug/L		11/25/14 06:55	200
1,1,2,2-Tetrachloroethane	ND		200		ug/L		11/25/14 06:55	200
1,1,2-Trichloroethane	ND		200		ug/L		11/25/14 06:55	200
1,1-Dichloroethane	ND		200		ug/L		11/25/14 06:55	200
1,1-Dichloroethene	ND		200		ug/L		11/25/14 06:55	200
1,2-Dichloroethane	ND		200		-		11/25/14 06:55	200
1,2-Dichloroethene, Total					ug/L			
, ,	ND		400		ug/L		11/25/14 06:55	200
1,2-Dichloropropane	ND		200		ug/L		11/25/14 06:55	200
2-Hexanone	ND		1000		ug/L		11/25/14 06:55	200
2-Butanone (MEK)	ND		2000		ug/L		11/25/14 06:55	200
4-Methyl-2-pentanone (MIBK)	ND		1000		ug/L		11/25/14 06:55	200
Acetone	ND		2000		ug/L		11/25/14 06:55	200
Benzene	11000		200		ug/L		11/25/14 06:55	200
Bromodichloromethane	ND		200	78	ug/L		11/25/14 06:55	200
Bromoform	ND		200		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		ug/L		11/25/14 06:55	200
trans-1,3-Dichloropropene	ND		200		ug/L		11/25/14 06:55	200
Trichloroethene	ND		200		ug/L		11/25/14 06:55	200
Vinyl chloride	ND		200	180	-		11/25/14 06:55	200
Vinyl acetate	ND		1000		•		11/25/14 06:55	200
Xylenes, Total	ND		400		ug/L		11/25/14 06:55	200
			100				120,11.00.000	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 Orga	nic Compounds	(GC)						
Analyte		Qualifier	RL	MDL	Unit	D Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		100		ug/L	<u> </u>	11/13/14 12:20	500
1,3,5-Trimethylbenzene	ND		100		ug/L		11/13/14 12:20	500
Benzene	9100		100		ug/L		11/13/14 12:20	500
Ethylbenzene	780		100		ug/L		11/13/14 12:20	500
Isopropylbenzene	ND		100		ug/L		11/13/14 12:20	500
ISUDI UD VIDEI IZEI IE					·· 3· -			000
	חוא		200	22	ua/l		11/13/14 12:20	500
Methyl tert-butyl ether m,p-Xylene	ND ND		200 200		ug/L ug/L		11/13/14 12:20 11/13/14 12:20	500 500

TestAmerica Buffalo

Client: New York State D.E.C. Project/Site: NYSDEC-Gastown WWTP: Site# 915171 TestAmerica Job ID: 480-71248-1

## Lab Sample ID: 480-71248-1 Matrix: Wastewater

Date Collected: 11/12/14 14:10 Date Received: 11/12/14 15:45

**Client Sample ID: Pre-Carbon** 

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 - Meta Analyte	als (ICP) Result	Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fac
Method: 200.7 Rev 4.4 - Meta Analyte Calcium	als (ICP) 		<b>RL</b> 500	100	ug/L	D	11/14/14 08:17	11/14/14 17:25	Dil Fac
Method: 200.7 Rev 4.4 - Meta Analyte	als (ICP) Result		<b>RL</b> 500 50.0	100 19.3	ug/L ug/L	D	11/14/14 08:17 11/14/14 08:17	11/14/14 17:25 11/14/14 17:25	Dil Fac
Method: 200.7 Rev 4.4 - Meta Analyte Calcium Iron	als (ICP) 		<b>RL</b> 500	100 19.3	ug/L	D	11/14/14 08:17	11/14/14 17:25	Dil Fac 1 1 1
Method: 200.7 Rev 4.4 - Meta Analyte Calcium	als (ICP) Result 134000 2510		<b>RL</b> 500 50.0	100 19.3 43.4	ug/L ug/L	D	11/14/14 08:17 11/14/14 08:17	11/14/14 17:25 11/14/14 17:25	Dil Fac 1 1 1 1
Method: 200.7 Rev 4.4 - Meta Analyte Calcium Iron Magnesium	als (ICP) 	•	RL 500 50.0 200	100 19.3 43.4 100	ug/L ug/L ug/L ug/L	<u> </u>	11/14/14 08:17 11/14/14 08:17 11/14/14 08:17	11/14/14 17:25 11/14/14 17:25 11/14/14 17:25	Dil Fac 1 1 1 1 1 1
Method: 200.7 Rev 4.4 - Meta Analyte Calcium Iron Magnesium Potassium	als (ICP) 	•	RL 500 50.0 200 500	100 19.3 43.4 100	ug/L ug/L ug/L ug/L	D	11/14/14 08:17 11/14/14 08:17 11/14/14 08:17 11/14/14 08:17 11/14/14 08:17	11/14/14 17:25 11/14/14 17:25 11/14/14 17:25 11/14/14 17:25	Dil Fac 1 1 1 1 1
Method: 200.7 Rev 4.4 - Meta Analyte Calcium Iron Magnesium Potassium Sodium	als (ICP) 	•	RL 500 50.0 200 500	100 19.3 43.4 100	ug/L ug/L ug/L ug/L ug/L	D	11/14/14 08:17 11/14/14 08:17 11/14/14 08:17 11/14/14 08:17 11/14/14 08:17	11/14/14 17:25 11/14/14 17:25 11/14/14 17:25 11/14/14 17:25	Dil Fac 1 1 1 1 1 Dil Fac
Method: 200.7 Rev 4.4 - Meta Analyte Calcium Iron Magnesium Potassium Sodium General Chemistry	als (ICP) 	A B	RL 500 50.0 200 500 1000	100 19.3 43.4 100 324	ug/L ug/L ug/L ug/L ug/L		11/14/14 08:17 11/14/14 08:17 11/14/14 08:17 11/14/14 08:17 11/14/14 08:17	11/14/14 17:25 11/14/14 17:25 11/14/14 17:25 11/14/14 17:25 11/14/14 17:25 11/14/14 17:25	1 1 1 1 1
Method: 200.7 Rev 4.4 - Meta Analyte Calcium Iron Magnesium Potassium Sodium General Chemistry Analyte	als (ICP) Result 134000 2510 103000 5380 80100 Result	A B	RL 500 50.0 200 500 1000 RL	100 19.3 43.4 100 324 <b>MDL</b> 5.6	ug/L ug/L ug/L ug/L Unit mg/L		11/14/14 08:17 11/14/14 08:17 11/14/14 08:17 11/14/14 08:17 11/14/14 08:17	11/14/14 17:25 11/14/14 17:25 11/14/14 17:25 11/14/14 17:25 11/14/14 17:25 11/14/14 17:25 <b>Analyzed</b>	1 1 1 1 <b>Dil Fac</b>

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

**Client Sample ID: OUTSIDE SUMP** 

Date Collected: 11/12/14 14:25

Date Received: 11/12/14 15:45

#### TestAmerica Job ID: 480-71248-1

## Lab Sample ID: 480-71248-2 Matrix: Water

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

## Client Sample ID: Post-Carbon-3

Date Collected: 11/12/14 13:45 Date Received: 11/12/14 15:45

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 C	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 *	r	4.8	0.34	ug/L		11/17/14 14:52	11/23/14 00:29	1

TestAmerica Buffalo

TestAmerica Job ID: 480-71248-1

Lab Sample ID: 480-71251-1 Matrix: Wastewater

## Client Sample ID: Post-Carbon-3 Date Collected: 11/12/14 13:45

Date Received: 11/12/14 15:45

TestAmerica Job ID: 480-71248-1

## Lab Sample ID: 480-71251-1

Matrix: Wastewater

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Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	ND 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

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

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		

TestAmerica Buffalo

Method: 608 - Organochlorine Pesticides in Water (Continued)

### **Client Sample ID: Post-Carbon-3** Date Collected: 11/12/14 13:45 Date Received: 11/12/14 15:45

TestAmerica Job ID: 480-71248-1

## Lab Sample ID: 480-71251-1 Matrix: Wastewater

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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	s (ICP)								
Analyte	• •	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	JB	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		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
THEO HANDLE PL									
Total Suspended Solids	ND		4.0	4.0	mg/L			11/17/14 17:50	1

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

## **Client Sample ID: Post-Carbon-2**

Date Collected: 11/12/14 14:00 Date Received: 11/12/14 15:45

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

Lab Sample ID: 480-71251-2 Matrix: Wastewater

TestAmerica Job ID: 480-71248-1

5

TestAmerica Buffalo

Client: New York State D.E.C. Project/Site: NYSDEC-Gastown WWTP: Site# 915171 TestAmerica Job ID: 480-71248-1

## Lab Sample ID: 480-71251-3

Matrix: Water

## Client Sample ID: Post-Carbon-1

Date Collected: 11/12/14 14:05 Date Received: 11/12/14 15:45

Method: 8021B - Volatile Org		· · ·				_			
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
Surrogate a,a,a-Trifluorotoluene	- %Recovery 108	Qualifier	Limits				Prepared	Analyzed	<b>Dil Fac</b> 100

Dilution

Factor

200

500

1

20

6

Run

Batch

Number

215746

213794

213961

214271

216989

215755

Prepared

or Analyzed

11/25/14 06:55

11/13/14 12:20

11/14/14 08:17

11/14/14 17:25

12/02/14 15:42

11/24/14 20:09

Analyst

RAS

DGB

LED

TRB

NDB

MRF

Lab

TAL BUF

TAL BUF

TAL BUF

TAL BUF

TAL BUF

TAL BUF

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

Batch

Method

8260C

8021B

200.7

300.0

310.2

200.7 Rev 4.4

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

Batch

Туре

Analysis

Analysis

Analysis

Analysis

Analysis

Client Sample ID: OUTSIDE SUMP

Prep

Date Received: 11/12/14 15:45

Prep Type

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

## Lab Sample ID: 480-71248-1 Matrix: Wastewater

Lab Sample ID: 480-71248-2

Matrix: Water

Date Collected: 11/12/14 14:25 Date Received: 11/12/14 15:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		500	213794	11/13/14 12:54	DGB	TAL BUF

## **Client Sample ID: Post-Carbon-3**

Date Collected: 11/12/14 13:45 Date Received: 11/12/14 15:45

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number or Analyzed Analyst Lab Total/NA 8260C 215604 11/24/14 11:37 GTG TAL BUF Analysis 1 3510C CPH Total/NA Prep 214525 11/17/14 14:52 TAL BUF Total/NA Analysis 8270D 215454 11/23/14 00:29 LMW TAL BUF 1 Total/NA 8021B 11/13/14 13:43 DGB TAL BUF Analysis 1 213794 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 200.7 213961 11/14/14 08:17 LED TAL BUF Prep Total/NA Analysis 200.7 Rev 4.4 1 214271 11/14/14 17:28 TRB TAL BUF Total/NA TAL BUF Prep 200.7 213961 11/14/14 08:17 LED Total/NA Analysis 200.7 Rev 4.4 1 214626 11/17/14 13:20 TRB TAL BUF Total/NA 1664A 11/15/14 13:05 KC TAL BUF Prep 214307 KC TAL BUF Total/NA Analysis 1664A 1 214311 11/15/14 13:19 Total/NA Distill/CN 215502 11/22/14 13:20 FKB TAL BUF Prep Total/NA Analysis 335.4 1 215718 11/24/14 13:45 KMF TAL BUF Total/NA Distill/Phenol 215955 11/25/14 09:30 RMZ TAL BUF Prep Total/NA 420.4 216625 12/01/14 12:58 NCH TAL BUF Analysis 1 Total/NA SM 2540C 11/18/14 16:57 RP TAL BUF Analysis 214783 1 Total/NA Analysis SM 2540D 214553 11/17/14 17:50 JMB TAL BUF 1 Total/NA Analysis SM 4500 H+ B 1 214133 11/14/14 09:38 VA.I TAL BUF Total/NA SM 5210B 213741 11/12/14 18:49 CLT TAL BUF Analysis 1

12/3/2014

### Lab Sample ID: 480-71251-1 Matrix: Wastewater

Lab Sample ID: 480-71251-3

Matrix: Water

## Lab Sample ID: 480-71251-2

Date Collected	: 11/12/14 14:0	00							Matrix: Wastewater
Date Received	: 11/12/14 15:4	5							
	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	8021B		10	213794	11/13/14 14:17	DGB	TAL BUF	_

### Client Sample ID: Post-Carbon-1 Date Collected: 11/12/14 14:05 Date Received: 11/12/14 15:45

**Client Sample ID: Post-Carbon-2** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	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

# 1 2 3 4 5 6 7 8 9 10 11

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

uthority	Program		EPA Region	Certification ID	Expiration Date
ew York	NELAP		2	10026	03-31-15
The following analytes	are included in this report, b	ut certification is not offere	ed by the governing a	uthority:	
Analysis Method	Prep Method	Matrix	Analyt	e	
8021B		Wastewater	m,p-X	ylene	
8021B		Wastewater	o-Xyle	ne	
8021B		Water	m,p-X	ylene	
8021B		Water	o-Xyle	ne	
8260C		Wastewater	1,2-Di	chloroethene, Total	
SM 4500 H+ B		Wastewater	рH		

TestAmerica Buffalo

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

Method Description

Metals (ICP)

Alkalinity

Cyanide, Total

HEM and SGT-HEM

Anions, Ion Chromatography

Phenolics, Total Recoverable

Solids, Total Dissolved (TDS)

Solids, Total Suspended (TSS)

Volatile Organic Compounds by GC/MS

Volatile Organic Compounds (GC)

Organochlorine Pesticides in Water

Semivolatile Organic Compounds (GC/MS)

Laboratory

TAL BUF

Protocol

SW846

SW846

SW846

EPA

1664A

MCAWW MCAWW

MCAWW

MCAWW

SM

SM

SM

SM

40CFR136A

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#### Protocol References:

Method

8260C

8270D

8021B

1664A

300.0

310.2

335.4

420.4

SM 2540C

SM 2540D

SM 5210B

SM 4500 H+ B

200.7 Rev 4.4

608

1664A = EPA-821-98-002

pН

BOD, 5-Day

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

Client: New York St Project/Site: NYSD	tate D.E.C. EC-Gastown WWTP: Site# 915171									
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	5					
480-71251-2	Post-Carbon-2	Wastewater	11/12/14 14:00	11/12/14 15:45	J					
480-71251-3	Post-Carbon-1	Water	11/12/14 14:05	11/12/14 15:45						
					8					
					9					

### **TestAmerica Buffalo**

# Chain of Custody Record

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THE LEADER IN ENVIRONMENTAL TESTING

10 Hazelwood Drive

Amherst, NY 14228-2298 Phone (716) 691-2600 Fax (716) 691-7991

	Phone (716) 691-2600 Pax (716) 691-7991	Sampler:	alm	-	Lab							Са	arrier T	racking	No(s):		COC No: 480-43981-	4470	4	
	Client Information			-3590	E-Ma							-					Page:		ł	
	Thomas Palmer	Unu	1066	-2210	bria	n.fische	r@te	stameric	ainc.c	com							Page 1 of 1 Job #:			
	Company: Groundwater & Environmental Services Inc								A	naly	rsis F	Reque	este	d			000 //.			
	Address: 495 Aero Drive Suite 3	Due Date Requeste	ed:													v 1/. )	Preservatio	n Cod		
	City:	TAT Requested (da	iys):			1 🔯										48964	A - HCL B - NaOH		M - Hexane N - None	1
	Cheektowaga	Ín	-dar													Sold Sold	C - Zn Acetat D - Nitric Acid		0 - AsNaO P - Na2O4	
	State, Zip: NY, 14225	10	ua	)													E - NaHSO4	•	Q - Na2SO R - Na2S2S	3
	Phone:	PO#: Purchase Order				⊖ Fleid Filtered Sample (Yes or No) Pertorm MS/MSD (Yes or No)>			5								G - Amchlor	Acid	S - H2SO4	
	Email:	WO #:	notrequir			0 0 0 0	F F		4 - 8021								I - Ice	-Ciu	U - Acetone V - MCAA	
	tpalmer@gesonline.com	Project#:				es o	ethoc	4 104.2	ļŠ							(ers	J - DI Water K - EDTA		W-ph 4-5	
	Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Qtrly Pre-Carb	48002525					cal M	Method list OLM	List	_			·			container	L-EDA		Z - other (s	pecify)
	Site: New York	SSOW#:				amp SD ()	- (MOD) Local Method	Local Method ) TCL list OLM04.2	LARS	Tota						of co				
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			Sample	(C=comp,	S=solīd, O=waste/oll,	Perfor	300.0_2	200.7 - (MOD) L 8260B - (MOD)	8021B - (MOD) STARS List - VOA	310.2 - Alkalinity, Total						Total Number				
Page	Sample Identification	Sample Date	Time	G=grab)	BT=Tissue, A=Air		N N	CONTRACTOR -				Martin		13. da 24			Spec		structions	/Note:
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12/3/2014	Relinquished by:	Date/Time:			Company			ived by:							Date/Tim	e:			Company	
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### TestAmerica Buffalo

# Chain of Custody Record



DIC ( TAGER IN ENVIRONMENTA, TEXTING

; 10 Hazelwood Drive Amherst, NY 14228-2298

#### Phone (716) 691-2600 Fax (716) 691-7991

	Client Information	Sampler.	almy		Lab f Fisc		Brian J							Carrie	er Tra	cking	No(s)	:			COC No: 480-43977-1178.	1
	Client Contact Thomas Palmer	Phone: C714	) 866-	3590	E-Ma	ail:		estame	ricair	nc.co	m									h	Page: Page 1 of 1	
	Company: Groundwater & Environmental Services Inc	1				Τ					alys	sis F			fed						Job #:	
	Address:	Due Date Request	ed:				(a)								lea					>	Preservation Cod	les:
	495 Aero Drive Suite 3 City: Cheektowaga State, Zip: NY, 14225	TAT Requested (d	ays): ) - daz																na na na na na na na na na na na na na n	CAN Start	A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4	M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3
	Phone: Email: tpalmer@gesonline.com	PO#: Purchase Order WO#:	not requir		·	s or No)	- Con		overable	04.2	VOA - 8021	Pesticides	OLM04.2	n Demand	ed Solids	lids				C. N	F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA	R - Na2S2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5
	Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Qtriy Post-Ca	Project #: 48002525				Σe	es of	ase	Rec	OLM	List -	lutant	- YO	xyger	ssolv	ed Sc				containers	L - EDA	Z - other (specify)
	Site: New York	SSÓW#:				Sample (Ye	ocal Me	Oil & Gre	cs, Tota	TOL IIst	STARS	rity Pol	TCL SV	mical O	Total DI	puedsn	, Total	- -	1	of So	Other:	
P	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	200.7 - (MOD) Local Method	1664A_Calc - C	420.4 - Phenolics, Total Recoverable	8260B - (MOD) TCL IIst OLM04.2	8021B - (MOD) STARS List - VOA - 8021	608_Pest - Priority Pollutant Pesticides		5210B - Biochemical Oxygen Demand	2540C_Catcd - Total Dissolved Solids	2540D - Total Suspended Solids	335.4 - Cyanide, Total	SM4500_H+ - pH		Total Number of	Special Ins	structions/Note:
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Client: New York State D.E.C.

### Login Number: 71248 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	

List Source: TestAmerica Buffalo

Client: New York State D.E.C.

### Login Number: 71251 List Number: 1

Creator: Robison, Zachary J

Answer	Comment
True	
True	GES
True	
N/A	
N/A	
	True True True True True True True True

List Source: TestAmerica Buffalo



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

Joeph V. Giacomaya

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

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

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

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



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

> 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.

Joseph V. Giacomage

Joe Giacomazza Project Management Assistant II 1/7/2015 10:14:47 AM

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

# Qualifiers

Qualifiers		3
GC VOA		1
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.	5
General Ch	emistry	
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 2.3° C and 2.5° 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: New York State D.E.C. Project/Site: NYSDEC-Gastown WWTP: Site# 915171 TestAmerica Job ID: 480-73351-1

Lab Sample ID: 480-73351-1

Matrix: Wastewater

# Client Sample ID: Pre-Carbon

Date Collected: 12/19/14 13:20 Date Received: 12/19/14 13:50

Method: 200.7 Rev 4.4 - Metals	S (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

## Lab Sample ID: 480-73351-2 Matrix: Water

Date Collected: 12/19/14 13:30 Date Received: 12/19/14 13:50

**Client Sample ID: Outside Sump** 

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

## **Client Sample ID: Post-Carbon 3**

Date Collected: 12/19/14 13:00 Date Received: 12/19/14 13:50

Method: 8260C - Volatile Orga		-			11	~	Duenersel	A	D2 5-
Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	•			12/31/14 02:42	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/31/14 02:42	1
1,1,2-Trichloroethane	ND		1.0		ug/L			12/31/14 02:42	1
1,1-Dichloroethane	ND		1.0		ug/L			12/31/14 02:42	1
1,1-Dichloroethene	ND		1.0		ug/L			12/31/14 02:42	1
1,2-Dichloroethane	ND		1.0		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		ug/L			12/31/14 02:42	1
Chloroethane	ND		1.0		ug/L			12/31/14 02:42	1
Chloroform	1.4		1.0		ug/L			12/31/14 02:42	1
Chloromethane	ND		1.0		ug/L			12/31/14 02:42	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/31/14 02:42	1
Ethylbenzene	ND		1.0		ug/L			12/31/14 02:42	1
Methylene Chloride	ND		1.0		ug/L			12/31/14 02:42	1
Styrene	ND		1.0		ug/L			12/31/14 02:42	1
Tetrachloroethene	ND		1.0		ug/L			12/31/14 02:42	
Toluene	ND		1.0	0.51	-			12/31/14 02:42	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			12/31/14 02:42	1
Trichloroethene			1.0					12/31/14 02:42	
	ND				ug/L				1
Vinyl chloride	ND		1.0		ug/L			12/31/14 02:42	1
Vinyl acetate	ND ND		5.0 2.0		ug/L ug/L			12/31/14 02:42 12/31/14 02:42	1
Xylenes, Total	ND		2.0	0.00	ug/L			12/31/14 02.42	I
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 Orga	nic Compounds	(GC)							
Analyte		Qualifier	RL		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

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
			U U	

TestAmerica Job ID: 480-73351-1

TestAmerica Buffalo

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

### Client Sample ID: Post-Carbon 3 Date Collected: 12/19/14 13:00

Date Received: 12/19/14 13:50

рΗ

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	s (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
all		115	0.100	0.100	011			10/00/14 14:00	1

0.100

7.57 HF

0.100 SU

Lab Sample ID: 480-73352-1

12/22/14 14:29

1

Matrix: Wastewater

TestAmerica Buffalo

Client: New York State D.E.C. Project/Site: NYSDEC-Gastown WWTP: Site# 915171 TestAmerica Job ID: 480-73351-1

Lab Sample ID: 480-73352-2

Matrix: Water

## Client Sample ID: Post-Carbon 2

Date Collected: 12/19/14 13:05 Date Received: 12/19/14 13:50

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

Lab Sample ID: 480-73352-3

Matrix: Water

## **Client Sample ID: Post-Carbon 1**

Date Collected: 12/19/14 13:10 Date Received: 12/19/14 13:50

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 Chro	onicie				
	rk State D.E.C. /SDEC-Gastov	wn WWTP: Site# 9	15171					TestAmerica J	ob ID: 480-73351-1
lient Samp	le ID: Pre-Ca	arbon						Lab Sample	ID: 480-73351-1
	: 12/19/14 13:2								Matrix: Wastewater
	: 12/19/14 13:5								
-	Batch	Batch		Dilution	Batch	Bronarod			
Prep Type	Batch Type	Method	Run	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	
-	/ maryore	010.2		10	221112	12/01/11/10.0.			
lient Samp	le ID: Outsid	de Sump						Lah Sample	ID: 480-73351-2
	: 12/19/14 13:3	•						Lab Gampie	Matrix: Water
	: 12/19/14 13:3 : 12/19/14 13:5								Widlin, water
-									
	Batch	Batch	_	Dilution	Batch	Prepared			
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst		
Total/NA	Analysis	8021B		500	220333	12/22/14 19:17	DGB	TAL BUF	
ate Collected	le ID: Post-0 : 12/19/14 13:0 : 12/19/14 13:5	00							ID: 480-73352-1 Matrix: Wastewater
ate Collected	: 12/19/14 13:0 : 12/19/14 13:5	00 50		Dilution	Batch	Propared			
Date Collected	: 12/19/14 13:0 : 12/19/14 13:5 Batch	00	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	-	
ate Collected	: 12/19/14 13:0 : 12/19/14 13:5	00 50 Batch	Run			Prepared or Analyzed 12/31/14 02:42	Analyst RAS		
Date Collected Date Received Prep Type Total/NA	: 12/19/14 13:0 : 12/19/14 13:5 Batch Type Analysis	00 50 Batch <u>Method</u> 8260C	Run	Factor	Number 221272	or Analyzed		Lab TAL BUF	
Date Collected Date Received: Prep Type Total/NA Total/NA	: 12/19/14 13:0 : 12/19/14 13:5 Batch Type Analysis Analysis	00 50 Batch 8260C 8021B	Run	1	Number 221272 220333	or Analyzed 12/31/14 02:42 12/22/14 19:51	RAS DGB	Lab TAL BUF	
Prep Type Total/NA Total/NA Total/NA	: 12/19/14 13:0 : 12/19/14 13:5 Batch <u>Type</u> Analysis Analysis Prep	00 50 Batch 8260C 8021B 200.7	Run	Factor 1 1	Number           221272           220333           220362	or Analyzed 12/31/14 02:42 12/22/14 19:51 12/22/14 09:25	RAS DGB TAS	Lab TAL BUF TAL BUF TAL BUF	
Prep Type Total/NA Total/NA Total/NA Total/NA	: 12/19/14 13:0 : 12/19/14 13:5 Batch Type Analysis Analysis Prep Analysis	00 50 Batch 8260C 8021B 200.7 200.7 Rev 4.4	Run	1	Number           221272           220333           220362           220773	or Analyzed 12/31/14 02:42 12/22/14 19:51 12/22/14 09:25 12/23/14 14:05	RAS DGB TAS JRK	Lab TAL BUF TAL BUF TAL BUF TAL BUF	
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Prep Type Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Client Samp Date Collected Date Received: Prep Type Total/NA	: 12/19/14 13:0 : 12/19/14 13:5 Batch Type Analysis Prep Analysis Prep Analysis Prep Analysis Ie ID: Post-C : 12/19/14 13:5 Batch Type Analysis	00         50         Batch         Method         8260C         8021B         200.7         200.7 Rev 4.4         Distill/CN         335.4         SM 4500 H+ B		Factor 1 1 1 1 1 1 1 1 Dilution Factor	Number           221272           220333           220362           220773           220617           220709           220477           Batch           Number	or Analyzed 12/31/14 02:42 12/22/14 19:51 12/22/14 09:25 12/23/14 14:05 12/23/14 11:23 12/23/14 11:23 12/22/14 14:29 Prepared or Analyzed	RAS DGB TAS JRK EKB RS KMF	Lab TAL BUF TAL BUF TAL BUF TAL BUF TAL BUF TAL BUF Lab Sample	Matrix: Wastewater ID: 480-73352-2 Matrix: Water
Prep Type Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Client Samp Total/NA Client Samp	: 12/19/14 13:0 : 12/19/14 13:5 Batch Type Analysis Prep Analysis Prep Analysis Analysis Ie ID: Post-C : 12/19/14 13:5 Batch Type Analysis Ie ID: Post-C	Batch           Method           8260C           8021B           200.7           200.7 Rev 4.4           Distill/CN           335.4           SM 4500 H+ B           Carbon 2           05           60           Batch           Method           8021B		Factor 1 1 1 1 1 1 1 1 Dilution Factor	Number           221272           220333           220362           220773           220617           220709           220477           Batch           Number	or Analyzed 12/31/14 02:42 12/22/14 19:51 12/22/14 09:25 12/23/14 14:05 12/23/14 11:23 12/23/14 11:23 12/22/14 14:29 Prepared or Analyzed	RAS DGB TAS JRK EKB RS KMF	Lab TAL BUF TAL BUF TAL BUF TAL BUF TAL BUF TAL BUF Lab Sample	Matrix: Wastewater ID: 480-73352-2 Matrix: Water ID: 480-73352-3
Prep Type Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Client Samp Total/NA Client Samp Total/NA	: 12/19/14 13:0 : 12/19/14 13:5 Batch Type Analysis Prep Analysis Prep Analysis Analysis Ie ID: Post-C : 12/19/14 13:5 Ie ID: Post-C : 12/19/14 13:1	Batch           Method           8260C           8021B           200.7           200.7 Rev 4.4           Distill/CN           335.4           SM 4500 H+ B           Carbon 2           05           60           Batch           Method           8021B           Carbon 2           05           60           Carbon 1           10		Factor 1 1 1 1 1 1 1 1 Dilution Factor	Number           221272           220333           220362           220773           220617           220709           220477           Batch           Number	or Analyzed 12/31/14 02:42 12/22/14 19:51 12/22/14 09:25 12/23/14 14:05 12/23/14 11:23 12/23/14 11:23 12/22/14 14:29 Prepared or Analyzed	RAS DGB TAS JRK EKB RS KMF	Lab TAL BUF TAL BUF TAL BUF TAL BUF TAL BUF TAL BUF Lab Sample	Matrix: Wastewater ID: 480-73352-2 Matrix: Water
Prep Type Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Total/NA Client Samp Total/NA Client Samp Total/NA	: 12/19/14 13:0 : 12/19/14 13:5 Batch Type Analysis Prep Analysis Prep Analysis Analysis Ie ID: Post-C : 12/19/14 13:5 Batch Type Analysis Ie ID: Post-C	Batch           Method           8260C           8021B           200.7           200.7 Rev 4.4           Distill/CN           335.4           SM 4500 H+ B           Carbon 2           05           60           Batch           Method           8021B           Carbon 2           05           60           Carbon 1           10		Factor 1 1 1 1 1 1 1 1 Dilution Factor	Number           221272           220333           220362           220773           220617           220709           220477           Batch           Number	or Analyzed 12/31/14 02:42 12/22/14 19:51 12/22/14 09:25 12/23/14 14:05 12/23/14 11:23 12/23/14 11:23 12/22/14 14:29 Prepared or Analyzed	RAS DGB TAS JRK EKB RS KMF	Lab TAL BUF TAL BUF TAL BUF TAL BUF TAL BUF TAL BUF Lab Sample	Matrix: Wastewater ID: 480-73352-2 Matrix: Water ID: 480-73352-3

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	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

# 2 3 4 5 6 7 8 9 10 11

Laboratory: TestAmerica Buffalo

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

uthority		Program	E	PA Region	Certification ID	Expiration Date
lew York		NELAP	2		10026	03-31-15
The following analytes	are included in this	report, but certification	s not offered by t	he governing au	thority:	
Analysis Method	Prep Metho	od Matri	x	Analyte		
8021B		Wast	ewater	m,p-Xyle	ene	
8021B		Wast	ewater	o-Xylene		
8021B		Wate	r	m,p-Xyle	ene	
8021B		Wate	r	o-Xylene	e	
8260C		Wast	ewater	1,2-Dich	loroethene, Total	
SM 4500 H+ B		Wast	ewater	Нq		

TestAmerica Buffalo

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

Method Description

Metals (ICP)

Cyanide, Total

EPA = US Environmental Protection Agency

Alkalinity

pН

Volatile Organic Compounds by GC/MS

Volatile Organic Compounds (GC)

Anions, Ion Chromatography

Laboratory

TAL BUF

Protocol

SW846

SW846

MCAWW

MCAWW

MCAWW

EPA

SM

5
0

8 9 10

#### 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.

Protocol References:

Method

8260C

8021B

300.0

310.2

335.4

200.7 Rev 4.4

SM 4500 H+ B

#### Laboratory References:

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

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

Sample Summary

Client: New York State D.E.C. Project/Site: NYSDEC-Gastown WWTP: Site# 915171 TestAmerica Job ID: 480-73351-1

ab Sample ID	Client Sample ID	Matrix	Collected	Received
80-73351-1	Pre-Carbon	Wastewater	12/19/14 13:20	12/19/14 13:50
80-73351-2	Outside Sump	Water	12/19/14 13:30	12/19/14 13:50
80-73352-1	Post-Carbon 3	Wastewater	12/19/14 13:00	12/19/14 13:50
80-73352-2	Post-Carbon 2	Water	12/19/14 13:05	12/19/14 13:50
80-73352-3	Post-Carbon 1	Water	12/19/14 13:10	12/19/14 13:50

#### **TestAmerica Buffalo** 10 naze<sup>1</sup> - ----

Amhers

# Chain of Custody Record



01

Amhers Phone	,		<i>(</i>													THE LEADER IN ENVIRONMENTAL TEXTERS	
Clien	Sampler: With	Ven	<u>ン</u>		ner, Bri	an J					Carrier	Trackin	g No(s):			COC No: 480-43988-1176.	1
Client C Hain of Custody -	Phone:	-		E-Mai brian	-	r@tes	tamerî	cainc.co	om							Page: Page 1 of 1	
								A	nalysis	Req	ueste	ed				Job#:	
Address: 495 Aero Drive Suite 3	Due Date Request	ed:						802								Preservation Cod	M - Hexane
City: Cheektowaga	TAT Requested (da	ays):						r von								B - NaOH C - Zn Acetate	N - None O - AsNaO2
State, Zip: NY, 14225	57.8	1)						b vi								D - Nitric Acid E - NaHSO4	P - Na2O4S Q - Na2SO3
Phone:	PO#: Purchase Order	not requir						4.54								F - MeOH G - Amchlor H - Ascorbic Acid	R - Na2S2SO3 S - H2SO4 T - TSP Dodecahydrate
Email: tpalmer@gesonline.com	WO #:	••••••••••••••••••••••••••••••••••••••			or No) lo)	g		Sterl							8	I - Ice J - DI Water	U - Acetone V - MCAA
Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Pre-Carl	Project#: 48002525			_	le (Yes or h es or No)	l Meth	hođ	15 (							alners	K - EDTA L - EDA	W - ph 4-5 Z - other (specify)
Site: New York	SSOW#:					) Loca	Total	(uon)							of contain	Other:	
			Sample	Matrix	Field Filtered Samp Perform MS/MSD (Y	300.0_28D - (MOD) Local Method	200.7 - (MOD) Local Method	(m			j						
		Sample	Type (C=comp,	(W=water, S=solid,	d Filte form 1	0_28D	7 - (MC	80216							Total Number		
Sample Identification	Sample Date	Time	G=grab)	O=waste/oil, BT=Tissue, A=Air)	Field				1.764107/0111	1.		* 2104		100 to 1	Tot	Special Ins	structions/Note:
		$\sim$		tion Code:	AX	N	DN				<u> </u>			<u> </u>	$-\mathbf{X}$	Sector And And	
Pre-Carbon	12/19	1320	G	Water	NN	4	//			+		_	+	_			
Outside sump	12/19	1330	G	uster	NN					+							
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Possible Hazard Identification	L				Sa	mple i	Dispos	sal ( A 1	fee may	be ass	essed	if sa	nples	are re	. 1 2	l I longer than 1 mc	onth)
Non-Hazard Flammable Skin Irritant Poison	B Unknown	n Rad	iological				turn To	Client		Z bis	oosal i	By Lab			Archive	e For	Months
Deliverable Requested: I, II, III, IV, Other (specify)					Sp	ecial li	nstruct	ions/QC	Require	ements							
Empty Kit Relinquished by:	/	Date:		Componi	Time:		ved by.	<u></u>	<del></del>	/	М	ethod o	f Shipm		-/		Company
Relinguished by	Date/Time:	114 1	350	Company	·		_ (	N	-4				Date/	<u> </u>	114	1350	Company
Relinquished by:	Date/Time: * /			Company			ved by:		/				Date/		_		Company
Relinquished by:	Date/Time:			Company		Recei	ved by:						Date/				Company
Custody Seals Intact: Custody Seal No. Δ Yes Δ No						Coolei	r Tempe	rature(s)	°C and Ot	ther Rem	arks:			+;	Э.	23	

1/7/2015

### TestÁmerica Buffalo

# Chain of Custody Record



THE LOADER IN ENDERGHEADSTAL TERTING

10 Kazelwood Drive ۲ Amherst, NY 14228-2298 Phone (716) 691-2600 Eax (716) 691-7991

	Phone (716) 691-2600 Fax (716) 691-7991		/		li ah E	15.6.				_		10	mine T	nokina	No(c):			COC No:	
	Client Information	1-11-10-0					er, Brian J											480-43996-1177	.1
	Client Contact: Thomas Palmer	Phone: É-Mail: brian.f					ischer@testamericainc.com											Page: Page 1 of 1	
	Company: Groundwater & Environmental Services Inc						Analysis Rec						quested					Job#.	
	Address:	Due Date Requested:				22			Τ			Ť	İΤ					Preservation Co	des:
	495 Aero Drive Suite 3 City:	TAT Requested (days):															9 81 19 19 19 19	A - HCL B - NaOH	M - Hexane N - None
	Cheektowaga	- III				Field: Filtered Sarhple (Yes or No)											C - Zn Acetate D - Nitric Acid	O - AsNaO2 P - Na2O4S	
	State, Zip: NY, 14225	$\supset U$														00	E - NaHSO4 F - MeOH	Q - Na2SO3 R - Na2S2SO3	
	Phone:	PO#. Purchase Order not requir						- 8021							G - Amchlor H - Ascorbic Acid	S - H2SO4 T - TSP Dodecahydrate			
	Email: tpalmer@gesonline.com	WO #.													I - Ice J - Di Water	U - Acetone V - MCAA			
	Project Name: NYSDEC - Gastown WWTP/Gastown Event Desc: Mthly Post-Ca	Project#: 48002525				e (Yei		8260B - (MOD) TCL list OLM04.2 8021B - (MOD) STARS List - VOA								containe	K - EDTA L - EDA	W - ph 4-5 Z - other (specify)	
	Site: New York	SSOW#:				ampi (V)		CL list	<b>Fotal</b>									Other:	
				Comula	Matrix	sins			nide,	H							ber	×	
				Sample Type	(W=water, S≍solid,	Filte rm N	- Iron	W)	335.4 - Cyanide, Total	SM4500_H+ - pH							Total Number of		
_	Sample Identification	Sample Date	Sample Time	(C=comp, G=grab)	O=waste/oil, BT=Tissue, A=Air )	Field	200.7 - Iron	8260E 8021E	336.4	SM45							Tota	Special In	structions/Note:
Page	Sample Identification		>		tion Code:		D /	A.,	B	N	約1807 11 110 1		a est	消费的		and fall the		A STREET STREET	and the second second second second second second second second second second second second second second second
ge 1	Post-Carbon - 3	12/19/14	1300	6	Water	NY	/	17	1	1							÷		
17 o	Postcorbon-2	12/19/14	1305	G	hoder			X											
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	480-73352 Chain of Custody																		
		г <u></u>															85.4 87		
																		4	
	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 Inknown Radiological						Return To Client Disposal By Lab Archive For Months Special Instructions/QC Requirements:							_ Months					
							Lathod of Chipmont												
	Relinquished by:	Date (Time)				Received by				1					sli	4 1350	Company		
1/5	Relinquished by:	Date/Time: Compar				Received by:									Date/Time:			Company	
1/7/2015	Relinquished by:	Date/Time: Company					Received by:					Date/Time:					Company		
<u>U</u>	Custody Seals Intact: Custody Seal No.:						Cooler Temperature(s) °C and Other Remarks:					2	#2 2,5						
	Δ Yes Δ No																		
																		<u></u>	<b></b>

Page 17 of 19

Client: New York State D.E.C.

### Login Number: 73351 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	

Job Number: 480-73351-1

List Source: TestAmerica Buffalo

Client: New York State D.E.C.

### Login Number: 73352 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	

Job Number: 480-73351-1

List Source: TestAmerica Buffalo