# FORMER GASTOWN MGP SITE SITE NO. 915171

# 2018 LAB REPORTS FOR THE GROUNDWATER COLLECTION & TREATMENT SYSTEM





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: 480-130618-1

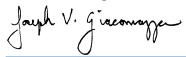
Client Project/Site: Gastown WWTP #915171

Sampling Event: Monthly

#### For:

New York State D.E.C. 625 Broadway 11th Floor Albany, New York 12233-3256

Attn: Mr. Doug K MacNeal



Authorized for release by: 1/31/2018 3:39:10 PM

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**Visit us at:** www.testamericainc.com

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

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

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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. Gireonoger

Joe Giacomazza Project Management Assistant II 1/31/2018 3:39:10 PM Client: New York State D.E.C. Project/Site: Gastown WWTP #915171 TestAmerica Job ID: 480-130618-1

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## **Definitions/Glossary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-130618-1

#### **Qualifiers**

#### **GC VOA**

Qualifier	Qualifier Description

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **General Chemistry**

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
F1	MS and/or MSD Recovery is outside acceptance limits.

# Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
п	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
DI	Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC Decision Level Concentration (Radiochemistry)

Editor Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE)

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

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 (Radiochemistry)

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)

TestAmerica Buffalo

1/31/2018

#### **Case Narrative**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-130618-1

Job ID: 480-130618-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-130618-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 1/26/2018 11:35 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 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 (480-130618-2). 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.

#### **GC VOA**

Method(s) 8021B: The following samples were diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-130618-2), Post-Carbon 1 (480-130618-4) and OUTSIDE SUMP (480-130618-5). 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 has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Post-Carbon 3 (480-130618-1).

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

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Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

Lab Sample ID: 480-130618-1

**Matrix: Wastewater** 

**Client Sample ID: Post-Carbon 3** Date Collected: 01/26/18 10:15

Date Received: 01/26/18 11:35

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			01/28/18 11:37	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			01/28/18 11:37	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			01/28/18 11:37	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			01/28/18 11:37	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			01/28/18 11:37	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			01/28/18 11:37	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			01/28/18 11:37	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			01/28/18 11:37	1
2-Hexanone	ND		5.0	1.2	ug/L			01/28/18 11:37	1
2-Butanone (MEK)	ND		10	1.3	ug/L			01/28/18 11:37	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			01/28/18 11:37	1
Acetone	ND		10	3.0	ug/L			01/28/18 11:37	1
Benzene	ND		1.0	0.41	ug/L			01/28/18 11:37	1
Bromodichloromethane	ND		1.0	0.39	ug/L			01/28/18 11:37	1
Bromoform	ND		1.0	0.26	ug/L			01/28/18 11:37	1
Bromomethane	ND		1.0	0.69	ug/L			01/28/18 11:37	1
Carbon disulfide	ND		1.0	0.19	ug/L			01/28/18 11:37	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			01/28/18 11:37	1
Chlorobenzene	ND		1.0	0.75	ug/L			01/28/18 11:37	1
Dibromochloromethane	ND		1.0	0.32	ug/L			01/28/18 11:37	1
Chloroethane	ND		1.0	0.32	ug/L			01/28/18 11:37	1
Chloroform	ND		1.0	0.34	ug/L			01/28/18 11:37	1
Chloromethane	ND		1.0	0.35	ug/L			01/28/18 11:37	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			01/28/18 11:37	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/28/18 11:37	1
Methylene Chloride	ND		1.0	0.44	ug/L			01/28/18 11:37	1
Styrene	ND		1.0	0.73	ug/L			01/28/18 11:37	1
Tetrachloroethene	ND		1.0	0.36	ug/L			01/28/18 11:37	1
Toluene	ND		1.0	0.51	ug/L			01/28/18 11:37	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			01/28/18 11:37	1
Trichloroethene	ND		1.0	0.46	ug/L			01/28/18 11:37	1
Vinyl chloride	ND		1.0		ug/L			01/28/18 11:37	1
Vinyl acetate	ND		5.0	0.85	ug/L			01/28/18 11:37	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/28/18 11:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		77 - 120		01/28/18 11:37	1
Toluene-d8 (Surr)	103		80 - 120		01/28/18 11:37	1
4-Bromofluorobenzene (Surr)	106		73 - 120		01/28/18 11:37	1

Method: 8021B -	Volatile Organic	Compounds	(GC)
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		,							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			01/30/18 14:07	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			01/30/18 14:07	1
Benzene	ND		0.20	0.023	ug/L			01/30/18 14:07	1
Ethylbenzene	ND		0.20	0.029	ug/L			01/30/18 14:07	1
Isopropylbenzene	ND		0.20	0.027	ug/L			01/30/18 14:07	1
Methyl tert-butyl ether	ND		0.40	0.044	ug/L			01/30/18 14:07	1
m,p-Xylene	ND		0.40	0.054	ug/L			01/30/18 14:07	1
n-Butylbenzene	ND		0.20	0.031	ug/L			01/30/18 14:07	1

TestAmerica Buffalo

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Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-130618-1

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

Lab Sample ID: 480-130618-1

**Matrix: Wastewater** 

Date Collected: 01/26/18 10:15 Date Received: 01/26/18 11:35

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	ND		0.20	0.13	ug/L			01/30/18 14:07	1
o-Xylene	ND		0.20	0.027	ug/L			01/30/18 14:07	1
p-Cymene	ND		0.20	0.030	ug/L			01/30/18 14:07	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			01/30/18 14:07	1
Toluene	ND		0.20	0.036	ug/L			01/30/18 14:07	1
Xylenes, Total	ND		0.60	0.054	ug/L			01/30/18 14:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	109		63 - 129					01/30/18 14:07	1
4-Bromofluorobenzene	104		64 - 128					01/30/18 14:07	1
Method: 200.7 Rev 4.4 - Metals	s (ICP)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	143		50.0	19.3	ug/L		01/29/18 09:42	01/29/18 20:48	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.14	F1	0.010	0.0050	mg/L		01/30/18 04:27	01/30/18 11:57	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7	HF	0.1	0.1	SU			01/29/18 11:14	1
•									

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-130618-1

Lab Sample ID: 480-130618-2

**Matrix: Wastewater** 

# Client Sample ID: Pre-Carbon

Date Collected: 01/26/18 10:30 Date Received: 01/26/18 11:35

Alkalinity, Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	7.9	J	20	3.5	ug/L			01/30/18 11:58	100
1,3,5-Trimethylbenzene	ND		20	15	ug/L			01/30/18 11:58	100
Benzene	2700		20	2.3	ug/L			01/30/18 11:58	100
Ethylbenzene	140		20	2.9	ug/L			01/30/18 11:58	100
Isopropylbenzene	ND		20	2.7	ug/L			01/30/18 11:58	100
Methyl tert-butyl ether	ND		40	4.4	ug/L			01/30/18 11:58	100
m,p-Xylene	82		40	5.4	ug/L			01/30/18 11:58	100
n-Butylbenzene	ND		20	3.1	ug/L			01/30/18 11:58	100
n-Propylbenzene	ND		20	13	ug/L			01/30/18 11:58	100
o-Xylene	53		20	2.7	ug/L			01/30/18 11:58	100
p-Cymene	ND		20	3.0	ug/L			01/30/18 11:58	100
sec-Butylbenzene	ND		20	2.0	ug/L			01/30/18 11:58	100
Toluene	420		20	3.6	ug/L			01/30/18 11:58	100
Xylenes, Total	140		60	5.4	ug/L			01/30/18 11:58	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	108		63 - 129					01/30/18 11:58	100
4-Bromofluorobenzene	103		64 - 128					01/30/18 11:58	100
- Method: 200.7 Rev 4.4 - Meta	ıls (ICP)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	138000		500	100	ug/L		01/29/18 09:42	01/29/18 21:02	1
Iron	263		50.0	19.3	ug/L		01/29/18 09:42	01/29/18 21:02	1
Magnesium	49400		200	43.4	ug/L		01/29/18 09:42	01/29/18 21:02	1
Potassium	3650		500	100	ug/L		01/29/18 09:42	01/29/18 21:02	1
Sodium	77100		1000	324	ug/L		01/29/18 09:42	01/29/18 21:02	1
-									
General Chemistry									
	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
General Chemistry Analyte Chloride	Result 171	Qualifier	RL	MDL 1.4	Unit mg/L	<u>D</u>	Prepared	Analyzed 01/30/18 15:06	Dil Fac

50.0

20.0 mg/L

395

01/29/18 10:12

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-130618-1

Lab Sample ID: 480-130618-3

**Matrix: Wastewater** 

Client Sample ID: Post-Carbon 2

Date Collected: 01/26/18 10:20 Date Received: 01/26/18 11:35

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			01/30/18 14:39	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			01/30/18 14:39	1
Benzene	0.057	J	0.20	0.023	ug/L			01/30/18 14:39	1
Ethylbenzene	ND		0.20	0.029	ug/L			01/30/18 14:39	1
Isopropylbenzene	ND		0.20	0.027	ug/L			01/30/18 14:39	1
Methyl tert-butyl ether	0.21	J	0.40	0.044	ug/L			01/30/18 14:39	1
m,p-Xylene	ND		0.40	0.054	ug/L			01/30/18 14:39	1
n-Butylbenzene	ND		0.20	0.031	ug/L			01/30/18 14:39	1
n-Propylbenzene	ND		0.20	0.13	ug/L			01/30/18 14:39	1
o-Xylene	ND		0.20	0.027	ug/L			01/30/18 14:39	1
p-Cymene	ND		0.20	0.030	ug/L			01/30/18 14:39	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			01/30/18 14:39	1
Toluene	ND		0.20	0.036	ug/L			01/30/18 14:39	1
Xylenes, Total	ND		0.60	0.054	ug/L			01/30/18 14:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	102		63 - 129			-		01/30/18 14:39	1
4-Bromofluorobenzene	101		64 - 128					01/30/18 14:39	1

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Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-130618-1

Lab Sample ID: 480-130618-4

Matrix: Water

Client Sample ID: Post-Carbon 1

Date Collected: 01/26/18 10:25 Date Received: 01/26/18 11:35

Method: 8021B - Volatile Organists	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		20	3.5	ug/L			01/30/18 13:02	100
1,3,5-Trimethylbenzene	ND		20	15	ug/L			01/30/18 13:02	100
Benzene	860		20	2.3	ug/L			01/30/18 13:02	100
Ethylbenzene	31		20	2.9	ug/L			01/30/18 13:02	100
Isopropylbenzene	ND		20	2.7	ug/L			01/30/18 13:02	100
Methyl tert-butyl ether	ND		40	4.4	ug/L			01/30/18 13:02	100
m,p-Xylene	16	J	40	5.4	ug/L			01/30/18 13:02	100
n-Butylbenzene	ND		20	3.1	ug/L			01/30/18 13:02	100
n-Propylbenzene	ND		20	13	ug/L			01/30/18 13:02	100
o-Xylene	9.7	J	20	2.7	ug/L			01/30/18 13:02	100
p-Cymene	ND		20	3.0	ug/L			01/30/18 13:02	100
sec-Butylbenzene	ND		20	2.0	ug/L			01/30/18 13:02	100
Toluene	87		20	3.6	ug/L			01/30/18 13:02	100
Xylenes, Total	26	J	60	5.4	ug/L			01/30/18 13:02	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	101		63 - 129			-		01/30/18 13:02	100
4-Bromofluorobenzene	100		64 - 128					01/30/18 13:02	100

1/31/2018

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-130618-1

Lab Sample ID: 480-130618-5

01/30/18 13:35

Matrix: Water

Client Sample ID: OUTSIDE SUMP Date Collected: 01/26/18 10:40

Date Received: 01/26/18 11:35

4-Bromofluorobenzene

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		100	17	ug/L			01/30/18 13:35	500
1,3,5-Trimethylbenzene	ND		100	75	ug/L			01/30/18 13:35	500
Benzene	3700		100	12	ug/L			01/30/18 13:35	500
Ethylbenzene	270		100	14	ug/L			01/30/18 13:35	500
Isopropylbenzene	ND		100	14	ug/L			01/30/18 13:35	500
Methyl tert-butyl ether	ND		200	22	ug/L			01/30/18 13:35	500
m,p-Xylene	110	J	200	27	ug/L			01/30/18 13:35	500
n-Butylbenzene	ND		100	15	ug/L			01/30/18 13:35	500
n-Propylbenzene	ND		100	65	ug/L			01/30/18 13:35	500
o-Xylene	54	J	100	14	ug/L			01/30/18 13:35	500
p-Cymene	ND		100	15	ug/L			01/30/18 13:35	500
sec-Butylbenzene	ND		100	10	ug/L			01/30/18 13:35	500
Toluene	560		100	18	ug/L			01/30/18 13:35	500
Xylenes, Total	160	J	300	27	ug/L			01/30/18 13:35	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene			63 - 129			-		01/30/18 13:35	500

64 - 128

112

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Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

Lab Sample ID: 480-130618-1

Lab Sample ID: 480-130618-2

Lab Sample ID: 480-130618-3

Lab Sample ID: 480-130618-4

**Matrix: Wastewater** 

**Matrix: Wastewater** 

**Matrix: Water** 

**Matrix: Wastewater** 

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

Date Collected: 01/26/18 10:15 Date Received: 01/26/18 11:35

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	397622	01/28/18 11:37	AMM	TAL BUF
Total/NA	Analysis	8021B		1	397853	01/30/18 14:07	JLS	TAL BUF
Total/NA	Prep	200.7			397672	01/29/18 09:42	SMF	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	397906	01/29/18 20:48	LMH	TAL BUF
Total/NA	Prep	Distill/CN			397837	01/30/18 04:27	BEV	TAL BUF
Total/NA	Analysis	335.4		1	397959	01/30/18 11:57	MDL	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	397756	01/29/18 11:14	DSC	TAL BUF

Client Sample ID: Pre-Carbon

Date Collected: 01/26/18 10:30

Date Received: 01/26/18 11:35

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		100	397853	01/30/18 11:58	JLS	TAL BUF
Total/NA	Prep	200.7			397672	01/29/18 09:42	SMF	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	397906	01/29/18 21:02	LMH	TAL BUF
Total/NA	Analysis	300.0		5	397932	01/30/18 15:06	CLA	TAL BUF
Total/NA	Analysis	310.2		5	397766	01/29/18 10:12	ALZ	TAL BUF

Client Sample ID: Post-Carbon 2

Date Collected: 01/26/18 10:20

Date Received: 01/26/18 11:35

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B			397853	01/30/18 14:39	JLS	TAL BUF

Client Sample ID: Post-Carbon 1

Date Collected: 01/26/18 10:25

Date Received: 01/26/18 11:35

۱		Batch	Batch		Dilution	Batch	Prepared		
۱	Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
1	Total/NA	Analysis	8021B		100	397853	01/30/18 13:02	JLS	TAL BUF

Lab Sample ID: 480-130618-5
Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		500	397853	01/30/18 13:35	JLS	TAL BUF

#### **Laboratory References:**

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

TestAmerica Buffalo

# **Accreditation/Certification Summary**

Client: New York State D.E.C. TestAmerica Job ID: 480-130618-1

Project/Site: Gastown WWTP #915171

#### **Laboratory: TestAmerica Buffalo**

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

Authority	Program		EPA Region	Identification Number	Expiration Date
lew York	NELAP		2	10026	03-31-18 *
The following analytes	are included in this report, but a	accreditation/certification	on is not offered by th	e governing authority:	
Analysis Method	Prep Method	Matrix	Analyt	е	
8021B		Wastewater	m,p-X	/lene	
8021B		Wastewater	o-Xyle	ne	
8021B		Water	m,p-X	/lene	
8021B		Water	o-Xyle	ne	
8260C		Wastewater	1,2-Dio	chloroethene, Total	
SM 4500 H+ B		Wastewater	pН		
SM 4500 H+ B		Wastewater	Temne	erature	

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<sup>\*</sup> Accreditation/Certification renewal pending - accreditation/certification considered valid.

# **Method Summary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-130618-1

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

#### **Protocol References:**

EPA = US Environmental Protection Agency

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

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

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

#### Laboratory References:

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

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# **Sample Summary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-130618-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-130618-1	Post-Carbon 3	Wastewater	01/26/18 10:15	01/26/18 11:35
480-130618-2	Pre-Carbon	Wastewater	01/26/18 10:30	01/26/18 11:35
480-130618-3	Post-Carbon 2	Wastewater	01/26/18 10:20	01/26/18 11:35
480-130618-4	Post-Carbon 1	Water	01/26/18 10:25	01/26/18 11:35
480-130618-5	OUTSIDE SUMP	Water	01/26/18 10:40	01/26/18 11:35

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#### Buffalo

10 Hazelwood Drive

Amherst, NY 14228

# **Chain of Custody Record**

Test.

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pnone /16.504.9852 fax 716.691.7991  Client Contact	Project Mar		N.E. (317	· CREA		T										1					tAmer		-		
Groundwater & Environmental Services, Inc											Palm	er		Date:	100					CO	C No:	480-130	0618 CC	) <u>=</u>	-
495 Aero Drive Suite 3			urnaround	TENS		Lab	Соп	tact:	O. J	Johns	-	_		Carri	rier:						of		COCs		-
Cheektowaga, NY 14225			ork Days (W			1					802									Job	No.				
(800) 287-7857 Phone		T if different		)	_	1	В			04.2	O.A.														
(866) 902-2187 FAX			weeks				Meth			)LM										000	2.11				
Project Name: NYSDEC Gatown WWTP			week				)cal			list (	SS IIs	_								Spi	G No.				
Site: 915171			2 days				] [			ĮŽ	TAI	Cyanide, Total													
P O # Callout 120597			day			adu				lğ.	<u> </u>	ide,	뛰			Ш									
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont,	Filtered Sample	300.0_28D (MOD) Local Method	310.2 - Alkalinity	200.7 - Iron	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS list - VOA - 8021	335.4 - Cyar	SM4S00_H+-pH								Sarr	ple Spec	ifia Nata		_
Post-Carbon 3	ilac	1015	Grab	w	9	N	T	T	x	X	$\Box$	=	X	Ħ	+	Ħ	Ŧ	Ħ	+	+	Saiii	pie spec	HIC NOIS	:S:	=
Post-Carbon 2		1020	Grab	w	3	N	$\dagger$	t	$\dagger$	H	X		-	H	+	Н	+	+	-	+					_
Post-Carbon 1		1025	Grab	w	3	N	$\dagger$	t	$\dagger$	H	x	+	+	$\vdash$	+	$\vdash$	+	+	+	+					_
Pre-Carbon		1030	Grab	w	6	N	x y	X X	+	$\vdash$	x	+	+	$\vdash$	+	Н	+	+	+	+			_	_	_
Inside Outside Sump		1040	Grab	W	3	N	1	1	+	H	X	+	+	$\vdash$	1	Н	+	+	+	+					_
20	4	10 10				H	+	+	+	$\vdash$		+	+-	$\vdash$	+	H	+	+	-	+-					_
						Н	+	+	+	Н	H	+	+	-	+	Н	$\perp$	$\perp$	$\perp$	_					
						H	+	+	_	Н	Н	4	_	$\sqcup$	_		_	$\sqcup$							
						Н	+	+	+	Н		+	-		1	Ш									
						H	-	-	-	Н		+	+		1		4								
						Н	+	+	+	Н	$\vdash$	+	_		-	Ш	4	Ш							
						+	+	+	-	Н		-	$\perp$				$\perp$								
Preservation Used: 1=1ce, 2= HCl; 3= H2SO4; 4=HNO3	: 5=NaOH: 6= Other					4	+	+	┝	H	$\perp$	+	$\perp$		┺		_	$\sqcup$							7
Possible Hazard Identification				-		- 5	amp	le D	ispo.	sal (	(A fe	e ma	av ho	20228	sod i						ger than				
Non-Hazard Flammable Skin Irrita	nt Poison B		nknown					Retu	ırn T	o Cli	lient	0 11/10		Dispos	al Rv	sam Lah	pies	are re	rchive	d long	er than				
Special Instructions/QC Requirements & Comments:														10000	u, D,	Lub			CHIVE	e ror_		Mon	ths		4
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Relinquished by:	Company:	8		Date/Tin	ne: 1135	R	ecei	ed by	1/1	11	111	10			Con	pany	00	)	-	Date	Time:	1		_	4
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Relinquished by:	Company:			Date/Tin	ne:	R	eceiv	ed by	7:						Com	pany:		-		Date/	Time:				
201	1						_	-			_	_		_		_									

#### **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-130618-1

Login Number: 130618 List Source: TestAmerica Buffalo

List Number: 1

Creator: Wallace, Cameron

Question Answer Comment

Radioactivity either was not measured or, if measured, is at or below background

The cooler's custody seal, if present, is intact.

The cooler or samples do not appear to have been compromised or tampered with.

Samples were received on ice.

Cooler Temperature is acceptable.

Cooler Temperature is recorded.

COC is present.

COC is filled out in ink and legible.

COC is filled out with all pertinent information.

Is the Field Sampler's name present on COC?

There are no discrepancies between the sample IDs on the containers and the COC.

Samples are received within Holding Time (Excluding tests with immediate HTs)..

Sample containers have legible labels.

Containers are not broken or leaking.

Sample collection date/times are provided.

Appropriate sample containers are used.

Sample bottles are completely filled.

Sample Preservation Verified

There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs

VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter

If necessary, staff have been informed of any short hold time or quick TAT needs

Multiphasic samples are not present.

Samples do not require splitting or compositing.

Sampling Company provided.

Samples received within 48 hours of sampling.

Samples requiring field filtration have been filtered in the field.

Chlorine Residual checked.

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THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

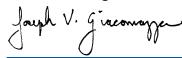
TestAmerica Job ID: 480-131450-1

Client Project/Site: Gastown WWTP #915171

#### For:

New York State D.E.C. 625 Broadway 11th Floor Albany, New York 12233-3256

Attn: Mr. Doug K MacNeal



Authorized for release by: 2/27/2018 10:55:14 AM

Joe Giacomazza, Project Management Assistant II joe.giacomazza@testamericainc.com

Designee for

Orlette Johnson, Senior Project Manager (484)685-0864

orlette.johnson@testamericainc.com

·····LINKS ·······

Review your project results through

Total Access

**Have a Question?** 



**Visit us at:** www.testamericainc.com

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

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

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

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

Joseph V. Gireomagger

Joe Giacomazza
Project Management Assistant II

2/27/2018 10:55:14 AM

Client: New York State D.E.C. Project/Site: Gastown WWTP #915171 TestAmerica Job ID: 480-131450-1

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#### **Definitions/Glossary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-131450-1

#### **Qualifiers**

#### **GC VOA**

Qualifier	Qualifier	Description

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **General Chemistry**

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

B Compound was found in the blank and sample.

#### Glossary

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

CFL Contains Free Liquid
CNF Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE)

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

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 (Radiochemistry)

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)

TestAmerica Buffalo

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#### **Case Narrative**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-131450-1

Job ID: 480-131450-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-131450-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 2/16/2018 12:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.4° 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 (480-131450-4). 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 (480-131450-3), Pre-Carbon (480-131450-4) and OUTSIDE SUMP (480-131450-5). 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: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Post-Carbon 3 (480-131450-1).

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

Lab Sample ID: 480-131450-1

Client: New York State D.E.C.

Date Received: 02/16/18 12:40

Project/Site: Gastown WWTP #915171

Client Sample ID: Post-Carbon 3

Date Collected: 02/16/18 11:00

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac ND 1.0 1,1,1-Trichloroethane 0.82 ug/L 02/20/18 04:18 ND 0.21 ug/L 1,1,2,2-Tetrachloroethane 1.0 02/20/18 04:18 1,1,2-Trichloroethane ND 1.0 0.23 ug/L 02/20/18 04:18 ND 1,1-Dichloroethane 1.0 0.38 ug/L 02/20/18 04:18 1,1-Dichloroethene ND 1.0 0.29 ug/L 02/20/18 04:18 ND 1.0 0.21 ug/L 02/20/18 04:18 1.2-Dichloroethane 1,2-Dichloroethene, Total ND 2.0 0.81 ug/L 02/20/18 04:18 1,2-Dichloropropane ND 1.0 0.72 ug/L 02/20/18 04:18 2-Hexanone ND 5.0 1.2 ug/L 02/20/18 04:18 2-Butanone (MEK) ND 10 1.3 ug/L 02/20/18 04:18 4-Methyl-2-pentanone (MIBK) ND 5.0 2.1 ug/L 02/20/18 04:18 Acetone ND 10 3.0 ug/L 02/20/18 04:18 Benzene ND 1.0 0.41 ug/L 02/20/18 04:18 Bromodichloromethane ND 1.0 0.39 ug/L 02/20/18 04:18 ug/L Bromoform ND 1.0 0.26 02/20/18 04:18 Bromomethane ND 1.0 02/20/18 04:18 0.69 ug/L Carbon disulfide NΠ 1.0 0.19 ug/L 02/20/18 04:18 Carbon tetrachloride ND 1.0 0.27 ug/L 02/20/18 04:18 Chlorobenzene ND 1.0 0.75 ug/L 02/20/18 04:18 Dibromochloromethane ND 1.0 0.32 ug/L 02/20/18 04:18 Chloroethane ND 1.0 0.32 ug/L 02/20/18 04:18 Chloroform ND 1.0 0.34 ug/L 02/20/18 04:18 0.35 ug/L Chloromethane ND 1.0 02/20/18 04:18 cis-1,3-Dichloropropene ND 1.0 0.36 ug/L 02/20/18 04:18 Ethylbenzene ND 1.0 0.74 ug/L 02/20/18 04:18 Methylene Chloride ND 1.0 0.44 ug/L 02/20/18 04:18 Styrene ND 1.0 0.73 ug/L 02/20/18 04:18 Tetrachloroethene ND 1.0 0.36 ug/L 02/20/18 04:18 ND 1.0 0.51 ug/L 02/20/18 04:18 ND trans-1,3-Dichloropropene 1.0 0.37 ug/L 02/20/18 04:18 Trichloroethene ND 1.0 0.46 ug/L 02/20/18 04:18 Vinyl chloride ND 1.0 0.90 ug/L 02/20/18 04:18

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		77 - 120		02/20/18 04:18	1
Toluene-d8 (Surr)	92		80 - 120		02/20/18 04:18	1
4-Bromofluorobenzene (Surr)	95		73 - 120		02/20/18 04:18	1

5.0

2.0

0.85 ug/L

0.66 ug/L

Method: 8021B - Volatile Organic Compounds (GC)

ND

ND

Vinyl acetate

Xylenes, Total

Analyte	Result Qua	alifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND ND	0.20	0.035	ug/L			02/20/18 12:13	1
1,3,5-Trimethylbenzene	ND	0.20	0.15	ug/L			02/20/18 12:13	1
Benzene	ND	0.20	0.023	ug/L			02/20/18 12:13	1
Ethylbenzene	ND	0.20	0.029	ug/L			02/20/18 12:13	1
Isopropylbenzene	ND	0.20	0.027	ug/L			02/20/18 12:13	1
Methyl tert-butyl ether	ND	0.40	0.044	ug/L			02/20/18 12:13	1
m,p-Xylene	ND	0.40	0.054	ug/L			02/20/18 12:13	1
n-Butylbenzene	ND	0.20	0.031	ug/L			02/20/18 12:13	1

TestAmerica Buffalo

02/20/18 04:18

02/20/18 04:18

Page 6 of 17 2/27/2018

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-131450-1

Client Sample ID: Post-Carbon 3

Date Collected: 02/16/18 11:00 Date Received: 02/16/18 12:40 Lab Sample ID: 480-131450-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	ND		0.20	0.13	ug/L			02/20/18 12:13	1
o-Xylene	ND		0.20	0.027	ug/L			02/20/18 12:13	1
p-Cymene	ND		0.20	0.030	ug/L			02/20/18 12:13	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			02/20/18 12:13	1
Toluene	ND		0.20	0.036	ug/L			02/20/18 12:13	1
Xylenes, Total	ND		0.60	0.054	ug/L			02/20/18 12:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	112		63 - 129					02/20/18 12:13	1
4-Bromofluorobenzene	106		64 - 128					02/20/18 12:13	1
Method: 200.7 Rev 4.4 - Meta	ıls (ICP)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	79.2		50.0	19.3	ug/L		02/19/18 08:36	02/21/18 04:22	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.12		0.010	0.0050	mg/L		02/20/18 08:15	02/20/18 13:01	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.5	HF	0.1	0.1	SU			02/19/18 14:53	1
Temperature	21.5	HE	0.001	0.001	Degrees C			02/19/18 14:53	1

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-131450-1

Lab Sample ID: 480-131450-2

Matrix: Water

Client Sample ID: Post-Carbon 2 Date Collected: 02/16/18 11:05

Date Received: 02/16/18 12:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			02/20/18 14:20	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			02/20/18 14:20	1
Benzene	0.10	J	0.20	0.023	ug/L			02/20/18 14:20	1
Ethylbenzene	ND		0.20	0.029	ug/L			02/20/18 14:20	1
Isopropylbenzene	ND		0.20	0.027	ug/L			02/20/18 14:20	1
Methyl tert-butyl ether	ND		0.40	0.044	ug/L			02/20/18 14:20	1
m,p-Xylene	ND		0.40	0.054	ug/L			02/20/18 14:20	1
n-Butylbenzene	ND		0.20	0.031	ug/L			02/20/18 14:20	1
n-Propylbenzene	ND		0.20	0.13	ug/L			02/20/18 14:20	1
o-Xylene	ND		0.20	0.027	ug/L			02/20/18 14:20	1
p-Cymene	ND		0.20	0.030	ug/L			02/20/18 14:20	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			02/20/18 14:20	1
Toluene	ND		0.20	0.036	ug/L			02/20/18 14:20	1
Xylenes, Total	ND		0.60	0.054	ug/L			02/20/18 14:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	101		63 - 129			-		02/20/18 14:20	1
4-Bromofluorobenzene	96		64 - 128					02/20/18 14:20	1

2/27/2018

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Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-131450-1

Lab Sample ID: 480-131450-3

Matrix: Water

Client Sample ID: Post-Carbon 1

Date Collected: 02/16/18 11:10 Date Received: 02/16/18 12:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		20	3.5	ug/L			02/20/18 12:45	100
1,3,5-Trimethylbenzene	ND		20	15	ug/L			02/20/18 12:45	100
Benzene	560		20	2.3	ug/L			02/20/18 12:45	100
Ethylbenzene	14	J	20	2.9	ug/L			02/20/18 12:45	100
Isopropylbenzene	ND		20	2.7	ug/L			02/20/18 12:45	100
Methyl tert-butyl ether	ND		40	4.4	ug/L			02/20/18 12:45	100
m,p-Xylene	10	J	40	5.4	ug/L			02/20/18 12:45	100
n-Butylbenzene	ND		20	3.1	ug/L			02/20/18 12:45	100
n-Propylbenzene	ND		20	13	ug/L			02/20/18 12:45	100
o-Xylene	5.8	J	20	2.7	ug/L			02/20/18 12:45	100
p-Cymene	ND		20	3.0	ug/L			02/20/18 12:45	100
sec-Butylbenzene	ND		20	2.0	ug/L			02/20/18 12:45	100
Toluene	49		20	3.6	ug/L			02/20/18 12:45	100
Xylenes, Total	16	J	60	5.4	ug/L			02/20/18 12:45	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	97		63 - 129			-		02/20/18 12:45	100
4-Bromofluorobenzene	94		64 - 128					02/20/18 12:45	100

Client: New York State D.E.C.

Date Received: 02/16/18 12:40

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-131450-1

Lab Sample ID: 480-131450-4

Matrix: Water

**Client Sample ID: Pre-Carbon** Date Collected: 02/16/18 11:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		20	3.5	ug/L			02/20/18 13:17	100
1,3,5-Trimethylbenzene	ND		20	15	ug/L			02/20/18 13:17	100
Benzene	830		20	2.3	ug/L			02/20/18 13:17	100
Ethylbenzene	37		20	2.9	ug/L			02/20/18 13:17	100
Isopropylbenzene	ND		20	2.7	ug/L			02/20/18 13:17	100
Methyl tert-butyl ether	20	J	40	4.4	ug/L			02/20/18 13:17	100
m,p-Xylene	22	J	40	5.4	ug/L			02/20/18 13:17	100
n-Butylbenzene	ND		20	3.1	ug/L			02/20/18 13:17	100
n-Propylbenzene	ND		20	13	ug/L			02/20/18 13:17	100
o-Xylene	15	J	20	2.7	ug/L			02/20/18 13:17	100
p-Cymene	ND		20	3.0	ug/L			02/20/18 13:17	100
sec-Butylbenzene	ND		20	2.0	ug/L			02/20/18 13:17	100
Toluene	110		20	3.6	ug/L			02/20/18 13:17	100
Xylenes, Total	37	J	60	5.4	ug/L			02/20/18 13:17	100
Curronata	% Bassyans	0 1:5:	Limita				Branarad	Analyzad	Dil Ess

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	103		63 - 129	_		02/20/18 13:17	100
4-Bromofluorobenzene	99		64 - 128			02/20/18 13:17	100

Method: 200.7 Rev 4.4 - Met	tals (ICP)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	130000		500	100	ug/L		02/19/18 08:36	02/21/18 04:51	1
Iron	299		50.0	19.3	ug/L		02/19/18 08:36	02/21/18 04:51	1
Magnesium	39200		200	43.4	ug/L		02/19/18 08:36	02/21/18 04:51	1
Potassium	4160		500	100	ug/L		02/19/18 08:36	02/21/18 04:51	1
Sodium	94500		1000	324	ug/L		02/19/18 08:36	02/21/18 04:51	1

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	211		5.0	2.8	mg/L			02/23/18 14:22	10
Sulfate	105		20.0	3.5	mg/L			02/23/18 14:22	10
Alkalinity, Total	356	В	50.0	20.0	mg/L			02/19/18 13:55	5

2/27/2018

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-131450-1

Lab Sample ID: 480-131450-5

Matrix: Water

Client Sample ID: OUTSIDE SUMP Date Collected: 02/16/18 11:30

Date Received: 02/16/18 12:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		100	17	ug/L			02/20/18 13:48	500
1,3,5-Trimethylbenzene	ND		100	75	ug/L			02/20/18 13:48	500
Benzene	1400		100	12	ug/L			02/20/18 13:48	500
Ethylbenzene	98	J	100	14	ug/L			02/20/18 13:48	500
Isopropylbenzene	ND		100	14	ug/L			02/20/18 13:48	500
Methyl tert-butyl ether	ND		200	22	ug/L			02/20/18 13:48	500
m,p-Xylene	33	J	200	27	ug/L			02/20/18 13:48	500
n-Butylbenzene	ND		100	15	ug/L			02/20/18 13:48	500
n-Propylbenzene	ND		100	65	ug/L			02/20/18 13:48	500
o-Xylene	26	J	100	14	ug/L			02/20/18 13:48	500
p-Cymene	ND		100	15	ug/L			02/20/18 13:48	500
sec-Butylbenzene	ND		100	10	ug/L			02/20/18 13:48	500
Toluene	190		100	18	ug/L			02/20/18 13:48	500
Xylenes, Total	59	J	300	27	ug/L			02/20/18 13:48	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	105		63 - 129			-		02/20/18 13:48	500
4-Bromofluorobenzene	103		64 - 128					02/20/18 13:48	500

2/27/2018

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Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

**Client Sample ID: Post-Carbon 3** Lab Sample ID: 480-131450-1

Date Collected: 02/16/18 11:00 Matrix: Water

Date Received: 02/16/18 12:40

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C			400496	02/20/18 04:18	RRS	TAL BUF
Total/NA	Analysis	8021B		1	400609	02/20/18 12:13	JLS	TAL BUF
Total/NA	Prep	200.7			400370	02/19/18 08:36	JAK	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	400891	02/21/18 04:22	AMH	TAL BUF
Total/NA	Prep	Distill/CN			400663	02/20/18 08:15	LAW	TAL BUF
Total/NA	Analysis	335.4		1	400688	02/20/18 13:01	MDL	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	400493	02/19/18 14:53	LED	TAL BUF

Client Sample ID: Post-Carbon 2 Lab Sample ID: 480-131450-2

Date Collected: 02/16/18 11:05 Matrix: Water

Date Received: 02/16/18 12:40

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B			400609	02/20/18 14:20	JLS	TAL BUF

Client Sample ID: Post-Carbon 1 Lab Sample ID: 480-131450-3

Date Collected: 02/16/18 11:10 **Matrix: Water** 

Date Received: 02/16/18 12:40

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		100	400609	02/20/18 12:45	JLS	TAL BUF

**Client Sample ID: Pre-Carbon** Lab Sample ID: 480-131450-4

Date Collected: 02/16/18 11:15 Matrix: Water

Date Received: 02/16/18 12:40

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		100	400609	02/20/18 13:17	JLS	TAL BUF
Total/NA	Prep	200.7			400370	02/19/18 08:36	JAK	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	400891	02/21/18 04:51	AMH	TAL BUF
Total/NA	Analysis	300.0		10	401174	02/23/18 14:22	RJS	TAL BUF
Total/NA	Analysis	310.2		5	400510	02/19/18 13:55	LED	TAL BUF

**Client Sample ID: OUTSIDE SUMP** Lab Sample ID: 480-131450-5

Date Collected: 02/16/18 11:30 Matrix: Water

Date Received: 02/16/18 12:40

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		500	400609	02/20/18 13:48	JLS	TAL BUF

**Laboratory References:** 

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

# **Accreditation/Certification Summary**

Client: New York State D.E.C. TestAmerica Job ID: 480-131450-1

Project/Site: Gastown WWTP #915171

#### Laboratory: TestAmerica Buffalo

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

Authority	Program		EPA Region	Identification Number	Expiration Date		
New York	NELAP		2	10026	03-31-18 *		
The following analytes	are included in this report, bu	t accreditation/certifica	tion is not offered by th	e governing authority:			
Analysis Method	Prep Method	Matrix	Analyt	е			
8021B		Water	m,p-X	ylene			
8021B		Water	o-Xyle	ne			
8260C		Water	1,2-Die	chloroethene, Total			
SM 4500 H+ B		Water	pН				
		Water	<b></b>	erature			

TestAmerica Buffalo

<sup>\*</sup> Accreditation/Certification renewal pending - accreditation/certification considered valid.

# **Method Summary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-131450-1

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

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# **Sample Summary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-131450-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-131450-1	Post-Carbon 3	Water	02/16/18 11:00	02/16/18 12:40
480-131450-2	Post-Carbon 2	Water	02/16/18 11:05	02/16/18 12:40
480-131450-3	Post-Carbon 1	Water	02/16/18 11:10	02/16/18 12:40
480-131450-4	Pre-Carbon	Water	02/16/18 11:15	02/16/18 12:40
480-131450-5	OUTSIDE SUMP	Water	02/16/18 11:30	02/16/18 12:40

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#### Buffalo

10 Hazelwood Drive

# **Chain of Custody Record**



Amherst NV 14228

phone 716.504.9852 fax 716.691.7991	In			IGDRG		a.	-			_		_	1		-	1 -		_		TestAmerica Laboratories, Inc.
Client Contact	Project Ma			YSDEC)		_		_	_		almer		Da		110	- 18	5			COC No:
Groundwater & Environmental Services, Inc		16) 851-722				Lab	Conta	ect: C	). Joh				Ca	rrier:	_		-	_	_	of COCs
495 Aero Drive Suite 3	_	Analysis T									802							1	1	Job No.
Cheektowaga, NY 14225	Calendar	(C) or Wo	ork Days (W	)		٠,	.			7.	- Y	1 1				K	MAC.	3		
(800) 287-7857 Phone	_	AT if different f	from Below _			1 4	p	1		W	>	1		1	1		4			
(866) 902-2187 FAX	X	2	weeks			2	etho			0	list	11		11				ı.		SDG No.
Project Name: NYSDEC Gatown WWTP		1	week			1	al M			Lis	ARS			11		-				
Site: 915171		:	2 days			ا ا	Loc	Ţ.		TC	ST.			1 1	1 4	80-13	31450	co	C	l .
P O # Callout 120597			l day			Id W	(A)	alin	=	00	Cvanide, Total	t-D		1 1						
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	200.7 - (MOD) Local Method	310.2 - Alkalinity	200.7 - Iron	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS list - VOA - 8021 335.4 - Cvanide, Total	SM4500_H+-pH								Sample Specific Notes:
Post-Carbon 3	2/16/18	1100	Grab	W	9	N			X	X	x x	x								
Post-Carbon 2	2/16/18	1105	Grab	W	3	N					x									
Post-Carbon 1	2/16/18	1110	Grab	W	3	N					X									
Pre-Carbon  Inside Outside Sump	2/16/18	1115	Grab	W	6	N Z	x x	X			X									
Inside Outside Sump	2/16/18	1130	Grab	W	3	N					X								100	
						П														
4						П								П						
						П														
						П														
						П														
						П														
						П														
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=Na	OH; 6= Other	r																		
Possible Hazard Identification  Non-Hazard Flammable Skin Irritant	Poison B	. 🗆	Unknown	X		5			i <b>spo</b> s irn To				be as Dis							ed longer than 1 month) e For Months
Special Instructions/QC Requirements & Comments:													•							5.4 #1
Relinquished by:	Company:	65		Date/Ti	8 120	10	Receiv	4	111	N	2	H.	5		Comp	100	D			Date/Fime: / 1248
Relinquished by:	Company:			Date/T	ime:	F	Receiv	ed by	7:						Comp	any:				Date/Time:
Relinquished by:	Company:			Date/T	ime:	F	Receiv	ed by	y:	-				-	Comp	any:				Date/Time:

## **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-131450-1

Login Number: 131450 List Source: TestAmerica Buffalo

List Number: 1

Creator: Williams, Christopher S

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

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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: 480-132739-1

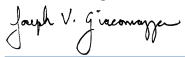
Client Project/Site: Gastown WWTP #915171

Sampling Event: Quarterly

#### For:

New York State D.E.C. 625 Broadway 11th Floor Albany, New York 12233-3256

Attn: Mr. Doug K MacNeal



Authorized for release by: 3/30/2018 4:01:46 PM

Joe Giacomazza, Project Management Assistant II joe.giacomazza@testamericainc.com

Designee for

Orlette Johnson, Senior Project Manager (484)685-0864

orlette.johnson@testamericainc.com

.....LINKS .....

Review your project results through

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**Have a Question?** 



Visit us at: www.testamericainc.com

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

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

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

2

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. gireonoge

\_\_\_\_

Joe Giacomazza

Project Management Assistant II

3/30/2018 4:01:46 PM

Page 2 of 21

3/30/2018

Client: New York State D.E.C. Project/Site: Gastown WWTP #915171 TestAmerica Job ID: 480-132739-1

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## **Definitions/Glossary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-132739-1

#### **Qualifiers**

#### **GC/MS VOA**

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **GC/MS Semi VOA**

Qualifier	Qualifier Description						
*	LCS or LCSD is outside acceptance limits.						
*	RPD of the LCS and LCSD exceeds the control limits						

#### **GC VOA**

Qualifier	<b>Qualifier Description</b>

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.
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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

#### **Case Narrative**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-132739-1

Job ID: 480-132739-1

**Laboratory: TestAmerica Buffalo** 

**Narrative** 

Job Narrative 480-132739-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 3/16/2018 12:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.0° 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 (480-132739-2). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-405142 recovered above the upper control limit for Carbon tetrachloride, 2-Hexanone, Chlorodibromomethane, and 2-Butanone (MEK). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: Post-Carbon 3 (480-132739-1).

Method(s) 8260C: The laboratory control sample (LCS) for analytical batch 480-405142 recovered outside control limits for the following analytes: Chlorodibromomethane and Tetrachloroethene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-405177 recovered above the upper control limit for 2-Butanone (MEK). The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: Post-Carbon 2 (480-132739-3) and Post-Carbon 1 (480-132739-4).

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 laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 480-404630 and analytical batch 480-404989 recovered outside control limits for the following analytes: Carbazole. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch preparation batch 480-404630 and analytical batch 480-404989 recovered outside control limits for the following analytes: Fluorene.

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 was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-132739-2). 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.

#### **GC VOA**

Method(s) 8021B: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-132739-2). Elevated reporting limits (RLs) are provided.

Method(s) 8021B: The following sample was diluted to bring the concentration of target analytes within the calibration range: Post-Carbon 2 (480-132739-3). 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

TestAmerica Buffalo 3/30/2018

#### **Case Narrative**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-132739-1

Job ID: 480-132739-1 (Continued)

#### Laboratory: TestAmerica Buffalo (Continued)

Method(s) 608: The continuing calibration verification (CCV) associated with batch 480-405252 recovered above the upper control limit for Toxaphene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: Post-Carbon 3 (480-132739-1).

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 has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Post-Carbon 3 (480-132739-1).

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 preparation batch 480-404701.

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

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TestAmerica Job ID: 480-132739-1

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

Client Sample ID: Post-Carbon 3

Date Collected: 03/16/18 10:30 Date Received: 03/16/18 12:30 Lab Sample ID: 480-132739-1

**Matrix: Wastewater** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			03/21/18 22:55	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			03/21/18 22:55	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			03/21/18 22:55	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/21/18 22:55	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			03/21/18 22:55	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			03/21/18 22:55	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			03/21/18 22:55	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			03/21/18 22:55	1
2-Hexanone	ND		5.0	1.2	ug/L			03/21/18 22:55	1
2-Butanone (MEK)	ND		10	1.3	ug/L			03/21/18 22:55	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			03/21/18 22:55	1
Acetone	ND		10	3.0	ug/L			03/21/18 22:55	1
Benzene	ND		1.0	0.41	ug/L			03/21/18 22:55	1
Bromodichloromethane	ND		1.0	0.39	ug/L			03/21/18 22:55	1
Bromoform	ND		1.0	0.26	ug/L			03/21/18 22:55	1
Bromomethane	ND		1.0	0.69	ug/L			03/21/18 22:55	1
Carbon disulfide	ND		1.0	0.19	ug/L			03/21/18 22:55	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			03/21/18 22:55	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/21/18 22:55	1
Dibromochloromethane	ND	*	1.0	0.32	ug/L			03/21/18 22:55	1
Chloroethane	ND		1.0	0.32	ug/L			03/21/18 22:55	1
Chloroform	ND		1.0	0.34	ug/L			03/21/18 22:55	1
Chloromethane	ND		1.0	0.35	ug/L			03/21/18 22:55	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			03/21/18 22:55	1
Ethylbenzene	ND		1.0	0.74	ug/L			03/21/18 22:55	1
Methylene Chloride	ND		1.0	0.44	ug/L			03/21/18 22:55	1
Styrene	ND		1.0	0.73	ug/L			03/21/18 22:55	1
Tetrachloroethene	ND	*	1.0	0.36	ug/L			03/21/18 22:55	1
Toluene	ND		1.0	0.51	ug/L			03/21/18 22:55	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			03/21/18 22:55	1
Trichloroethene	ND		1.0	0.46	ug/L			03/21/18 22:55	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/21/18 22:55	1
Vinyl acetate	ND		5.0	0.85	ug/L			03/21/18 22:55	1
Xylenes, Total	ND		2.0	0.66	ug/L			03/21/18 22:55	1

Surrogate	%Recovery C	Qualifier Limits	Prepared Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109	77 - 120	03/21/18 22:55	1
Toluene-d8 (Surr)	99	80 - 120	03/21/18 22:55	1
4-Bromofluorobenzene (Surr)	102	73 - 120	03/21/18 22:55	1

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

Analyte	Result Qu	ualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		03/19/18 14:10	03/21/18 18:23	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		03/19/18 14:10	03/21/18 18:23	1
Acenaphthene	ND		5.0	0.41	ug/L		03/19/18 14:10	03/21/18 18:23	1
Acenaphthylene	ND		5.0	0.38	ug/L		03/19/18 14:10	03/21/18 18:23	1
Anthracene	ND		5.0	0.28	ug/L		03/19/18 14:10	03/21/18 18:23	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		03/19/18 14:10	03/21/18 18:23	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		03/19/18 14:10	03/21/18 18:23	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		03/19/18 14:10	03/21/18 18:23	1

TestAmerica Buffalo

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TestAmerica Job ID: 480-132739-1

Project/Site: Gastown WWTP #915171

Client Sample ID: Post-Carbon 3

Date Collected: 03/16/18 10:30 Date Received: 03/16/18 12:30

Client: New York State D.E.C.

Lab Sample ID: 480-132739-1

**Matrix: Wastewater** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		03/19/18 14:10	03/21/18 18:23	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		03/19/18 14:10	03/21/18 18:23	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		03/19/18 14:10	03/21/18 18:23	1
Carbazole	ND	*	5.0	0.30	ug/L		03/19/18 14:10	03/21/18 18:23	1
Chrysene	ND		5.0	0.33	ug/L		03/19/18 14:10	03/21/18 18:23	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		03/19/18 14:10	03/21/18 18:23	1
Dibenzofuran	ND		10	0.51	ug/L		03/19/18 14:10	03/21/18 18:23	1
Fluoranthene	ND		5.0	0.40	ug/L		03/19/18 14:10	03/21/18 18:23	1
Fluorene	ND	*	5.0	0.36	ug/L		03/19/18 14:10	03/21/18 18:23	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		03/19/18 14:10	03/21/18 18:23	1
Naphthalene	ND		5.0	0.76	ug/L		03/19/18 14:10	03/21/18 18:23	1
Pentachlorophenol	ND		10	2.2	ug/L		03/19/18 14:10	03/21/18 18:23	1
Phenanthrene	ND		5.0	0.44	ug/L		03/19/18 14:10	03/21/18 18:23	1
Phenol	ND		5.0	0.39	ug/L		03/19/18 14:10	03/21/18 18:23	1
Pyrene	ND		5.0	0.34	ug/L		03/19/18 14:10	03/21/18 18:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	88		46 - 120				03/19/18 14:10	03/21/18 18:23	1
2-Fluorobiphenyl	101		48 - 120				03/19/18 14:10	03/21/18 18:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	88		46 - 120	03/19/18 14:10	03/21/18 18:23	1
2-Fluorobiphenyl	101		48 - 120	03/19/18 14:10	03/21/18 18:23	1
p-Terphenyl-d14	97		59 - 136	03/19/18 14:10	03/21/18 18:23	1
Phenol-d5	58		22 - 120	03/19/18 14:10	03/21/18 18:23	1
2-Fluorophenol	82		35 - 120	03/19/18 14:10	03/21/18 18:23	1
2,4,6-Tribromophenol	87		41 - 120	03/19/18 14:10	03/21/18 18:23	1

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND ND	0.0045	0.00079	ug/L			03/21/18 12:43	1
1,3,5-Trimethylbenzene	ND	0.0045	0.0034	ug/L			03/21/18 12:43	1
Benzene	ND	0.0045	0.00053	ug/L			03/21/18 12:43	1
Ethylbenzene	ND	0.0045	0.00065	ug/L			03/21/18 12:43	1
Isopropylbenzene	ND	0.0045	0.00061	ug/L			03/21/18 12:43	1
Methyl tert-butyl ether	ND	0.0091	0.00099	ug/L			03/21/18 12:43	1
m,p-Xylene	ND	0.0091	0.0012	ug/L			03/21/18 12:43	1
n-Butylbenzene	ND	0.0045	0.00070	ug/L			03/21/18 12:43	1
n-Propylbenzene	ND	0.0045	0.0030	ug/L			03/21/18 12:43	1
o-Xylene	ND	0.0045	0.00061	ug/L			03/21/18 12:43	1
p-Cymene	ND	0.0045	0.00067	ug/L			03/21/18 12:43	1
sec-Butylbenzene	ND	0.0045	0.00046	ug/L			03/21/18 12:43	1
Toluene	ND	0.0045	0.00081	ug/L			03/21/18 12:43	1
Xylenes, Total	ND	0.014	0.0012	ua/L			03/21/18 12:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	85		63 - 129		03/21/18 12:43	1
4-Bromofluorobenzene	83		64 - 128		03/21/18 12:43	1

Method: 608 - Organochlo	rine Pesticides in Water							
Analyte	Result Qua	lifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND ND	0.051	0.0082	ug/L		03/20/18 07:28	03/22/18 15:34	1
alpha-BHC	ND	0.051	0.0078	ug/L		03/20/18 07:28	03/22/18 15:34	1
beta-BHC	ND	0.051	0.025	ug/L		03/20/18 07:28	03/22/18 15:34	1

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3/30/2018

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Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-132739-1

Lab Sample ID: 480-132739-1

**Matrix: Wastewater** 

## Client Sample ID: Post-Carbon 3

Date Collected: 03/16/18 10:30 Date Received: 03/16/18 12:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
delta-BHC	ND		0.051	0.010	ug/L		03/20/18 07:28	03/22/18 15:34	1
gamma-BHC (Lindane)	ND		0.051	0.0081	ug/L		03/20/18 07:28	03/22/18 15:34	1
Chlordane (technical)	ND		0.51	0.29	ug/L		03/20/18 07:28	03/22/18 15:34	1
4,4'-DDD	ND		0.051	0.0093	ug/L		03/20/18 07:28	03/22/18 15:34	1
4,4'-DDE	ND		0.051	0.012	ug/L		03/20/18 07:28	03/22/18 15:34	1
4,4'-DDT	ND		0.051	0.011	ug/L		03/20/18 07:28	03/22/18 15:34	1
Dieldrin	ND		0.051	0.0099	ug/L		03/20/18 07:28	03/22/18 15:34	1
Endosulfan I	ND		0.051	0.011	ug/L		03/20/18 07:28	03/22/18 15:34	1
Endosulfan II	ND		0.051	0.012	ug/L		03/20/18 07:28	03/22/18 15:34	1
Endosulfan sulfate	ND		0.051	0.016	ug/L		03/20/18 07:28	03/22/18 15:34	1
Endrin	ND		0.051	0.014	ug/L		03/20/18 07:28	03/22/18 15:34	1
Endrin aldehyde	ND		0.051	0.016	ug/L		03/20/18 07:28	03/22/18 15:34	1
Heptachlor	ND		0.051	0.0086	ug/L		03/20/18 07:28	03/22/18 15:34	1
Heptachlor epoxide	ND		0.051	0.0075	ug/L		03/20/18 07:28	03/22/18 15:34	1
Toxaphene	ND		0.51	0.12	ug/L		03/20/18 07:28	03/22/18 15:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	60		23 - 120				03/20/18 07:28	03/22/18 15:34	1
Tetrachloro-m-xylene	76		44 - 120				03/20/18 07:28	03/22/18 15:34	1
Method: 200.7 Rev 4.4 - Metals	(ICP)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	63.7		50.0	19.3	ug/L		03/27/18 08:10	03/27/18 17:16	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	_ D	Prepared	Analyzed	Dil Fac
Oil & Grease	3.4	J	4.9	1.4	mg/L		03/18/18 11:53	03/18/18 11:53	1
Cyanide, Total	0.13		0.010	0.0050	mg/L		03/21/18 03:25	03/21/18 10:52	1
Phenolics, Total Recoverable	ND		0.010	0.0050	mg/L		03/21/18 04:36	03/21/18 17:36	1
Total Dissolved Solids	775		10.0	4.0	mg/L			03/20/18 19:38	1
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			03/17/18 08:59	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	4.0	mg/L			03/20/18 23:14	1
рН	7.7	HF	0.1	0.1	SU			03/18/18 15:35	1
Temperature	19.4	HE	0.001	0.001	Degrees C			03/18/18 15:35	1

Client: New York State D.E.C.

Date Received: 03/16/18 12:30

Project/Site: Gastown WWTP #915171

Lab Sample ID: 480-132739-2

**Matrix: Wastewater** 

**Client Sample ID: Pre-Carbon** Date Collected: 03/16/18 10:45

Analyte	Result Qualif	ier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND ND	100	82	ug/L			03/21/18 19:01	100
1,1,2,2-Tetrachloroethane	ND	100	21	ug/L			03/21/18 19:01	100
1,1,2-Trichloroethane	ND	100	23	ug/L			03/21/18 19:01	100
1,1-Dichloroethane	ND	100	38	ug/L			03/21/18 19:01	100
1,1-Dichloroethene	ND	100	29	ug/L			03/21/18 19:01	100
1,2-Dichloroethane	ND	100	21	ug/L			03/21/18 19:01	100
1,2-Dichloroethene, Total	ND	200	81	ug/L			03/21/18 19:01	100
1,2-Dichloropropane	ND	100	72	ug/L			03/21/18 19:01	100
2-Hexanone	ND	500	120	ug/L			03/21/18 19:01	100
2-Butanone (MEK)	ND	1000	130	ug/L			03/21/18 19:01	100
4-Methyl-2-pentanone (MIBK)	ND	500	210	ug/L			03/21/18 19:01	100
Acetone	ND	1000	300	ug/L			03/21/18 19:01	100
Benzene	2100	100	41	ug/L			03/21/18 19:01	100
Bromodichloromethane	ND	100	39	ug/L			03/21/18 19:01	100
Bromoform	ND	100	26	ug/L			03/21/18 19:01	100
Bromomethane	ND	100	69	ug/L			03/21/18 19:01	100
Carbon disulfide	ND	100	19	ug/L			03/21/18 19:01	100
Carbon tetrachloride	ND	100	27	ug/L			03/21/18 19:01	100
Chlorobenzene	ND	100	75	ug/L			03/21/18 19:01	100
Dibromochloromethane	ND	100	32	ug/L			03/21/18 19:01	100
Chloroethane	ND	100	32	ug/L			03/21/18 19:01	100
Chloroform	ND	100	34	ug/L			03/21/18 19:01	100
Chloromethane	ND	100	35	ug/L			03/21/18 19:01	100
cis-1,3-Dichloropropene	ND	100	36	ug/L			03/21/18 19:01	100
Ethylbenzene	99 J	100	74	ug/L			03/21/18 19:01	100
Methylene Chloride	ND	100	44	ug/L			03/21/18 19:01	100
Styrene	ND	100	73	ug/L			03/21/18 19:01	100
Tetrachloroethene	ND	100	36	ug/L			03/21/18 19:01	100
Toluene	250	100	51	ug/L			03/21/18 19:01	100
trans-1,3-Dichloropropene	ND	100	37	ug/L			03/21/18 19:01	100
Trichloroethene	ND	100	46	ug/L			03/21/18 19:01	100
Vinyl chloride	ND	100		ug/L			03/21/18 19:01	100
Vinyl acetate	ND	500	85	ug/L			03/21/18 19:01	100
Xylenes, Total	ND	200		ug/L			03/21/18 19:01	100
Surrogate	%Recovery Qualit	fier Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110	77 - 120			-		03/21/18 19:01	100
Toluene-d8 (Surr)	98	80 - 120					03/21/18 19:01	100

4-Bromofluorobenzene (Surr)

Method: 8021B - Volatile Orga	nic Compounds (	(GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	0.11	J	0.45	0.079	ug/L			03/21/18 12:11	100
1,3,5-Trimethylbenzene	ND		0.45	0.34	ug/L			03/21/18 12:11	100
Benzene	44		0.45	0.053	ug/L			03/21/18 12:11	100
Ethylbenzene	2.1		0.45	0.065	ug/L			03/21/18 12:11	100
Isopropylbenzene	ND		0.45	0.061	ug/L			03/21/18 12:11	100
Methyl tert-butyl ether	ND		0.91	0.099	ug/L			03/21/18 12:11	100
m,p-Xylene	1.1		0.91	0.12	ug/L			03/21/18 12:11	100
n-Butylbenzene	ND		0.45	0.070	ug/L			03/21/18 12:11	100

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03/21/18 19:01

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3/30/2018

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-132739-1

**Client Sample ID: Pre-Carbon** 

Date Collected: 03/16/18 10:45 Date Received: 03/16/18 12:30 Lab Sample ID: 480-132739-2

**Matrix: Wastewater** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	ND		0.45	0.30	ug/L			03/21/18 12:11	100
o-Xylene	0.80		0.45	0.061	ug/L			03/21/18 12:11	100
p-Cymene	ND		0.45	0.067	ug/L			03/21/18 12:11	100
sec-Butylbenzene	ND		0.45	0.046	ug/L			03/21/18 12:11	100
Toluene	5.3		0.45	0.081	ug/L			03/21/18 12:11	100
Xylenes, Total	1.9		1.4	0.12	ug/L			03/21/18 12:11	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	94		63 - 129					03/21/18 12:11	100
4-Bromofluorobenzene	91		64 - 128					03/21/18 12:11	100
Method: 200.7 Rev 4.4 - Met	als (ICP)								
Method: 200.7 Rev 4.4 - Met			04 - 120					03/21/10 12.11	100
Method: 200.7 Rev 4.4 - Met Analyte	rals (ICP)	Qualifier	RL	MDL		<u>D</u>	Prepared	Analyzed	Dil Fac
Method: 200.7 Rev 4.4 - Met Analyte Calcium	Result 125000	Qualifier	RL 500	100	ug/L	D	03/19/18 08:42	Analyzed 03/19/18 14:28	Dil Fac
Method: 200.7 Rev 4.4 - Met Analyte Calcium Iron	Result 125000 216	Qualifier	RL 500 50.0	100 19.3	ug/L ug/L	<u>D</u>	03/19/18 08:42 03/19/18 08:42	Analyzed 03/19/18 14:28 03/19/18 14:28	Dil Fac
Method: 200.7 Rev 4.4 - Met Analyte Calcium Iron	Result 125000	Qualifier	RL 500 50.0 200	100 19.3 43.4	ug/L ug/L ug/L	<u>D</u>	03/19/18 08:42 03/19/18 08:42 03/19/18 08:42	Analyzed 03/19/18 14:28 03/19/18 14:28 03/19/18 14:28	Dil Fac
Method: 200.7 Rev 4.4 - Met Analyte	Result 125000 216	Qualifier	RL 500 50.0	100 19.3 43.4	ug/L ug/L	<u>D</u>	03/19/18 08:42 03/19/18 08:42	Analyzed 03/19/18 14:28 03/19/18 14:28	Dil Fac
Method: 200.7 Rev 4.4 - Met Analyte Calcium Iron Magnesium	Result 125000 216 42700	Qualifier	RL 500 50.0 200	100 19.3 43.4 100	ug/L ug/L ug/L	<u>D</u>	03/19/18 08:42 03/19/18 08:42 03/19/18 08:42	Analyzed 03/19/18 14:28 03/19/18 14:28 03/19/18 14:28	Dil Fac
Method: 200.7 Rev 4.4 - Met Analyte Calcium Iron Magnesium Potassium	Result 125000 216 42700 3140	Qualifier	RL 500 50.0 200 500	100 19.3 43.4 100	ug/L ug/L ug/L ug/L	<u>D</u>	03/19/18 08:42 03/19/18 08:42 03/19/18 08:42 03/19/18 08:42	Analyzed 03/19/18 14:28 03/19/18 14:28 03/19/18 14:28 03/19/18 14:28	Dil Fa
Method: 200.7 Rev 4.4 - Met Analyte Calcium Iron Magnesium Potassium Sodium	Result 125000 216 42700 3140 88700	Qualifier	RL 500 50.0 200 500	100 19.3 43.4 100	ug/L ug/L ug/L ug/L ug/L	D	03/19/18 08:42 03/19/18 08:42 03/19/18 08:42 03/19/18 08:42	Analyzed 03/19/18 14:28 03/19/18 14:28 03/19/18 14:28 03/19/18 14:28	Dil Fac
Method: 200.7 Rev 4.4 - Met Analyte Calcium Iron Magnesium Potassium Sodium General Chemistry Analyte	Result 125000 216 42700 3140 88700		RL 500 50.0 200 500 1000	100 19.3 43.4 100 324	ug/L ug/L ug/L ug/L ug/L	<u> </u>	03/19/18 08:42 03/19/18 08:42 03/19/18 08:42 03/19/18 08:42 03/19/18 08:42	Analyzed  03/19/18 14:28  03/19/18 14:28  03/19/18 14:28  03/19/18 14:28  03/19/18 14:28	Dil Fac
Method: 200.7 Rev 4.4 - Met Analyte Calcium Iron Magnesium Potassium Sodium	Result 125000 216 42700 3140 88700 Result		RL 500 50.0 200 500 1000	100 19.3 43.4 100 324 <b>MDL</b>	ug/L ug/L ug/L ug/L ug/L	<u> </u>	03/19/18 08:42 03/19/18 08:42 03/19/18 08:42 03/19/18 08:42 03/19/18 08:42	Analyzed  03/19/18 14:28  03/19/18 14:28  03/19/18 14:28  03/19/18 14:28  03/19/18 14:28	Dil Fac

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Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-132739-1

Lab Sample ID: 480-132739-3

**Matrix: Wastewater** 

## Client Sample ID: Post-Carbon 2

Date Collected: 03/16/18 10:35 Date Received: 03/16/18 12:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			03/27/18 15:24	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			03/27/18 15:24	1
Benzene	ND		0.20	0.023	ug/L			03/27/18 15:24	1
Ethylbenzene	ND		0.20	0.029	ug/L			03/27/18 15:24	1
Isopropylbenzene	ND		0.20	0.027	ug/L			03/27/18 15:24	1
Methyl tert-butyl ether	ND		0.40	0.044	ug/L			03/27/18 15:24	1
m,p-Xylene	ND		0.40	0.054	ug/L			03/27/18 15:24	1
n-Butylbenzene	ND		0.20	0.031	ug/L			03/27/18 15:24	1
n-Propylbenzene	ND		0.20	0.13	ug/L			03/27/18 15:24	1
o-Xylene	ND		0.20	0.027	ug/L			03/27/18 15:24	1
p-Cymene	ND		0.20	0.030	ug/L			03/27/18 15:24	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			03/27/18 15:24	1
Toluene	ND		0.20	0.036	ug/L			03/27/18 15:24	1
Xylenes, Total	ND		0.60	0.054	ug/L			03/27/18 15:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	89		63 - 129			-		03/27/18 15:24	1
4-Bromofluorobenzene	84		64 - 128					03/27/18 15:24	1

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-132739-1

Lab Sample ID: 480-132739-4

Matrix: Water

Client Sample ID: Post-Carbon 1

Date Collected: 03/16/18 10:40 Date Received: 03/16/18 12:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			03/27/18 14:12	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			03/27/18 14:12	1
Benzene	1.1		0.20	0.023	ug/L			03/27/18 14:12	1
Ethylbenzene	ND		0.20	0.029	ug/L			03/27/18 14:12	1
Isopropylbenzene	ND		0.20	0.027	ug/L			03/27/18 14:12	1
Methyl tert-butyl ether	0.45		0.40	0.044	ug/L			03/27/18 14:12	1
m,p-Xylene	ND		0.40	0.054	ug/L			03/27/18 14:12	1
n-Butylbenzene	ND		0.20	0.031	ug/L			03/27/18 14:12	1
n-Propylbenzene	ND		0.20	0.13	ug/L			03/27/18 14:12	1
o-Xylene	ND		0.20	0.027	ug/L			03/27/18 14:12	1
p-Cymene	ND		0.20	0.030	ug/L			03/27/18 14:12	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			03/27/18 14:12	1
Toluene	ND		0.20	0.036	ug/L			03/27/18 14:12	1
Xylenes, Total	ND		0.60	0.054	ug/L			03/27/18 14:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	89		63 - 129			-		03/27/18 14:12	1
4-Bromofluorobenzene	84		64 - 128					03/27/18 14:12	1

3/30/2018

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-132739-1

Lab Sample ID: 480-132739-5

Matrix: Water

## Client Sample ID: Inside Outside Sump

Date Collected: 03/16/18 11:00 Date Received: 03/16/18 12:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	8.3	J	20	3.5	ug/L			03/27/18 14:44	100
1,3,5-Trimethylbenzene	ND		20	15	ug/L			03/27/18 14:44	100
Benzene	2700		20	2.3	ug/L			03/27/18 14:44	100
Ethylbenzene	190		20	2.9	ug/L			03/27/18 14:44	100
Isopropylbenzene	ND		20	2.7	ug/L			03/27/18 14:44	100
Methyl tert-butyl ether	ND		40	4.4	ug/L			03/27/18 14:44	100
m,p-Xylene	71		40	5.4	ug/L			03/27/18 14:44	100
n-Butylbenzene	ND		20	3.1	ug/L			03/27/18 14:44	100
n-Propylbenzene	ND		20	13	ug/L			03/27/18 14:44	100
o-Xylene	42		20	2.7	ug/L			03/27/18 14:44	100
p-Cymene	ND		20	3.0	ug/L			03/27/18 14:44	100
sec-Butylbenzene	ND		20	2.0	ug/L			03/27/18 14:44	100
Toluene	360		20	3.6	ug/L			03/27/18 14:44	100
Xylenes, Total	110		60	5.4	ug/L			03/27/18 14:44	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	86		63 - 129			-		03/27/18 14:44	100
4-Bromofluorobenzene	83		64 - 128					03/27/18 14:44	100

3/30/2018

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Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

Lab Sample ID: 480-132739-1

**Matrix: Wastewater** 

Client Sample ID: Post-Carbon 3

Date Collected: 03/16/18 10:30 Date Received: 03/16/18 12:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	405142	03/21/18 22:55	AMM	TAL BUF
Total/NA	Prep	3510C			404630	03/19/18 14:10	ATG	TAL BUF
Total/NA	Analysis	8270D		1	404989	03/21/18 18:23	RJS	TAL BUF
Total/NA	Analysis	8021B		1	404946	03/21/18 12:43	MAN	TAL BUF
Total/NA	Prep	3510C			404701	03/20/18 07:28	JMP	TAL BUF
Total/NA	Analysis	608		1	405252	03/22/18 15:34	JLS	TAL BUF
Total/NA	Prep	200.7			405840	03/27/18 08:10	EMB	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	406194	03/27/18 17:16	LMH	TAL BUF
Total/NA	Prep	1664B			404487	03/18/18 11:53	DSC	TAL BUF
Total/NA	Analysis	1664B		1	404495	03/18/18 11:53	DSC	TAL BUF
Total/NA	Prep	Distill/CN			404907	03/21/18 03:25	KMB	TAL BUF
Total/NA	Analysis	335.4		1	405005	03/21/18 10:52	MDL	TAL BUF
Total/NA	Prep	Distill/Phenol			404908	03/21/18 04:36	BEV	TAL BUF
Total/NA	Analysis	420.1		1	405134	03/21/18 17:36	LED	TAL BUF
Total/NA	Analysis	SM 2540C		1	404893	03/20/18 19:38	CDC	TAL BUF
Total/NA	Analysis	SM 2540D		1	404903	03/20/18 23:14	CDC	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	404498	03/18/18 15:35	DSC	TAL BUF
Total/NA	Analysis	SM 5210B		1	404480	03/17/18 08:59	AED	TAL BUF

Client Sample ID: Pre-Carbon

Date Collected: 03/16/18 10:45

Date Received: 03/16/18 12:30

Lab Sample	ID: 480-132739-2
	Matrix: Wastewater

Lab Sample ID: 480-132739-3

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	404936	03/21/18 19:01	AEM	TAL BUF
Total/NA	Analysis	8021B		100	404946	03/21/18 12:11	MAN	TAL BUF
Total/NA	Prep	200.7			404528	03/19/18 08:42	EMB	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	404644	03/19/18 14:28	AMH	TAL BUF
Total/NA	Analysis	300.0		5	404777	03/20/18 14:37	RJS	TAL BUF
Total/NA	Analysis	310.2		5	405821	03/26/18 17:18	LED	TAL BUF

Client Sample ID: Post-Carbon 2

Date Collected: 03/16/18 10:35

Date Received: 03/16/18 12:30

	Batch	Batch	Dilution Ba		Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	405889	03/27/18 15:24	MAN	TAL BUF

TestAmerica Buffalo

**Matrix: Wastewater** 

#### **Lab Chronicle**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

Client Sample ID: Post-Carbon 1

TestAmerica Job ID: 480-132739-1

Lab Sample ID: 480-132739-4

Matrix: Water

Date Collected: 03/16/18 10:40 Date Received: 03/16/18 12:30

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number or Analyzed Analyst Lab Total/NA Analysis 8021B 405889 03/27/18 14:12 MAN TAL BUF

Client Sample ID: Inside Outside Sump Lab Sample ID: 480-132739-5

Date Collected: 03/16/18 11:00 Matrix: Water

Date Received: 03/16/18 12:30

Batch Batch Dilution Batch Prepared Туре Method Factor Number Prep Type Run or Analyzed Analyst Lab 8021B TAL BUF Total/NA Analysis 100 405889 03/27/18 14:44 MAN

**Laboratory References:** 

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

## **Accreditation/Certification Summary**

Client: New York State D.E.C. TestAmerica Job ID: 480-132739-1

Project/Site: Gastown WWTP #915171

### Laboratory: TestAmerica Buffalo

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

Authority	Program		EPA Region	Identification Number	Expiration Date		
ew York	NELAP		2	10026	03-31-18 *		
The following analytes	are included in this report, but	accreditation/certification	n is not offered by the	e governing authority:			
Analysis Method	Prep Method	Matrix	Analyte	е			
8021B		Wastewater	m,p-Xy	m,p-Xylene			
8021B		Wastewater	o-Xyle	o-Xylene			
8021B		Water	m,p-Xy	/lene			
8021B		Water	o-Xyle	ne			
8260C		Wastewater	1,2-Dio	chloroethene, Total			
SM 4500 H+ B		Wastewater	pН	рН			
SM 4500 H+ B		Wastewater	Tempe	erature			

<sup>\*</sup> Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Buffalo

### **Method Summary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-132739-1

lethod	Method Description	Protocol	Laboratory
260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
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 BUF
664B	HEM and SGT-HEM	1664B	TAL BUF
0.0	Anions, Ion Chromatography	MCAWW	TAL BUF
0.2	Alkalinity	MCAWW	TAL BUF
5.4	Cyanide, Total	MCAWW	TAL BUF
20.1	Phenolics, Total Recoverable	MCAWW	TAL BUF
M 2540C	Solids, Total Dissolved (TDS)	SM	TAL BUF
M 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
M 4500 H+ B	pH	SM	TAL BUF
M 5210B	BOD, 5-Day	SM	TAL BUF

#### Protocol References:

1664B = 1664B

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

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## **Sample Summary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-132739-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-132739-1	Post-Carbon 3	Wastewater	03/16/18 10:30	03/16/18 12:30
480-132739-2	Pre-Carbon	Wastewater	03/16/18 10:45	03/16/18 12:30
480-132739-3	Post-Carbon 2	Wastewater	03/16/18 10:35	03/16/18 12:30
480-132739-4	Post-Carbon 1	Water	03/16/18 10:40	03/16/18 12:30
480-132739-5	Inside Outside Sump	Water	03/16/18 11:00	03/16/18 12:30

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#### Buffalo

10 Hazelwood Drive

## Chain of Custody Record





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hone 716.504.9852 fax 716.691.7991	In	CI	N. ON	(CDEC)		le:		- 4		,,	. D				D /	,	2/10	1.	7.		_	TestAmerica Lat 480-132739 COC
Client Contact	, , , , , , , , , , , , , , , , , , , ,					-	Site Contact: Thomas Palmer  Date: 31618  Lab Contact: O. Johnson  Carrier:									The same of the sa						
Groundwater & Environmental Services, Inc	Tel/Fax: (716) 851-7220  Analysis Turnaround Time				La	b C	ontac	et: C	). Joi	-	-		-	Carr	90	_	_	6		-	of COCs	
95 Aero Drive Suite 3	1				_	-					2	0			e :	ond on	alla	spi	104.			Job No.
Cheektowaga, NY 14225			ork Days (W	)		- 8	por				104	5			eral	Priority Pollutant Pesticide	1	- Total Disolved Solids	LN			
800) 287-7857 Phone		AT if different f					Meth	por			, L	-		e	cov		i j	lved	1			
866) 902-2187 FAX		2	weeks				cal	Met			ist	8		& Grease	E E		Jed Jed	Oiso	707			SDG No.
Project Name: NYSDEC Gatown WWTP	$\perp$	1	week				Lo	cal			CE	otal LA		S G	Tots	6 P	nen d	ta]	TS			
Site: 915171		2	2 days			le le	OD	3	ity		1	e. T	H	Ö	ics,	Original	3	- To	TC			
O # Callout 120597			day			amb	3	OD	kalir		TOI	anid	· I	- oli	enol	E   1	of a local	Calcd	O			
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered S.	300.0_28D (MOD) Local Method	200.7 - (MOD) Local Method	310.2 - Alkalinity	200.7 - Iron	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS list - VOA - 80. 335.4 - Cvanide, Total	SM4500_H+-pH	1664A_Cale - Oil	420.4 - Phenolics, Total Recoverable	608 Fest - Priority Pollutant Festicide	2540D - Total Suspended Solids	2540C Ca	8270C-(MOD) TCL SVOA - OLM04.2			Sample Specific Notes:
Post-Carbon 3	3/16/18	1030	Grab	W	19	N				X	X	x x	X	X	X	X Z	X X	X	X			
Post-Carbon 2		1035	Grab	W	3	N						x										
Post-Carbon 1		1040	Grab	W	3	N						x										
Pre-Carbon		1045	Grab	W	9	N	X	X	X		X	X										
Inside Outside Sump		1100	Grab	W	3	N						X										
	1																					
						L																
			-							Ц	4	1	1				1					
							L			Ц		_					_					
						1	L		Ш			_	1			1	1	1				
										Ш		1	1			1	1	1			$\perp$	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=Na	OH; 6= Othe	r					L							_					_		_	
Possible Hazard Identification  Non-Hazard Flammable Skin Irritant	Poison I	, 🗆	Unknown							i <b>spo</b> s im Ti			e ma	be	<b>asse</b> Dispo	sse sal	an: By L	<b>am</b> p ab	oles	are reta □ Arc	inec hive	d longer than 1 month) e For Months
Special Instructions/QC Requirements & Comments:										,												
Relinquished by:	Company:	165		Date/Ti		123	4	ceive	1	1	16	4				(	Comp	any	}			Date/Time:
Relinquished by:	Company:			Date/Ti	ime:		Re	ceive	ed by	y:			9			(	Comp	any:				Date/Time:

Date/Time:

Received by:

Company:

Form No. CA-C-WI-002, dated 04/07/2011

Relinquished by: 30/2018



Company:





Date/Time:



## **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-132739-1

Login Number: 132739 List Source: TestAmerica Buffalo

List Number: 1

Creator: Wallace, Cameron

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

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THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

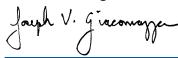
TestAmerica Job ID: 480-134603-1

Client Project/Site: Gastown WWTP #915171

#### For:

New York State D.E.C. 625 Broadway 11th Floor Albany, New York 12233-3256

Attn: Mr. Doug K MacNeal



Authorized for release by:

5/4/2018 3:26:43 PM
Joe Giacomazza. Project Mar

Joe Giacomazza, Project Management Assistant II joe.giacomazza@testamericainc.com

Designee for

Orlette Johnson, Senior Project Manager (484)685-0864

orlette.johnson@testamericainc.com

·····LINKS ·······

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**Have a Question?** 



Visit us at: www.testamericainc.com

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

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

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

2

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. gireonoge

Joe Giacomazza

Project Management Assistant II

5/4/2018 3:26:43 PM

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Client: New York State D.E.C. Project/Site: Gastown WWTP #915171 TestAmerica Job ID: 480-134603-1

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### **Definitions/Glossary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-134603-1

#### **Qualifiers**

#### **GC VOA**

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 Chemistry**

Qualifier	Qualifier Description
-----------	-----------------------

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

LCS or LCSD is outside acceptance limits.

#### **Glossary**

Abbreviation	Those commonly	used abbroviations may	or may not be	procent in this report
Appreviation	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 Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

Minimum Detectable Activity (Radiochemistry) MDA Minimum Detectable Concentration (Radiochemistry) MDC

MDL Method Detection Limit Minimum Level (Dioxin) ML

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

PΩI Practical Quantitation Limit

QC **Quality Control** 

**RER** Relative Error Ratio (Radiochemistry)

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)

TestAmerica Buffalo

#### **Case Narrative**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-134603-1

Job ID: 480-134603-1

**Laboratory: TestAmerica Buffalo** 

**Narrative** 

Job Narrative 480-134603-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 4/20/2018 1:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 12.2° 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 (480-134603-4). 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: Pre-Carbon (480-134603-4) and OUTSIDE SUMP (480-134603-5). 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.

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

#### **General Chemistry**

Method(s) 335.4, 9012B: The mid-range laboratory control sample (LCS) associated with preparation batch 480-412399 and analytical batch 480-412437 was outside acceptance criteria. LCS recovery of 88%, limits 90-110%. Re-extraction and/or re-analysis could not be performed within analytical holding time; therefore, the data have been reported. The high range laboratory control sample (LCS) and batch matrix spike/matrix spike duplicate (MS/MSD) were within acceptance limits and may be used to evaluate matrix performance. Post-Carbon 3 (480-134603-1)

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 has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Post-Carbon 3 (480-134603-1).

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: Gastown WWTP #915171

Client Sample ID: Post-Carbon 3

Date Collected: 04/20/18 12:45 Date Received: 04/20/18 13:30 Lab Sample ID: 480-134603-1

. Matrix: Water

5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/02/18 01:01	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/02/18 01:01	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/02/18 01:01	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/02/18 01:01	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/02/18 01:01	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/02/18 01:01	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			05/02/18 01:01	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/02/18 01:01	1
2-Hexanone	ND		5.0	1.2	ug/L			05/02/18 01:01	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/02/18 01:01	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/02/18 01:01	1
Acetone	ND		10	3.0	ug/L			05/02/18 01:01	1
Benzene	ND		1.0	0.41	ug/L			05/02/18 01:01	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/02/18 01:01	1
Bromoform	ND		1.0	0.26	ug/L			05/02/18 01:01	1
Bromomethane	ND		1.0	0.69	ug/L			05/02/18 01:01	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/02/18 01:01	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/02/18 01:01	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/02/18 01:01	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/02/18 01:01	1
Chloroethane	ND		1.0	0.32	ug/L			05/02/18 01:01	1
Chloroform	ND		1.0	0.34	ug/L			05/02/18 01:01	1
Chloromethane	ND		1.0	0.35	ug/L			05/02/18 01:01	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/02/18 01:01	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/02/18 01:01	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/02/18 01:01	1
Styrene	ND		1.0	0.73	ug/L			05/02/18 01:01	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/02/18 01:01	1
Toluene	ND		1.0	0.51	ug/L			05/02/18 01:01	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/02/18 01:01	1
Trichloroethene	ND		1.0	0.46	ug/L			05/02/18 01:01	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/02/18 01:01	1
Vinyl acetate	ND		5.0	0.85	ug/L			05/02/18 01:01	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/02/18 01:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepar	ed Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		77 - 120		05/02/18 01:01	1
Toluene-d8 (Surr)	98		80 - 120		05/02/18 01:01	1
4-Bromofluorobenzene (Surr)	104		73 - 120		05/02/18 01:01	1

Method: 8021B - Volatile Organic Compounds (GC)

		~ /						
Analyte	Result Qu	ualifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND	0.20	0.035	ug/L			04/26/18 16:15	1
1,3,5-Trimethylbenzene	ND	0.20	0.15	ug/L			04/26/18 16:15	1
Benzene	ND	0.20	0.023	ug/L			04/26/18 16:15	1
Ethylbenzene	ND	0.20	0.029	ug/L			04/26/18 16:15	1
Isopropylbenzene	ND	0.20	0.027	ug/L			04/26/18 16:15	1
Methyl tert-butyl ether	ND	0.40	0.044	ug/L			04/26/18 16:15	1
m,p-Xylene	ND	0.40	0.054	ug/L			04/26/18 16:15	1
n-Butylbenzene	ND	0.20	0.031	ug/L			04/26/18 16:15	1

TestAmerica Buffalo

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Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-134603-1

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

Date Collected: 04/20/18 12:45 Date Received: 04/20/18 13:30 Lab Sample ID: 480-134603-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	ND		0.20	0.13	ug/L			04/26/18 16:15	1
o-Xylene	ND		0.20	0.027	ug/L			04/26/18 16:15	1
p-Cymene	ND		0.20	0.030	ug/L			04/26/18 16:15	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			04/26/18 16:15	1
Toluene	ND		0.20	0.036	ug/L			04/26/18 16:15	1
Xylenes, Total	ND		0.60	0.054	ug/L			04/26/18 16:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	102		63 - 129			-		04/26/18 16:15	1
4-Bromofluorobenzene	92		64 - 128					04/26/18 16:15	1

Method: 200.7 Rev 4.4 - Metals (IC	<b>P</b> )								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	62.3	В	50.0	19.3	ug/L		04/25/18 08:02	04/25/18 23:50	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.13	*	0.010	0.0050	mg/L		05/03/18 09:10	05/03/18 16:02	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7	HF	0.1	0.1	SU			04/23/18 15:55	1
Temperature	21.2	HF	0.001	0.001	Degrees C			04/23/18 15:55	1

5/4/2018

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-134603-1

Lab Sample ID: 480-134603-2

Matrix: Water

Client Sample ID: Post-Carbon 2

Date Collected: 04/20/18 12:50 Date Received: 04/20/18 13:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			04/26/18 16:47	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			04/26/18 16:47	1
Benzene	0.11	J	0.20	0.023	ug/L			04/26/18 16:47	1
Ethylbenzene	ND		0.20	0.029	ug/L			04/26/18 16:47	1
Isopropylbenzene	ND		0.20	0.027	ug/L			04/26/18 16:47	1
Methyl tert-butyl ether	0.19	J	0.40	0.044	ug/L			04/26/18 16:47	1
m,p-Xylene	ND		0.40	0.054	ug/L			04/26/18 16:47	1
n-Butylbenzene	ND		0.20	0.031	ug/L			04/26/18 16:47	1
n-Propylbenzene	ND		0.20	0.13	ug/L			04/26/18 16:47	1
o-Xylene	ND		0.20	0.027	ug/L			04/26/18 16:47	1
p-Cymene	ND		0.20	0.030	ug/L			04/26/18 16:47	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			04/26/18 16:47	1
Toluene	ND		0.20	0.036	ug/L			04/26/18 16:47	1
Xylenes, Total	ND		0.60	0.054	ug/L			04/26/18 16:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	106		63 - 129			-		04/26/18 16:47	1
4-Bromofluorobenzene	96		64 - 128					04/26/18 16:47	1

5/4/2018

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-134603-1

Lab Sample ID: 480-134603-3

Matrix: Water

Client Sample ID: Post-Carbon 1

Date Collected: 04/20/18 12:55 Date Received: 04/20/18 13:30

Method: 8021B - Volatile Or Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			04/26/18 17:19	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			04/26/18 17:19	1
Benzene	35		0.20	0.023	ug/L			04/26/18 17:19	1
Ethylbenzene	0.16	J	0.20	0.029	ug/L			04/26/18 17:19	1
Isopropylbenzene	ND		0.20	0.027	ug/L			04/26/18 17:19	1
Methyl tert-butyl ether	0.54		0.40	0.044	ug/L			04/26/18 17:19	1
m,p-Xylene	0.059	J	0.40	0.054	ug/L			04/26/18 17:19	1
n-Butylbenzene	ND		0.20	0.031	ug/L			04/26/18 17:19	1
n-Propylbenzene	ND		0.20	0.13	ug/L			04/26/18 17:19	1
o-Xylene	0.12	J	0.20	0.027	ug/L			04/26/18 17:19	1
p-Cymene	ND		0.20	0.030	ug/L			04/26/18 17:19	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			04/26/18 17:19	1
Toluene	0.64		0.20	0.036	ug/L			04/26/18 17:19	1
Xylenes, Total	0.18	J	0.60	0.054	ug/L			04/26/18 17:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	99		63 - 129			-		04/26/18 17:19	1
4-Bromofluorobenzene	93		64 - 128					04/26/18 17:19	1

5/4/2018

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Client: New York State D.E.C.

Date Received: 04/20/18 13:30

Surrogate

a,a,a-Trifluorotoluene

4-Bromofluorobenzene

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-134603-1

Lab Sample ID: 480-134603-4

Prepared

Matrix: Water

**Client Sample ID: Pre-Carbon** Date Collected: 04/20/18 13:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		20	3.5	ug/L			04/26/18 17:52	100
1,3,5-Trimethylbenzene	ND		20	15	ug/L			04/26/18 17:52	100
Benzene	2600		20	2.3	ug/L			04/26/18 17:52	100
Ethylbenzene	200		20	2.9	ug/L			04/26/18 17:52	100
Isopropylbenzene	ND		20	2.7	ug/L			04/26/18 17:52	100
Methyl tert-butyl ether	ND		40	4.4	ug/L			04/26/18 17:52	100
m,p-Xylene	81		40	5.4	ug/L			04/26/18 17:52	100
n-Butylbenzene	ND		20	3.1	ug/L			04/26/18 17:52	100
n-Propylbenzene	ND		20	13	ug/L			04/26/18 17:52	100
o-Xylene	53		20	2.7	ug/L			04/26/18 17:52	100
p-Cymene	ND		20	3.0	ug/L			04/26/18 17:52	100
sec-Butylbenzene	ND		20	2.0	ug/L			04/26/18 17:52	100
Toluene	530		20	3.6	ug/L			04/26/18 17:52	100
Xylenes, Total	130		60	5.4	ug/L			04/26/18 17:52	100

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	160000	500	100	ug/L		04/25/18 08:02	04/25/18 23:35	1
Iron	448 B	50.0	19.3	ug/L		04/25/18 08:02	04/25/18 23:35	1
Magnesium	56700	200	43.4	ug/L		04/25/18 08:02	04/25/18 23:35	1
Potassium	5450 B	500	100	ug/L		04/25/18 08:02	04/26/18 13:56	1
Sodium	132000 B	1000	324	ug/L		04/25/18 08:02	04/25/18 23:35	1

Limits

63 - 129

64 - 128

%Recovery Qualifier

105

98

General Oneilistry										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Р	repared	Analyzed	Dil Fac
Chloride	238		2.5	1.4	mg/L				04/26/18 02:53	5
Sulfate	131		10.0	1.7	mg/L				04/26/18 02:53	5
Alkalinity, Total	386		40.0	16.0	mg/L				04/25/18 20:18	4

Dil Fac

100

100

Analyzed

04/26/18 17:52

04/26/18 17:52

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

**Client Sample ID: OUTSIDE SUMP** 

TestAmerica Job ID: 480-134603-1

Lab Sample ID: 480-134603-5

Matrix: Water

Date Collected: 04/20/18 13:15 Date Received: 04/20/18 13:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		100	17	ug/L			04/26/18 18:24	500
1,3,5-Trimethylbenzene	ND		100	75	ug/L			04/26/18 18:24	500
Benzene	3500		100	12	ug/L			04/26/18 18:24	500
Ethylbenzene	240		100	14	ug/L			04/26/18 18:24	500
Isopropylbenzene	ND		100	14	ug/L			04/26/18 18:24	500
Methyl tert-butyl ether	ND		200	22	ug/L			04/26/18 18:24	500
m,p-Xylene	130	J	200	27	ug/L			04/26/18 18:24	500
n-Butylbenzene	ND		100	15	ug/L			04/26/18 18:24	500
n-Propylbenzene	ND		100	65	ug/L			04/26/18 18:24	500
o-Xylene	60	J	100	14	ug/L			04/26/18 18:24	500
p-Cymene	ND		100	15	ug/L			04/26/18 18:24	500
sec-Butylbenzene	ND		100	10	ug/L			04/26/18 18:24	500
Toluene	650		100	18	ug/L			04/26/18 18:24	500
Xylenes, Total	190	J	300	27	ug/L			04/26/18 18:24	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	100		63 - 129			-		04/26/18 18:24	500
4-Bromofluorobenzene	95		64 - 128					04/26/18 18:24	500

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

Lab Sample ID: 480-134603-1

Lab Sample ID: 480-134603-2

Lab Sample ID: 480-134603-3

Matrix: Water

Matrix: Water

**Client Sample ID: Post-Carbon 3** Date Collected: 04/20/18 12:45

Date Received: 04/20/18 13:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	411977	05/02/18 01:01	AMM	TAL BUF
Total/NA	Analysis	8021B		1	411168	04/26/18 16:15	MAN	TAL BUF
Total/NA	Prep	200.7			410640	04/25/18 08:02	KMP	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	410997	04/25/18 23:50	LMH	TAL BUF
Total/NA	Prep	Distill/CN			412399	05/03/18 09:10	AED	TAL BUF
Total/NA	Analysis	335.4		1	412437	05/03/18 16:02	MDL	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	410399	04/23/18 15:55	DSC	TAL BUF

Client Sample ID: Post-Carbon 2

Date Collected: 04/20/18 12:50

Date Received: 04/20/18 13:30

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	411168	04/26/18 16:47	MAN	TAL BUF

Client Sample ID: Post-Carbon 1

Date Collected: 04/20/18 12:55

Date Received: 04/20/18 13:30

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B			411168	04/26/18 17:19	MAN	TAL BUF

Date Received: 04/20/18 13:30

Client Sample ID: Pre-Carbon	Lab Sample ID: 480-134603-4
Date Collected: 04/20/18 13:00	Matrix: Water

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		100	411168	04/26/18 17:52	MAN	TAL BUF
Total/NA	Prep	200.7			410640	04/25/18 08:02	KMP	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	410997	04/25/18 23:35	LMH	TAL BUF
Total/NA	Prep	200.7			410640	04/25/18 08:02	KMP	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	411247	04/26/18 13:56	LMH	TAL BUF
Total/NA	Analysis	300.0		5	410894	04/26/18 02:53	RJS	TAL BUF
Total/NA	Analysis	310.2		4	410936	04/25/18 20:18	ALZ	TAL BUF

**Client Sample ID: OUTSIDE SUMP** 

Date Collected: 04/20/18 13:15

Date Received: 04/20/18 13:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		500	411168	04/26/18 18:24	MAN	TAL BUF

TestAmerica Buffalo

**Matrix: Water** 

Lab Sample ID: 480-134603-5

**Matrix: Water** 

## **Lab Chronicle**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

#### Laboratory References:

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

TestAmerica Job ID: 480-134603-1

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## **Accreditation/Certification Summary**

Client: New York State D.E.C. TestAmerica Job ID: 480-134603-1

Project/Site: Gastown WWTP #915171

#### Laboratory: TestAmerica Buffalo

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

Authority	Program		EPA Region	Identification Number	Expiration Date
New York	NELAP		2	10026	03-31-18 *
The following analytes a	are included in this report, bu	t accreditation/certifica	ation is not offered by th	ne governing authority:	
Analysis Method	Prep Method	Matrix	Analy	te	
8021B		Water	m,p-X	ylene	
8021B		Water	o-Xyle	ene	
8260C		Water	1,2-Di	chloroethene, Total	
SM 4500 H+ B		Water	рН		
SM 4500 H+ B		Water	Tomp	erature	

<sup>\*</sup> Accreditation/Certification renewal pending - accreditation/certification considered valid.

## **Method Summary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-134603-1

Method	Method Description	Protocol	Laboratory
3260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
3021B	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	pН	SM	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
5030B	Purge and Trap	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF
Distill/CN	Distillation, Cyanide	None	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.

None = None

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

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## **Sample Summary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-134603-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-134603-1	Post-Carbon 3	Water	04/20/18 12:45	04/20/18 13:30
480-134603-2	Post-Carbon 2	Water	04/20/18 12:50	04/20/18 13:30
480-134603-3	Post-Carbon 1	Water	04/20/18 12:55	04/20/18 13:30
480-134603-4	Pre-Carbon	Water	04/20/18 13:00	04/20/18 13:30
480-134603-5	OUTSIDE SUMP	Water	04/20/18 13:15	04/20/18 13:30

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# 5/4/2018

Buffalo

10 Hazelwood Drive

## **Chain of Custody Record**



Amherst, NY 14228 phone 716.504.9852 fax 716.691.7991 TestAmerica Laboratories, Inc. 4 20 18 COC No: Client Contact Project Manager: Glenn May (NYSDEC) Site Contact: Thomas Palmer Date: Groundwater & Environmental Services, Inc. Tel/Fax: (716) 851-7220 Lab Contact: O. Johnson Carrier: of COCs 495 Aero Drive Suite 3 Job No. **Analysis Turnaround Time** Cheektowaga, NY 14225 Calendar (C) or Work Days (W) 8260B - (MOD) TCL list OLM04.2 (800) 287-7857 Phone TAT if different from Below SDG No. X FAX (866) 902-2187 2 weeks Project Name: NYSDEC Gatown WWTP 1 week Site: 915171 480-134603 COC 2 days SM4500\_H+-pH P O # Callout 120597 1 day 200.7 - Iron Sample Sample Sample Date Sample Identification Time Type Matrix Sample Specific Notes: W X  $\mathbf{X}$ Post-Carbon 3 4/20 Grab W X Post-Carbon 2 Grab 3 1250 X Post-Carbon 1 Grab W 3 X Pre-Carbon W x x X Grab 6 300 X Inside Outside Sump W 3 Grab Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other Possible Hazard Identification Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) Disposal By Lab Archive For Flammable Return To Client Unknown Skin Irritant Special Instructions/QC Requirements & Comments: Relinquished by Date/Time: Company: 4/20 Relinquished by: Date/Time: Received by: Date/Time: Company: Date/Time: Relinquished by: Company: Received by: Company: Date/Time:

MOTCE.

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Form No. CA-C-WI-002, dated 04/07/2011



















## **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-134603-1

Login Number: 134603 List Source: TestAmerica Buffalo

List Number: 1

Creator: Williams, Christopher S

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

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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: 480-134667-1

Client Project/Site: Gastown WWTP #915171

#### For:

New York State D.E.C. 625 Broadway 11th Floor Albany, New York 12233-3256

Attn: Mr. Doug K MacNeal

Joseph V. Gracomagger

Authorized for release by: 5/7/2018 9:51:17 AM

Joe Giacomazza, Project Management Assistant II joe.giacomazza@testamericainc.com

Designee for

Orlette Johnson, Senior Project Manager (484)685-0864

orlette.johnson@testamericainc.com

·····LINKS ·······

Review your project results through
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**Have a Question?** 



**Visit us at:** www.testamericainc.com

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

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

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

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

Joseph V. Gireonoger

Joe Giacomazza Project Management Assistant II 5/7/2018 9:51:17 AM Client: New York State D.E.C. Project/Site: Gastown WWTP #915171 TestAmerica Job ID: 480-134667-1

## **Table of Contents**

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## **Definitions/Glossary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-134667-1

### **Qualifiers**

### **LCMS**

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.
*	Isotope Dilution analyte is outside acceptance limits.
В	Compound was found in the blank and sample.

## Glossary

PQL

QC

RER RL

RPD

TEF

TEQ

Practical Quantitation Limit

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

**Quality Control** 

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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)

TestAmerica Buffalo

## **Case Narrative**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-134667-1

Job ID: 480-134667-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-134667-1

#### Comments

No additional comments.

#### Receipt

The sample was received on 4/20/2018 1:30 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.8° C.

#### GC/MS Semi VOA

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

#### **LCMS**

Method(s) 537 (modified): Isotope Dilution Analyte (IDA) recovery for M2-6:2FTS is above the method recommended limit for the following sample: OUTSIDE SUMP (480-134667-1). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

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

#### **Organic Prep**

Method(s) 3535: The following samples: OUTSIDE SUMP (480-134667-1) was decanted prior to preparation due to having sediment. Prep Batch: 320-221034

Method(s) 3535: The following sample was re-prepared outside of preparation holding time due to LCS recovery being high OUTSIDE SUMP (480-134667-1). preparation batch 320-221034

Method(s) 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-221034.

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

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Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

**Client Sample ID: OUTSIDE SUMP** 

TestAmerica Job ID: 480-134667-1

Lab Sample ID: 480-134667-1

Matrix: Water

Date Collected: 04/20/18 12:30 Date Received: 04/20/18 13:30

1802 PFHxS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
,4-Dioxane	ND		0.20	0.10	ug/L		04/24/18 14:27	04/26/18 04:11	
sotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
.4-Dioxane-d8	41		15 - 110				04/24/18 14:27	04/26/18 04:11	
,+ Dioxane do	71		70 - 770				04/24/10 14.27	04/20/10 04.11	
Method: 537 (modified) - Fluorina	ted Alkvi Sub	stances							
Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Perfluorooctanoic acid (PFOA)	12		2.1	0.88	ng/L		04/27/18 08:17	04/28/18 03:20	
sotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
I3C4 PFOA	95		25 - 150				04/27/18 08:17	04/28/18 03:20	
Method: 537 (modified) - Fluorina	ted Alkyl Sub	stances - R	E						
nalyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Perfluorobutanoic acid (PFBA)	8.1		2.0	0.35	ng/L		05/02/18 10:26	05/03/18 10:47	
Perfluoropentanoic acid (PFPeA)	2.4		2.0	0.49	ng/L		05/02/18 10:26	05/03/18 10:47	
erfluorohexanoic acid (PFHxA)	3.3		2.0	0.58	ng/L		05/02/18 10:26	05/03/18 10:47	
erfluoroheptanoic acid (PFHpA)	2.4		2.0	0.25	ng/L		05/02/18 10:26	05/03/18 10:47	
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L		05/02/18 10:26	05/03/18 10:47	
Perfluorodecanoic acid (PFDA)	ND		2.0	0.31	ng/L		05/02/18 10:26	05/03/18 10:47	
erfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		05/02/18 10:26	05/03/18 10:47	
erfluorododecanoic acid (PFDoA)	ND		2.0	0.55	ng/L		05/02/18 10:26	05/03/18 10:47	
erfluorotridecanoic Acid (PFTriA)	ND		2.0	1.3	ng/L		05/02/18 10:26	05/03/18 10:47	
erfluorotetradecanoic acid (PFTeA)	ND		2.0	0.29	ng/L		05/02/18 10:26	05/03/18 10:47	
erfluorobutanesulfonic acid	1.8	J	2.0	0.20	ng/L		05/02/18 10:26	05/03/18 10:47	
PFBS)					ū				
erfluorohexanesulfonic acid	1.9	J B	2.0	0.17	ng/L		05/02/18 10:26	05/03/18 10:47	
PFHxS)									
erfluoroheptanesulfonic Acid	0.33	J	2.0	0.19	ng/L		05/02/18 10:26	05/03/18 10:47	
PFHpS)			2.0	0.54	na/l		05/02/10 10:26	05/02/10 10:17	
erfluorooctanesulfonic acid PFOS)	9.2		2.0	0.54	ng/L		05/02/18 10:26	05/03/18 10:47	
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		05/02/18 10:26	05/03/18 10:47	
Perfluorooctane Sulfonamide (FOSA)	ND		2.0		ng/L		05/02/18 10:26	05/03/18 10:47	
I-methyl perfluorooctane	ND		20		ng/L		05/02/18 10:26	05/03/18 10:47	
ulfonamidoacetic acid (NMeFOSAA)	110		20	0.1	119/12		00/02/10 10:20	00/00/10 10:1/	
I-ethyl perfluorooctane	ND		20	1.9	ng/L		05/02/18 10:26	05/03/18 10:47	
ulfonamidoacetic acid (NEtFOSAA)									
:2FTS	19	J	20	2.0	ng/L		05/02/18 10:26	05/03/18 10:47	
:2FTS	ND		20	2.0	ng/L		05/02/18 10:26	05/03/18 10:47	
sotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
3C4 PFBA	59		25 - 150				05/02/18 10:26	05/03/18 10:47	
3C5 PFPeA	86		25 - 150				05/02/18 10:26	05/03/18 10:47	
3C2 PFHxA	85		25 - 150				05/02/18 10:26	05/03/18 10:47	
3C4-PFHpA	92		25 - 150				05/02/18 10:26	05/03/18 10:47	
3C5 PFNA	100		25 - 150				05/02/18 10:26	05/03/18 10:47	
3C2 PFDA	93		25 - 150				05/02/18 10:26	05/03/18 10:47	
3C2 PFUnA	87		25 - 150				05/02/18 10:26	05/03/18 10:47	
3C2 PFDoA	85		25 - 150				05/02/18 10:26	05/03/18 10:47	
3C2-PFTeDA	88		25 <sub>-</sub> 150				05/02/18 10:26	05/03/18 10:47	
3C3-PFBS	92		25 - 150				05/02/18 10:26	05/03/18 10:47	

TestAmerica Buffalo

05/03/18 10:47

05/02/18 10:26

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5/7/2018

Client: New York State D.E.C.

Date Received: 04/20/18 13:30

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-134667-1

**Client Sample ID: OUTSIDE SUMP** 

Lab Sample ID: 480-134667-1 Date Collected: 04/20/18 12:30

Matrix: Water

Method: 537 (modified) - Fluorinated	Alkyl Sub	stances -	- RE (Continued)
Isotope Dilution	%Recovery	Qualifier	Limits

Isotope Dilution	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	100	25 - 150	05/02/18 10:26	05/03/18 10:47	1
13C8 FOSA	93	25 - 150	05/02/18 10:26	05/03/18 10:47	1
d3-NMeFOSAA	84	25 - 150	05/02/18 10:26	05/03/18 10:47	1
d5-NEtFOSAA	91	25 - 150	05/02/18 10:26	05/03/18 10:47	1
M2-6:2FTS	159 *	25 - 150	05/02/18 10:26	05/03/18 10:47	1
M2-8:2FTS	107	25 150	05/02/18 10:26	05/03/18 10:47	1

## **Lab Chronicle**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-134667-1

Lab Sample ID: 480-134667-1

Matrix: Water

Client Sample ID: OUTSIDE SUMP Date Collected: 04/20/18 12:30

Date Received: 04/20/18 13:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			410609	04/24/18 14:27	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	410920	04/26/18 04:11	DMR	TAL BUF
Total/NA	Prep	3535			220091	04/27/18 08:17	SK	TAL SAC
Total/NA	Analysis	537 (modified)		1	220319	04/28/18 03:20	JRB	TAL SAC
Total/NA	Prep	3535	RE		221034	05/02/18 10:26	TWL	TAL SAC
Total/NA	Analysis	537 (modified)	RE	1	221279	05/03/18 10:47	JRB	TAL SAC

#### **Laboratory References:**

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

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

TestAmerica Buffalo

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## **Accreditation/Certification Summary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-134667-1

### Laboratory: TestAmerica Buffalo

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

Autho	ority	Program	EPA Region	Identification Number	<b>Expiration Date</b>
New Y	York	NELAP	2	10026	03-31-18 *

#### **Laboratory: TestAmerica Sacramento**

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-020	01-20-21
Arizona	State Program	9	AZ0708	08-11-18
Arkansas DEQ	State Program	6	88-0691	06-17-19
California	State Program	9	2897	01-31-19
Colorado	State Program	8	CA00044	08-31-18
Connecticut	State Program	1	PH-0691	06-30-19
Florida	NELAP	4	E87570	06-30-18
Georgia	State Program	4	N/A	01-28-19
Hawaii	State Program	9	N/A	01-29-19
Illinois	NELAP	5	200060	03-17-19
Kansas	NELAP	7	E-10375	10-31-18
L-A-B	DoD ELAP		L2468	01-20-21
Louisiana	NELAP	6	30612	06-30-18
Maine	State Program	1	CA0004	04-14-20
Michigan	State Program	5	9947	01-31-20
Nevada	State Program	9	CA00044	07-31-18
New Hampshire	NELAP	1	2997	04-18-19
New Jersey	NELAP	2	CA005	06-30-18
New York	NELAP	2	11666	03-31-19
Oregon	NELAP	10	4040	01-29-19
Pennsylvania	NELAP	3	68-01272	03-31-19
Texas	NELAP	6	T104704399	05-31-18
US Fish & Wildlife	Federal		LE148388-0	07-31-18
USDA	Federal		P330-11-00436	01-17-21
USEPA UCMR	Federal	1	CA00044	11-06-18
Utah	NELAP	8	CA00044	02-28-19
Virginia	NELAP	3	460278	03-14-19
Washington	State Program	10	C581	05-05-18
West Virginia (DW)	State Program	3	9930C	12-31-18
Wyoming	State Program	8	8TMS-L	01-28-19

TestAmerica Buffalo

5/7/2018

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<sup>\*</sup> Accreditation/Certification renewal pending - accreditation/certification considered valid.

## **Method Summary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-134667-1

Method	Method Description	Protocol	Laboratory
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC

#### **Protocol References:**

EPA = US Environmental Protection Agency

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 SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

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## **Sample Summary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-134667-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-134667-1	OUTSIDE SUMP	Water	04/20/18 12:30	04/20/18 13:30

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## Buffalo

10 Hazelwood Drive

## **Chain of Custody Record**



Amherst, NY 14228

phone 716.504.9852 fax 716.691.7991													1	1			TestAmerica I	la Sala
Client Contact	Project Mana	iger: Gler	n May (NY	(SDEC)		Site (	Conta	ct: Thom	as Palı	mer	1	Date:	4/20	18			COC No:	480 134667 COC
Groundwater & Environmental Services, Inc	Tel/Fax: (716	) 851-722	0			Lab (	Conta	ct: O. Jo	hnson			Carrier:	: '				of	180-134667 COC
495 Aero Drive Suite 3	A	nalysis Tu	ırnaround	Time		vtes	) in s										Job No.	
Cheektowaga, NY 14225	Calendar (	C) or Wo	rk Days (W	)		Anal	le le				1 1		1	11		1 1		
(800) 287-7857 Phone	TAT	if different fi	rom Below			5	oxar							11				
(866) 902-2187 FAX		2	weeks			I is	4-Di			1 1	1 1			1 1		1	SDG No.	
Project Name: NYSDEC Gatown WWTP		1	week			dar	D-1,							11				
Site: 915171 GES Project #090691		2	days			3	SI			1 1		1	1	1 1		1		
P O # Callout 120597			day			EAS.	M											
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	8270D_SIM_MS_ID-1,4-Dioxane										Sample	e Specific Notes:
Inside / Outside Sump	4/20/18/1	230	Grab	W	4	N Z	x x			П	TT							
	11-11-1					H	+		$\vdash$	++	+	+		+	+	++		
	_					H	+		$\vdash$	+	+	+	$\vdash$	+	+	+	_	
						Н	+			++	+			+	+	++	+	
	-					H	+		+	+	+	+	$\vdash$	+	+	+	-	
	+					H	+		$\vdash$	++	+	-	H	+	+	+	+	
						H	+		$\vdash$	+	+		+	+	+	++		
	-					Н	+	$\vdash$	+	+	+	+	$\vdash$	+	+	+	-	
						H	+			++	+	+		+	+	+	-	
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						$^{+}$	+	$\vdash$	+	++	+	+	$\forall$	+	+	+	-	
				-		H	+	$\vdash$	++	++	+	-	+	+	+	+		
						4	+	+	++	++	+	-	+	+	-	+	_	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5= Possible Hazard Identification	NaOH; 6= Other_					-	Samp!	o Diene	201/1	foo m	av bo	20000	od if o	ample	oc ara	rotain	ned longer than 1	month)
Non-Hazard Flammable Skin Irritant	Poison B		Inknown	<b>A</b>		١		Return 7			Z [	oisposa	al By La	ab ab			ive For	Months
Special Instructions/QC Requirements & Comments:																		
								$\wedge$		Λ			7	+1	(	3,4	Б	
Relinquished by:	Company	35		Date/Ti	me:		Receiv	d by:	5	/	6		Comp	any:	B		Date/Time:	118 1330
Relinquished by:	Company:			Date/Ti			Receive	ed by:	-				Comp	any:	.,		Date/Time:	1
Relinquished by:	Company:			Date/Ti	me:	F	Receive	ed by:					Comp	any:			Date/Time:	
												_					Form No. CA-C-V	VI-002 dated 04/07/201

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

10 Hazelwood Drive Amherst, NY 14228-2298

## **Chain of Custody Record**

<u>TestAmerica</u>

THE LEADER IN	ENVIRONMENTAL	TESTING
THE PENDEN IN	FIRSTEDINERINE	1COLING

Client Information (Sub Contract Lab)	Samplet.				hnso	nnson, Orlette S					State of Origin:				480-41624.1		
Client Contact:	Phone:				Mail:	ail: ette.johnson@testamericainc.com								Page:			
Shipping/Receiving				or								New Y	ork			Page 1 of 1	
Company: TestAmerica Laboratories, Inc.								Required W York		ote):						480-134667-	
Address:	Due Date Requeste 5/2/2018	id:							Ar	alvei	e Ro	queste	d			Preservation (	Codes:
880 Riverside Parkway, , City:	TAT Requested (da	ivsl:			100	ute!			T	larys	3 1101	lucste	1		1 199	A - HCL B - NaOH	M - Hexane
West Sacramento		.,-,.			8	僵										C - Zn Acetate D - Nitric Acid	N - None O - AsNaO2 P - Na2O4S
State, Zip: CA, 95605					15	155	=								100	E - NaHSO4	Q - Na2SO3
Phone:	PO#:						lst (2									F - MeOH G - Amchlor	R - Na2S2O3 S - H2SO4
916-373-5600(Tel) 916-372-1059(Fax)	WO #:				or No	憲	dard		1 4						9	H - Ascorbic Aci	U - Acetone
					10 84	No.	Stan					511			2	J - DI Water K - EDTA	V - MCAA W - pH 4-5
Project Name: Gastown WWTP #915171	Project #: 48002525				و(بره	es or	AS,								containe		Z - other (specify)
Site: Gastown WWTP	SSOW#:				Samp	SD (Y	PFC P								ologi		
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Wewater, Secolid, Owwaste/oil BT=Tissue, As,	Field Filtered	Perform MS/MSD (Yes or No)	PFC_IDA/3535_PFC PFAS, Standard List (21 Analytes)								Total Number	Specia	I Instructions/Note:
Sample Identification - Cheft ID (Lab ID)	- Sumple Bate			ation Code		X		03	tile ti	161		188/4		SCHOOL SEC	\ \ \ \ \	Openia	i mistractions/rece.
OUTSIDE SUMP (480-134667-1)	4/20/18	12:30 Eastern		Water			х								2	2	
		Ludiom			$\top$				1						100		
					+	H	$\dashv$		+				#		1 10	20°	
	_				+	H		+	+		-	$\vdash$	+		100		-
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					$\bot$	Ш									100		
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				100	1												
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Note: Since laboratory accreditations are subject to change, TestAmerica currently maintain accreditation in the State of Origin listed above for and Laboratories, Inc. attention immediately. If all requested accreditations a	elysis/tests/matrix being analy:	zed, the samp	les must be sh	ipped back to	the T	estAm	erica	laborator	y or othe	er instru	ctions wi	This sar I be prov	nple shi ded. Ar	oment is for ny changes	rwarded ur to accred	nder chain-of-custo itation status should	dy. If the laboratory does not the brought to TestAmerica
Possible Hazard Identification	ire content to date, retain the	ingried Criairi	01 003100) 8110	.sung to said	-			2000				ecacci	nd if s	mnlee a	ro rotai	ned longer tha	n 1 month)
Unconfirmed								eturn To				Disposa				hive For	Months
Deliverable Requested: I, II, III, IV, Other (specify)	Primary Delivera	able Rank:	1		_	Spe		nstructi					Dy Le		Aic	illive i oi	World is
Empty Kit Relinquished by:		Date:			IT	me:	_						ethod of	Shipment			
Relinquished by:	Date/Time / 2	10		Company	17		Recei	wed by:	, /	7	_			ALL STREET		-	Company
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Relinquished by:	Date/Time:			Company	-		Recei	ived by:						Dåte/Tim	e:		Company
Relinquished by:	Date/Time:			Company			Recei	ved by:						Date/Tim	e;		Company
Custody Seals Intact: Custody Seal No.:				111		33	Coole	r Tempe	rature(s)	°C and	Other R	emarks:		1	200		
Δ Yes Δ No						VE S					_			L-	0		Ver: 09/20/2016
																	Ver: 09/20/2016

5/7/2018

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THE LEADER IN ENVIRONMENTAL TESTING



Tracking # 427/4 07/4 7424 50/PD/FO Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations. File in the job folder with the COC. Therm. ID: AK-2 / AK-3 / AK-4 / AK-5 HACCP / Other\_ Notes: Cooler Custody Seal: \_\_\_ Sample Custody Seal: \_\_\_\_\_ Cooler ID: Temp: Observed From: Temp Blank D Sample A NCM Filed: Yes D No D Yes No NA Perchlorate has headspace? D CoC is complete w/o discrepancies? Samples received within holding time? Sample preservatives verified? B D Cooler compromised/tampered with? Samples compromised/tampered with? 0 Samples w/o discrepancies? D D Sample containers have legible labels? D D D Containers are not broken or leaking? Sample date/times are provided. D Appropriate containers are used? B Sample bottles are completely filled? D D Zero headspace?\* B Multiphasic samples are not present? D Sample temp OK? Sample out of temp? zero headspace have no headspace, or bubble < 6 mm (1/4")

Q:\DOCUMENT-MANAGEMENT\FORMS\QA-812 REV. 1.5 SAMPLE RECEIVING NOTES 2018-01-26.DOC

QA-812 RKE 01/26/2018

## **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-134667-1

Login Number: 134667 List Source: TestAmerica Buffalo

List Number: 1

Creator: Wallace, Cameron

ordatori tranaco, cameron		
Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
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	

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Client: New York State D.E.C.

Job Number: 480-134667-1

List Source: TestAmerica Sacramento

List Creation: 04/24/18 11:56 AM

Login Number: 134667
List Number: 2
Creator: Her, David A

Creator. Her, David A		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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	2.8c
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?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

N/A

TestAmerica Buffalo

Residual Chlorine Checked.



THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

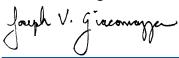
TestAmerica Job ID: 480-136256-1

Client Project/Site: Gastown WWTP #915171

### For:

New York State D.E.C. 625 Broadway 11th Floor Albany, New York 12233-3256

Attn: Mr. Doug K MacNeal



Authorized for release by: 6/6/2018 9:15:29 AM

Joe Giacomazza, Project Management Assistant II joe.giacomazza@testamericainc.com

Designee for

Orlette Johnson, Senior Project Manager (484)685-0864

orlette.johnson@testamericainc.com

·····LINKS ·······

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**Visit us at:**www.testamericainc.com

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

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

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

2

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.

2

Joseph V. Gracomogram

Joe Giacomazza

Project Management Assistant II

6/6/2018 9:15:29 AM

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Client: New York State D.E.C. Project/Site: Gastown WWTP #915171 TestAmerica Job ID: 480-136256-1

## **Table of Contents**

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## **Definitions/Glossary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-136256-1

### **Qualifiers**

### **GC VOA**

Qualifier	Qualifier Description
-----------	-----------------------

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
<b>Q</b> uuiiiici	Qualifici	Description

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

F1 MS and/or MSD Recovery is outside acceptance limits.

Н Sample was prepped or analyzed beyond the specified holding time

## **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
	1: ( 1

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 Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

Decision Level Concentration (Radiochemistry) DLC

**EDL** Estimated Detection Limit (Dioxin) Limit of Detection (DoD/DOE) LOD LOQ Limit of Quantitation (DoD/DOE)

MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit MLMinimum Level (Dioxin)

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

**PQL Practical Quantitation Limit** 

**Quality Control** QC

**RER** Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry) RL

**RPD** Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) **TEQ** Toxicity Equivalent Quotient (Dioxin)

## **Case Narrative**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-136256-1

Job ID: 480-136256-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-136256-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 5/21/2018 1:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8° C.

#### **GC/MS VOA**

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-416400 recovered above the upper control limit for Vinyl Acetate and 2-Butanone (MEK). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: Post-Carbon 3 (480-136256-1).

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 was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-136256-4). 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 sample was diluted to bring the concentration of target analytes within the calibration range: OUTSIDE SUMP (480-136256-5). 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: Post-Carbon 1 (480-136256-3) and Pre-Carbon (480-136256-4). 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) 335.4: Reanalysis of the following sample was performed outside of the analytical holding time due to failure of quality control parameters in the initial analysis. Post-Carbon 3 (480-136256-1) Both results are reported.

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 has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Post-Carbon 3 (480-136256-1).

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

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Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

Client Sample ID: Post-Carbon 3

Date Collected: 05/21/18 11:45 Date Received: 05/21/18 13:15

Lab Sample ID: 480-136256-1

**Matrix: Water** 

Method: 8260C - Volatile O	Result	Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/25/18 17:25	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/25/18 17:25	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/25/18 17:25	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/25/18 17:25	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/25/18 17:25	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/25/18 17:25	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			05/25/18 17:25	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/25/18 17:25	1
2-Hexanone	ND		5.0	1.2	ug/L			05/25/18 17:25	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/25/18 17:25	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/25/18 17:25	1
Acetone	ND		10	3.0	ug/L			05/25/18 17:25	1
Benzene	ND		1.0	0.41	ug/L			05/25/18 17:25	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/25/18 17:25	1
Bromoform	ND		1.0	0.26	ug/L			05/25/18 17:25	1
Bromomethane	ND		1.0	0.69	ug/L			05/25/18 17:25	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/25/18 17:25	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/25/18 17:25	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/25/18 17:25	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/25/18 17:25	1
Chloroethane	ND		1.0	0.32	ug/L			05/25/18 17:25	1
Chloroform	ND		1.0	0.34	ug/L			05/25/18 17:25	1
Chloromethane	ND		1.0	0.35	ug/L			05/25/18 17:25	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/25/18 17:25	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/25/18 17:25	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/25/18 17:25	1
Styrene	ND		1.0	0.73	ug/L			05/25/18 17:25	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/25/18 17:25	1
Toluene	ND		1.0	0.51	ug/L			05/25/18 17:25	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/25/18 17:25	1
Trichloroethene	ND		1.0	0.46	ug/L			05/25/18 17:25	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/25/18 17:25	1
Vinyl acetate	ND		5.0	0.85	ug/L			05/25/18 17:25	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/25/18 17:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		77 - 120			-		05/25/18 17:25	1
Toluene-d8 (Surr)	103		80 - 120					05/25/18 17:25	1

Method: 8021B -	Volatile Oi	rganic Co	mpounds (	GC)
-----------------	-------------	-----------	-----------	-----

96

4-Bromofluorobenzene (Surr)

Method: 8021B - Volatile Org Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND	0.20	0.035	ug/L			05/22/18 18:33	1
1,3,5-Trimethylbenzene	ND	0.20	0.15	ug/L			05/22/18 18:33	1
Benzene	ND	0.20	0.023	ug/L			05/22/18 18:33	1
Ethylbenzene	ND	0.20	0.029	ug/L			05/22/18 18:33	1
Isopropylbenzene	ND	0.20	0.027	ug/L			05/22/18 18:33	1
Methyl tert-butyl ether	ND	0.40	0.044	ug/L			05/22/18 18:33	1
m,p-Xylene	ND	0.40	0.054	ug/L			05/22/18 18:33	1
n-Butylbenzene	ND	0.20	0.031	ug/L			05/22/18 18:33	1

73 - 120

TestAmerica Buffalo

05/25/18 17:25

Page 6 of 18 6/6/2018

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-136256-1

05/29/18 10:59

Lab Sample ID: 480-136256-1

**Matrix: Water** 

C	lient	Samp	ole	ID:	Pos	t-Car	bon	3
---	-------	------	-----	-----	-----	-------	-----	---

Date Collected: 05/21/18 11:45 Date Received: 05/21/18 13:15

**Temperature** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	ND		0.20	0.13	ug/L			05/22/18 18:33	1
o-Xylene	ND		0.20	0.027	ug/L			05/22/18 18:33	1
p-Cymene	ND		0.20	0.030	ug/L			05/22/18 18:33	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			05/22/18 18:33	1
Toluene	ND		0.20	0.036	ug/L			05/22/18 18:33	1
Xylenes, Total	ND		0.60	0.054	ug/L			05/22/18 18:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	103		63 - 129					05/22/18 18:33	1
4-Bromofluorobenzene	100		64 - 128					05/22/18 18:33	1
Method: 200.7 Rev 4.4 - I	Metals (ICP)								
Analyte	· · ·	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	74.8		50.0	19.3	ug/L		05/24/18 08:55	05/25/18 00:36	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.15		0.010	0.0050	mg/L		06/01/18 13:55	06/01/18 16:10	1
Cyanide, Total	0.13	H F1	0.010	0.0050	mg/L		06/05/18 13:10	06/05/18 14:29	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH		HF	0.1	0.1	SU			05/29/18 10:59	1

0.001

22.1 HF

0.001 Degrees C

6/6/2018

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-136256-1

Lab Sample ID: 480-136256-2

Matrix: Water

Client Sample ID: Post-Carbon 2

Date Collected: 05/21/18 11:50 Date Received: 05/21/18 13:15

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			05/22/18 19:05	1
1,3,5-Trimethylbenzene	ND	0.20	0.15	ug/L			05/22/18 19:05	1
Benzene	ND	0.20	0.023	ug/L			05/22/18 19:05	1
Ethylbenzene	ND	0.20	0.029	ug/L			05/22/18 19:05	1
Isopropylbenzene	ND	0.20	0.027	ug/L			05/22/18 19:05	1
Methyl tert-butyl ether	0.33 J	0.40	0.044	ug/L			05/22/18 19:05	1
m,p-Xylene	ND	0.40	0.054	ug/L			05/22/18 19:05	1
n-Butylbenzene	ND	0.20	0.031	ug/L			05/22/18 19:05	1
n-Propylbenzene	ND	0.20	0.13	ug/L			05/22/18 19:05	1
o-Xylene	ND	0.20	0.027	ug/L			05/22/18 19:05	1
p-Cymene	ND	0.20	0.030	ug/L			05/22/18 19:05	1
sec-Butylbenzene	ND	0.20	0.020	ug/L			05/22/18 19:05	1
Toluene	ND	0.20	0.036	ug/L			05/22/18 19:05	1
Xylenes, Total	ND	0.60	0.054	ug/L			05/22/18 19:05	1
Surrogate	%Recovery Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	99	63 - 129			-		05/22/18 19:05	1
4-Bromofluorobenzene	97	64 - 128					05/22/18 19:05	1

6/6/2018

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Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-136256-1

Lab Sample ID: 480-136256-3

**Matrix: Water** 

Client Sample ID: Post-Carbon 1

Date Collected: 05/21/18 11:55 Date Received: 05/21/18 13:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		4.0	0.69	ug/L			05/23/18 12:39	20
1,3,5-Trimethylbenzene	ND		4.0	3.0	ug/L			05/23/18 12:39	20
Benzene	250		4.0	0.47	ug/L			05/23/18 12:39	20
Ethylbenzene	1.9	J	4.0	0.57	ug/L			05/23/18 12:39	20
Isopropylbenzene	ND		4.0	0.54	ug/L			05/23/18 12:39	20
Methyl tert-butyl ether	ND		8.0	0.87	ug/L			05/23/18 12:39	20
m,p-Xylene	ND		8.0	1.1	ug/L			05/23/18 12:39	20
n-Butylbenzene	ND		4.0	0.62	ug/L			05/23/18 12:39	20
n-Propylbenzene	ND		4.0	2.6	ug/L			05/23/18 12:39	20
o-Xylene	ND		4.0	0.54	ug/L			05/23/18 12:39	20
p-Cymene	ND		4.0	0.59	ug/L			05/23/18 12:39	20
sec-Butylbenzene	ND		4.0	0.41	ug/L			05/23/18 12:39	20
Toluene	6.3		4.0	0.71	ug/L			05/23/18 12:39	20
Xylenes, Total	ND		12	1.1	ug/L			05/23/18 12:39	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	90		63 - 129					05/23/18 12:39	20
4-Bromofluorobenzene	86		64 - 128					05/23/18 12:39	20

6/6/2018

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Client: New York State D.E.C.

Date Received: 05/21/18 13:15

**General Chemistry** 

Analyte

Chloride

**Alkalinity, Total** 

Sulfate

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-136256-1

Lab Sample ID: 480-136256-4

**Matrix: Water** 

Client Sample ID: Pre-Carbon Date Collected: 05/21/18 12:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	9.8	J	20	3.5	ug/L			05/23/18 13:11	100
1,3,5-Trimethylbenzene	ND		20	15	ug/L			05/23/18 13:11	100
Benzene	3100		20	2.3	ug/L			05/23/18 13:11	100
Ethylbenzene	230		20	2.9	ug/L			05/23/18 13:11	100
Isopropylbenzene	ND		20	2.7	ug/L			05/23/18 13:11	100
Methyl tert-butyl ether	ND		40	4.4	ug/L			05/23/18 13:11	100
m,p-Xylene	110		40	5.4	ug/L			05/23/18 13:11	100
n-Butylbenzene	ND		20	3.1	ug/L			05/23/18 13:11	100
n-Propylbenzene	ND		20	13	ug/L			05/23/18 13:11	100
o-Xylene	65		20	2.7	ug/L			05/23/18 13:11	100
p-Cymene	ND		20	3.0	ug/L			05/23/18 13:11	100
sec-Butylbenzene	ND		20	2.0	ug/L			05/23/18 13:11	100
Toluene	540		20	3.6	ug/L			05/23/18 13:11	100
Xylenes, Total	180		60	5.4	ug/L			05/23/18 13:11	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	89		63 - 129					05/23/18 13:11	100
4-Bromofluorobenzene	85		64 - 128					05/23/18 13:11	100
- Method: 200.7 Rev 4.4 - N	Metals (ICP)								
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	129000		500	100	ug/L		05/23/18 10:42	05/24/18 13:32	1
Iron	198		50.0	19.3	ug/L		05/23/18 10:42	05/24/18 13:32	1
Magnesium	48900		200	43.4	ug/L		05/23/18 10:42	05/24/18 13:32	1
Potassium	3690		500	100	ug/L		05/23/18 10:42	05/24/18 13:32	1
Sodium	98000		1000	324	ug/L		05/23/18 10:42	05/24/18 13:32	1

RL

2.5

10.0

50.0

MDL Unit

1.4 mg/L

1.7 mg/L

20.0 mg/L

D

Prepared

Result Qualifier

188

134

408

-

6

Q

9

1

1

Dil Fac

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Analyzed

05/23/18 16:22

05/23/18 16:22

05/31/18 19:35

6/6/2018

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-136256-1

Lab Sample ID: 480-136256-5

**Matrix: Water** 

## **Client Sample ID: OUTSIDE SUMP**

Date Collected: 05/21/18 12:15 Date Received: 05/21/18 13:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		2.3	0.39	ug/L			05/22/18 20:40	500
1,3,5-Trimethylbenzene	ND		2.3	1.7	ug/L			05/22/18 20:40	500
Benzene	110		2.3	0.26	ug/L			05/22/18 20:40	500
Ethylbenzene	6.1		2.3	0.33	ug/L			05/22/18 20:40	500
Isopropylbenzene	ND		2.3	0.31	ug/L			05/22/18 20:40	500
Methyl tert-butyl ether	ND		4.5	0.50	ug/L			05/22/18 20:40	500
m,p-Xylene	3.0	J	4.5	0.61	ug/L			05/22/18 20:40	500
n-Butylbenzene	ND		2.3	0.35	ug/L			05/22/18 20:40	500
n-Propylbenzene	ND		2.3	1.5	ug/L			05/22/18 20:40	500
o-Xylene	ND		2.3	0.31	ug/L			05/22/18 20:40	500
p-Cymene	ND		2.3	0.34	ug/L			05/22/18 20:40	500
sec-Butylbenzene	ND		2.3	0.23	ug/L			05/22/18 20:40	500
Toluene	16		2.3	0.40	ug/L			05/22/18 20:40	500
Xylenes, Total	3.0	J	6.8	0.61	ug/L			05/22/18 20:40	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	95		63 - 129					05/22/18 20:40	500
4-Bromofluorobenzene	96		64 - 128					05/22/18 20:40	500

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

Client Sample ID: Post-Carbon 3

Date Collected: 05/21/18 11:45 Date Received: 05/21/18 13:15

Lab Sample ID: 480-136256-1

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C			416400	05/25/18 17:25	KMN	TAL BUF
Total/NA	Analysis	8021B		1	415749	05/22/18 18:33	MAN	TAL BUF
Total/NA	Prep	200.7			416042	05/24/18 08:55	JAK	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	416420	05/25/18 00:36	LMH	TAL BUF
Total/NA	Prep	Distill/CN			417526	06/01/18 13:55	MRF	TAL BUF
Total/NA	Analysis	335.4		1	417573	06/01/18 16:10	MRF	TAL BUF
Total/NA	Prep	Distill/CN			417992	06/05/18 13:10	MRF	TAL BUF
Total/NA	Analysis	335.4		1	418016	06/05/18 14:29	MRF	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	416846	05/29/18 10:59	JAH	TAL BUF

Client Sample ID: Post-Carbon 2

Date Collected: 05/21/18 11:50 Date Received: 05/21/18 13:15 Lab Sample ID: 480-136256-2

Lab Sample ID: 480-136256-3

Lab Sample ID: 480-136256-5

**Matrix: Water** 

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	415749	05/22/18 19:05	MAN	TAL BUF

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

Date Collected: 05/21/18 11:55

Date Received: 05/21/18 13:15

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		20	415934	05/23/18 12:39	MAN	TAL BLIF

Date Collected: 05/21/18 12:00

Date Received: 05/21/18 13:15

Client Sample ID: Pre-Carbon	Lab Sample ID: 480-136256-4
Date Collected: 05/21/18 12:00	Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		100	415934	05/23/18 13:11	MAN	TAL BUF
Total/NA	Prep	200.7			415929	05/23/18 10:42	EMB	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	416412	05/24/18 13:32	LMH	TAL BUF
Total/NA	Analysis	300.0		5	415961	05/23/18 16:22	CLA	TAL BUF
Total/NA	Analysis	310.2		5	417387	05/31/18 19:35	AED	TAL BUF

Client Sample ID: OUTSIDE SUMP

Date Collected: 05/21/18 12:15

Date Received: 05/21/18 13:15

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		500	415749	05/22/18 20:40	MAN	TAL BUF

TestAmerica Buffalo

**Matrix: Water** 

## **Lab Chronicle**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-136256-1

### **Laboratory References:**

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

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## **Accreditation/Certification Summary**

Client: New York State D.E.C. TestAmerica Job ID: 480-136256-1

Project/Site: Gastown WWTP #915171

## **Laboratory: TestAmerica Buffalo**

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

Authority	Program		EPA Region	<b>Identification Number</b>	<b>Expiration Date</b>						
New York	NELAP		2	10026	03-31-18 *						
The following analytes	s are included in this repor	t, but accreditation	/certification is not off	ered by the governing auth	ority:						
Analysis Method	Prep Method	Matrix	Analyt	Analyte							
8021B		Water	m,p-X	ylene							
8021B		Water	o-Xyle	ne							
8260C		Water	1,2-Di	chloroethene, Total							
SM 4500 H+ B		Water	pН								
SM 4500 H+ B		Water	Tomp	erature							

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<sup>\*</sup> Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Buffalo

## **Method Summary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-136256-1

lethod	Method Description	Protocol	Laboratory
260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
021B	Volatile Organic Compounds (GC)	SW846	TAL BUF
00.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
0.00	Anions, Ion Chromatography	MCAWW	TAL BUF
10.2	Alkalinity	MCAWW	TAL BUF
35.4	Cyanide, Total	MCAWW	TAL BUF
M 4500 H+ B	рН	SM	TAL BUF
00.7	Preparation, Total Metals	EPA	TAL BUF
030B	Purge and Trap	SW846	TAL BUF
030C	Purge and Trap	SW846	TAL BUF
istill/CN	Distillation, Cyanide	None	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.

None = None

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

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## **Sample Summary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-136256-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-136256-1	Post-Carbon 3	Water	05/21/18 11:45	05/21/18 13:15
480-136256-2	Post-Carbon 2	Water	05/21/18 11:50	05/21/18 13:15
480-136256-3	Post-Carbon 1	Water	05/21/18 11:55	05/21/18 13:15
480-136256-4	Pre-Carbon	Water	05/21/18 12:00	05/21/18 13:15
480-136256-5	OUTSIDE SUMP	Water	05/21/18 12:15	05/21/18 13:15

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#### Buffalo

10 Hazelwood Drive



Relinquished by:

phone	716	504	0852	fay 7	16	691	7991

		Chain of Custody Record												THE LEA	DER IN EN	VIRONME	NTAL TES	TING								
Amherst, NY 14228																						_				
phone 716.504.9852 fax 716.691.7991								_	_				_	_	_		-	-	-/-					aborator	ies, Inc.	
Client Cor		Tel/Fax: (716) 851-7220 La			+-						almer	r	_	Date:		21/1	8			COC No	_					
Groundwater & Environmental Serv	ices, Inc				La	b C	onta	ct: C	). Jol	-	-	_		Carri	er:				_		of	_ COCs	3	$\overline{}$		
495 Aero Drive Suite 3			Analysis T	urnaround	Time		-						802					1		1		Job No.				
Cheektowaga, NY 14225		Calendar	(C) or Wo	ork Days (W	)		1	-				4.2	- V								,					- 1
(800) 287-7857 P	Phone	TA	AT if different i	rom Below				tho	P			MO.	2					K	W.							
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Sample Ident	ification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	iltered Sa	300.0 28D (MOD) Local Method	200.7 - (MOD) Local Method	310.2 - Alkalinity	200.7 - Iron	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS list - VOA - 8021	SM4500 H+-pH									Sample	Specific N	lotes:	
Post-Carb		5/21	1145	Grab	W	9	N		7	6,	X		-	XX	+	+	$\forall$	+	$\forall$	+	Ħ		Sample	specific iv	iotes.	-
Post-Carb	on 2	7)-1	1150	Grab	W	3	N		T			-	x	+	+	$\forall$	+	+	$\forall$	+						$\dashv$
Post-Carb	on 1		1155	Grab	W	3	N		T			-	X	+	+	$\forall$	+	+	1	+						$\dashv$
Pre-Carl	oon		1200	Grab	W	6	N	X	x	X		-	x	t	+	$\vdash$	+		-	+	+					$\neg$
Inside Outsi	de Sump		1215	Grab	W	3	N	$\vdash$	H			-	X	+	+	$\vdash$	+	+	$\forall$	+	+					$\neg$
		7	1213				+	$\vdash$	$\vdash$		H	$\forall$	+	+	+	$\vdash$	+	+	$\forall$	+	+					$\dashv$
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Preservation Used: 1= Ice, 2= HCl;	3= H2SO4; 4=HNO3; 5=NaO	OH; 6= Other	r				_	1	1	1		H	1	1	+	1	+				+					
Possible Hazard Identification							_	Sa	mpl	e Di	spo	sal (	A fe	e ma	y be	asses	ssed i	fsam	oles a	re reta	ained	longer	than 1 r	nonth)		
Non-Hazard Flammal	ble Skin Irritant	Poison E	3 -	Unknown	X					Retu	ırn T	o Cli	ient		K	Dispo	sal By	Lab		□ <sub>Arc</sub>	chive	For		Months		- 1
Special Instructions/QC Requiremen																										
Relinquished by:		Company	568		Date/Ti		5	Re	ceiye	ed by	111		7	4	2		Cor	npany:	76	7		Date/Tir	ne/	1	315	-
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Date/Time:

Received by:

Company:

Form No. CA-C-WI-002, dated 04/07/2011

Date/Time:

Company:

# **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-136256-1

Login Number: 136256 List Source: TestAmerica Buffalo

List Number: 1

Creator: Williams, Christopher S

Creator. Williams, Christopher 3		
Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	GES
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

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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: 480-137250-1

Client Project/Site: Gastown WWTP #915171

## For:

New York State D.E.C. 625 Broadway 11th Floor Albany, New York 12233-3256

Attn: Mr. Doug K MacNeal

Joseph V. Gracomagger

Authorized for release by: 6/25/2018 10:28:45 AM

Joe Giacomazza, Project Management Assistant II joe.giacomazza@testamericainc.com

Designee for

Orlette Johnson, Senior Project Manager (484)685-0864

orlette.johnson@testamericainc.com

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**Have a Question?** 



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

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

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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. Gireonoger

Joe Giacomazza Project Management Assistant II 6/25/2018 10:28:45 AM Client: New York State D.E.C. Project/Site: Gastown WWTP #915171 TestAmerica Job ID: 480-137250-1

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## **Definitions/Glossary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-137250-1

## **Qualifiers**

## **GC/MS VOA**

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

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** 

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **General Chemistry**

b Result Detected in the Unseeded Control blank (USB).

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

## **Glossary**

Abbreviation	These commonly	used abbreviations ma	v or mav 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 Contains No Free Liquid **CNF** 

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac Dilution Factor

Detection Limit (DoD/DOE) DL

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) Limit of Quantitation (DoD/DOE) LOQ

MDA Minimum Detectable Activity (Radiochemistry) Minimum Detectable Concentration (Radiochemistry) MDC

Method Detection Limit MDL MLMinimum 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 (Radiochemistry)

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)

TestAmerica Buffalo

## **Case Narrative**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-137250-1

Job ID: 480-137250-1

Laboratory: TestAmerica Buffalo

**Narrative** 

Job Narrative 480-137250-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 6/11/2018 11:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.6° 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) associated with batch 480-419773. The following samples were affected: Post-Carbon 3 (480-137250-1) and Pre-Carbon (480-137250-4).

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-137250-4). 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 continuing calibration verification (CCV) associated with batch 480-419341 recovered outside acceptance criteria, low biased, for Pentachlorophenol. 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 was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-137250-4). 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 (480-137250-3), Pre-Carbon (480-137250-4) and OUTSIDE SUMP (480-137250-5). Elevated reporting limits (RLs) are provided

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

## GC Semi VOA

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

#### Metals

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

#### **General Chemistry**

Method(s) 335.4: The results reported for the following sample do not concur with results previously reported for this site: Post-Carbon 3 (480-137250-1). Reanalysis was performed, and the result(s) confirmed. Both sets of data are being reported.

Method(s) 9040B, 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 has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Post-Carbon 3 (480-137250-1).

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

TestAmerica Buffalo 6/25/2018 2

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## **Case Narrative**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-137250-1

Job ID: 480-137250-1 (Continued)

**Laboratory: TestAmerica Buffalo (Continued)** 

## **Organic Prep**

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

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TestAmerica Job ID: 480-137250-1

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

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

Date Collected: 06/11/18 10:15 Date Received: 06/11/18 11:10 Lab Sample ID: 480-137250-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/15/18 15:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/15/18 15:48	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/15/18 15:48	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/15/18 15:48	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/15/18 15:48	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/15/18 15:48	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			06/15/18 15:48	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/15/18 15:48	1
2-Hexanone	ND		5.0	1.2	ug/L			06/15/18 15:48	1
2-Butanone (MEK)	ND	*	10	1.3	ug/L			06/15/18 15:48	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/15/18 15:48	1
Acetone	3.8	J	10	3.0	ug/L			06/15/18 15:48	1
Benzene	ND		1.0	0.41	ug/L			06/15/18 15:48	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/15/18 15:48	1
Bromoform	ND		1.0	0.26	ug/L			06/15/18 15:48	1
Bromomethane	ND		1.0	0.69	ug/L			06/15/18 15:48	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/15/18 15:48	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/15/18 15:48	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/15/18 15:48	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/15/18 15:48	1
Chloroethane	ND		1.0	0.32	ug/L			06/15/18 15:48	1
Chloroform	ND		1.0	0.34	ug/L			06/15/18 15:48	1
Chloromethane	ND		1.0	0.35	ug/L			06/15/18 15:48	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/15/18 15:48	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/15/18 15:48	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/15/18 15:48	1
Styrene	ND		1.0	0.73	ug/L			06/15/18 15:48	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/15/18 15:48	1
Toluene	ND		1.0		ug/L			06/15/18 15:48	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/15/18 15:48	1
Trichloroethene	ND		1.0	0.46	ug/L			06/15/18 15:48	1
Vinyl chloride	0.96	J	1.0	0.90	ug/L			06/15/18 15:48	1
Vinyl acetate	ND		5.0		ug/L			06/15/18 15:48	1
Xylenes, Total	ND		2.0		ug/L			06/15/18 15:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		06/15/18 15:48	1
Toluene-d8 (Surr)	94		80 - 120		06/15/18 15:48	1
4-Bromofluorobenzene (Surr)	103		73 - 120		06/15/18 15:48	1

Method: 8270D - Semivolatile	· Organic Compounds (	GC/MS)
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Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND ND		5.0	0.65	ug/L		06/12/18 08:20	06/14/18 09:20	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		06/12/18 08:20	06/14/18 09:20	1
Acenaphthene	ND		5.0	0.41	ug/L		06/12/18 08:20	06/14/18 09:20	1
Acenaphthylene	ND		5.0	0.38	ug/L		06/12/18 08:20	06/14/18 09:20	1
Anthracene	ND		5.0	0.28	ug/L		06/12/18 08:20	06/14/18 09:20	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		06/12/18 08:20	06/14/18 09:20	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		06/12/18 08:20	06/14/18 09:20	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		06/12/18 08:20	06/14/18 09:20	1

TestAmerica Buffalo

6/25/2018

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Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

Client Sample ID: Post-Carbon 3

Date Collected: 06/11/18 10:15 Date Received: 06/11/18 11:10 Lab Sample ID: 480-137250-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		06/12/18 08:20	06/14/18 09:20	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		06/12/18 08:20	06/14/18 09:20	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		06/12/18 08:20	06/14/18 09:20	1
Carbazole	ND		5.0	0.30	ug/L		06/12/18 08:20	06/14/18 09:20	1
Chrysene	ND		5.0	0.33	ug/L		06/12/18 08:20	06/14/18 09:20	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		06/12/18 08:20	06/14/18 09:20	1
Dibenzofuran	ND		10	0.51	ug/L		06/12/18 08:20	06/14/18 09:20	1
Fluoranthene	ND		5.0	0.40	ug/L		06/12/18 08:20	06/14/18 09:20	1
Fluorene	ND		5.0	0.36	ug/L		06/12/18 08:20	06/14/18 09:20	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		06/12/18 08:20	06/14/18 09:20	1
Naphthalene	ND		5.0	0.76	ug/L		06/12/18 08:20	06/14/18 09:20	1
Pentachlorophenol	ND		10	2.2	ug/L		06/12/18 08:20	06/14/18 09:20	1
Phenanthrene	ND		5.0	0.44	ug/L		06/12/18 08:20	06/14/18 09:20	1
Phenol	ND		5.0	0.39	ug/L		06/12/18 08:20	06/14/18 09:20	1
Pyrene	ND		5.0	0.34	ug/L		06/12/18 08:20	06/14/18 09:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	76		46 - 120				06/12/18 08:20	06/14/18 09:20	1
2-Fluorobiphenyl	89		48 - 120				06/12/18 08:20	06/14/18 09:20	1

Surroyate	70Necovery	Qualifier	LIIIIII	rı.	epareu	Allalyzeu	DII Fac
Nitrobenzene-d5	76		46 - 120	06/12	2/18 08:20	06/14/18 09:20	1
2-Fluorobiphenyl	89		48 - 120	06/12	2/18 08:20	06/14/18 09:20	1
p-Terphenyl-d14	105		59 - 136	06/12	2/18 08:20	06/14/18 09:20	1
Phenol-d5	48		22 - 120	06/12	2/18 08:20	06/14/18 09:20	1
2-Fluorophenol	65		35 - 120	06/12	2/18 08:20	06/14/18 09:20	1
2,4,6-Tribromophenol	65		41 - 120	06/12	2/18 08:20	06/14/18 09:20	1

Analyte	Result Qualif	ier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND	0.20	0.035	ug/L			06/13/18 13:07	1
1,3,5-Trimethylbenzene	ND	0.20	0.15	ug/L			06/13/18 13:07	1
Benzene	ND	0.20	0.023	ug/L			06/13/18 13:07	1
Ethylbenzene	ND	0.20	0.029	ug/L			06/13/18 13:07	1
Isopropylbenzene	ND	0.20	0.027	ug/L			06/13/18 13:07	1
Methyl tert-butyl ether	ND	0.40	0.044	ug/L			06/13/18 13:07	1
m,p-Xylene	ND	0.40	0.054	ug/L			06/13/18 13:07	1
n-Butylbenzene	ND	0.20	0.031	ug/L			06/13/18 13:07	1
n-Propylbenzene	ND	0.20	0.13	ug/L			06/13/18 13:07	1
o-Xylene	ND	0.20	0.027	ug/L			06/13/18 13:07	1
p-Cymene	ND	0.20	0.030	ug/L			06/13/18 13:07	1
sec-Butylbenzene	ND	0.20	0.020	ug/L			06/13/18 13:07	1
Toluene	ND	0.20	0.036	ug/L			06/13/18 13:07	1
Xylenes, Total	ND	0.60	0.054	ua/L			06/13/18 13:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	88		63 - 129		06/13/18 13:07	1
4-Bromofluorobenzene	89		64 - 128		06/13/18 13:07	1

Method: 608 - Organochlorine Pesticides in Water											
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Aldrin	ND		0.051	0.0082	ug/L		06/13/18 08:08	06/15/18 15:18	1		
alpha-BHC	ND		0.051	0.0078	ug/L		06/13/18 08:08	06/15/18 15:18	1		
beta-BHC	ND		0.051	0.025	ug/L		06/13/18 08:08	06/15/18 15:18	1		

TestAmerica Buffalo

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

Lab Sample ID: 480-137250-1

06/15/18 15:18

06/15/18 15:18

06/13/18 13:45

06/13/18 08:08

06/13/18 08:08

TestAmerica Job ID: 480-137250-1

Matrix: Water

# Client Sample ID: Post-Carbon 3

Date Collected: 06/11/18 10:15 Date Received: 06/11/18 11:10

Method: 608 - Organochlorine Pesticides in Water (Continued) Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Analyte delta-BHC ND 0.051 0.010 ug/L 06/13/18 08:08 06/15/18 15:18 gamma-BHC (Lindane) ND 0.051 06/13/18 08:08 0.0081 ug/L 06/15/18 15:18 Chlordane (technical) ND 0.51 0.29 ug/L 06/13/18 08:08 06/15/18 15:18 4,4'-DDD ND 0.051 0.0093 ug/L 06/13/18 08:08 06/15/18 15:18

4,4'-DDE ND 0.051 0.012 ug/L 06/13/18 08:08 06/15/18 15:18 4.4'-DDT ND 0.051 0.011 ug/L 06/13/18 08:08 06/15/18 15:18 Dieldrin ND 0.051 0.0099 ug/L 06/13/18 08:08 06/15/18 15:18 Endosulfan I ND 0.051 0.011 ug/L 06/13/18 08:08 06/15/18 15:18 Endosulfan II ND 0.051 0.012 ug/L 06/13/18 08:08 06/15/18 15:18 Endosulfan sulfate ND 0.051 0.016 ug/L 06/13/18 08:08 06/15/18 15:18 Endrin ND 0.051 0.014 ug/L 06/13/18 08:08 06/15/18 15:18 Endrin aldehyde ND 0.016 ug/L 06/13/18 08:08 06/15/18 15:18 0.051 ND Heptachlor 0.051 0.0086 ug/L 06/13/18 08:08 06/15/18 15:18

%Recovery Qualifier Limits Dil Fac Surrogate Prepared Analyzed 23 - 120 06/13/18 08:08 DCB Decachlorobiphenyl 78 06/15/18 15:18 99 06/13/18 08:08 06/15/18 15:18 Tetrachloro-m-xylene 44 - 120

0.051

0.51

0.0075 ug/L

0.12 ug/L

0.001 Degrees C

ND

ND

20.3 HF

Method: 200.7 Rev 4.4 - Metals (ICP)

Heptachlor epoxide

Toxaphene

**Temperature** 

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Iron 50.0 19.3 ug/L 06/13/18 11:25 06/14/18 01:07 114

**General Chemistry** Analyte Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Result Oil & Grease ND 5.2 1.5 mg/L 06/17/18 17:58 06/17/18 17:58 Cyanide, Total 0.24 0.010 0.0050 mg/L 06/19/18 04:40 06/19/18 14:06 0.010 0.0050 mg/L 06/20/18 13:20 06/21/18 09:45 Cyanide, Total 0.26 Phenolics, Total Recoverable ND 0.010 0.0050 mg/L 06/18/18 20:12 06/19/18 15:36 06/14/18 12:23 **Total Dissolved Solids** 1020 10.0 4.0 mg/L **Biochemical Oxygen Demand** 5.2 b 3.0 3.0 mg/L 06/12/18 16:49 Result Qualifier RLDil Fac Analyte **RL** Unit D Prepared Analyzed **Total Suspended Solids** ND 4.0 4.0 mg/L 06/15/18 20:01 0.1 0.1 SU 06/13/18 13:45 pН 7.3 HF

0.001

6/25/2018

Client: New York State D.E.C.

Date Received: 06/11/18 11:10

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-137250-1

Lab Sample ID: 480-137250-2

Matrix: Water

Client Sample ID: Post-Carbon 2 Date Collected: 06/11/18 10:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.20	0.035	ug/L			06/13/18 13:39	1
1,3,5-Trimethylbenzene	ND		0.20	0.15	ug/L			06/13/18 13:39	1
Benzene	0.040	J	0.20	0.023	ug/L			06/13/18 13:39	1
Ethylbenzene	ND		0.20	0.029	ug/L			06/13/18 13:39	1
Isopropylbenzene	ND		0.20	0.027	ug/L			06/13/18 13:39	1
Methyl tert-butyl ether	0.35	J	0.40	0.044	ug/L			06/13/18 13:39	1
m,p-Xylene	ND		0.40	0.054	ug/L			06/13/18 13:39	1
n-Butylbenzene	ND		0.20	0.031	ug/L			06/13/18 13:39	1
n-Propylbenzene	ND		0.20	0.13	ug/L			06/13/18 13:39	1
o-Xylene	ND		0.20	0.027	ug/L			06/13/18 13:39	1
p-Cymene	ND		0.20	0.030	ug/L			06/13/18 13:39	1
sec-Butylbenzene	ND		0.20	0.020	ug/L			06/13/18 13:39	1
Toluene	ND		0.20	0.036	ug/L			06/13/18 13:39	1
Xylenes, Total	ND		0.60	0.054	ug/L			06/13/18 13:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	91		63 - 129			-		06/13/18 13:39	1
4-Bromofluorobenzene	91		64 - 128					06/13/18 13:39	1

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-137250-1

Lab Sample ID: 480-137250-3

Matrix: Water

Client Sample ID: Post-Carbon 1

Date Collected: 06/11/18 10:25 Date Received: 06/11/18 11:10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		4.0	0.69	ug/L			06/13/18 15:44	20
1,3,5-Trimethylbenzene	ND		4.0	3.0	ug/L			06/13/18 15:44	20
Benzene	310		4.0	0.47	ug/L			06/13/18 15:44	20
Ethylbenzene	1.8	J	4.0	0.57	ug/L			06/13/18 15:44	20
Isopropylbenzene	ND		4.0	0.54	ug/L			06/13/18 15:44	20
Methyl tert-butyl ether	ND		8.0	0.87	ug/L			06/13/18 15:44	20
m,p-Xylene	ND		8.0	1.1	ug/L			06/13/18 15:44	20
n-Butylbenzene	ND		4.0	0.62	ug/L			06/13/18 15:44	20
n-Propylbenzene	ND		4.0	2.6	ug/L			06/13/18 15:44	20
o-Xylene	0.78	J	4.0	0.54	ug/L			06/13/18 15:44	20
p-Cymene	ND		4.0	0.59	ug/L			06/13/18 15:44	20
sec-Butylbenzene	ND		4.0	0.41	ug/L			06/13/18 15:44	20
Toluene	9.0		4.0	0.71	ug/L			06/13/18 15:44	20
Xylenes, Total	ND		12	1.1	ug/L			06/13/18 15:44	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	86		63 - 129			-		06/13/18 15:44	20
4-Bromofluorobenzene	84		64 - 128					06/13/18 15:44	20

Client: New York State D.E.C.

Date Received: 06/11/18 11:10

Project/Site: Gastown WWTP #915171

Lab Sample ID: 480-137250-4

**Matrix: Water** 

**Client Sample ID: Pre-Carbon** Date Collected: 06/11/18 10:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		100	82	ug/L			06/15/18 16:11	100
1,1,2,2-Tetrachloroethane	ND		100	21	ug/L			06/15/18 16:11	100
1,1,2-Trichloroethane	ND		100	23	ug/L			06/15/18 16:11	100
1,1-Dichloroethane	ND		100	38	ug/L			06/15/18 16:11	100
1,1-Dichloroethene	ND		100	29	ug/L			06/15/18 16:11	100
1,2-Dichloroethane	ND		100	21	ug/L			06/15/18 16:11	100
1,2-Dichloroethene, Total	ND		200	81	ug/L			06/15/18 16:11	100
1,2-Dichloropropane	ND		100	72	ug/L			06/15/18 16:11	100
2-Hexanone	ND		500	120	ug/L			06/15/18 16:11	100
2-Butanone (MEK)	ND	*	1000	130	ug/L			06/15/18 16:11	100
4-Methyl-2-pentanone (MIBK)	ND		500	210	ug/L			06/15/18 16:11	100
Acetone	ND		1000	300	ug/L			06/15/18 16:11	100
Benzene	9000		100	41	ug/L			06/15/18 16:11	100
Bromodichloromethane	ND		100	39	ug/L			06/15/18 16:11	100
Bromoform	ND		100	26	ug/L			06/15/18 16:11	100
Bromomethane	ND		100	69	ug/L			06/15/18 16:11	100
Carbon disulfide	ND		100	19	ug/L			06/15/18 16:11	100
Carbon tetrachloride	ND		100	27	ug/L			06/15/18 16:11	100
Chlorobenzene	ND		100	75	ug/L			06/15/18 16:11	100
Dibromochloromethane	ND		100	32	ug/L			06/15/18 16:11	100
Chloroethane	ND		100	32	ug/L			06/15/18 16:11	100
Chloroform	ND		100	34	ug/L			06/15/18 16:11	100
Chloromethane	ND		100	35	ug/L			06/15/18 16:11	100
cis-1,3-Dichloropropene	ND		100	36	ug/L			06/15/18 16:11	100
Ethylbenzene	290		100	74	ug/L			06/15/18 16:11	100
Methylene Chloride	ND		100	44	ug/L			06/15/18 16:11	100
Styrene	130		100	73	ug/L			06/15/18 16:11	100
Tetrachloroethene	ND		100	36	ug/L			06/15/18 16:11	100
Toluene	1400		100	51	ug/L			06/15/18 16:11	100
trans-1,3-Dichloropropene	ND		100	37	ug/L			06/15/18 16:11	100
Trichloroethene	ND		100	46	ug/L			06/15/18 16:11	100
Vinyl chloride	ND		100	90	ug/L			06/15/18 16:11	100
Vinyl acetate	ND		500	85	ug/L			06/15/18 16:11	100
Xylenes, Total	400		200	66	ug/L			06/15/18 16:11	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		77 - 120			-		06/15/18 16:11	100
Toluene-d8 (Surr)	90		80 - 120					06/15/18 16:11	100
4-Bromofluorobenzene (Surr)	100		73 - 120					06/15/18 16:11	100

Method: 8021B -	Volatile (	Organic (	Compounds	(GC)
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Method: 8021B - Volatile Organi	c Compounas (	GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	26	J	40	6.9	ug/L			06/13/18 18:51	200
1,3,5-Trimethylbenzene	ND		40	30	ug/L			06/13/18 18:51	200
Benzene	7700		40	4.7	ug/L			06/13/18 18:51	200
Ethylbenzene	280		40	5.7	ug/L			06/13/18 18:51	200
Isopropylbenzene	ND		40	5.4	ug/L			06/13/18 18:51	200
Methyl tert-butyl ether	ND		80	8.7	ug/L			06/13/18 18:51	200
m,p-Xylene	240		80	11	ug/L			06/13/18 18:51	200
n-Butylbenzene	ND		40	6.2	ug/L			06/13/18 18:51	200

TestAmerica Buffalo

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-137250-1

Lab Sample ID: 480-137250-4

Matrix: Water

Client Sample ID: Pre-Carbon Date Collected: 06/11/18 10:30

Date Received: 06/11/18 11:10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	ND		40	26	ug/L			06/13/18 18:51	200
o-Xylene	130		40	5.4	ug/L			06/13/18 18:51	200
p-Cymene	ND		40	5.9	ug/L			06/13/18 18:51	200
sec-Butylbenzene	ND		40	4.1	ug/L			06/13/18 18:51	200
Toluene	1300		40	7.1	ug/L			06/13/18 18:51	200
Xylenes, Total	370		120	11	ug/L			06/13/18 18:51	200
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	92		63 - 129					06/13/18 18:51	200
4 D #	0.7		64 - 128					06/13/18 18:51	200
Method: 200.7 Rev 4.4 - Met	als (ICP)	Qualifier		MDI	Unit	n	Propared		
Method: 200.7 Rev 4.4 - Met Analyte	rals (ICP)	Qualifier	RL	MDL 100		<u>D</u>	Prepared 06/13/18 11:25	Analyzed	
Method: 200.7 Rev 4.4 - Met Analyte Calcium	Result 151000	Qualifier	RL 500	100	ug/L	<u>D</u>	06/13/18 11:25	Analyzed 06/14/18 01:36	Dil Fac 1
Method: 200.7 Rev 4.4 - Met Analyte Calcium Iron	Result 151000 420	Qualifier	RL 500 50.0	100 19.3	ug/L ug/L	<u>D</u>	06/13/18 11:25 06/13/18 11:25	Analyzed 06/14/18 01:36 06/14/18 01:36	
Method: 200.7 Rev 4.4 - Met Analyte Calcium Iron Magnesium	Result 151000	Qualifier	RL 500	100 19.3 43.4	ug/L ug/L ug/L	<u>D</u>	06/13/18 11:25	Analyzed 06/14/18 01:36	
4-Bromofluorobenzene  Method: 200.7 Rev 4.4 - Met Analyte Calcium Iron Magnesium Potassium Sodium	Result 151000 420 66900	Qualifier	RL 500 50.0 200	100 19.3 43.4 100	ug/L ug/L	<u>D</u>	06/13/18 11:25 06/13/18 11:25 06/13/18 11:25	Analyzed 06/14/18 01:36 06/14/18 01:36 06/14/18 01:36	Dil Fac 1 1
Method: 200.7 Rev 4.4 - Met Analyte Calcium Iron Magnesium Potassium Sodium	Result 151000 420 66900 3680	Qualifier	RL 500 50.0 200 500	100 19.3 43.4 100	ug/L ug/L ug/L ug/L	<u>D</u>	06/13/18 11:25 06/13/18 11:25 06/13/18 11:25 06/13/18 11:25	Analyzed  06/14/18 01:36  06/14/18 01:36  06/14/18 01:36  06/14/18 01:36	Dil Fac 1 1 1 1
Method: 200.7 Rev 4.4 - Met Analyte Calcium Iron Magnesium Potassium Sodium	Result 151000 420 66900 3680 102000	Qualifier	RL 500 50.0 200 500	100 19.3 43.4 100	ug/L ug/L ug/L ug/L ug/L	D	06/13/18 11:25 06/13/18 11:25 06/13/18 11:25 06/13/18 11:25	Analyzed  06/14/18 01:36  06/14/18 01:36  06/14/18 01:36  06/14/18 01:36	Dil Fac 1 1 1 1
Method: 200.7 Rev 4.4 - Met Analyte Calcium Iron Magnesium Potassium Sodium General Chemistry Analyte	Result 151000 420 66900 3680 102000		RL 500 50.0 200 500 1000	100 19.3 43.4 100 324	ug/L ug/L ug/L ug/L ug/L		06/13/18 11:25 06/13/18 11:25 06/13/18 11:25 06/13/18 11:25 06/13/18 11:25	Analyzed  06/14/18 01:36  06/14/18 01:36  06/14/18 01:36  06/14/18 01:36	Dil Fac
Method: 200.7 Rev 4.4 - Met Analyte Calcium Iron Magnesium Potassium	Result 151000 420 66900 3680 102000 Result		RL 500 50.0 200 500 1000	100 19.3 43.4 100 324	ug/L ug/L ug/L ug/L ug/L		06/13/18 11:25 06/13/18 11:25 06/13/18 11:25 06/13/18 11:25 06/13/18 11:25	Analyzed  06/14/18 01:36  06/14/18 01:36  06/14/18 01:36  06/14/18 01:36  Analyzed	Dil Fac 1 1 1 1 1

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Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-137250-1

Lab Sample ID: 480-137250-5

Matrix: Water

**Client Sample ID: OUTSIDE SUMP** 

Date Collected: 06/11/18 10:40 Date Received: 06/11/18 11:10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	44	J	100	17	ug/L			06/13/18 16:49	500
1,3,5-Trimethylbenzene	ND		100	75	ug/L			06/13/18 16:49	500
Benzene	11000		100	12	ug/L			06/13/18 16:49	500
Ethylbenzene	730		100	14	ug/L			06/13/18 16:49	500
Isopropylbenzene	ND		100	14	ug/L			06/13/18 16:49	500
Methyl tert-butyl ether	ND		200	22	ug/L			06/13/18 16:49	500
m,p-Xylene	360		200	27	ug/L			06/13/18 16:49	500
n-Butylbenzene	ND		100	15	ug/L			06/13/18 16:49	500
n-Propylbenzene	ND		100	65	ug/L			06/13/18 16:49	500
o-Xylene	170		100	14	ug/L			06/13/18 16:49	500
p-Cymene	ND		100	15	ug/L			06/13/18 16:49	500
sec-Butylbenzene	ND		100	10	ug/L			06/13/18 16:49	500
Toluene	1800		100	18	ug/L			06/13/18 16:49	500
Xylenes, Total	530		300	27	ug/L			06/13/18 16:49	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	89		63 - 129			-		06/13/18 16:49	500
4-Bromofluorobenzene	86		64 - 128					06/13/18 16:49	500

6/25/2018

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Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

Lab Sample ID: 480-137250-1

Matrix: Water

Client Sample ID: Post-Carbon 3

Date Collected: 06/11/18 10:15 Date Received: 06/11/18 11:10

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	419773	06/15/18 15:48	AEM	TAL BUF
Total/NA	Prep	3510C			419111	06/12/18 08:20	AAP	TAL BUF
Total/NA	Analysis	8270D		1	419341	06/14/18 09:20	RJS	TAL BUF
Total/NA	Analysis	8021B		1	419296	06/13/18 13:07	MAN	TAL BUF
Total/NA	Prep	3510C			419269	06/13/18 08:08	JMP	TAL BUF
Total/NA	Analysis	608		1	419829	06/15/18 15:18	JLS	TAL BUF
Total/NA	Prep	200.7			419277	06/13/18 11:25	KMP	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	419559	06/14/18 01:07	AMH	TAL BUF
Total/NA	Prep	1664B			420091	06/17/18 17:58	JAH	TAL BUF
Total/NA	Analysis	1664B		1	420175	06/17/18 17:58	JAH	TAL BUF
Total/NA	Prep	Distill/CN			420302	06/19/18 04:40	LAW	TAL BUF
Total/NA	Analysis	335.4		1	420423	06/19/18 14:06	MDL	TAL BUF
Total/NA	Prep	Distill/CN			420720	06/20/18 13:20	LAW	TAL BUF
Total/NA	Analysis	335.4		1	420834	06/21/18 09:45	MDL	TAL BUF
Total/NA	Prep	Distill/Phenol			420279	06/18/18 20:12	LMC	TAL BUF
Total/NA	Analysis	420.1		1	420551	06/19/18 15:36	AED	TAL BUF
Total/NA	Analysis	SM 2540C		1	419613	06/14/18 12:23	SLM	TAL BUF
Total/NA	Analysis	SM 2540D		1	419952	06/15/18 20:01	MAB	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	419451	06/13/18 13:45	JAH	TAL BUF
Total/NA	Analysis	SM 5210B		1	419228	06/12/18 16:49	MAB	TAL BUF

Client Sample ID: Post-Carbon 2

Date Collected: 06/11/18 10:20

Date Received: 06/11/18 11:10

Lab	Sampl	le ID:	480-1	37250-	.2
			Mat	rix: Wat	er

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	419296	06/13/18 13:39	MAN	TAL BUF

Client Sample ID: Post-Carbon 1

Date Collected: 06/11/18 10:25

Date Received: 06/11/18 11:10

Lab Sample	ID: 480-13/250-3	
	Matrix: Water	

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number or Analyzed Analyst Lab Total/NA Analysis 8021B 419296 06/13/18 15:44 MAN TAL BUF

Client Sample ID: Pre-Carbon

Date Collected: 06/11/18 10:30 Date Received: 06/11/18 11:10

Lab Sample ID: 480-13725	0-4
Matrix: Wa	ater

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	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	419773	06/15/18 16:11	AEM	TAL BUF
Total/NA	Analysis	8021B		200	419296	06/13/18 18:51	MAN	TAL BUF

TestAmerica Buffalo

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## **Lab Chronicle**

Client: New York State D.E.C.

Date Received: 06/11/18 11:10

Project/Site: Gastown WWTP #915171

**Client Sample ID: Pre-Carbon** Date Collected: 06/11/18 10:30

TestAmerica Job ID: 480-137250-1

Lab Sample ID: 480-137250-4

Matrix: Water

Batch Batch Dilution Batch Prepared Prep Type Type Method Run Factor Number or Analyzed Analyst Lab Total/NA Prep 200.7 419277 06/13/18 11:25 KMP TAL BUF Total/NA 200.7 Rev 4.4 Analysis 419559 06/14/18 01:36 TAL BUF 1 AMH Total/NA Analysis 300.0 5 419837 06/15/18 16:21 CLA TAL BUF Total/NA Analysis 310.2 5 420714 06/20/18 17:29 TAL BUF MRF

Client Sample ID: OUTSIDE SUMP Lab Sample ID: 480-137250-5

Date Collected: 06/11/18 10:40 **Matrix: Water** Date Received: 06/11/18 11:10

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		500	419296	06/13/18 16:49	MAN	TAL BUF

**Laboratory References:** 

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

6/25/2018

# **Accreditation/Certification Summary**

Client: New York State D.E.C. TestAmerica Job ID: 480-137250-1

Project/Site: Gastown WWTP #915171

## Laboratory: TestAmerica Buffalo

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

Authority	Program		EPA Region	Identification Number	<b>Expiration Date</b>		
New York	NELAP		2	10026	03-31-18 *		
The following analytes a	are included in this report, but	t accreditation/certifica	ation is not offered by the	ne governing authority:			
Analysis Method	Prep Method	Matrix	Matrix Analyte				
8021B		Water	m,p-X	m,p-Xylene			
8021B		Water	o-Xyle	ene			
8260C		Water 1,2-Dichloroethene, Total					
SM 4500 H+ B		Water	рН				
SM 4500 H+ B		Water	Temn	erature			

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<sup>\*</sup> Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Buffalo

## **Method Summary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-137250-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8021B	Volatile Organic Compounds (GC)	SW846	TAL BUF
608	Organochlorine Pesticides in Water	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
1664B	HEM and SGT-HEM	1664B	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
120.1	Phenolics, Total Recoverable	MCAWW	TAL BUF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL BUF
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
SM 5210B	BOD, 5-Day	SM	TAL BUF
1664B	HEM and SGT-HEM (Aqueous)	1664B	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
5030B	Purge and Trap	SW846	TAL BUF
6030C	Purge and Trap	SW846	TAL BUF
Distill/CN	Distillation, Cyanide	None	TAL BUF
Distill/Phenol	Distillation, Phenolics	None	TAL BUF

#### **Protocol References:**

1664B = EPA-821-98-002

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

EPA = US Environmental Protection Agency

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

None = None

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

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# **Sample Summary**

Matrix

Water

Water

Water

Water

Water

Client: New York State D.E.C.

Lab Sample ID

480-137250-1

480-137250-2

480-137250-3

480-137250-4

480-137250-5

Project/Site: Gastown WWTP #915171

Client Sample ID

Post-Carbon 3

Post-Carbon 2

Post-Carbon 1

OUTSIDE SUMP

Pre-Carbon

TestAmerica Job ID: 480-137250-1

Collected	Received
06/11/18 10:15	06/11/18 11:10
06/11/18 10:20	06/11/18 11:10
06/11/18 10:25	06/11/18 11:10

06/11/18 10:30

06/11/18 10:40

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06/11/18 11:10

06/11/18 11:10

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## Buffalo

10 Hazelwood Drive

# **Chain of Custody Record**



Amherst NV 14228

	hone 716.504.9852 fax 716.691.7991								_	_			_	T		-	137	_			TestAmerica Labo	ratories, mer
L	Client Contact	Project Manager: Glenn May (NYSDEC)												Date: 6 11 18						COC No:	000	
_	Groundwater & Environmental Services, Inc	Tel/Fax: (716) 851-7220  Analysis Turnaround Time												Carrier:						_		COCs
	95 Aero Drive Suite 3										802				des	٦	8	4.2			Job No.	
	Cheektowaga, NY 14225	Calendar	(C) or Wo	ork Days (W	)		٦.	,			4.2 A			able	stici	mar	olid	MO				
(8	800) 287-7857 Phone	_	T if different f	rom Below				P			MO N			over	t Pe	n De	ed S	10-		1	EX	ors -
	866) 902-2187 FAX		2	weeks			2	etho		1	] it		ease	Rec	utan	ryge de	vlosi	OA	1	1	SDG No.	9
_	Project Name: NYSDEC Gatown WWTP		1	week			1 20	al M			Lis	Ial	5	otal	Poll	Ola	al D	SV			1 186	<b>公</b> 養
	Site: 915171		:	2 days			9 8	Loc	ity		TC (	e, T	H Sii	cs, T	rity	mic	Tot	TC	1 1	1		
P	O # Callout 120597			day			due		calin		9   5	anid	4+p	enoli	Pric	oche	led -	(ao			480-13	7250 COC
	Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	300.0_25D (MOD) Local Method	310.2 - Alkalinity	200.7 - Iron	8260B - (MOD) TCL list OLM04.2 8021B - (MOD) STARS list - VOA - 8021	335.4 - Cyanide, Total	SM4500_H+-pH 1664A Calc - Oil & Grease	420.4 - Phenolics, Total Recoverable	608 Pest - Priority Pollutant Pesticides	5210B - Biochemical Oxygen Demand	2540C Calcd - Total Disolved Solids	8270C-(MOD) TCL SVOA - OLM04.2			Sample Spe	cific Notes:
	Post-Carbon 3	611	1015	Grab	W	19	N			x	X Y	x	x x	X	x	X Z	x x	X				
	Post-Carbon 2	6/11	1020	Grab	W	3	N				7	K										
	Post-Carbon 1	Chi	1025	Grab	W	3	N				7	K										
-	Pre-Carbon	6/11	1030	Grab	W	9	N 3	x x	X		X Z	X										
	Inside Outside Sump	du	1040	Grab	W	3	N				7	X										
3		1																				
							П															
							Ш															
							П															
	Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=Na	OH; 6= Other	r																			
1	Possible Hazard Identification  Non-Hazard Flammable Skin Irritant	Poison E	, 🗆	Unknown	4		8			<b>ispos</b> urn Ta			nay b	e ass	sess oosa	e <b>d if</b> : I By L	<b>samp</b> .ab	oles	are reta	aine chive	d longer than 1 mo	onths
5	Special Instructions/QC Requirements & Comments:																					
												2					-	H	=/	2	1;6	
	Relinquished by:	Company:	55		Date/T	ime: ////	F	Recei	ved by	10	lle	ce	_			Comp	pany:	71.	3		Date/Timé: (9/1/18	1110
- 1	Relinquished by:	Company:			Date/T	ime:	F	Recei	ved by	y:						Com	pany:				Date/Time:	
	Relinquished by:	Company:			Date/T	ime:	I	Recei	ved by	y:						Com	pany:				Date/Time:	





# Login Sample Receipt Checklist

Client: New York State D.E.C. Job Number: 480-137250-1

Login Number: 137250 List Source: TestAmerica Buffalo

List Number: 1

Creator: Williams, Christopher S

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

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THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

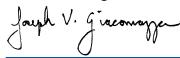
TestAmerica Job ID: 480-139704-1

Client Project/Site: Gastown WWTP #915171

## For:

New York State D.E.C. 625 Broadway 11th Floor Albany, New York 12233-3256

Attn: Mr. Doug K MacNeal



Authorized for release by: 8/16/2018 4:11:44 PM

Joe Giacomazza, Project Management Assistant II joe.giacomazza@testamericainc.com

Designee for

Orlette Johnson, Senior Project Manager (484)685-0864

orlette.johnson@testamericainc.com

.....LINKS .....

Review your project results through

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**Have a Question?** 



**Visit us at:** www.testamericainc.com

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

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

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

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

Joeph V. Gireomagger

Joe Giacomazza Project Management Assistant II 8/16/2018 4:11:44 PM Client: New York State D.E.C. Project/Site: Gastown WWTP #915171 TestAmerica Job ID: 480-139704-1

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# **Definitions/Glossary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-139704-1

## **Qualifiers**

## **GC/MS VOA**

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **General Chemistry**

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

В Compound was found in the blank and sample.

## **Glossary**

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

DΙ Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) Limit of Quantitation (DoD/DOE) LOQ

MDA Minimum Detectable Activity (Radiochemistry) Minimum Detectable Concentration (Radiochemistry) MDC

MDL Method Detection Limit Minimum Level (Dioxin) ML NC Not Calculated

Not Detected at the reporting limit (or MDL or EDL if shown) ND

**PQL Practical Quantitation Limit** 

QC **Quality Control** 

Relative Error Ratio (Radiochemistry) RER

Reporting Limit or Requested Limit (Radiochemistry) RL

Relative Percent Difference, a measure of the relative difference between two points RPD

Toxicity Equivalent Factor (Dioxin) TEF **TEQ** Toxicity Equivalent Quotient (Dioxin)

TestAmerica Buffalo

8/16/2018

## **Case Narrative**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-139704-1

Job ID: 480-139704-1

**Laboratory: TestAmerica Buffalo** 

Narrative

Job Narrative 480-139704-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 7/27/2018 5:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 11.8° C.

#### GC/MS VOA

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: Post-Carbon 1 (480-139704-3) and Pre-Carbon (480-139704-4). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: OUTSIDE SUMP (480-139704-5). 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 was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-139704-4). 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 has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Post-Carbon 3 (480-139704-1).

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

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TestAmerica Job ID: 480-139704-1

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

Client Sample ID: Post-Carbon 3

Lab Sample ID: 480-139704-1 Date Collected: 07/27/18 10:00

Matrix: Water

Date Received: 07/27/18 17:00

1,2-Dichloroethane-d4 (Surr)

4-Bromofluorobenzene (Surr)

Toluene-d8 (Surr)

Analyte	nic Compounds by GC/MS  Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	1.0	0.82	ug/L			08/01/18 18:10	1
1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/L			08/01/18 18:10	1
1,1,2-Trichloroethane	ND	1.0	0.23	ug/L			08/01/18 18:10	1
1,1-Dichloroethane	ND	1.0	0.38	ug/L			08/01/18 18:10	1
1,1-Dichloroethene	ND	1.0	0.29	ug/L			08/01/18 18:10	1
1,2,4-Trimethylbenzene	ND	1.0	0.75	ug/L			08/01/18 18:10	1
1,2-Dichloroethane	ND	1.0	0.21	ug/L			08/01/18 18:10	1
1,2-Dichloroethene, Total	ND	2.0	0.81	ug/L			08/01/18 18:10	1
1,2-Dichloropropane	ND	1.0	0.72	ug/L			08/01/18 18:10	1
1,3,5-Trimethylbenzene	ND	1.0	0.77	ug/L			08/01/18 18:10	1
2-Butanone (MEK)	ND	10	1.3	ug/L			08/01/18 18:10	1
2-Hexanone	ND	5.0		ug/L			08/01/18 18:10	1
4-Methyl-2-pentanone (MIBK)	ND	5.0		ug/L			08/01/18 18:10	1
Acetone	ND	10		ug/L			08/01/18 18:10	1
Benzene	ND	1.0		ug/L			08/01/18 18:10	1
Bromodichloromethane	ND	1.0		ug/L			08/01/18 18:10	1
Bromoform	ND	1.0		ug/L			08/01/18 18:10	1
Bromomethane	ND	1.0		ug/L			08/01/18 18:10	1
Carbon disulfide	ND	1.0	0.19				08/01/18 18:10	1
Carbon tetrachloride	ND	1.0	0.27				08/01/18 18:10	1
Chlorobenzene	ND	1.0		ug/L			08/01/18 18:10	1
Chloroethane	ND	1.0		ug/L			08/01/18 18:10	1
Chloroform	ND	1.0	0.34	-			08/01/18 18:10	1
Chloromethane	ND	1.0		ug/L			08/01/18 18:10	1
cis-1,3-Dichloropropene	ND	1.0		ug/L			08/01/18 18:10	1
Dibromochloromethane	ND	1.0		ug/L			08/01/18 18:10	1
Ethylbenzene	ND	1.0		ug/L			08/01/18 18:10	1
Isopropylbenzene	ND	1.0	0.79	<del>.</del>			08/01/18 18:10	1
m-Xylene & p-Xylene	ND	2.0		ug/L			08/01/18 18:10	1
Methyl tert-butyl ether	ND	1.0		ug/L			08/01/18 18:10	1
Methylene Chloride	ND	1.0		ug/L			08/01/18 18:10	1
n-Butylbenzene	ND	1.0		ug/L			08/01/18 18:10	1
N-Propylbenzene	ND	1.0		ug/L			08/01/18 18:10	1
o-Xylene	ND	1.0		ug/L			08/01/18 18:10	1
4-Isopropyltoluene	ND	1.0		ug/L			08/01/18 18:10	1
sec-Butylbenzene	ND	1.0	0.75	-			08/01/18 18:10	1
Styrene	ND	1.0		ug/L			08/01/18 18:10	1
Tetrachloroethene	ND	1.0		ug/L			08/01/18 18:10	1
Toluene	ND	1.0		ug/L			08/01/18 18:10	1
trans-1,3-Dichloropropene	ND	1.0		ug/L			08/01/18 18:10	1
Trichloroethene	ND	1.0		ug/L			08/01/18 18:10	1
Vinyl acetate	ND	5.0		ug/L			08/01/18 18:10	1
Vinyl chloride	1.4	1.0		ug/L			08/01/18 18:10	' 1
Xylenes, Total	ND	2.0		ug/L ug/L			08/01/18 18:10	1
7.5.00, 1000	ND	2.0	0.00	<b>~</b> g, ∟			00/01/10 10:10	•
Surrogate	%Recovery Qualifier	Limits				Prepared	Analyzed	Dil Fac

TestAmerica Buffalo

08/01/18 18:10

08/01/18 18:10

08/01/18 18:10

77 - 120

80 - 120

73 - 120

101

96

97

8/16/2018

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-139704-1

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

Date Collected: 07/27/18 10:00 Date Received: 07/27/18 17:00 Lab Sample ID: 480-139704-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	132		50.0	19.3	ug/L		08/02/18 08:55	08/08/18 14:17	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.29		0.010	0.0050	mg/L		08/08/18 12:55	08/08/18 16:10	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.5	HF	0.1	0.1	SU			08/07/18 18:03	1

TestAmerica Buffalo

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-139704-1

Lab Sample ID: 480-139704-2

Matrix: Water

Client Sample ID: Post-Carbon 2

Date Collected: 07/27/18 10:05 Date Received: 07/27/18 17:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			08/02/18 04:19	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			08/02/18 04:19	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			08/02/18 04:19	1
Benzene	ND		1.0	0.41	ug/L			08/02/18 04:19	1
Ethylbenzene	ND		1.0	0.74	ug/L			08/02/18 04:19	1
Isopropylbenzene	ND		1.0	0.79	ug/L			08/02/18 04:19	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			08/02/18 04:19	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			08/02/18 04:19	1
Naphthalene	ND		1.0	0.43	ug/L			08/02/18 04:19	1
n-Butylbenzene	ND		1.0	0.64	ug/L			08/02/18 04:19	1
N-Propylbenzene	ND		1.0	0.69	ug/L			08/02/18 04:19	1
o-Xylene	ND		1.0	0.76	ug/L			08/02/18 04:19	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			08/02/18 04:19	1
Toluene	ND		1.0	0.51	ug/L			08/02/18 04:19	1
Xylenes, Total	ND		2.0	0.66	ug/L			08/02/18 04:19	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			08/02/18 04:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120			-		08/02/18 04:19	1
4-Bromofluorobenzene (Surr)	101		73 - 120					08/02/18 04:19	1
Toluene-d8 (Surr)	100		80 - 120					08/02/18 04:19	1
Dibromofluoromethane (Surr)	101		75 - 123					08/02/18 04:19	1

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Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-139704-1

Lab Sample ID: 480-139704-3

Matrix: Water

Client Sample ID: Post-Carbon 1

Date Collected: 07/27/18 10:10 Date Received: 07/27/18 17:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		20	15	ug/L			08/02/18 04:43	20
1,3,5-Trimethylbenzene	ND		20	15	ug/L			08/02/18 04:43	20
4-Isopropyltoluene	ND		20	6.2	ug/L			08/02/18 04:43	20
Benzene	540		20	8.2	ug/L			08/02/18 04:43	20
Ethylbenzene	ND		20	15	ug/L			08/02/18 04:43	20
Isopropylbenzene	ND		20	16	ug/L			08/02/18 04:43	20
Methyl tert-butyl ether	ND		20	3.2	ug/L			08/02/18 04:43	20
m-Xylene & p-Xylene	ND		40	13	ug/L			08/02/18 04:43	20
Naphthalene	ND		20	8.6	ug/L			08/02/18 04:43	20
n-Butylbenzene	ND		20	13	ug/L			08/02/18 04:43	20
N-Propylbenzene	ND		20	14	ug/L			08/02/18 04:43	20
o-Xylene	ND		20	15	ug/L			08/02/18 04:43	20
sec-Butylbenzene	ND		20	15	ug/L			08/02/18 04:43	20
Toluene	24		20	10	ug/L			08/02/18 04:43	20
Xylenes, Total	ND		40	13	ug/L			08/02/18 04:43	20
tert-Butylbenzene	ND		20	16	ug/L			08/02/18 04:43	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		77 - 120			-		08/02/18 04:43	20
4-Bromofluorobenzene (Surr)	103		73 - 120					08/02/18 04:43	20
Toluene-d8 (Surr)	98		80 - 120					08/02/18 04:43	20
Dibromofluoromethane (Surr)	103		75 - 123					08/02/18 04:43	20

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Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-139704-1

Lab Sample ID: 480-139704-4

Matrix: Water

**Client Sample ID: Pre-Carbon** Date Collected: 07/27/18 10:15

Method: 8260C - Volatile Orga	inic Compounds I	by GC/MS							
nalyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
,2,4-Trimethylbenzene	ND		100	75	ug/L			08/02/18 05:07	100
,3,5-Trimethylbenzene	ND		100	77	ug/L			08/02/18 05:07	100
-Isopropyltoluene	ND		100	31	ug/L			08/02/18 05:07	100
Senzene	9500		100	41	ug/L			08/02/18 05:07	100
thylbenzene	380		100	74	ug/L			08/02/18 05:07	100
sopropylbenzene	ND		100	79	ug/L			08/02/18 05:07	100
lethyl tert-butyl ether	ND		100	16	ug/L			08/02/18 05:07	100
n-Xylene & p-Xylene	140	J	200	66	ug/L			08/02/18 05:07	100
laphthalene	720		100	43	ug/L			08/02/18 05:07	100
-Butylbenzene	ND		100	64	ug/L			08/02/18 05:07	100
I-Propylbenzene	ND		100	69	ug/L			08/02/18 05:07	100
-Xylene	ND		100	76	ug/L			08/02/18 05:07	100
ec-Butylbenzene	ND		100	75	ug/L			08/02/18 05:07	100
oluene	1300		100	51	ug/L			08/02/18 05:07	100
(ylenes, Total	140	J	200	66	ug/L			08/02/18 05:07	100
ert-Butylbenzene	ND		100	81	ug/L			08/02/18 05:07	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		77 - 120	 	08/02/18 05:07	100
4-Bromofluorobenzene (Surr)	102		73 - 120		08/02/18 05:07	100
Toluene-d8 (Surr)	101		80 - 120		08/02/18 05:07	100
Dibromofluoromethane (Surr)	94		75 - 123		08/02/18 05:07	100

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	139000		500	100	ug/L		08/01/18 07:23	08/01/18 17:12	1
Iron	103000		50.0	19.3	ug/L		08/01/18 07:23	08/01/18 17:12	1
Magnesium	60700		200	43.4	ug/L		08/01/18 07:23	08/01/18 17:12	1
Potassium	3810		500	100	ug/L		08/01/18 07:23	08/01/18 17:12	1
Sodium	64700		1000	324	ug/L		08/01/18 07:23	08/01/18 17:12	1

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	291		2.5	1.4	mg/L			08/07/18 04:29	5
Sulfate	37.8		10.0	1.7	mg/L			08/07/18 04:29	5
Alkalinity, Total	390	В	40.0	16.0	mg/L			08/03/18 12:24	4

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-139704-1

Lab Sample ID: 480-139704-5

Matrix: Water

**Client Sample ID: OUTSIDE SUMP** 

Date Collected: 07/27/18 10:30 Date Received: 07/27/18 17:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		100	75	ug/L			08/02/18 23:51	100
1,3,5-Trimethylbenzene	ND		100	77	ug/L			08/02/18 23:51	100
4-Isopropyltoluene	ND		100	31	ug/L			08/02/18 23:51	100
Benzene	5300		100	41	ug/L			08/02/18 23:51	100
Ethylbenzene	320		100	74	ug/L			08/02/18 23:51	100
Isopropylbenzene	ND		100	79	ug/L			08/02/18 23:51	100
Methyl tert-butyl ether	ND		100	16	ug/L			08/02/18 23:51	100
m-Xylene & p-Xylene	140	J	200	66	ug/L			08/02/18 23:51	100
Naphthalene	730		100	43	ug/L			08/02/18 23:51	100
n-Butylbenzene	ND		100	64	ug/L			08/02/18 23:51	100
N-Propylbenzene	ND		100	69	ug/L			08/02/18 23:51	100
o-Xylene	ND		100	76	ug/L			08/02/18 23:51	100
sec-Butylbenzene	ND		100	75	ug/L			08/02/18 23:51	100
Toluene	690		100	51	ug/L			08/02/18 23:51	100
Xylenes, Total	140	J	200	66	ug/L			08/02/18 23:51	100
tert-Butylbenzene	ND		100	81	ug/L			08/02/18 23:51	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		77 - 120			-		08/02/18 23:51	100
4-Bromofluorobenzene (Surr)	100		73 - 120					08/02/18 23:51	100
Toluene-d8 (Surr)	98		80 - 120					08/02/18 23:51	100
Dibromofluoromethane (Surr)	100		75 <sub>-</sub> 123					08/02/18 23:51	100

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Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

Lab Sample ID: 480-139704-1

Matrix: Water

Client Sample ID: Post-Carbon 3
Date Collected: 07/27/18 10:00

Date Received: 07/27/18 17:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	427499	08/01/18 18:10	AEM	TAL BUF
Total/NA	Prep	200.7			427546	08/02/18 08:55	VEG	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	428769	08/08/18 14:17	LMH	TAL BUF
Total/NA	Prep	Distill/CN			428622	08/08/18 12:55	LAW	TAL BUF
Total/NA	Analysis	335.4		1	428676	08/08/18 16:10	MDL	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	428580	08/07/18 18:03	KEB	TAL BUF

Client Sample ID: Post-Carbon 2

Date Collected: 07/27/18 10:05

Date Received: 07/27/18 17:00

Lab Sample ID: 480-139704-2

Matrix: Water

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number or Analyzed Analyst TAL BUF Total/NA Analysis 8260C 427650 08/02/18 04:19 KMN

Client Sample ID: Post-Carbon 1

Date Collected: 07/27/18 10:10

Date Received: 07/27/18 17:00

Lab Sample ID: 480-139704-3

Matrix: Water

_	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	8260C			427650	08/02/18 04:43	KMN	TAL BUF	-

Client Sample ID: Pre-Carbon

Date Collected: 07/27/18 10:15

Date Received: 07/27/18 17:00

Lab Sample ID: 480-139704-4
-----------------------------

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	427650	08/02/18 05:07	KMN	TAL BUF
Total/NA	Prep	200.7			427328	08/01/18 07:23	VEG	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	427695	08/01/18 17:12	AMH	TAL BUF
Total/NA	Analysis	300.0		5	428265	08/07/18 04:29	DMR	TAL BUF
Total/NA	Analysis	310.2		4	428017	08/03/18 12:24	SAH	TAL BUF

**Client Sample ID: OUTSIDE SUMP** 

Date Collected: 07/27/18 10:30 Date Received: 07/27/18 17:00 Lab Sample ID: 480-139704-5

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	427826	08/02/18 23:51	KMN	TAL BUF

Laboratory References:

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

TestAmerica Buffalo

# **Accreditation/Certification Summary**

Client: New York State D.E.C. TestAmerica Job ID: 480-139704-1

Project/Site: Gastown WWTP #915171

## Laboratory: TestAmerica Buffalo

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

thority	Program		EPA Region	Identification Number	Expiration Date	
w York	NELAP		2	10026	03-31-19	
The following analytes	are included in this report, bu	t are not accredited/cer	rtified under this accred	ditation/certification:		
Analysis Method	Prep Method	Matrix	Analyt	е		
335.4	Distill/CN Water			Cyanide, Total		
000.4	Distill/CIV	vvalei	Cyanic	ie, iolai		
	are included in this report, bu  Prep Method		,	e governing authority:		
The following analytes	are included in this report, bu	t accreditation/certificat	tion is not offered by th	e governing authority:		
The following analytes	are included in this report, bu	t accreditation/certificat	tion is not offered by th	e governing authority:		

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# **Method Summary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-139704-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
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	рН	SM	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF
Distill/CN	Distillation, Cyanide	None	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.

None = None

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

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# **Sample Summary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-139704-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-139704-1	Post-Carbon 3	Water	07/27/18 10:00	07/27/18 17:00
480-139704-2	Post-Carbon 2	Water	07/27/18 10:05	07/27/18 17:00
480-139704-3	Post-Carbon 1	Water	07/27/18 10:10	07/27/18 17:00
480-139704-4	Pre-Carbon	Water	07/27/18 10:15	07/27/18 17:00
480-139704-5	OUTSIDE SUMP	Water	07/27/18 10:30	07/27/18 17:00

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### Buffalo

10 Hazelwood Drive

# **Chain of Custody Record**



Amherst, NY 14228

phone 716.504.9852 fax 716.691.7991																	1	1			'	TestAmer	ica Lal	ooratori	es, Inc.	
Client Contact	Project M	anager: Gle	nn May (N	YSDEC)		Site	e Cor	ntact	: Th	noma	s Pa	lmer		D	ate:	7	12	7/19	8			COC No:	-			
Groundwater & Environmental Services, Inc	Tel/Fax: (	716) 851-72:	20			La	b Co	ntact	t: O.	. Joh	nsor	n		C	Carrie	er:							of	_ COCs		
495 Aero Drive Suite 3		Analysis T	urnaround	Time							00	- 80.					I		-	1		Job No.				
Cheektowaga, NY 14225	Calenda	r(C) or Wo	ork Days (W	)			po			2	7.7	V N								•.						
(800) 287-7857 Phone	Т	AT if different	from Below				letho	po		N N	TW	-			Ĭ			1	4	2						
(866) 902-2187 FAX	IX.	2	2 weeks				al M	leth		1	St C	SIIS	1 1					M				SDG No.				
Project Name: NYSDEC Gatown WWTP		1	week				(MOD) Local Method	Sal N		TCI Bet OI M04.2	T P	A K							Ŀ							
Site: 915171			2 days			e	(QO	Loo	it	F		e. T	H					80-1°	3970	4 000						
P O # Callout 120597 GES Project #0901691-05-220			1 day			amp	(M	0 :	Alkalinity	E 2	- (MOD)	MOL anid	H+T				Ī									
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sa	300.0 Z8D		310.2 - AI	200.7 - Iron	8260B - (I	8021B - (MOD) STARS list - VOA - 80 335.4 - Cvanide, Total	SM4500_H+-pH									Sa	ample St	pecific No	otes:	
Post-Carbon 3	7/27	1000	Grab	W	9	N				X Z	X Z	x x	X													
Post-Carbon 2		1005	Grab	W	3	N					]	X														
Post-Carbon 1		1010	Grab	W	3	N					1	X														
Pre-Carbon		1015	Grab	W	6	N	X	X	X		1	X														
Inside Outside Sump		1030	Grab	W	3	N						x														
	V					T					1										П					
						T																				
																										_
						T					$\top$															
						T	П	1			1		$\top$	$\Box$	1	$\top$		1	1		П					
						1	П				1	T			1	1			1							
						1					1	1	1	П					1		П					
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=Na	OH: 6= Othe	r				_		7			$\top$	1			+			$\neg$	+	1	Н					-
Possible Hazard Identification  Non-Hazard Flammable Skin Irritant	Poison		Unknown	×						spos rn To				y be a						e reta		longer th		onth) Months		
Special Instructions/QC Requirements & Comments: 45 PO# 731834-1109																				7 11 01				, , , , , , , , , , , , , , , , , , ,		
PROJ/Phase/Task: 090 1691	-05-	220																								
Relinquished by:	Company	5		Date/T	153	b		eived	w	h	2	3	N	/ Ex	12	dg Co	mpar	iy:	EC	7		Date/Time	118	16	,25	
Relinquished by:	Company	165		Date/T		1700		eived	i by	W	W	hol	N	Cik	(0)	b	mpar	A.				Date/Time	7/2=	118	1760	þ
Relinquished by:	Company	:		Date/T	ime:		Rec	eived	by:	:						Co	mpar	ıy:				Date/Time	:	-	*	
						-	_						-					_	_		Fo	rm No. CA	-C-WI-	002, date	ed 04/07/2	201









# **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-139704-1

Login Number: 139704 List Source: TestAmerica Buffalo

List Number: 1

Creator: Williams, Christopher S

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

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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: 480-140565-1

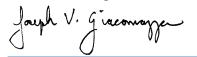
Client Project/Site: Gastown WWTP #915171

Revision: 1

### For:

New York State D.E.C. 625 Broadway 11th Floor Albany, New York 12233-3256

Attn: Mr. Doug K MacNeal



Authorized for release by: 8/30/2018 4:17:17 PM

Joe Giacomazza, Project Management Assistant II joe.giacomazza@testamericainc.com

Designee for

Orlette Johnson, Senior Project Manager (484)685-0864

orlette.johnson@testamericainc.com

····· Links ·····

Review your project results through

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

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

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

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

Joe Giacomazza

Project Management Assistant II 8/30/2018 4:17:17 PM

Client: New York State D.E.C. Project/Site: Gastown WWTP #915171 TestAmerica Job ID: 480-140565-1

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# **Definitions/Glossary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-140565-1

### **Qualifiers**

### **GC/MS VOA**

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

F1 MS and/or MSD Recovery is outside acceptance limits.

**Metals** 

B Compound was found in the blank and sample.

**General Chemistry** 

Qualifier Qualifier Description

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

### Glossary

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

Eisted 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 Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE)

MDA Minimum Detectable Activity (Radiochemistry)
MDC Minimum Detectable Concentration (Radiochemistry)

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 (Radiochemistry)

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)

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### **Case Narrative**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-140565-1

Job ID: 480-140565-1

Laboratory: TestAmerica Buffalo

**Narrative** 

Job Narrative 480-140565-1

#### Revision I

Report was revised to correct sample ID.

#### Receipt

The samples were received on 8/17/2018 10:55 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.2° C.

#### **GC/MS VOA**

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: Post-Carbon 1 (480-140565-3), Pre-Carbon (480-140565-4), Outside Sump (480-140565-5), (480-140565-A-3 MS) and (480-140565-A-3 MSD). Elevated reporting limits (RLs) are provided.

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

### HPLC/IC

Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-140565-4). 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 has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Post Carbon 3 (480-140565-1).

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

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Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-140565-1

Lab Sample ID: 480-140565-1

**Matrix: Wastewater** 

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

Date Collected: 08/17/18 10:00 Date Received: 08/17/18 10:55

Analyte	Result Qualifier	RL	MDL		D	Prepared	Analyzed	Dil F
1,1,1-Trichloroethane	ND	1.0	0.82	ug/L			08/23/18 14:30	
1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/L			08/23/18 14:30	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	0.31	ug/L			08/23/18 14:30	
1,1,2-Trichloroethane	ND	1.0	0.23	ug/L			08/23/18 14:30	
1,1-Dichloroethane	ND	1.0	0.38	ug/L			08/23/18 14:30	
1,1-Dichloroethene	ND	1.0	0.29	ug/L			08/23/18 14:30	
1,2,4-Trichlorobenzene	ND	1.0	0.41	ug/L			08/23/18 14:30	
1,2,4-Trimethylbenzene	ND	1.0	0.75	ug/L			08/23/18 14:30	
1,2-Dibromo-3-Chloropropane	ND	1.0	0.39	ug/L			08/23/18 14:30	
1,2-Dichlorobenzene	ND	1.0	0.79	ug/L			08/23/18 14:30	
1,2-Dichloroethane	ND	1.0	0.21	ug/L			08/23/18 14:30	
1,2-Dichloropropane	ND	1.0	0.72	ug/L			08/23/18 14:30	
1,3,5-Trimethylbenzene	ND	1.0	0.77	ug/L			08/23/18 14:30	
1,3-Dichlorobenzene	ND	1.0	0.78	ug/L			08/23/18 14:30	
1,4-Dichlorobenzene	ND	1.0	0.84	ug/L			08/23/18 14:30	
2-Butanone (MEK)	ND	10	1.3	ug/L			08/23/18 14:30	
2-Hexanone	ND	5.0	1.2				08/23/18 14:30	
1-Isopropyltoluene	ND	1.0	0.31	ug/L			08/23/18 14:30	
1-Methyl-2-pentanone (MIBK)	ND	5.0	2.1	ug/L			08/23/18 14:30	
Acetone	ND	10	3.0	-			08/23/18 14:30	
Benzene	ND	1.0	0.41	ug/L			08/23/18 14:30	
Bromoform	ND	1.0	0.26	-			08/23/18 14:30	
Bromomethane	ND	1.0	0.69	-			08/23/18 14:30	
Carbon disulfide	ND	1.0	0.19	-			08/23/18 14:30	
Carbon tetrachloride	ND	1.0	0.27	-			08/23/18 14:30	
Chlorobenzene	ND	1.0	0.75	-			08/23/18 14:30	
Dibromochloromethane	ND	1.0	0.32	ug/L			08/23/18 14:30	
Chloroethane	ND	1.0	0.32				08/23/18 14:30	
Chloroform	ND	1.0	0.34	ug/L			08/23/18 14:30	
Chloromethane	ND	1.0	0.35	-			08/23/18 14:30	
cis-1,2-Dichloroethene	ND	1.0	0.81	-			08/23/18 14:30	
Cyclohexane	ND	1.0	0.18	-			08/23/18 14:30	
Bromodichloromethane	ND	1.0	0.39	-			08/23/18 14:30	
Dichlorodifluoromethane	ND	1.0	0.68	-			08/23/18 14:30	
Ethylbenzene	ND	1.0	0.74				08/23/18 14:30	
1,2-Dibromoethane	ND	1.0	0.73	-			08/23/18 14:30	
sopropylbenzene	ND	1.0	0.79				08/23/18 14:30	
Methyl acetate	ND	2.5	1.3				08/23/18 14:30	
Methyl tert-butyl ether	ND	1.0	0.16	-			08/23/18 14:30	
Methylcyclohexane	ND	1.0	0.16				08/23/18 14:30	
Methylene Chloride	ND	1.0	0.44				08/23/18 14:30	
n-Xylene & p-Xylene	ND	2.0	0.66	-			08/23/18 14:30	
Naphthalene	ND	1.0	0.43				08/23/18 14:30	
n-Butylbenzene	ND	1.0	0.64	-			08/23/18 14:30	
N-Propylbenzene	ND	1.0	0.69	-			08/23/18 14:30	
o-Xylene	ND	1.0	0.76				08/23/18 14:30	
sec-Butylbenzene	ND	1.0	0.75	-			08/23/18 14:30	
Fetrachloroethene	ND	1.0	0.75	-			08/23/18 14:30	
Toluene	ND	1.0	0.51				08/23/18 14:30	

TestAmerica Buffalo

8/30/2018 (Rev. 1)

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-140565-1

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

Date Collected: 08/17/18 10:00 Date Received: 08/17/18 10:55

Analyte

Lab Sample ID: 480-140565-1

**Matrix: Wastewater** 

Analyzed

**Prepared** 

Dil Fac

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			08/23/18 14:30	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			08/23/18 14:30	1
Trichloroethene	ND		1.0	0.46	ug/L			08/23/18 14:30	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			08/23/18 14:30	1
Vinyl chloride	1.3		1.0	0.90	ug/L			08/23/18 14:30	1
Xylenes, Total	ND		2.0	0.66	ug/L			08/23/18 14:30	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			08/23/18 14:30	1
Styrene	ND		1.0	0.73	ug/L			08/23/18 14:30	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			08/23/18 14:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)			77 - 120			-		08/23/18 14:30	1
4-Bromofluorobenzene (Surr)	98		73 - 120					08/23/18 14:30	1
Toluene-d8 (Surr)	101		80 - 120					08/23/18 14:30	1
Dibromofluoromethane (Surr)	101		75 - 123					08/23/18 14:30	1

Iron	102		50.0	19.3	ug/L		08/20/18 09:50	08/21/18 18:41	1
General Chemistry Analyte Cyanide, Total	Result	Qualifier	RL 0.010	MDL 0.0050		_ <b>D</b>	Prepared 08/21/18 15:02	Analyzed 08/21/18 17:04	Dil Fac
Analyte	Result	Qualifier	RL	RL	Unit SU	_ D	Prepared	Analyzed	Dil Fac
pH Temperature	20.6	HF HF	0.1 0.001	***	Degrees C			08/30/18 12:31 08/30/18 12:31	1

RL

MDL Unit

Result Qualifier

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-140565-1

Lab Sample ID: 480-140565-2

08/23/18 03:17

**Matrix: Water** 

Client Sample ID: Post-Carbon 2

Date Collected: 08/17/18 10:05 Date Received: 08/17/18 10:55

Dibromofluoromethane (Surr)

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND	1.0	0.75	ug/L			08/23/18 03:17	1
1,3,5-Trimethylbenzene	ND	1.0	0.77	ug/L			08/23/18 03:17	1
4-Isopropyltoluene	ND	1.0	0.31	ug/L			08/23/18 03:17	1
Benzene	ND	1.0	0.41	ug/L			08/23/18 03:17	1
Ethylbenzene	ND	1.0	0.74	ug/L			08/23/18 03:17	1
Isopropylbenzene	ND	1.0	0.79	ug/L			08/23/18 03:17	1
Methyl tert-butyl ether	0.22 J	1.0	0.16	ug/L			08/23/18 03:17	1
m-Xylene & p-Xylene	ND	2.0	0.66	ug/L			08/23/18 03:17	1
Naphthalene	ND	1.0	0.43	ug/L			08/23/18 03:17	1
n-Butylbenzene	ND	1.0	0.64	ug/L			08/23/18 03:17	1
N-Propylbenzene	ND	1.0	0.69	ug/L			08/23/18 03:17	1
o-Xylene	ND	1.0	0.76	ug/L			08/23/18 03:17	1
sec-Butylbenzene	ND	1.0	0.75	ug/L			08/23/18 03:17	1
Toluene	ND	1.0	0.51	ug/L			08/23/18 03:17	1
Xylenes, Total	ND	2.0	0.66	ug/L			08/23/18 03:17	1
tert-Butylbenzene	ND	1.0	0.81	ug/L			08/23/18 03:17	1
Surrogate	%Recovery Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100	77 - 120					08/23/18 03:17	1
4-Bromofluorobenzene (Surr)	103	73 - 120					08/23/18 03:17	1
Toluene-d8 (Surr)	99	80 - 120					08/23/18 03:17	1

75 - 123

103

8

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-140565-1

Lab Sample ID: 480-140565-3

**Matrix: Water** 

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

Date Collected: 08/17/18 10:10 Date Received: 08/17/18 10:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		20	15	ug/L			08/23/18 03:44	20
1,3,5-Trimethylbenzene	ND		20	15	ug/L			08/23/18 03:44	20
4-Isopropyltoluene	ND		20	6.2	ug/L			08/23/18 03:44	20
Benzene	1600	F1	20	8.2	ug/L			08/23/18 03:44	20
Ethylbenzene	24		20	15	ug/L			08/23/18 03:44	20
Isopropylbenzene	ND		20	16	ug/L			08/23/18 03:44	20
Methyl tert-butyl ether	ND		20	3.2	ug/L			08/23/18 03:44	20
m-Xylene & p-Xylene	15	J	40	13	ug/L			08/23/18 03:44	20
Naphthalene	23		20	8.6	ug/L			08/23/18 03:44	20
n-Butylbenzene	ND		20	13	ug/L			08/23/18 03:44	20
N-Propylbenzene	ND		20	14	ug/L			08/23/18 03:44	20
o-Xylene	ND		20	15	ug/L			08/23/18 03:44	20
sec-Butylbenzene	ND		20	15	ug/L			08/23/18 03:44	20
Toluene	92		20	10	ug/L			08/23/18 03:44	20
Xylenes, Total	15	J	40	13	ug/L			08/23/18 03:44	20
tert-Butylbenzene	ND		20	16	ug/L			08/23/18 03:44	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)			77 - 120					08/23/18 03:44	20
4-Bromofluorobenzene (Surr)	104		73 - 120					08/23/18 03:44	20
Toluene-d8 (Surr)	101		80 - 120					08/23/18 03:44	20
Dibromofluoromethane (Surr)	104		75 - 123					08/23/18 03:44	20

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8

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-140565-1

Client Sample ID: Pre-Carbon

Date Collected: 08/17/18 10:15 Date Received: 08/17/18 10:55

**Potassium** 

Lab Sample ID: 480-140565-4

08/20/18 09:50 08/21/18 18:45

Matrix: Wastewater

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		100	75	ug/L			08/23/18 04:11	100
1,3,5-Trimethylbenzene	ND		100	77	ug/L			08/23/18 04:11	100
4-Isopropyltoluene	ND		100	31	ug/L			08/23/18 04:11	100
Benzene	9500		100	41	ug/L			08/23/18 04:11	100
Ethylbenzene	360		100	74	ug/L			08/23/18 04:11	100
Isopropylbenzene	ND		100	79	ug/L			08/23/18 04:11	100
Methyl tert-butyl ether	ND		100	16	ug/L			08/23/18 04:11	100
m-Xylene & p-Xylene	180	J	200	66	ug/L			08/23/18 04:11	100
Naphthalene	660		100	43	ug/L			08/23/18 04:11	100
n-Butylbenzene	ND		100	64	ug/L			08/23/18 04:11	100
N-Propylbenzene	ND		100	69	ug/L			08/23/18 04:11	100
o-Xylene	120		100	76	ug/L			08/23/18 04:11	100
sec-Butylbenzene	ND		100	75	ug/L			08/23/18 04:11	100
Toluene	1200		100	51	ug/L			08/23/18 04:11	100
Xylenes, Total	300		200	66	ug/L			08/23/18 04:11	100
tert-Butylbenzene	ND		100	81	ug/L			08/23/18 04:11	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		77 - 120					08/23/18 04:11	100
4-Bromofluorobenzene (Surr)	102		73 - 120					08/23/18 04:11	100
Toluene-d8 (Surr)	97		80 - 120					08/23/18 04:11	100
Dibromofluoromethane (Surr)	98		75 - 123					08/23/18 04:11	100
Method: 200.7 Rev 4.4 - Me	tals (ICP)								
Analyte	· ,	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	120000		500	100	ug/L		08/20/18 09:50	08/21/18 18:45	1
Iron	582		50.0	19.3	ug/L		08/20/18 09:50	08/21/18 18:45	1
Magnesium	53700		200	43.4	ug/L		08/20/18 09:50	08/21/18 18:45	1

L	Sodium	94400	В	1000	324	ug/L		08/20/18 09:50	08/21/18 18:45	1
	General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analvzed	Dil Fac
	Chloride	203		2.5		mg/L	— =		08/29/18 03:24	5
	Sulfate	117		10.0	1.7	mg/L			08/29/18 03:24	5
	Alkalinity, Total	361		40.0	16.0	mg/L			08/21/18 13:48	4

500

3800 B

100 ug/L

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-140565-1

Lab Sample ID: 480-140565-5

**Matrix: Water** 

Client Sample ID: Outside Sump

Date Collected: 08/17/18 10:30 Date Received: 08/17/18 10:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		500	380	ug/L			08/23/18 04:38	500
1,3,5-Trimethylbenzene	ND		500	390	ug/L			08/23/18 04:38	500
4-Isopropyltoluene	ND		500	160	ug/L			08/23/18 04:38	500
Benzene	13000		500	210	ug/L			08/23/18 04:38	500
Ethylbenzene	640		500	370	ug/L			08/23/18 04:38	500
Isopropylbenzene	ND		500	400	ug/L			08/23/18 04:38	500
Methyl tert-butyl ether	ND		500	80	ug/L			08/23/18 04:38	500
m-Xylene & p-Xylene	ND		1000	330	ug/L			08/23/18 04:38	500
Naphthalene	1400		500	220	ug/L			08/23/18 04:38	500
n-Butylbenzene	ND		500	320	ug/L			08/23/18 04:38	500
N-Propylbenzene	ND		500	350	ug/L			08/23/18 04:38	500
o-Xylene	ND		500	380	ug/L			08/23/18 04:38	500
sec-Butylbenzene	ND		500	380	ug/L			08/23/18 04:38	500
Toluene	1800		500	260	ug/L			08/23/18 04:38	500
Xylenes, Total	ND		1000	330	ug/L			08/23/18 04:38	500
tert-Butylbenzene	ND		500	410	ug/L			08/23/18 04:38	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		77 - 120					08/23/18 04:38	500
4-Bromofluorobenzene (Surr)	102		73 - 120					08/23/18 04:38	500
Toluene-d8 (Surr)	99		80 - 120					08/23/18 04:38	500
Dibromofluoromethane (Surr)	96		75 - 123					08/23/18 04:38	500

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

Client Sample ID: Post-Carbon 3 Lab Sample ID: 480-140565-1

Date Collected: 08/17/18 10:00 Matrix: Wastewater

Date Received: 08/17/18 10:55

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C			431033	08/23/18 14:30	AEM	TAL BUF
Total/NA	Prep	200.7			430356	08/20/18 09:50	JAK	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	430841	08/21/18 18:41	S1P	TAL BUF
Total/NA	Prep	Distill/CN			430746	08/21/18 15:02	AED	TAL BUF
Total/NA	Analysis	335.4		1	430761	08/21/18 17:04	MDL	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	432216	08/30/18 12:31	MRF	TAL BUF

Client Sample ID: Post-Carbon 2

Lab Sample ID: 480-140565-2 Date Collected: 08/17/18 10:05 **Matrix: Water** 

Date Received: 08/17/18 10:55

Batch Dilution Batch Batch Prepared Method or Analyzed Analyst **Prep Type** Type Run **Factor** Number Lab Total/NA Analysis 8260C 431006 08/23/18 03:17 AMM TAL BUF

Client Sample ID: Post-Carbon 1 Lab Sample ID: 480-140565-3

Date Collected: 08/17/18 10:10

Date Received: 08/17/18 10:55

	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	8260C			431006	08/23/18 03:44	AMM	TAL BUF	

Lab Sample ID: 480-140565-4 **Client Sample ID: Pre-Carbon** 

Date Collected: 08/17/18 10:15

Date Received: 08/17/18 10:55

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C	<del></del>	100	431006	08/23/18 04:11	AMM	TAL BUF
Total/NA	Prep	200.7			430356	08/20/18 09:50	JAK	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	430841	08/21/18 18:45	S1P	TAL BUF
Total/NA	Analysis	300.0		5	431836	08/29/18 03:24	DMR	TAL BUF
Total/NA	Analysis	310.2		4	430734	08/21/18 13:48	SAH	TAL BUF

**Client Sample ID: Outside Sump** Lab Sample ID: 480-140565-5

Date Collected: 08/17/18 10:30

Date Received: 08/17/18 10:55

_								
	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		500	431006	08/23/18 04:38	AMM	TAL BUF

**Laboratory References:** 

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

TestAmerica Buffalo

**Matrix: Water** 

**Matrix: Water** 

**Matrix: Wastewater** 

# **Accreditation/Certification Summary**

Client: New York State D.E.C. TestAmerica Job ID: 480-140565-1

Project/Site: Gastown WWTP #915171

# **Laboratory: TestAmerica Buffalo**

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

thority	Program		EPA Region	Identification Number	Expiration Date
ew York	NELAP		2	10026	03-31-19
The following analyte:	s are included in this repo	t, but are not accredited	/certified under th	his accreditation/certificatio	n:
Analysis Method	Prep Method	Matrix	Analyte	е	
335.4	Distill/CN	Wastewater	Cyanid	le, Total	
The following analyte:	s are included in this repo	t, but accreditation/certif	fication is not offe	ered by the governing autho	ority:
Analysis Method	Prep Method	Matrix	Analyte	е	
Analysis Method SM 4500 H+ B	Prep Method	Matrix Wastewater	Analyte pH	e	

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# **Method Summary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-140565-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
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	рН	SM	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF
Distill/CN	Distillation, Cyanide	None	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.

None = None

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

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# **Sample Summary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-140565-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-140565-1	Post-Carbon 3	Wastewater	08/17/18 10:00	08/17/18 10:55
480-140565-2	Post-Carbon 2	Water	08/17/18 10:05	08/17/18 10:55
480-140565-3	Post-Carbon 1	Water	08/17/18 10:10	08/17/18 10:55
480-140565-4	Pre-Carbon	Wastewater	08/17/18 10:15	08/17/18 10:55
480-140565-5	Outside Sump	Water	08/17/18 10:30	08/17/18 10:55

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### Buffalo

10 Hazelwood Drive

Amherst, NY 14228

# **Chain of Custody Record**

	phone 716.504.9852 fax 716.691.7991						_										_	1				-	stAı		15	Inc.	
	Client Contact			nn May (N	YSDEC)		-		ntact				ner		Da	_	5/1	7 1	8			CO	C 1	480-14056	35.000		
	Groundwater & Environmental Services, Inc	Tel/Fax: (	16) 851-72	Control Control Control			La	b Co	ntact	: O.	John	7			Ca	rrier:						_	-	0110	2000		
	495 Aero Drive Suite 3	1		urnaround			-					8021										Job	No.				
	Cheektowaga, NY 14225			ork Days (W	<u>/)</u>		4	P			4.2	- V															
	(800) 287-7857 Phone	_	AT if different	from Below _				etho	pc		Z W	) ×									1	_					
	(866) 902-2187 FAX			2 weeks				al M	letho	- 1	0	S list			1	1	1	1				SD	G No.				
	Project Name: NYSDEC Gatown WWTP Site: 915171	4 =		week				Loc	cal N			AR	otal			1		1		1							
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	Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	300.0_28D (MOD) Local Method	200.7 - (MOD) Local Method	310.2 - Alkalinity	200.7 - Iron 8260B - (MOD) TCL list OL M04.2	8021B - (MOD) STARS list - VOA - 8021	335.4 - Cyanide, Total	SM4500_H+-pH									c	ample Spec	eife Ne		
	Post-Carbon 3	8117	_		_			6,	7	=	_	_		-	+	$\vdash$	+	+	H	+	+	+		ample spec	anic No	ies.	=
		8111	1000	Grab	W	9	N	Н	4	-	XX	X	X	X	_		_	_		4	1						
	Post-Carbon 2		1005	Grab	W	3	N	Ц		1	1	X		_	_												
	Post-Carbon 1		1010	Grab	W	3	N					X															
Page	Pre-Carbon		1015	Grab	W	6	N	X	X	x		X															Ī
ge .	Inside / Outside Sump		1030	Grab	W	3	N					X															
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	Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=Na	OH: 6= Othe	r				-		$\vdash$	+	+	+	H	+	+	+	+	+	$\vdash$	+	+	+					
	Possible Hazard Identification	31,0			7		-	Sar	mple	Dis	posa	I(A	fee r	nay b	e ass	esse	d if s	ampl	es ai	re ret	aine	d lon	ger th	an 1 mon	th)		-
	Non-Hazard Flammable Skin Irritant	Poison I	, 🗆	Unknown	×				$\Box_{Re}$	eturr	то о	Clien	t	X	Disp	osal	By La	ab .		□ <sub>Ar</sub>	chive	e For			onths		
ľ	Special Instructions/QC Requirements & Comments:																										
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8/30/2018 (Rev.	Relinquished by:	Company:			Date/Ti	ime:		Rec	eived	by:						(	Comp	any:					te/Time				
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Client: New York State D.E.C.

Job Number: 480-140565-1

Login Number: 140565 List Source: TestAmerica Buffalo

List Number: 1

Creator: Wallace, Cameron

order manage aminoral		
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	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
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.	True	
Chlorine Residual checked.	N/A	



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: 480-142559-1

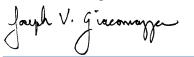
Client Project/Site: Qtrly Gastown WWTP #915171

Sampling Event: Quarterly

### For:

New York State D.E.C. 625 Broadway 11th Floor Albany, New York 12233-3256

Attn: Mr. Doug K MacNeal



Authorized for release by: 10/18/2018 9:40:51 AM

Joe Giacomazza, Project Management Assistant II joe.giacomazza@testamericainc.com

Designee for

Orlette Johnson, Senior Project Manager (484)685-0864

orlette.johnson@testamericainc.com

.....LINKS .....

Review your project results through

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**Have a Question?** 



**Visit us at:** www.testamericainc.com

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

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

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

Joe Giacomazza

Project Management Assistant II 10/18/2018 9:40:51 AM

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### **Definitions/Glossary**

Client: New York State D.E.C.

Project/Site: Qtrly Gastown WWTP #915171

TestAmerica Job ID: 480-142559-1

### **Qualifiers**

### **GC/MS VOA**

Qualifier **Qualifier Description** 

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** 

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

**General Chemistry** 

Qualifier **Qualifier Description** 

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

**Glossary** 

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

Listed under the "D" column to designate that the result is reported on a dry weight basis

Percent Recovery %R CFL Contains Free Liquid **CNF** Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac Dilution Factor

Detection Limit (DoD/DOE) DΙ

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

Decision Level Concentration (Radiochemistry) DLC

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MDA Minimum Detectable Activity (Radiochemistry) Minimum Detectable Concentration (Radiochemistry) MDC

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

OC **Quality Control** 

**RER** Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry) RL

**RPD** Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) **TEQ** Toxicity Equivalent Quotient (Dioxin)

### **Case Narrative**

Client: New York State D.E.C.

Project/Site: Qtrly Gastown WWTP #915171

Job ID: 480-142559-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-142559-1

### Comments

No additional comments.

### Receipt

The samples were received on 9/28/2018 1:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.6° C and 2.8° C.

### GC/MS VOA

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: Post-Carbon 1 (480-142559-4). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-438156 recovered above the upper control limit for Chloromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: Post-Carbon 3 (480-142559-1).

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-438156 recovered outside acceptance criteria. low biased, for Methylcyclohexane. 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 following sample was diluted to bring the concentration of target analytes within the calibration range: Outside Sump (480-142559-5). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-438555 recovered above the upper control limit for Chloromethane and Vinyl chloride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: Pre-Carbon (480-142559-2).

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-438555 recovered outside acceptance criteria, low biased, for Methylcyclohexane. 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 following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-142559-2). 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.

#### GC/MS Semi 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 (480-142559-2). 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.

### GC Semi VOA

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

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.

TestAmerica Job ID: 480-142559-1

### **Case Narrative**

Client: New York State D.E.C.

Project/Site: Qtrly Gastown WWTP #915171

TestAmerica Job ID: 480-142559-1

Job ID: 480-142559-1 (Continued)

**Laboratory: TestAmerica Buffalo (Continued)** 

The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Post-Carbon 3 (480-142559-1).

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 preparation batch 480-437607.

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: Qtrly Gastown WWTP #915171

TestAmerica Job ID: 480-142559-1

Lab Sample ID: 480-142559-1

**Matrix: Wastewater** 

# Client Sample ID: Post-Carbon 3

Date Collected: 09/28/18 12:30 Date Received: 09/28/18 13:30

Method: 8260C - Volatile Organic Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND -	1.0	0.82	ug/L			10/08/18 15:21	1
1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/L			10/08/18 15:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	0.31	ug/L			10/08/18 15:21	1
1,1,2-Trichloroethane	ND	1.0	0.23	ug/L			10/08/18 15:21	1
1,1-Dichloroethane	ND	1.0	0.38	ug/L			10/08/18 15:21	1
1,1-Dichloroethene	ND	1.0	0.29	ug/L			10/08/18 15:21	1
1,2,4-Trichlorobenzene	ND	1.0	0.41	ug/L			10/08/18 15:21	1
1,2,4-Trimethylbenzene	ND	1.0	0.75	ug/L			10/08/18 15:21	1
1,2-Dibromo-3-Chloropropane	ND	1.0	0.39	ug/L			10/08/18 15:21	1
1,2-Dichlorobenzene	ND	1.0	0.79	ug/L			10/08/18 15:21	1
1,2-Dichloroethane	ND	1.0	0.21	ug/L			10/08/18 15:21	1
1,2-Dichloropropane	ND	1.0		ug/L			10/08/18 15:21	1
1,3,5-Trimethylbenzene	ND	1.0		ug/L			10/08/18 15:21	1
1,3-Dichlorobenzene	ND	1.0		ug/L			10/08/18 15:21	1
1,4-Dichlorobenzene	ND	1.0		ug/L			10/08/18 15:21	1
2-Butanone (MEK)	ND	10		ug/L			10/08/18 15:21	1
2-Hexanone	ND	5.0		ug/L			10/08/18 15:21	1
4-Isopropyltoluene	ND	1.0		ug/L			10/08/18 15:21	1
4-Methyl-2-pentanone (MIBK)	ND	5.0		ug/L			10/08/18 15:21	· 1
Acetone	ND	10		ug/L			10/08/18 15:21	1
Benzene	ND	1.0		ug/L			10/08/18 15:21	1
Bromoform	ND	1.0		ug/L			10/08/18 15:21	
Bromomethane	ND	1.0		ug/L			10/08/18 15:21	1
Carbon disulfide	ND	1.0		ug/L			10/08/18 15:21	1
Carbon tetrachloride	ND	1.0		ug/L			10/08/18 15:21	
Chlorobenzene	ND	1.0		ug/L			10/08/18 15:21	1
Dibromochloromethane	ND	1.0		ug/L ug/L			10/08/18 15:21	1
Chloroethane	ND			ug/L ug/L			10/08/18 15:21	
Chloroform	ND	1.0 1.0		ug/L ug/L			10/08/18 15:21	1
Chloromethane	ND ND	1.0					10/08/18 15:21	1
				ug/L				
cis-1,2-Dichloroethene	ND	1.0		ug/L			10/08/18 15:21 10/08/18 15:21	1
Cyclohexane	ND	1.0		ug/L				1
Bromodichloromethane	ND	1.0		ug/L			10/08/18 15:21	1
Dichlorodifluoromethane	ND	1.0		ug/L			10/08/18 15:21	1
Ethylbenzene	ND	1.0		ug/L			10/08/18 15:21	1
1,2-Dibromoethane	ND	1.0		ug/L			10/08/18 15:21	1
Isopropylbenzene	ND	1.0		ug/L			10/08/18 15:21	1
Methyl acetate	ND	2.5		ug/L			10/08/18 15:21	1
Methyl tert-butyl ether	ND	1.0		ug/L			10/08/18 15:21	1
Methylcyclohexane	ND	1.0		ug/L			10/08/18 15:21	1
Methylene Chloride	ND	1.0		ug/L			10/08/18 15:21	1
m,p-Xylene	ND	2.0		ug/L			10/08/18 15:21	1
Naphthalene	ND	1.0		ug/L			10/08/18 15:21	1
n-Butylbenzene	ND	1.0	0.64	ug/L			10/08/18 15:21	1
N-Propylbenzene	ND	1.0		ug/L			10/08/18 15:21	1
o-Xylene	ND	1.0	0.76	ug/L			10/08/18 15:21	1
sec-Butylbenzene	ND	1.0	0.75	ug/L			10/08/18 15:21	1
Tetrachloroethene	ND	1.0	0.36	ug/L			10/08/18 15:21	1
Toluene	ND	1.0	0.51	ug/L			10/08/18 15:21	1

TestAmerica Buffalo

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Client: New York State D.E.C.

Project/Site: Qtrly Gastown WWTP #915171

TestAmerica Job ID: 480-142559-1

Client Sample ID: Post-Carbon 3

Date Collected: 09/28/18 12:30 Date Received: 09/28/18 13:30 Lab Sample ID: 480-142559-1

Matrix: Wastewater

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			10/08/18 15:21	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			10/08/18 15:21	1
Trichloroethene	ND		1.0	0.46	ug/L			10/08/18 15:21	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			10/08/18 15:21	1
Vinyl chloride	1.4		1.0	0.90	ug/L			10/08/18 15:21	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/08/18 15:21	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			10/08/18 15:21	1
Styrene	ND		1.0	0.73	ug/L			10/08/18 15:21	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			10/08/18 15:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		77 - 120			-		10/08/18 15:21	1
4-Bromofluorobenzene (Surr)	96		73 - 120					10/08/18 15:21	1
Toluene-d8 (Surr)	103		80 - 120					10/08/18 15:21	1
Dibromofluoromethane (Surr)	100		75 - 123					10/08/18 15:21	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		10/03/18 14:35	10/16/18 22:23	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		10/03/18 14:35	10/16/18 22:23	1
Acenaphthene	ND		5.0	0.41	ug/L		10/03/18 14:35	10/16/18 22:23	1
Acenaphthylene	ND		5.0	0.38	ug/L		10/03/18 14:35	10/16/18 22:23	1
Anthracene	ND		5.0	0.28	ug/L		10/03/18 14:35	10/16/18 22:23	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		10/03/18 14:35	10/16/18 22:23	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		10/03/18 14:35	10/16/18 22:23	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		10/03/18 14:35	10/16/18 22:23	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		10/03/18 14:35	10/16/18 22:23	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		10/03/18 14:35	10/16/18 22:23	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		10/03/18 14:35	10/16/18 22:23	1
Carbazole	ND		5.0	0.30	ug/L		10/03/18 14:35	10/16/18 22:23	1
Chrysene	ND		5.0	0.33	ug/L		10/03/18 14:35	10/16/18 22:23	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		10/03/18 14:35	10/16/18 22:23	1
Dibenzofuran	ND		10	0.51	ug/L		10/03/18 14:35	10/16/18 22:23	1
Fluoranthene	ND		5.0	0.40	ug/L		10/03/18 14:35	10/16/18 22:23	1
Fluorene	ND		5.0	0.36	ug/L		10/03/18 14:35	10/16/18 22:23	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		10/03/18 14:35	10/16/18 22:23	1
Naphthalene	ND		5.0	0.76	ug/L		10/03/18 14:35	10/16/18 22:23	1
Pentachlorophenol	ND		10	2.2	ug/L		10/03/18 14:35	10/16/18 22:23	1
Phenanthrene	ND		5.0	0.44	ug/L		10/03/18 14:35	10/16/18 22:23	1
Phenol	ND		5.0	0.39	ug/L		10/03/18 14:35	10/16/18 22:23	1
Pyrene	ND		5.0	0.34	ug/L		10/03/18 14:35	10/16/18 22:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	81		46 - 120				10/03/18 14:35	10/16/18 22:23	1
2-Fluorohinhenyl	88		48 120				10/03/18 14:35	10/16/18 22:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	81		46 - 120	10/03/18 14:3	35 10/16/18 22:23	1
2-Fluorobiphenyl	88		48 - 120	10/03/18 14:3	35 10/16/18 22:23	1
p-Terphenyl-d14	92		59 - 136	10/03/18 14::	35 10/16/18 22:23	1
Phenol-d5	53		22 - 120	10/03/18 14:3	35 10/16/18 22:23	1
2-Fluorophenol	71		35 - 120	10/03/18 14:3	35 10/16/18 22:23	1
2,4,6-Tribromophenol	80		41 - 120	10/03/18 14:3	35 10/16/18 22:23	1

TestAmerica Buffalo

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Client: New York State D.E.C.

Project/Site: Qtrly Gastown WWTP #915171

TestAmerica Job ID: 480-142559-1

Lab Sample ID: 480-142559-1

**Matrix: Wastewater** 

## Client Sample ID: Post-Carbon 3

Date Collected: 09/28/18 12:30 Date Received: 09/28/18 13:30

**Temperature** 

Method: 608.3 - Organochlorii Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.050	0.0081	ug/L		10/04/18 07:29	10/05/18 13:08	1
alpha-BHC	ND		0.050	0.0077	ug/L		10/04/18 07:29	10/05/18 13:08	1
beta-BHC	ND		0.050	0.025	ug/L		10/04/18 07:29	10/05/18 13:08	1
delta-BHC	ND		0.050	0.010	ug/L		10/04/18 07:29	10/05/18 13:08	1
gamma-BHC (Lindane)	ND		0.050	0.0080	ug/L		10/04/18 07:29	10/05/18 13:08	1
Chlordane (technical)	ND		0.50	0.29	ug/L		10/04/18 07:29	10/05/18 13:08	1
4,4'-DDD	ND		0.050	0.0092	ug/L		10/04/18 07:29	10/05/18 13:08	1
4,4'-DDE	ND		0.050	0.012			10/04/18 07:29	10/05/18 13:08	1
4,4'-DDT	ND		0.050	0.011	ug/L		10/04/18 07:29	10/05/18 13:08	1
Dieldrin	ND		0.050	0.0098	ug/L		10/04/18 07:29	10/05/18 13:08	1
Endosulfan I	ND		0.050	0.011	ug/L		10/04/18 07:29	10/05/18 13:08	1
Endosulfan II	ND		0.050	0.012	ug/L		10/04/18 07:29	10/05/18 13:08	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		10/04/18 07:29	10/05/18 13:08	1
Endrin	ND		0.050	0.014	-		10/04/18 07:29	10/05/18 13:08	1
Endrin aldehyde	ND		0.050	0.016	ug/L		10/04/18 07:29	10/05/18 13:08	1
Heptachlor	ND		0.050	0.0085	ug/L		10/04/18 07:29	10/05/18 13:08	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		10/04/18 07:29	10/05/18 13:08	1
Toxaphene	ND		0.50	0.12	ug/L		10/04/18 07:29	10/05/18 13:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	80		23 - 120				10/04/18 07:29	10/05/18 13:08	
Tetrachloro-m-xylene	83		44 - 120				10/04/18 07:29	10/05/18 13:08	1
Method: 200.7 Rev 4.4 - Metals	s (ICP)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	49.0	J	=		ua/l		10/03/18 08:23	10/03/18 19:52	1
-		J	50.0	19.3	ug/L				
General Chemistry					J				
General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<del>-</del>	Result 5.7		RL 4.9	MDL 1.4	Unit mg/L	<u>D</u>	10/04/18 07:37	10/04/18 11:06	1
Analyte Oil & Grease Cyanide, Total	Result 5.7 0.077		RL 4.9 0.010	MDL 1.4 0.0050	Unit mg/L mg/L	<u>D</u>	10/04/18 07:37 10/09/18 08:10	10/04/18 11:06 10/09/18 14:54	1
Analyte Oil & Grease	Result 5.7 0.077 ND		RL 4.9 0.010 0.010	MDL 1.4 0.0050 0.0050	Unit mg/L mg/L mg/L	<u>D</u>	10/04/18 07:37	10/04/18 11:06 10/09/18 14:54 10/04/18 14:21	1
Analyte Oil & Grease Cyanide, Total	Result 5.7 0.077 ND 826		RL 4.9 0.010 0.010 10.0	MDL 1.4 0.0050 0.0050	Unit mg/L mg/L	<u>D</u>	10/04/18 07:37 10/09/18 08:10	10/04/18 11:06 10/09/18 14:54 10/04/18 14:21 10/04/18 09:36	1
Analyte Oil & Grease Cyanide, Total Phenolics, Total Recoverable	Result 5.7 0.077 ND		RL 4.9 0.010 0.010	MDL 1.4 0.0050 0.0050 4.0	Unit mg/L mg/L mg/L	<u>D</u>	10/04/18 07:37 10/09/18 08:10	10/04/18 11:06 10/09/18 14:54 10/04/18 14:21	1
Analyte Oil & Grease Cyanide, Total Phenolics, Total Recoverable Total Dissolved Solids	Result 5.7 0.077 ND 826	Qualifier	RL 4.9 0.010 0.010 10.0	MDL 1.4 0.0050 0.0050 4.0	Unit mg/L mg/L mg/L mg/L	<u>D</u>	10/04/18 07:37 10/09/18 08:10	10/04/18 11:06 10/09/18 14:54 10/04/18 14:21 10/04/18 09:36	1
Analyte Oil & Grease Cyanide, Total Phenolics, Total Recoverable Total Dissolved Solids Biochemical Oxygen Demand	Result 5.7 0.077 ND 826 ND	Qualifier	RL 4.9 0.010 0.010 10.0 2.0	MDL 1.4 0.0050 0.0050 4.0 2.0	Unit mg/L mg/L mg/L mg/L		10/04/18 07:37 10/09/18 08:10 10/03/18 15:36	10/04/18 11:06 10/09/18 14:54 10/04/18 14:21 10/04/18 09:36 09/29/18 07:51	1 1
Analyte Oil & Grease Cyanide, Total Phenolics, Total Recoverable Total Dissolved Solids Biochemical Oxygen Demand Analyte	Result	Qualifier	RL 4.9 0.010 0.010 10.0 2.0 RL	MDL 1.4 0.0050 0.0050 4.0 2.0 RL 4.0	Unit mg/L mg/L mg/L mg/L mg/L ug/L		10/04/18 07:37 10/09/18 08:10 10/03/18 15:36	10/04/18 11:06 10/09/18 14:54 10/04/18 14:21 10/04/18 09:36 09/29/18 07:51 Analyzed	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

10/18/2018

10/01/18 16:21

0.001

20.1 HF

0.001 Degrees C

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Client: New York State D.E.C.

Date Received: 09/28/18 13:30

Toluene

Project/Site: Qtrly Gastown WWTP #915171

TestAmerica Job ID: 480-142559-1

Lab Sample ID: 480-142559-2

**Matrix: Wastewater** 

Client Sample ID: Pre-Carbon Date Collected: 09/28/18 12:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,1,1-Trichloroethane	ND		40	33	ug/L			10/10/18 17:17	4
1,1,2,2-Tetrachloroethane	ND		40	8.4	ug/L			10/10/18 17:17	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		40	12	ug/L			10/10/18 17:17	40
1,1,2-Trichloroethane	ND		40	9.2	ug/L			10/10/18 17:17	4(
1,1-Dichloroethane	ND		40	15	ug/L			10/10/18 17:17	40
1,1-Dichloroethene	ND		40	12	ug/L			10/10/18 17:17	40
1,2,4-Trichlorobenzene	ND		40	16	ug/L			10/10/18 17:17	4(
1,2,4-Trimethylbenzene	ND		40	30	ug/L			10/10/18 17:17	40
1,2-Dibromo-3-Chloropropane	ND		40	16	ug/L			10/10/18 17:17	40
1,2-Dichlorobenzene	ND		40		ug/L			10/10/18 17:17	4(
1,2-Dichloroethane	ND		40		ug/L			10/10/18 17:17	40
1,2-Dichloropropane	ND		40		ug/L			10/10/18 17:17	40
1,3,5-Trimethylbenzene	ND		40		ug/L			10/10/18 17:17	4(
1,3-Dichlorobenzene	ND		40	31	_			10/10/18 17:17	4(
1,4-Dichlorobenzene	ND		40		ug/L			10/10/18 17:17	4(
2-Butanone (MEK)	ND		400		ug/L			10/10/18 17:17	4(
2-Hexanone	ND		200		ug/L			10/10/18 17:17	4(
4-Isopropyltoluene	ND		40		ug/L			10/10/18 17:17	4(
	ND		200					10/10/18 17:17	4(
4-Methyl-2-pentanone (MIBK)	ND ND				ug/L				40
Acetone			400	120	ug/L			10/10/18 17:17	
Benzene	3300		40		ug/L			10/10/18 17:17	40
Bromoform	ND		40		ug/L			10/10/18 17:17	40
Bromomethane	ND		40	28	ug/L			10/10/18 17:17	40
Carbon disulfide	ND		40		ug/L			10/10/18 17:17	40
Carbon tetrachloride	ND		40		ug/L			10/10/18 17:17	40
Chlorobenzene	ND		40		ug/L			10/10/18 17:17	4
Dibromochloromethane	ND		40		ug/L			10/10/18 17:17	4(
Chloroethane	ND		40		ug/L			10/10/18 17:17	40
Chloroform	ND		40		ug/L			10/10/18 17:17	40
Chloromethane	ND		40		ug/L			10/10/18 17:17	40
cis-1,2-Dichloroethene	ND		40		ug/L			10/10/18 17:17	40
Cyclohexane	ND		40	7.2	ug/L			10/10/18 17:17	40
Bromodichloromethane	ND		40	16	ug/L			10/10/18 17:17	40
Dichlorodifluoromethane	ND		40	27	ug/L			10/10/18 17:17	40
Ethylbenzene	38	J	40	30	ug/L			10/10/18 17:17	40
1,2-Dibromoethane	ND		40		ug/L			10/10/18 17:17	40
Isopropylbenzene	ND		40	32	ug/L			10/10/18 17:17	40
Methyl acetate	ND		100	52	ug/L			10/10/18 17:17	40
Methyl tert-butyl ether	ND		40	6.4	ug/L			10/10/18 17:17	40
Methylcyclohexane	ND		40	6.4	ug/L			10/10/18 17:17	40
Methylene Chloride	ND		40	18	ug/L			10/10/18 17:17	40
m,p-Xylene	100		80	26	ug/L			10/10/18 17:17	40
Naphthalene	120		40	17	ug/L			10/10/18 17:17	4
n-Butylbenzene	ND		40	26	ug/L			10/10/18 17:17	4
N-Propylbenzene	ND		40		ug/L			10/10/18 17:17	4
o-Xylene	76		40		ug/L			10/10/18 17:17	4(
sec-Butylbenzene	ND		40					10/10/18 17:17	4
Tetrachloroethene	ND		40		ug/L			10/10/18 17:17	4

TestAmerica Buffalo

10/18/2018

10/10/18 17:17

Page 10 of 22

40

20 ug/L

350

40

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Client: New York State D.E.C.

Project/Site: Qtrly Gastown WWTP #915171

TestAmerica Job ID: 480-142559-1

**Client Sample ID: Pre-Carbon** 

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte

Calcium

Date Collected: 09/28/18 12:45 Date Received: 09/28/18 13:30 Lab Sample ID: 480-142559-2

**Matrix: Wastewater** 

Analyte	Result (	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		40	36	ug/L			10/10/18 17:17	40
trans-1,3-Dichloropropene	ND		40	15	ug/L			10/10/18 17:17	40
Trichloroethene	ND		40	18	ug/L			10/10/18 17:17	40
Trichlorofluoromethane	ND		40	35	ug/L			10/10/18 17:17	40
Vinyl chloride	ND		40	36	ug/L			10/10/18 17:17	40
Xylenes, Total	180		80	26	ug/L			10/10/18 17:17	40
cis-1,3-Dichloropropene	ND		40	14	ug/L			10/10/18 17:17	40
Styrene	ND		40	29	ug/L			10/10/18 17:17	40
tert-Butylbenzene	ND		40	32	ug/L			10/10/18 17:17	40
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		77 - 120			-		10/10/18 17:17	40
4-Bromofluorobenzene (Surr)	99		73 - 120					10/10/18 17:17	40
Toluene-d8 (Surr)	100		80 - 120					10/10/18 17:17	40
Dibromofluoromethane (Surr)	99		75 - 123					10/10/18 17:17	40

Iron	2610		50.0	19.3	ug/L		10/01/18 08:13	10/01/18 18:24	1
Magnesium	40400		200	43.4	ug/L		10/01/18 08:13	10/01/18 18:24	1
Potassium	4260		500	100	ug/L		10/01/18 08:13	10/01/18 18:24	1
Sodium	121000		1000	324	ug/L		10/01/18 08:13	10/01/18 18:24	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	205		2.5	1.4	mg/L			10/07/18 17:58	5
Sulfate	119		10.0	1.7	mg/L			10/07/18 17:58	5
Alkalinity, Total	330		50.0	20.0	mg/L			10/10/18 16:46	5
Sulfate	119		10.0	1.7	mg/L			10/07/18 17:58	5

RL

500

MDL Unit

100 ug/L

Prepared

10/01/18 08:13

Result Qualifier

108000

2

5

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Dil Fac

Analyzed

10/01/18 18:24

Client: New York State D.E.C.

Project/Site: Qtrly Gastown WWTP #915171

TestAmerica Job ID: 480-142559-1

Lab Sample ID: 480-142559-3

Matrix: Water

Client Sample ID: Post-Carbon 2

Date Collected: 09/28/18 12:35 Date Received: 09/28/18 13:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	MD		1.0	0.75	ug/L			10/10/18 00:27	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/10/18 00:27	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			10/10/18 00:27	1
Benzene	0.49	J	1.0	0.41	ug/L			10/10/18 00:27	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/10/18 00:27	1
Isopropylbenzene	ND		1.0	0.79	ug/L			10/10/18 00:27	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/10/18 00:27	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/10/18 00:27	1
Naphthalene	ND		1.0	0.43	ug/L			10/10/18 00:27	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/10/18 00:27	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/10/18 00:27	1
o-Xylene	ND		1.0	0.76	ug/L			10/10/18 00:27	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			10/10/18 00:27	1
Toluene	ND		1.0	0.51	ug/L			10/10/18 00:27	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/10/18 00:27	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			10/10/18 00:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		77 - 120			-		10/10/18 00:27	1
4-Bromofluorobenzene (Surr)	94		73 - 120					10/10/18 00:27	1
Toluene-d8 (Surr)	99		80 - 120					10/10/18 00:27	1
Dibromofluoromethane (Surr)	102		75 - 123					10/10/18 00:27	1

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Client: New York State D.E.C.

Project/Site: Qtrly Gastown WWTP #915171

TestAmerica Job ID: 480-142559-1

Lab Sample ID: 480-142559-4

Matrix: Water

Client Sample ID: Post-Carbon 1

Date Collected: 09/28/18 12:40 Date Received: 09/28/18 13:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		20	15	ug/L			10/07/18 11:16	20
1,3,5-Trimethylbenzene	ND		20	15	ug/L			10/07/18 11:16	20
4-Isopropyltoluene	ND		20	6.2	ug/L			10/07/18 11:16	20
Benzene	1000		20	8.2	ug/L			10/07/18 11:16	20
Ethylbenzene	ND		20	15	ug/L			10/07/18 11:16	20
Isopropylbenzene	ND		20	16	ug/L			10/07/18 11:16	20
Methyl tert-butyl ether	ND		20	3.2	ug/L			10/07/18 11:16	20
m-Xylene & p-Xylene	ND		40	13	ug/L			10/07/18 11:16	20
Naphthalene	ND		20	8.6	ug/L			10/07/18 11:16	20
n-Butylbenzene	ND		20	13	ug/L			10/07/18 11:16	20
N-Propylbenzene	ND		20	14	ug/L			10/07/18 11:16	20
o-Xylene	ND		20	15	ug/L			10/07/18 11:16	20
sec-Butylbenzene	ND		20	15	ug/L			10/07/18 11:16	20
Toluene	19	J	20	10	ug/L			10/07/18 11:16	20
Xylenes, Total	ND		40	13	ug/L			10/07/18 11:16	20
tert-Butylbenzene	ND		20	16	ug/L			10/07/18 11:16	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		77 - 120			-		10/07/18 11:16	20
4-Bromofluorobenzene (Surr)	107		73 - 120					10/07/18 11:16	20
Toluene-d8 (Surr)	90		80 - 120					10/07/18 11:16	20
Dibromofluoromethane (Surr)	95		75 - 123					10/07/18 11:16	20

Client: New York State D.E.C.

Project/Site: Qtrly Gastown WWTP #915171

TestAmerica Job ID: 480-142559-1

Lab Sample ID: 480-142559-5

Matrix: Water

Client Sample ID: Outside Sump

Date Collected: 09/28/18 12:50 Date Received: 09/28/18 13:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		200	150	ug/L			10/08/18 14:19	200
1,3,5-Trimethylbenzene	ND		200	150	ug/L			10/08/18 14:19	200
4-Isopropyltoluene	ND		200	62	ug/L			10/08/18 14:19	200
Benzene	7300		200	82	ug/L			10/08/18 14:19	200
Ethylbenzene	420		200	150	ug/L			10/08/18 14:19	200
Isopropylbenzene	ND		200	160	ug/L			10/08/18 14:19	200
Methyl tert-butyl ether	ND		200	32	ug/L			10/08/18 14:19	200
m-Xylene & p-Xylene	200	J	400	130	ug/L			10/08/18 14:19	200
Naphthalene	860		200	86	ug/L			10/08/18 14:19	200
n-Butylbenzene	ND		200	130	ug/L			10/08/18 14:19	200
N-Propylbenzene	ND		200	140	ug/L			10/08/18 14:19	200
o-Xylene	ND		200	150	ug/L			10/08/18 14:19	200
sec-Butylbenzene	ND		200	150	ug/L			10/08/18 14:19	200
Toluene	1100		200	100	ug/L			10/08/18 14:19	200
Xylenes, Total	200	J	400	130	ug/L			10/08/18 14:19	200
tert-Butylbenzene	ND		200	160	ug/L			10/08/18 14:19	200
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		77 - 120			-		10/08/18 14:19	200
4-Bromofluorobenzene (Surr)	102		73 - 120					10/08/18 14:19	200
Toluene-d8 (Surr)	104		80 - 120					10/08/18 14:19	200
Dibromofluoromethane (Surr)	103		75 - 123					10/08/18 14:19	200

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Client: New York State D.E.C.

Project/Site: Qtrly Gastown WWTP #915171

Client Sample ID: Post-Carbon 3

Lab Sample ID: 480-142559-1 Date Collected: 09/28/18 12:30 **Matrix: Wastewater** 

Date Received: 09/28/18 13:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	438156	10/08/18 15:21	RLB	TAL BUF
Total/NA	Prep	3510C			437526	10/03/18 14:35	ATG	TAL BUF
Total/NA	Analysis	8270D		1	439733	10/16/18 22:23	RJS	TAL BUF
Total/NA	Prep	3510C			437607	10/04/18 07:29	JMP	TAL BUF
Total/NA	Analysis	608.3		1	437870	10/05/18 13:08	JLS	TAL BUF
Total/NA	Prep	200.7			437312	10/03/18 08:23	KMP	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	437665	10/03/18 19:52	LMH	TAL BUF
Total/NA	Prep	1664B			437608	10/04/18 07:37	MV	TAL BUF
Total/NA	Analysis	1664B		1	437687	10/04/18 11:06	MV	TAL BUF
Total/NA	Prep	Distill/CN			438381	10/09/18 08:10	LAW	TAL BUF
Total/NA	Analysis	335.4		1	438478	10/09/18 14:54	CLT	TAL BUF
Total/NA	Prep	Distill/Phenol			437538	10/03/18 15:36	AEF	TAL BUF
Total/NA	Analysis	420.1		1	437761	10/04/18 14:21	AED	TAL BUF
Total/NA	Analysis	SM 2540C		1	437652	10/04/18 09:36	RAF	TAL BUF
Total/NA	Analysis	SM 2540D		1	436986	09/30/18 20:04	MLS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	437224	10/01/18 16:21	KEB	TAL BUF
Total/NA	Analysis	SM 5210B		1	436933	09/29/18 07:51	AED	TAL BUF

**Client Sample ID: Pre-Carbon** 

Lab Sample ID: 480-142559-2 Date Collected: 09/28/18 12:45 **Matrix: Wastewater** 

Date Received: 09/28/18 13:30

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		40	438555	10/10/18 17:17	RLB	TAL BUF
Total/NA	Prep	200.7			436966	10/01/18 08:13	VEG	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	437165	10/01/18 18:24	EMB	TAL BUF
Total/NA	Analysis	300.0		5	438123	10/07/18 17:58	DMR	TAL BUF
Total/NA	Analysis	310.2		5	438775	10/10/18 16:46	SAH	TAL BUF

Client Sample ID: Post-Carbon 2

Lab Sample ID: 480-142559-3 Date Collected: 09/28/18 12:35 Matrix: Water

Date Received: 09/28/18 13:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C	<del></del>	1	438530	10/10/18 00:27	OMI	TAL BUF

Client Sample ID: Post-Carbon 1

Lab Sample ID: 480-142559-4

Date Collected: 09/28/18 12:40 **Matrix: Water** 

Date Received: 09/28/18 13:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C			438082	10/07/18 11:16	AMM	TAL BUF

TestAmerica Buffalo

### **Lab Chronicle**

Client: New York State D.E.C.

Project/Site: Qtrly Gastown WWTP #915171

Client Sample ID: Outside Sump

TestAmerica Job ID: 480-142559-1

Lab Sample ID: 480-142559-5

Matrix: Water

Date Collected: 09/28/18 12:50 Date Received: 09/28/18 13:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		200	438147	10/08/18 14:19	AMM	TAL BUF

### Laboratory References:

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

# **Accreditation/Certification Summary**

Client: New York State D.E.C. TestAmerica Job ID: 480-142559-1

Project/Site: Qtrly Gastown WWTP #915171

### Laboratory: TestAmerica Buffalo

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

Authority	Program		EPA Region	Identification Number	<b>Expiration Date</b>	
New York NEL			2	10026	03-31-19	
The following analytes the agency does not of Analysis Method	. ,	ut the laboratory is not certif  Matrix	ied by the governir Analyt	ng authority. This list may incl	ude analytes for which	
335.4	Distill/CN	Wastewater		de, Total		
	Distill/OI4		,	de, Total		
SM 4500 H+ B		Wastewater	pН			

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### **Method Summary**

Client: New York State D.E.C.

Project/Site: Qtrly Gastown WWTP #915171

TestAmerica Job ID: 480-142559-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
608.3	Organochlorine Pesticides in Water	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
1664B	HEM and SGT-HEM	1664B	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
420.1	Phenolics, Total Recoverable	MCAWW	TAL BUF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL BUF
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
SM 5210B	BOD, 5-Day	SM	TAL BUF
1664B	HEM and SGT-HEM (Aqueous)	1664B	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF
Distill/CN	Distillation, Cyanide	None	TAL BUF
Distill/Phenol	Distillation, Phenolics	None	TAL BUF

#### **Protocol References:**

1664B = EPA-821-98-002

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

EPA = US Environmental Protection Agency

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

None = None

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

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# **Sample Summary**

Client: New York State D.E.C.

Project/Site: Qtrly Gastown WWTP #915171

TestAmerica Job ID: 480-142559-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-142559-1	Post-Carbon 3	Wastewater	09/28/18 12:30	09/28/18 13:30
480-142559-2	Pre-Carbon	Wastewater	09/28/18 12:45	09/28/18 13:30
480-142559-3	Post-Carbon 2	Water	09/28/18 12:35	09/28/18 13:30
480-142559-4	Post-Carbon 1	Water	09/28/18 12:40	09/28/18 13:30
480-142559-5	Outside Sump	Water	09/28/18 12:50	09/28/18 13:30

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### TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

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

# **Chain of Custody Record**

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1621
Secretary Contract
THE LEADER

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Client Information	Sampler:					PM: hnso	PM: nson, Orlette S						Car	Carrier Tracking No(s):						COC No: 480-108765-1	E32777	
Client Contact:	Phone:	000-	287-7	1857		/ail:								7							Page:	480-142559 COC
Thomas Palmer Company:	L	800	101	0)	orl	ette.j	ohns	son@f	testa	ameri	caind	c.com	_		-	_			_		Page 1 of	
Groundwater & Environmental Services Inc											An	alysi	s R	eque	ste	b					300 #.	
Address:	Due Date	Requeste	d:							T				T		T	T				Preservation Code	es:
415 Lawrence Bell Drive Suite 6 City:	TAT Rec	uested (da	vs):			- 8			- 1		1										A - HCL	M - Hexane
Williamsville									- 1		- 1	1		1	1	1		1	1		B - NaOH C - Zn Acetate	N - None O - AsNaO2
State, Zip:		0-0	an			43															D - Nitric Acid E - NaHSO4	P - Na2O4S Q - Na2SO3
NY, 14221 Phone:	PO#:		)			- 8					-	80									F - MeOH	R - Na2S2O3
518-402-9662(Tel)	The state of the s	t ID 1205	97			0			ele	1	- 8021	cide	1 3	and	ids				Ì		G - Amchlor H - Ascorbic Acid	S - H2SO4 T - TSP Dodecahydrate
Email:	WO #:					72	6		eral			esti		He He	S						I - Ice J - DI Water	U - Acetone V - MCAA
tpalmer@gesonline.com Project Name:	Project #					- se	or No)		Recoverable	list OLM04.2	t - V	F G		Solic	lvec					containers	K-EDTA	W - pH 4-5
NYSDEC-Gastown WWTP: Site# 91517: QTRLY Event Desc: Q						9	(Yes		a R	t OL	Lis	Iluta		ded	Jisso				804	ntai	L-EDA	Z - other (specify)
Site:	SSOW#:					Sample (Yes or No)	0		, Total	<u>∺</u>	ARS	y Po		cal	- Total Dissolved Solids	otal		Grease	C,		Other:	
New York	-							Fe	olics	5	LS (C	iorit		Sus	۴	de, 1	표		MOE	er of		
				Sample Type	Matrix (w=water,	Field Filtered	m MS	- (MOD)	420.4 - Phenolics	8260B - (MOD)	8021B - (MOD) STARS List - VOA	608_Pest - Priority Pollutant Pesticide		5210B - Blocnemical Oxygen Demand 2540D - Total Suspended Solids	2540C Calcd	335.4 - Cyanide, Total	SM4500_H+ - pH	1664B - Oil and	300.0_28D - (MOD)	Total Number		
			Sample	(C=Comp,	S=solid, O=waste/oil,	20	P P	200.7 -	- 4.0	80B	21B	P. S	3 3	9 9	00	4.	450	34B	0.0	tal		
Sample Identification	Samp	le Date	Time		BT=Tissue, A=A	-	å			826	80	Auto-Carlo		254	254	336	S	166	300	2	Special In	structions/Note:
	$\geq$	$\leq$	$\geq \leq$	The state of the s	ation Code	X	$\vee$	D S	S	A /	A	N N	_	100	N	В	N	S	N	X		
Post-Carbon 3	9.28	-18	1230	G	Water	N	N	×	X	X	X	×>	()	< >	X	X	×	X				
Post-Carbon 2			1235	1	Water						X											
Post-Carbon 1			1240		Water						X											
Pre-Carbon			124	5	Water		T			-	X		1	-	-				17	P		
Inside Outside Sump	-	-	上口	50 ]	Water	1	I			1	X											
															T							
						+	+				7	$\neg$	+	1	+	+	1	+	1	150		
	-			_		+	$\vdash$	$\vdash$	-	-	-	-	+	+	+	+	+	+	+	1000		
	1												1									
						+	+						+		+	1		1	+			
	-					+	1			-	-	-	+	+	+	+	+	-	-	100		
							L													100		
Possible Hazard Identification	r	_					Sa						ay b					les a	are re		ned longer than	
Non-Hazard Flammable Skin Irritant Po	ison B	Unk	nown	Radiologic	cal		1,			To						I By I	Lab			Arc	chive For	Months
Deliverable Requested: I, II, III, IV, Other (specify)							Sp	ecial I	nstr	uction	is/Q	C Req	uirer	nents	:							
Empty Kit Relinquished by:		7	Date:			T	ime:	_		No.	1				Me	thod o	f Ship	ment:		1		
Relinquished by:	Date/Tir	ne:	C 13	20	Company			Recei	ved	1)	11	KI	<del>)</del>		_	_	Date	e/Tim	26	1	10 1770	Company
		710	153	30	Company			1	14	fur	X	C	2				_	91	28	11	8 1330	12/0
Relinquished by:	Date/Tir	ne:			Company			Recei	vedi	fy:							Dat	e/Time	e;	,		Company
Relinquished by:	Date/Tir	ne:			Company			Recei	ved b	y:							Dat	e/Time	e:			Company
Custody Seals Intact: Custody Seal No.:			1. 11				li e i	Coole	r Ten	nperati	ıre(s)	°C and	Other	r Rema	rks	+	1	1	7:	1		
Δ Yes Δ No		1000			The same	-			- 6		10			115	7		-	- 6	+1	U	0	Ver: 08/04/2016







10 Hazelwood Drive

# **Chain of Custody Record**

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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

Client Information	Phone: 800 -2	isch			PM:	n, Orl	ette	S				Carrier Tracking No(s):						COC No: 480-108765-158	06.2
Client Contact:	Phone:	07.70	157		Mail:						001/00							Page:	
	800 -0	21-12	12	orl	lette.j	johnso	on@	testar	merica	ainc.c	com							Page 2 of 2	
Company: Groundwater & Environmental Services Inc										Ana	lysis F	lequ	este	d				Job#:	
Address: 415 Lawrence Bell Drive Suite 6	Due Date Requeste	d:										T						Preservation Code	
City:	TAT Requested (da	ıys):			- 8						1 1	- 1				1		A - HCL B - NaOH	M - Hexane N - None
Williamsville		2			39		- 1	. 1		1		1						C - Zn Acetate	O - AsNaO2
State, Zip:	10-6	Da			100		- 1				1 1							D - Nitric Acid	P - Na2O4S
NY, 14221							1	- 1	1		1				1			E - NaHSO4 F - MeOH	Q - Na2SO3 R - Na2S2O3
Phone: 518-402-9662(Tel)	PO#: CallOut ID 1205	07						1		1	1		1		.		in a	G - Amchlor	S - H2SO4
Email:	WO #:				ᅴ울					4	1 1			1 1				H - Ascorbic Acid I - Ice	T - TSP Dodecahydrate U - Acetone
tpalmer@gesonline.com	110 W.				ě	No.	- 1		2.7	1		1					9	J - DI Water	V - MCAA
Project Name:	Project #:				(Yes or No	b	- 1		Ĕ		1 1	- 1				1	ine	K - EDTA L - EDA	W - pH 4-5 Z - other (specify)
NYSDEC-Gastown WWTP: Site# 91517: QTRLY Event Desc: Q	48002525					se)	K, Na	=	0 10				f conta					L-EDA	2 - other (specify)
Site:	SSOW#:				Sample	0	X,	Total	=	(								Other:	
New York						MS W	Mg,	iţ,	5	700		1			- 1		0		
Secondo Identification	Samala Data	Sample		Matrix (W=water, S=solid, O=waste/oil,	eld Filte	Perform MS/MSD	200.7 - Ca, Fe,	310.2 - Alkalinity,	8260C - (MOD) TCL list OLM04.2	2000 C							Total Number of containers	0	
Sample Identification	Sample Date	Time	G=grab) B1 Preservation			$\sim$	OCCUPATION OF		W0000 100	P (	the respective to		URSO STOR	0 8153	5 (D) (S)	60 NO.	1	Special in	structions/Note:
			rieseivali	on Code		Y	D I	N A	1	88 B					55.0 E	E 193			
Post-Carbon 3				Water	1					1									
Post-Carbon 2				Water															
Pest Carbon 1 P				Water															
Pre-Carbon	9.28.18	1245	G	Water	N	W	X	X	X	X									
Inside / Outside Sump				Water	,					1		7					1999		
			-		+	+	-	$\rightarrow$	-+-	+	+-+	+	-	+	-	+	COST		
																	25		
			-		+	1	-	-	+	+	+++	-	+	+	-	+	\$200 Section		
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																	93503		
					+	+	-	-	-	+	+	-	-	+-	-	+	100		
						1.1					1 1								
																	(5)		
						1				1				1			183		
Possible Hazard Identification						San	npie	DISP	osai	( A fe	e may i					are r		ned longer than 1	
Non-Hazard Flammable Skin Irritant Po	ison B Unk	nown	Radiological			1			To C				isposa	I By L	ab		Arc	chive For	Months
Deliverable Requested: I, II, III, IV, Other (specify)						Spe	cial I	nstru	ctions	s/QC	Require	men	ts:						*
Empty Kit Relinquished by:	1	Date:			T	ime:			1	_	11	3	Me	thod of	Shipmen	t: 1			
Relinquished by:	Date/Time:	28 13	30	Company	5		Recei	ved by	lin	D	6				Date/fi	9/	18	1336	Company AB
Relinquished by:	Date/Time:			Company			Recei	ved by			0	0			Date/Ti	-			Company
Relinquished by:	Date/Time:		c	Company			Recei	ved by	r:						Date/Ti	me:	_		Company
Custody Seals Intact: Custody Seal No.;	70.00		1000 B				Coole	r Tem	peratur	e(s) °C	and Oth	er Rer	marks:		41		1	6	
Δ Yes Δ No	Year of the last						- si	J. 1						-	V		+1	8	Ver: 08/04/2016

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### **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-142559-1

Login Number: 142559 List Source: TestAmerica Buffalo

List Number: 1

Creator: Wallace, Cameron

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



THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive Amherst, NY 14228-2298 Tel: (716)691-2600

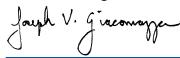
TestAmerica Job ID: 480-143851-1

Client Project/Site: Gastown WWTP #915171

#### For:

New York State D.E.C. 625 Broadway 11th Floor Albany, New York 12233-3256

Attn: Mr. Doug K MacNeal



Authorized for release by: 11/7/2018 11:14:12 AM

Joe Giacomazza, Project Management Assistant II joe.giacomazza@testamericainc.com

Designee for

Orlette Johnson, Senior Project Manager (484)685-0864

orlette.johnson@testamericainc.com

.....LINKS .....

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

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

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

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

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

Joseph V. Gireomagger

Joe Giacomazza
Project Management Assistant II
11/7/2018 11:14:12 AM

Client: New York State D.E.C. Project/Site: Gastown WWTP #915171 TestAmerica Job ID: 480-143851-1

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### **Definitions/Glossary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-143851-1

### **Qualifiers**

### **GC/MS VOA**

Qualifier **Qualifier Description** 

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** 

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** 

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

### **Glossary**

DER

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								

Duplicate Error Ratio (normalized absolute difference) Dil Fac Dilution Factor

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MDA Minimum Detectable Activity (Radiochemistry) Minimum Detectable Concentration (Radiochemistry) MDC

MDL Method Detection Limit ML Minimum Level (Dioxin)

Not Calculated NC

ND Not Detected at the reporting limit (or MDL or EDL if shown)

PQL Practical Quantitation Limit

OC **Quality Control** 

**RER** Relative Error Ratio (Radiochemistry)

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)

TestAmerica Buffalo

### **Case Narrative**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-143851-1

Job ID: 480-143851-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-143851-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 10/19/2018 1:17 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.9° C.

#### GC/MS VOA

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: Post-Carbon 1 (480-143851-3) and Pre-Carbon (480-143851-4). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following sample were diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-143851-4) and OUTSIDE SUMP (480-143851-5). 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 was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-143851-4). 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: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Post-Carbon 3 (480-143851-1).

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

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Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-143851-1

Lab Sample ID: 480-143851-1

Matrix: Water

Client Sample ID: Post-Carbon 3
Date Collected: 10/19/18 12:15

Date Received: 10/19/18 13:17

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/31/18 11:23	
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			10/31/18 11:23	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			10/31/18 11:23	
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			10/31/18 11:23	
1,1-Dichloroethane	ND		1.0	0.38	ug/L			10/31/18 11:23	
1,1-Dichloroethene	ND		1.0	0.29	ug/L			10/31/18 11:23	
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/31/18 11:23	
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/31/18 11:23	
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			10/31/18 11:23	
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			10/31/18 11:23	
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/31/18 11:23	
1,2-Dichloropropane	ND		1.0	0.72				10/31/18 11:23	
1,3,5-Trimethylbenzene	ND		1.0	0.77				10/31/18 11:23	
1,3-Dichlorobenzene	ND		1.0	0.78				10/31/18 11:23	
1,4-Dichlorobenzene	ND		1.0		ug/L			10/31/18 11:23	
2-Butanone (MEK)	ND		10		ug/L			10/31/18 11:23	
2-Hexanone	ND		5.0		ug/L			10/31/18 11:23	
4-Isopropyltoluene	ND		1.0		ug/L			10/31/18 11:23	
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			10/31/18 11:23	
Acetone	ND		10		ug/L			10/31/18 11:23	
Benzene	ND		1.0		ug/L			10/31/18 11:23	
Bromoform	ND		1.0	0.26	<del>.</del>			10/31/18 11:23	
Bromomethane	ND		1.0					10/31/18 11:23	
Carbon disulfide	ND		1.0	0.19	•			10/31/18 11:23	
Carbon tetrachloride	ND		1.0	0.19				10/31/18 11:23	
Chlorobenzene	ND		1.0	0.75				10/31/18 11:23	
Dibromochloromethane	ND		1.0		ug/L			10/31/18 11:23	
				0.32	<del>.</del>				
Chloroethane	ND ND		1.0					10/31/18 11:23 10/31/18 11:23	
Chloroform Chloromethane	ND ND		1.0 1.0	0.34				10/31/18 11:23	
				0.35	<del>.</del>				
cis-1,2-Dichloroethene	ND		1.0	0.81				10/31/18 11:23	
Cyclohexane	ND		1.0		ug/L			10/31/18 11:23	
Bromodichloromethane	ND		1.0	0.39				10/31/18 11:23	
Dichlorodifluoromethane	ND		1.0	0.68				10/31/18 11:23	
Ethylbenzene	ND		1.0	0.74				10/31/18 11:23	
1,2-Dibromoethane	ND		1.0		ug/L			10/31/18 11:23	
sopropylbenzene	ND		1.0		ug/L			10/31/18 11:23	
Methyl acetate	ND		2.5		ug/L			10/31/18 11:23	
Methyl tert-butyl ether	ND		1.0		ug/L			10/31/18 11:23	
Methylcyclohexane	ND		1.0		ug/L			10/31/18 11:23	
Methylene Chloride	0.56	J	1.0		ug/L			10/31/18 11:23	
n,p-Xylene	ND		2.0		ug/L			10/31/18 11:23	
Naphthalene	ND		1.0		ug/L			10/31/18 11:23	
n-Butylbenzene	ND		1.0		ug/L			10/31/18 11:23	
N-Propylbenzene	ND		1.0		ug/L			10/31/18 11:23	
o-Xylene	ND		1.0		ug/L			10/31/18 11:23	
sec-Butylbenzene	ND		1.0		ug/L			10/31/18 11:23	
Tetrachloroethene	ND		1.0	0.36	ug/L			10/31/18 11:23	

TestAmerica Buffalo

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Client: New York State D.E.C.

Date Received: 10/19/18 13:17

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-143851-1

Lab Sample ID: 480-143851-1

**Client Sample ID: Post-Carbon 3** Date Collected: 10/19/18 12:15

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			10/31/18 11:23	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			10/31/18 11:23	1
Trichloroethene	ND		1.0	0.46	ug/L			10/31/18 11:23	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			10/31/18 11:23	1
Vinyl chloride	0.91	J	1.0	0.90	ug/L			10/31/18 11:23	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/31/18 11:23	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			10/31/18 11:23	1
Styrene	ND		1.0	0.73	ug/L			10/31/18 11:23	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			10/31/18 11:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		77 - 120					10/31/18 11:23	1
4-Bromofluorobenzene (Surr)	101		73 - 120					10/31/18 11:23	1
Toluene-d8 (Surr)	99		80 - 120					10/31/18 11:23	1
Dibromofluoromethane (Surr)	104		75 - 123					10/31/18 11:23	1
Method: 200.7 Rev 4.4 - Metals	s (ICP)								
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	40.8	ī	50.0	19.3	ug/L		10/24/18 12:06	10/25/18 12:22	

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.11		0.010	0.0050	mg/L		11/02/18 13:00	11/02/18 15:04	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.5	HF	0.1	0.1	SU			10/24/18 15:18	1
Temperature	15.8	HF	0.001	0.001	Degrees C			10/24/18 15:18	1

11/7/2018

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-143851-1

Lab Sample ID: 480-143851-2

Matrix: Water

Client Sample ID: Post-Carbon 2

Date Collected: 10/19/18 12:20 Date Received: 10/19/18 13:17

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/31/18 11:46	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/31/18 11:46	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			10/31/18 11:46	1
Benzene	0.88	J	1.0	0.41	ug/L			10/31/18 11:46	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/31/18 11:46	1
Isopropylbenzene	ND		1.0	0.79	ug/L			10/31/18 11:46	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/31/18 11:46	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/31/18 11:46	1
Naphthalene	ND		1.0	0.43	ug/L			10/31/18 11:46	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/31/18 11:46	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/31/18 11:46	1
o-Xylene	ND		1.0	0.76	ug/L			10/31/18 11:46	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			10/31/18 11:46	1
Toluene	ND		1.0	0.51	ug/L			10/31/18 11:46	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/31/18 11:46	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			10/31/18 11:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		77 - 120			-		10/31/18 11:46	1
4-Bromofluorobenzene (Surr)	95		73 - 120					10/31/18 11:46	1
Toluene-d8 (Surr)	102		80 - 120					10/31/18 11:46	1
Dibromofluoromethane (Surr)	109		75 - 123					10/31/18 11:46	1

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Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-143851-1

Lab Sample ID: 480-143851-3

Matrix: Water

Client Sample ID: Post-Carbon 1

Date Collected: 10/19/18 12:25 Date Received: 10/19/18 13:17

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		20	15	ug/L			10/31/18 12:09	20
1,3,5-Trimethylbenzene	ND		20	15	ug/L			10/31/18 12:09	20
4-Isopropyltoluene	ND		20	6.2	ug/L			10/31/18 12:09	20
Benzene	640		20	8.2	ug/L			10/31/18 12:09	20
Ethylbenzene	ND		20	15	ug/L			10/31/18 12:09	20
Isopropylbenzene	ND		20	16	ug/L			10/31/18 12:09	20
Methyl tert-butyl ether	ND		20	3.2	ug/L			10/31/18 12:09	20
m-Xylene & p-Xylene	ND		40	13	ug/L			10/31/18 12:09	20
Naphthalene	ND		20	8.6	ug/L			10/31/18 12:09	20
n-Butylbenzene	ND		20	13	ug/L			10/31/18 12:09	20
N-Propylbenzene	ND		20	14	ug/L			10/31/18 12:09	20
o-Xylene	ND		20	15	ug/L			10/31/18 12:09	20
sec-Butylbenzene	ND		20	15	ug/L			10/31/18 12:09	20
Toluene	ND		20	10	ug/L			10/31/18 12:09	20
Xylenes, Total	ND		40	13	ug/L			10/31/18 12:09	20
tert-Butylbenzene	ND		20	16	ug/L			10/31/18 12:09	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		77 - 120			-		10/31/18 12:09	20
4-Bromofluorobenzene (Surr)	98		73 - 120					10/31/18 12:09	20
Toluene-d8 (Surr)	99		80 - 120					10/31/18 12:09	20
Dibromofluoromethane (Surr)	104		75 - 123					10/31/18 12:09	20

Client: New York State D.E.C.

Date Collected: 10/19/18 12:30

Date Received: 10/19/18 13:17

Project/Site: Gastown WWTP #915171

**Client Sample ID: Pre-Carbon** 

TestAmerica Job ID: 480-143851-1

Lab Sample ID: 480-143851-4

**Matrix: Wastewater** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	32		2.0	1.5	ug/L			10/31/18 12:32	2
1,3,5-Trimethylbenzene	11		2.0	1.5	ug/L			10/31/18 12:32	2
4-Isopropyltoluene	ND		2.0	0.62	ug/L			10/31/18 12:32	2
Ethylbenzene	110		2.0	1.5	ug/L			10/31/18 12:32	2
Isopropylbenzene	ND		2.0	1.6	ug/L			10/31/18 12:32	2
Methyl tert-butyl ether	ND		2.0	0.32	ug/L			10/31/18 12:32	2
m-Xylene & p-Xylene	200		4.0	1.3	ug/L			10/31/18 12:32	2
n-Butylbenzene	ND		2.0	1.3	ug/L			10/31/18 12:32	2
N-Propylbenzene	ND		2.0	1.4	ug/L			10/31/18 12:32	2
o-Xylene	110		2.0	1.5	ug/L			10/31/18 12:32	2
sec-Butylbenzene	ND		2.0	1.5	ug/L			10/31/18 12:32	2
Xylenes, Total	310		4.0	1.3	ug/L			10/31/18 12:32	2
tert-Butylbenzene	ND		2.0	1.6	ug/L			10/31/18 12:32	2

32	2	
2:32	2	
d	Dil Fac	
2:32	2	
0.22	2	

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		77 - 120	-		10/31/18 12:32	2
4-Bromofluorobenzene (Surr)	98		73 - 120			10/31/18 12:32	2
Toluene-d8 (Surr)	104		80 - 120			10/31/18 12:32	2
Dibromofluoromethane (Surr)	104		75 - 123			10/31/18 12:32	2

Method: 8260C - Volatile	Organic Compounds b	y GC/MS - D	L						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	5000		50	21	ug/L			10/31/18 22:03	50
Naphthalene	500		50	22	ug/L			10/31/18 22:03	50
Toluene	710		50	26	ug/L			10/31/18 22:03	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		77 - 120		10/31/18 22:03	50
4-Bromofluorobenzene (Surr)	103		73 - 120		10/31/18 22:03	50
Toluene-d8 (Surr)	104		80 - 120		10/31/18 22:03	50
Dibromofluoromethane (Surr)	104		75 - 123		10/31/18 22:03	50

Method: 200.7 Rev 4.4 - Metals (ICP)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	103000		500	100	ug/L		10/24/18 12:06	10/25/18 12:26	1
Iron	3050		50.0	19.3	ug/L		10/24/18 12:06	10/25/18 12:26	1
Magnesium	40900		200	43.4	ug/L		10/24/18 12:06	10/25/18 12:26	1
Potassium	3890		500	100	ug/L		10/24/18 12:06	10/26/18 14:44	1
Sodium	94200		1000	324	ug/L		10/24/18 12:06	10/25/18 12:26	1
Potassium	3890		500	100	ug/L		10/24/18 12:06	10/26/18 14:44	1 1 1

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	161		2.5	1.4	mg/L			10/31/18 12:51	5
Sulfate	97.0		10.0	1.7	mg/L			10/31/18 12:51	5
Alkalinity, Total	340		40.0	16.0	mg/L			11/01/18 16:32	4

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-143851-1

Lab Sample ID: 480-143851-5

**Matrix: Water** 

**Client Sample ID: OUTSIDE SUMP** Date Collected: 10/19/18 12:45

Date Received: 10/19/18 13:17

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		200	150	ug/L			10/31/18 22:26	200
1,3,5-Trimethylbenzene	ND		200	150	ug/L			10/31/18 22:26	200
4-Isopropyltoluene	ND		200	62	ug/L			10/31/18 22:26	200
Benzene	7600		200	82	ug/L			10/31/18 22:26	200
Ethylbenzene	390		200	150	ug/L			10/31/18 22:26	200
Isopropylbenzene	ND		200	160	ug/L			10/31/18 22:26	200
Methyl tert-butyl ether	ND		200	32	ug/L			10/31/18 22:26	200
m-Xylene & p-Xylene	230	J	400	130	ug/L			10/31/18 22:26	200
Naphthalene	1500		200	86	ug/L			10/31/18 22:26	200
n-Butylbenzene	ND		200	130	ug/L			10/31/18 22:26	200
N-Propylbenzene	ND		200	140	ug/L			10/31/18 22:26	200
o-Xylene	ND		200	150	ug/L			10/31/18 22:26	200
sec-Butylbenzene	ND		200	150	ug/L			10/31/18 22:26	200
Toluene	1100		200	100	ug/L			10/31/18 22:26	200
Xylenes, Total	230	J	400	130	ug/L			10/31/18 22:26	200
tert-Butylbenzene	ND		200	160	ug/L			10/31/18 22:26	200
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		77 - 120			-		10/31/18 22:26	200
4-Bromofluorobenzene (Surr)	93		73 - 120					10/31/18 22:26	200
Toluene-d8 (Surr)	98		80 - 120					10/31/18 22:26	200
Dibromofluoromethane (Surr)	107		75 - 123					10/31/18 22:26	200

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

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

Lab Sample ID: 480-143851-1

Matrix: Water

Date Collected: 10/19/18 12:15 Date Received: 10/19/18 13:17

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C			442686	10/31/18 11:23	AMM	TAL BUF
Total/NA	Prep	200.7			441244	10/24/18 12:06	JMP	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	441718	10/25/18 12:22	LMH	TAL BUF
Total/NA	Prep	Distill/CN			443329	11/02/18 13:00	AED	TAL BUF
Total/NA	Analysis	335.4		1	443340	11/02/18 15:04	CAP	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	441495	10/24/18 15:18	KEB	TAL BUF

Client Sample ID: Post-Carbon 2

Lab Sample ID: 480-143851-2 Date Collected: 10/19/18 12:20 **Matrix: Water** 

Date Received: 10/19/18 13:17

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number or Analyzed Analyst 8260C TAL BUF Total/NA Analysis 442686 10/31/18 11:46 AMM

Client Sample ID: Post-Carbon 1

Lab Sample ID: 480-143851-3 Date Collected: 10/19/18 12:25

Matrix: Water

Date Received: 10/19/18 13:17

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	442686	10/31/18 12:09	AMM	TAL BUF

**Client Sample ID: Pre-Carbon** 

Lab Sample ID: 480-143851-4 Date Collected: 10/19/18 12:30 **Matrix: Wastewater** 

Date Received: 10/19/18 13:17

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C			442686	10/31/18 12:32	AMM	TAL BUF
Total/NA	Analysis	8260C	DL	50	442905	10/31/18 22:03	AMM	TAL BUF
Total/NA	Prep	200.7			441244	10/24/18 12:06	JMP	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	441718	10/25/18 12:26	LMH	TAL BUF
Total/NA	Prep	200.7			441244	10/24/18 12:06	JMP	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	442114	10/26/18 14:44	LMH	TAL BUF
Total/NA	Analysis	300.0		5	442735	10/31/18 12:51	DMR	TAL BUF
Total/NA	Analysis	310.2		4	443149	11/01/18 16:32	AED	TAL BUF

**Client Sample ID: OUTSIDE SUMP** Lab Sample ID: 480-143851-5

Date Collected: 10/19/18 12:45 Matrix: Water

Date Received: 10/19/18 13:17

	Batch	Batch		Dilution Batch		Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		200	442905	10/31/18 22:26	AMM	TAL BUF

TestAmerica Buffalo

### **Lab Chronicle**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

### Laboratory References:

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

TestAmerica Job ID: 480-143851-1

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# **Accreditation/Certification Summary**

Client: New York State D.E.C. TestAmerica Job ID: 480-143851-1

Project/Site: Gastown WWTP #915171

### Laboratory: TestAmerica Buffalo

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

Authority	Program		EPA Region	Identification Number	Expiration Date		
New York	NELAP		2	10026	03-31-19		
the agency does not of	fer certification.	,	, 0	ng authority. This list may inc	lude analytes for which		
Analysis Method	Prep Method	Matrix	Analyt	ie .			
335.4	Distill/CN	Water		Cyanide, Total			
CM 4500 LL D	SM 4500 H+ B		рН				
SIVI 4500 FF B		Water	Pii				

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# **Method Summary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-143851-1

Method	Method Description	Protocol	Laboratory	
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF	
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF	
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF	
310.2	Alkalinity	MCAWW	TAL BUF	
335.4	Cyanide, Total	MCAWW	TAL BUF	
SM 4500 H+ B	pH	SM	TAL BUF	
200.7	Preparation, Total Metals	EPA	TAL BUF	
5030C	Purge and Trap	SW846	TAL BUF	
Distill/CN	Distillation, Cyanide	None	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.

None = None

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

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# **Sample Summary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-143851-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	
480-143851-1	Post-Carbon 3	Water	10/19/18 12:15	10/19/18 13:17	
480-143851-2	Post-Carbon 2	Water	10/19/18 12:20	10/19/18 13:17	
480-143851-3	Post-Carbon 1	Water	10/19/18 12:25	10/19/18 13:17	
480-143851-4	Pre-Carbon	Wastewater	10/19/18 12:30	10/19/18 13:17	
480-143851-5	OUTSIDE SUMP	Water	10/19/18 12:45	10/19/18 13:17	

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### Buffalo

10 Hazelwood Drive

Relinquished by:

Relinquished by:

# **Chain of Custody Record**

T	estA-	-
	0317	
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Client Contact	Project Ma	anager: Gle	nn May (N	(SDEC)		Site	e Cont	act:	Thon	nas I	alme	r		Date:	10	119	SIF COC No:						
Groundwater & Environmental Services, Inc	Tel/Fax: (7	716) 851-72	20			Lal	b Con	tact:	O. Jo	hns	on			Carrier:				1	of	480-143	851 C		
95 Aero Drive Suite 3		Analysis T	urnaround	Time		П		T	T		1021				T				T	Job N	0.		
heektowaga, NY 14225	Calenda	r(C) or Wo	ork Days (W	)						7	A-8									1			
300) 287-7857 Phone	T.	TAT if different from Below					(MOD) Local Method	,		M04	- 40						1			beau			
866) 902-2187 FAX		2 weeks				П	I Me	(MOD) Local Method Alkalinity		t OL	list									SDG	No.		
roject Name: NYSDEC Gatown WWTP		1	week			П	Loca	M		L lis	ARS	3											
ite: 915171			2 days			1.1	9	à		TC	ST	H Lo	1	1	1		1		1	ł			
O # Callout 120597			l day			Mpk	MG (S	Alkalinity		(do)	(QO)	Hpl											
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.		300.0 28D		4	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS list - VOA - 8021	SM4500_H+-pH									Sample	Specific No	ites:
Post-Carbon 3	10/19	1215	Grab	W	9	N			x	x	X	x x											
Post-Carbon 2		1220	Grab	W	3	N					X												
Post-Carbon 1		1225	Grab	W	3	N					X												
Pre-Carbon		1230	Grab	w	6	N	x y	X			x												
Inside Outside Sump		1245	Grab	w	3	N					x												
	7					П																	
						П																	
						П																	
						Ш																	
						Ш																	
eservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=	NaOH; 6= Other																						
ossible Hazard Identification  Non-Hazard Flammable Skin Irritant	Poison B		Inknown	×				le Di Retu				e may	be a	ispos	sed i al By	f san Lab	ples		ineo chive		r than 1 i	month) Months	
ecial Instructions/QC Requirements & Comments:																		1	1	(	- 0		

Date/Time:

Date/Time:

Company:

Company:

Received by:

Received by:

Form No. CA-C-WI-002, dated 04/07/2011







Company:









Date/Time:





### **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-143851-1

Login Number: 143851 List Source: TestAmerica Buffalo

List Number: 1

Creator: Wallace, Cameron

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

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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: 480-145982-1

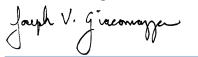
Client Project/Site: Gastown WWTP #915171

Sampling Event: Monthly

### For:

New York State D.E.C. 625 Broadway 11th Floor Albany, New York 12233-3256

Attn: Mr. Doug K MacNeal



Authorized for release by: 12/17/2018 10:22:56 AM

Joe Giacomazza, Project Management Assistant II joe.giacomazza@testamericainc.com

Designee for

Orlette Johnson, Senior Project Manager (484)685-0864

orlette.johnson@testamericainc.com

.....LINKS .....

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

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

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

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

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

Joseph V. Gireomagger

Joe Giacomazza
Project Management Assistant II
12/17/2018 10:22:56 AM

Client: New York State D.E.C. Project/Site: Gastown WWTP #915171 TestAmerica Job ID: 480-145982-1

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### **Definitions/Glossary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-145982-1

### **Qualifiers**

#### **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.
F1	MS and/or MSD Recovery is outside acceptance limits.

#### **General Chemistry**

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
В	Compound was found in the blank and sample.

### **Glossary**

MDC

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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)

Minimum Detectable Concentration (Radiochemistry) MDL Method Detection Limit MLMinimum Level (Dioxin)

NC Not Calculated

Not Detected at the reporting limit (or MDL or EDL if shown) ND

PQL Practical Quantitation Limit

**Quality Control** QC

RER Relative Error Ratio (Radiochemistry)

RLReporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) **TEQ** Toxicity Equivalent Quotient (Dioxin)

### **Case Narrative**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-145982-1

Job ID: 480-145982-1

Laboratory: TestAmerica Buffalo

**Narrative** 

Job Narrative 480-145982-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 11/30/2018 10:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.4° 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 (480-145982-2), (480-145982-D-2 MS) and (480-145982-D-2 MSD). Elevated reporting limits (RLs) are provided.

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

#### HPLC/IC

Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-145982-2). 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 has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Post-Carbon 2 (480-145982-1).

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

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Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-145982-1

Lab Sample ID: 480-145982-1

Matrix: Wastewater

### Client Sample ID: Post-Carbon 2

Date Collected: 11/30/18 09:45 Date Received: 11/30/18 10:40

	janic Compounds by GC/MS	_				_		
Analyte	Result Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fa
I,1,1-Trichloroethane	ND	1.0		ug/L			12/02/18 12:32	
I,2,4-Trimethylbenzene	ND	1.0		ug/L			12/02/18 12:32	
1,1,2,2-Tetrachloroethane	ND	1.0		ug/L			12/02/18 12:32	
,1,2-Trichloroethane	ND	1.0	0.23	ug/L			12/02/18 12:32	
,3,5-Trimethylbenzene	ND	1.0	0.77	ug/L			12/02/18 12:32	
1,1-Dichloroethane	ND	1.0	0.38	ug/L			12/02/18 12:32	
1,1-Dichloroethene	ND	1.0	0.29	ug/L			12/02/18 12:32	
1-Isopropyltoluene	ND	1.0	0.31	ug/L			12/02/18 12:32	
,2-Dichloroethane	ND	1.0	0.21	ug/L			12/02/18 12:32	
Benzene	ND	1.0	0.41	ug/L			12/02/18 12:32	
1,2-Dichloroethene, Total	ND	2.0	0.81	ug/L			12/02/18 12:32	
Ethylbenzene	ND	1.0	0.74	ug/L			12/02/18 12:32	
I,2-Dichloropropane	ND	1.0	0.72	ug/L			12/02/18 12:32	
sopropylbenzene	ND	1.0	0.79	ug/L			12/02/18 12:32	
2-Hexanone	ND	5.0	1.2	ug/L			12/02/18 12:32	
Methyl tert-butyl ether	ND	1.0	0.16	ug/L			12/02/18 12:32	
2-Butanone (MEK)	ND	10	1.3	ug/L			12/02/18 12:32	
n-Xylene & p-Xylene	ND	2.0	0.66	ug/L			12/02/18 12:32	
1-Methyl-2-pentanone (MIBK)	ND	5.0	2.1	ug/L			12/02/18 12:32	
Naphthalene	ND	1.0	0.43	ug/L			12/02/18 12:32	
Acetone	ND	10		ug/L			12/02/18 12:32	
n-Butylbenzene	ND	1.0		ug/L			12/02/18 12:32	
Benzene	ND	1.0		ug/L			12/02/18 12:32	
N-Propylbenzene	ND	1.0		ug/L			12/02/18 12:32	
Bromodichloromethane	ND	1.0		ug/L			12/02/18 12:32	
o-Xylene	ND	1.0		ug/L			12/02/18 12:32	
Bromoform	ND	1.0		ug/L			12/02/18 12:32	
sec-Butylbenzene	ND	1.0		ug/L			12/02/18 12:32	
Bromomethane	ND	1.0		ug/L			12/02/18 12:32	
Foluene	ND	1.0		ug/L			12/02/18 12:32	
Carbon disulfide	ND	1.0		ug/L			12/02/18 12:32	
Carbon tetrachloride	ND	1.0		ug/L			12/02/18 12:32	
(ylenes, Total	ND	2.0		ug/L			12/02/18 12:32	
Chlorobenzene	ND	1.0		ug/L			12/02/18 12:32	
ert-Butylbenzene	ND	1.0		ug/L			12/02/18 12:32	
Dibromochloromethane	ND	1.0		ug/L			12/02/18 12:32	
Chloroethane	ND	1.0		ug/L			12/02/18 12:32	
Chloroform	ND ND	1.0		ug/L			12/02/18 12:32	
Chloromethane	ND	1.0		ug/L			12/02/18 12:32	
cis-1,3-Dichloropropene		1.0		ug/L				
	ND ND						12/02/18 12:32	
Ethylbenzene Methylene Chloride	ND ND	1.0		ug/L			12/02/18 12:32	
		1.0		ug/L			12/02/18 12:32	
Styrene	ND ND	1.0		ug/L			12/02/18 12:32	
Tetrachloroethene	ND ND	1.0		ug/L			12/02/18 12:32	
oluene	ND	1.0		ug/L			12/02/18 12:32	
rans-1,3-Dichloropropene	ND	1.0		ug/L			12/02/18 12:32	
Trichloroethene	ND	1.0		ug/L 			12/02/18 12:32	
/inyl chloride	1.7	1.0	0.90	ug/L			12/02/18 12:32	

TestAmerica Buffalo

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Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-145982-1

Client Sample ID: Post-Carbon 2

Date Collected: 11/30/18 09:45 Date Received: 11/30/18 10:40 Lab Sample ID: 480-145982-1

**Matrix: Wastewater** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		2.0	0.66	ug/L			12/02/18 12:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		77 - 120			-		12/02/18 12:32	1
4-Bromofluorobenzene (Surr)	110		73 - 120					12/02/18 12:32	1
Toluene-d8 (Surr)	94		80 - 120					12/02/18 12:32	1
Dibromofluoromethane (Surr)	87		75 - 123					12/02/18 12:32	1
1,2-Dichloroethane-d4 (Surr)	87		77 - 120					12/02/18 12:32	1
Toluene-d8 (Surr)	94		80 - 120					12/02/18 12:32	1
4-Bromofluorobenzene (Surr)	110		73 - 120					12/02/18 12:32	1

Method: 200.7 Rev 4.4 - Metals (ICP) Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	49.9	J	50.0	19.3	ug/L		12/04/18 09:37	12/05/18 17:53	1
Γ									

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.12		0.010	0.0050	mg/L		12/11/18 14:40	12/11/18 17:21	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.5	HF	0.1	0.1	SU			12/05/18 11:15	1
Temperature	17.7	HF	0.001	0.001	Degrees C			12/05/18 11:15	1

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Client: New York State D.E.C.

Date Received: 11/30/18 10:40

Magnesium

**Potassium** 

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-145982-1

Lab Sample ID: 480-145982-2

**Matrix: Wastewater** 

Client Sample ID: Pre-Carbon Date Collected: 11/30/18 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		50	38	ug/L			12/04/18 01:18	50
1,3,5-Trimethylbenzene	ND		50	39	ug/L			12/04/18 01:18	50
4-Isopropyltoluene	ND		50	16	ug/L			12/04/18 01:18	50
Benzene	1700		50	21	ug/L			12/04/18 01:18	50
Ethylbenzene	110		50	37	ug/L			12/04/18 01:18	50
Isopropylbenzene	ND		50	40	ug/L			12/04/18 01:18	50
Methyl tert-butyl ether	ND		50	8.0	ug/L			12/04/18 01:18	50
m-Xylene & p-Xylene	ND		100	33	ug/L			12/04/18 01:18	50
Naphthalene	98		50	22	ug/L			12/04/18 01:18	50
n-Butylbenzene	ND		50	32	ug/L			12/04/18 01:18	50
N-Propylbenzene	ND		50	35	ug/L			12/04/18 01:18	50
o-Xylene	ND		50	38	ug/L			12/04/18 01:18	50
sec-Butylbenzene	ND		50	38	ug/L			12/04/18 01:18	50
Toluene	340		50	26	ug/L			12/04/18 01:18	50
Xylenes, Total	ND		100	33	ug/L			12/04/18 01:18	50
tert-Butylbenzene	ND		50	41	ug/L			12/04/18 01:18	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		77 - 120					12/04/18 01:18	50
4-Bromofluorobenzene (Surr)	107		73 - 120					12/04/18 01:18	50
Toluene-d8 (Surr)	96		80 - 120					12/04/18 01:18	50
Dibromofluoromethane (Surr)	91		75 - 123					12/04/18 01:18	50
Method: 200.7 Rev 4.4 - Metals	s (ICP)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	129000		500	100	ug/L		12/04/18 09:37	12/05/18 17:56	1
Iron	2530		50.0	19.3	ug/L		12/04/18 09:37	12/05/18 17:56	1

Sodium	89200	1000	324 ug/L	12/04/18 09:37	12/05/18 17:56	1
General Chemistry						
Analyte	Result Qualifier	RL	MDL Unit	D Prepared	Analyzed	Dil Fac
Chloride	137	2.5	1.4 mg/L		12/07/18 23:19	5
Sulfate	107	10.0	1.7 mg/L		12/07/18 23:19	5
Alkalinity, Total	293 B	50.0	20.0 mg/L		12/12/18 18:24	5

200

500

43.4 ug/L

100 ug/L

12/04/18 09:37

12/04/18 09:37

12/05/18 17:56

12/05/18 17:56

39100 F1

3950

12/17/2018

### **Lab Chronicle**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-145982-1

Lab Sample ID: 480-145982-1

Matrix: Wastewater

Client Sample ID: Post-Carbon 2

Date Collected: 11/30/18 09:45 Date Received: 11/30/18 10:40

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C			448591	12/02/18 12:32	AMM	TAL BUF
Total/NA	Prep	200.7			448780	12/04/18 09:37	VEG	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	449328	12/05/18 17:53	EMB	TAL BUF
Total/NA	Prep	Distill/CN			450266	12/11/18 14:40	AED	TAL BUF
Total/NA	Analysis	335.4		1	450291	12/11/18 17:21	CAP	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	449150	12/05/18 11:15	KEB	TAL BUF

Client Sample ID: Pre-Carbon Lab Sample ID: 480-145982-2

Date Collected: 11/30/18 10:00 Matrix: Wastewater

Date Received: 11/30/18 10:40

Batch	Batch		Dilution	Batch	Prepared		
Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Analysis	8260C		50	448809	12/04/18 01:18	RJF	TAL BUF
Prep	200.7			448780	12/04/18 09:37	VEG	TAL BUF
Analysis	200.7 Rev 4.4		1	449328	12/05/18 17:56	EMB	TAL BUF
Analysis	300.0		5	449629	12/07/18 23:19	CLA	TAL BUF
Analysis	310.2		5	450581	12/12/18 18:24	AED	TAL BUF
	Type Analysis Prep Analysis Analysis	Type         Method           Analysis         8260C           Prep         200.7           Analysis         200.7 Rev 4.4           Analysis         300.0	Type         Method         Run           Analysis         8260C           Prep         200.7           Analysis         200.7 Rev 4.4           Analysis         300.0	Type         Method         Run         Factor           Analysis         8260C         50           Prep         200.7         40         1           Analysis         200.7 Rev 4.4         1         1           Analysis         300.0         5	Type         Method         Run         Factor         Number           Analysis         8260C         50         448809           Prep         200.7         448780           Analysis         200.7 Rev 4.4         1         449328           Analysis         300.0         5         449629	Type         Method         Run         Factor         Number         or Analyzed           Analysis         8260C         50         448809         12/04/18 01:18           Prep         200.7         448780         12/04/18 09:37           Analysis         200.7 Rev 4.4         1         449328         12/05/18 17:56           Analysis         300.0         5         449629         12/07/18 23:19	Type         Method         Run         Factor         Number or Analyzed         Analyst           Analysis         8260C         50         448809         12/04/18 01:18         RJF           Prep         200.7         448780         12/04/18 09:37         VEG           Analysis         200.7 Rev 4.4         1         449328         12/05/18 17:56         EMB           Analysis         300.0         5         449629         12/07/18 23:19         CLA

Laboratory References:

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

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# **Accreditation/Certification Summary**

Client: New York State D.E.C. TestAmerica Job ID: 480-145982-1

Project/Site: Gastown WWTP #915171

### Laboratory: TestAmerica Buffalo

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

Authority	Program		EPA Region	Identification Number	Expiration Date
New York	NELAP		2	10026	03-31-19
The following analytes the agency does not of	are included in this report, bu fer certification.	it the laboratory is not cer	tified by the governin	g authority. This list may inc	lude analytes for which
Analysis Method	Prep Method	Matrix	Analyte	9	
335.4	Distill/CN	Wastewater	Cyanid	e, Total	
8260C		Wastewater	1,2-Dio	chloroethene, Total	
SM 4500 H+ B		Wastewater	pН		
SM 4500 H+ B		Wastewater	Tempe	rature	

# **Method Summary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-145982-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF
Distill/CN	Distillation, Cyanide	None	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.

None = None

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

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# **Sample Summary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-145982-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-145982-1	Post-Carbon 2	Wastewater	11/30/18 09:45	11/30/18 10:40
480-145982-2	Pre-Carbon	Wastewater	11/30/18 10:00	11/30/18 10:40

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## Buffalo

10 Hazelwood Drive

# **Chain of Custody Record**

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Amherst, NY 14228

phone 716.504.9852 fax 716.691.7991																1			-	TestAmerica	-1-1	_
Client Contact	Project Ma	anager: Gle	nn May (NY	YSDEC)		Site	Conta	act: 7	Thor	nas P	almer		D	ate:	illi	30	18		(	COC No:	480-145982 CG	OL =
Groundwater & Environmental Services, Inc	Tel/Fax: ('	716) 851-72:	20			Lab	Cont	act:	O. J	ohnso	n		C	arrier	1	1				of _	480-145962	
495 Aero Drive Suite 3		Analysis T	urnaround	Time							8021								1	Job No.		
Cheektowaga, NY 14225	Calenda	r(C) or W	ork Days (W	)		1	_			1.2	- V								11			
(800) 287-7857 Phone	Т	AT if different	from Below _			1	d b	,		WO.	>											
(866) 902-2187 FAX	X	2	2 weeks				etho			ţ	list						1		1	SDG No.		
Project Name: NYSDEC Gatown WWTP		1	week			H.	Loca			T lis	STARS list - VOA - 8021											
Site: 915171			2 days				E S	it		15	TS (	H	1				1	1	1			
P O # Callout 120597 GES Project #0901691-05-220			1 day			dm		Alkalinity		40D	TOD	d-+H							1			
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered S	300.0_28D (MOD) Local Method 200.7 - (MOD) Local Method	310.2 - All	200.7 - Iron	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STAR	SM4500_H+-pH								Samp	le Specific Notes:	:
Post-Carbon 2	11 30	945	Grab	W	9	N			X	X	X X	x										
Pre-Carbon	11/30	1000	Grab	W	6	N	X X	X			X											
						$\coprod$																
						$\mathbf{H}$	4	1	-	Н	_	1		_		+	Н	4				
			-	-		H	1	+	+	$\perp$	4	4	H	+		+	Н	4				
	4					H	+	+	-	$\mathbb{H}$	+	+	$\vdash$	+	$\vdash$	+	$\vdash$	+	H			
	-	-	-	-		+	+	+	+	+	4	-		+		-	H	+	+			
			-	-		H	+	-	+	+	+	+	H	+	H	+	H	+	+			
		-	-	-		+	+	+	+	H	+	+	+	+	$\vdash$	+	H	+	+			
			-	-		$^{\rm H}$	+	+	+	H	+	+		+	$\vdash$	+	H	-	+			
	+					H	+	+	+	$\dagger$	+	+	H	+		+	H		+			
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=N	aOH: 6= Oth	P		_		+	+	+	+	$\forall$	+	+	$\vdash$	+	$\vdash$	+	$\forall$	_	1			
Possible Hazard Identification	aozi, v- Othe			100.00		-	Samu	ple D	Disp	osal	( A fe	e may	be a	ssess	ed if	samp	les ai	re reta	ained	longer than	1 month)	
Non-Hazard Flammable Skin Irritant	Poison	$_{B}$	Unknown	₩ (M				Ret	turn	To Cl	lient	,	N DI	isposa	l By L	ab .		□ <sub>Arc</sub>	chive I	For	Months	
Special Instructions/QC Requirements & Comments:																						
						1		(	1						3	) :	1	H				
Relinquished by:	Company	15		Date/Ti	0 10	40	Receiv	10	1	X			V.		Com	1/3	>			Date/Time:	8 100	10
Relinquished by:	Company			Date/T	ime:		Recei	ved b	oy:						Comp	pany:				Date/Time:		
Relinquished by:	Company	:		Date/T	ime:		Recei	ved b	by:						Comp	pany:				Date/Time:		
					_		_		_		_	_	-	-		_			Fo	rm No. CA-C-	WI-002, dated 0	4/07/20

## **Login Sample Receipt Checklist**

Client: New York State D.E.C. Job Number: 480-145982-1

Login Number: 145982 List Source: TestAmerica Buffalo

List Number: 1 Creator: Stopa, Erik S

Question Answer Commer
Radioactivity either was not measured or, if measured, is at or below  True
background
The cooler's custody seal, if present, is intact.  True
The cooler or samples do not appear to have been compromised or tampered with.
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.
COC is filled out with all pertinent information.
Is the Field Sampler's name present on COC?
There are no discrepancies between the sample IDs on the containers and the COC.
Samples are received within Holding Time (Excluding tests with immediate True HTs)
Sample containers have legible labels. True
Containers are not broken or leaking.
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   True diameter.
If necessary, staff have been informed of any short hold time or quick TAT  True needs
Multiphasic samples are not present. True
Samples do not require splitting or compositing.
Sampling Company provided. True GES
Samples received within 48 hours of sampling.
Samples requiring field filtration have been filtered in the field.  N/A
Chlorine Residual checked. N/A

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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: 480-147191-1

Client Project/Site: Gastown WWTP #915171

Sampling Event: Quarterly

#### For:

New York State D.E.C. 625 Broadway 11th Floor Albany, New York 12233-3256

Attn: Mr. Doug K MacNeal

Authorized for release by: 1/23/2019 7:38:03 AM

Orlette Johnson, Senior Project Manager (484)685-0864

orlette.johnson@testamericainc.com

..... Links .....

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**Have a Question?** 



Visit us at: www.testamericainc.com

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

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

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

Orlette Johnson

Senior Project Manager 1/23/2019 7:38:03 AM

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.

Client: New York State D.E.C. Project/Site: Gastown WWTP #915171 TestAmerica Job ID: 480-147191-1

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## **Definitions/Glossary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-147191-1

### **Qualifiers**

#### **GC/MS VOA**

LCS or LCSD is outside acceptance limits.

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### GC/MS Semi VOA

#### Qualifier **Qualifier Description**

Sample was prepped or analyzed beyond the specified holding time

#### **GC Semi VOA**

#### Qualifier **Qualifier Description**

Н Sample was prepped or analyzed beyond the specified holding time

#### **Metals**

#### Qualifier **Qualifier Description**

Compound was found in the blank and sample.

#### **General Chemistry**

#### **Qualifier Description** Qualifier

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

LCS or LCSD is outside acceptance limits. 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.

## **Glossary**

Abbreviation	These commonly	used abbreviations ma	y or may not be	present in this report
Abbieviation	THESE COMMISSION	, useu abbievialions ma	y or may not be	present in this repor

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** 

DI Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

Estimated Detection Limit (Dioxin) **EDL** Limit of Detection (DoD/DOE) LOD LOQ Limit of Quantitation (DoD/DOE)

Minimum Detectable Activity (Radiochemistry) MDA MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit MLMinimum Level (Dioxin)

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

**PQL Practical Quantitation Limit** 

**Quality Control** QC

Relative Error Ratio (Radiochemistry) RER

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) Toxicity Equivalent Quotient (Dioxin) **TEQ** 

TestAmerica Buffalo

1/23/2019

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## **Case Narrative**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-147191-1

Job ID: 480-147191-1

**Laboratory: TestAmerica Buffalo** 

Narrative

Job Narrative 480-147191-1

#### Receipt

The samples were received on 12/21/2018 4:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.5° C.

#### GC/MS VOA

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-453679 recovered above the upper control limit for Carbon tetrachloride, Dibromochloromethane, Bromodichloromethane and Trichlorofluoromethane. 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 (480-147191-1) and Pre-Carbon (480-147191-2).

Method(s) 8260C: The laboratory control sample (LCS) for analytical batch 480-453679 recovered outside control limits for the following analytes: Bromoform, Carbon tetrachloride, Dibromochloromethane, and Bromodichloromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. The following samples are impacted: Post-Carbon 2 (480-147191-1) and Pre-Carbon (480-147191-2).

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-147191-2). 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.

#### GC/MS Semi 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 (480-147191-2). Elevated reporting limits (RLs) are provided.

Method(s) 300.0, SM 4110B: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-147191-2). 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.

#### GC Semi VOA

Method(s) 608.3: The continuing calibration verification (CCV) associated with batch 480-454095 recovered above the upper control limit for Toxaphene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: Post-Carbon 2 (480-147191-1).

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) 1664A, 1664B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 480-454145 and analytical batch 480-454181 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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 has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Post-Carbon 2 (480-147191-1).

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

TestAmerica Buffalo 1/23/2019

#### **Case Narrative**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-147191-1

## Job ID: 480-147191-1 (Continued)

#### Laboratory: TestAmerica Buffalo (Continued)

#### **Organic Prep**

Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 480-454032.

Method(s) 3510C: The following sample was prepared outside of preparation holding time due to activated out of hold time. Post-Carbon 2 (480-147191-1).

Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-453905.

Method(s) 3510C: The following sample was received outside of holding time: Post-Carbon 2 (480-147191-1).

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

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Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-147191-1

Lab Sample ID: 480-147191-1

**Matrix: Wastewater** 

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

Date Collected: 12/21/18 15:30 Date Received: 12/21/18 16:15

Method: 8260C - Volatile Organ Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND -	1.0	0.82	ug/L			01/04/19 16:39	
1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/L			01/04/19 16:39	•
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	0.31	ug/L			01/04/19 16:39	•
1,1,2-Trichloroethane	ND	1.0	0.23	ug/L			01/04/19 16:39	,
1,1-Dichloroethane	ND	1.0	0.38	ug/L			01/04/19 16:39	
1,1-Dichloroethene	ND	1.0	0.29	ug/L			01/04/19 16:39	
1,2,4-Trichlorobenzene	ND	1.0	0.41	ug/L			01/04/19 16:39	• • • • • • • • •
1,2,4-Trimethylbenzene	ND	1.0	0.75	ug/L			01/04/19 16:39	
1,2-Dibromo-3-Chloropropane	ND	1.0	0.39	ug/L			01/04/19 16:39	
1,2-Dichlorobenzene	ND	1.0		ug/L			01/04/19 16:39	· · · · · · .
1,2-Dichloroethane	ND	1.0		ug/L			01/04/19 16:39	
1,2-Dichloropropane	ND	1.0		ug/L			01/04/19 16:39	
1,3,5-Trimethylbenzene	ND	1.0		ug/L			01/04/19 16:39	,
1,3-Dichlorobenzene	ND	1.0		ug/L			01/04/19 16:39	
1,4-Dichlorobenzene	ND	1.0		ug/L			01/04/19 16:39	
2-Butanone (MEK)	ND	10		ug/L			01/04/19 16:39	
2-Hexanone	ND	5.0		ug/L			01/04/19 16:39	
1-Isopropyltoluene	ND	1.0	0.31	-			01/04/19 16:39	
4-Methyl-2-pentanone (MIBK)	ND	5.0		ug/L			01/04/19 16:39	
Acetone	ND	10		ug/L			01/04/19 16:39	
Benzene	ND	1.0	0.41	_			01/04/19 16:39	
Bromoform	ND *	1.0		ug/L			01/04/19 16:39	· · · · · · .
Bromomethane	ND	1.0	0.69				01/04/19 16:39	
Carbon disulfide	ND ND	1.0	0.09	-			01/04/19 16:39	
Carbon distillide	ND *	1.0		-			01/04/19 16:39	
	ND		0.27					
Chlorobenzene	ND *	1.0	0.75	-			01/04/19 16:39	•
Dibromochloromethane		1.0	0.32	-			01/04/19 16:39	
Chloroethane	ND	1.0		ug/L			01/04/19 16:39	•
Chloroform	0.54 J	1.0		ug/L			01/04/19 16:39	•
Chloromethane	0.44 J	1.0		ug/L			01/04/19 16:39	
cis-1,2-Dichloroethene	ND	1.0		ug/L			01/04/19 16:39	•
Cyclohexane	ND	1.0		ug/L			01/04/19 16:39	•
Bromodichloromethane	ND *	1.0	0.39	-			01/04/19 16:39	
Dichlorodifluoromethane	ND	1.0		ug/L			01/04/19 16:39	•
Ethylbenzene	ND	1.0	0.74	-			01/04/19 16:39	•
1,2-Dibromoethane	ND	1.0		ug/L			01/04/19 16:39	
sopropylbenzene	ND	1.0		ug/L			01/04/19 16:39	•
Methyl acetate	ND	2.5		ug/L			01/04/19 16:39	•
Methyl tert-butyl ether	ND	1.0		ug/L			01/04/19 16:39	· · · · · · · · · ·
Methylcyclohexane	ND	1.0		ug/L			01/04/19 16:39	•
Methylene Chloride	ND	1.0	0.44	ug/L			01/04/19 16:39	•
n,p-Xylene	ND	2.0		ug/L			01/04/19 16:39	•
Naphthalene	ND	1.0	0.43	ug/L			01/04/19 16:39	
n-Butylbenzene	ND	1.0		ug/L			01/04/19 16:39	•
N-Propylbenzene	ND	1.0	0.69	ug/L			01/04/19 16:39	
o-Xylene	ND	1.0	0.76	ug/L			01/04/19 16:39	•
sec-Butylbenzene	ND	1.0	0.75	ug/L			01/04/19 16:39	•
Tetrachloroethene	ND	1.0	0.36	ug/L			01/04/19 16:39	

TestAmerica Buffalo

1/23/2019

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Project/Site: Gastown WWTP #915171

Client Sample ID: Post-Carbon 2

Date Collected: 12/21/18 15:30 Date Received: 12/21/18 16:15

Dibromofluoromethane (Surr)

Lab Sample ID: 480-147191-1

. Matrix: Wastewater

01/04/19 16:39

Method: 8260C - Volatile O	rganic Compou	inds by G	C/MS (Contir	nued)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			01/04/19 16:39	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			01/04/19 16:39	1
Trichloroethene	ND		1.0	0.46	ug/L			01/04/19 16:39	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			01/04/19 16:39	1
Vinyl chloride	2.3		1.0	0.90	ug/L			01/04/19 16:39	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/04/19 16:39	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			01/04/19 16:39	1
Styrene	ND		1.0	0.73	ug/L			01/04/19 16:39	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			01/04/19 16:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		77 - 120			-		01/04/19 16:39	1
4-Bromofluorobenzene (Surr)	107		73 - 120					01/04/19 16:39	1
Toluene-d8 (Surr)	98		80 - 120					01/04/19 16:39	1

75 - 123

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Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND	H	5.0	0.65	ug/L		01/07/19 07:45	01/16/19 14:58	1
2-Methylnaphthalene	ND	Н	5.0	0.60	ug/L		01/07/19 07:45	01/16/19 14:58	1
Acenaphthene	ND	Н	5.0	0.41	ug/L		01/07/19 07:45	01/16/19 14:58	1
Acenaphthylene	ND	Н	5.0	0.38	ug/L		01/07/19 07:45	01/16/19 14:58	1
Anthracene	ND	Н	5.0	0.28	ug/L		01/07/19 07:45	01/16/19 14:58	1
Benzo[a]anthracene	ND	Н	5.0	0.36	ug/L		01/07/19 07:45	01/16/19 14:58	1
Benzo[a]pyrene	ND	Н	5.0	0.47	ug/L		01/07/19 07:45	01/16/19 14:58	1
Benzo[b]fluoranthene	ND	Н	5.0	0.34	ug/L		01/07/19 07:45	01/16/19 14:58	1
Benzo[g,h,i]perylene	ND	Н	5.0	0.35	ug/L		01/07/19 07:45	01/16/19 14:58	1
Benzo[k]fluoranthene	ND	Н	5.0	0.73	ug/L		01/07/19 07:45	01/16/19 14:58	1
Bis(2-ethylhexyl) phthalate	ND	Н	5.0	2.2	ug/L		01/07/19 07:45	01/16/19 14:58	1
Carbazole	ND	Н	5.0	0.30	ug/L		01/07/19 07:45	01/16/19 14:58	1
Chrysene	ND	Н	5.0	0.33	ug/L		01/07/19 07:45	01/16/19 14:58	1
Dibenz(a,h)anthracene	ND	Н	5.0	0.42	ug/L		01/07/19 07:45	01/16/19 14:58	1
Dibenzofuran	ND	Н	10	0.51	ug/L		01/07/19 07:45	01/16/19 14:58	1
Fluoranthene	ND	Н	5.0	0.40	ug/L		01/07/19 07:45	01/16/19 14:58	1
Fluorene	ND	Н	5.0	0.36	ug/L		01/07/19 07:45	01/16/19 14:58	1
Indeno[1,2,3-cd]pyrene	ND	Н	5.0	0.47	ug/L		01/07/19 07:45	01/16/19 14:58	1
Naphthalene	ND	Н	5.0	0.76	ug/L		01/07/19 07:45	01/16/19 14:58	1
Pentachlorophenol	ND	Н	10	2.2	ug/L		01/07/19 07:45	01/16/19 14:58	1
Phenanthrene	ND	Н	5.0	0.44	ug/L		01/07/19 07:45	01/16/19 14:58	1
Phenol	ND	Н	5.0	0.39	ug/L		01/07/19 07:45	01/16/19 14:58	1
Pyrene	ND	Н	5.0	0.34	ug/L		01/07/19 07:45	01/16/19 14:58	1
Surrogate	%Recovery	Qualifier	l imite				Prenared	Analyzed	Dil Fac

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	90	46 - 120	01/07/19 07:45	01/16/19 14:58	1
2-Fluorobiphenyl	101	48 - 120	01/07/19 07:45	01/16/19 14:58	1
p-Terphenyl-d14	105	59 - 136	01/07/19 07:45	01/16/19 14:58	1
Phenol-d5	53	22 - 120	01/07/19 07:45	01/16/19 14:58	1
2-Fluorophenol	71	35 - 120	01/07/19 07:45	01/16/19 14:58	1
2,4,6-Tribromophenol	100	41 - 120	01/07/19 07:45	01/16/19 14:58	1

TestAmerica Buffalo

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-147191-1

Lab Sample ID: 480-147191-1

**Matrix: Wastewater** 

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

Date Collected: 12/21/18 15:30 Date Received: 12/21/18 16:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND	Н	0.050	0.0081	ug/L		01/07/19 14:51	01/08/19 13:10	1
alpha-BHC	ND	Н	0.050	0.0077	ug/L		01/07/19 14:51	01/08/19 13:10	1
beta-BHC	ND	Н	0.050	0.025	ug/L		01/07/19 14:51	01/08/19 13:10	1
delta-BHC	ND	Н	0.050	0.010	ug/L		01/07/19 14:51	01/08/19 13:10	1
gamma-BHC (Lindane)	ND	Н	0.050	0.0080	ug/L		01/07/19 14:51	01/08/19 13:10	1
Chlordane (technical)	ND	Н	0.50	0.29	ug/L		01/07/19 14:51	01/08/19 13:10	1
4,4'-DDD	ND	Н	0.050	0.0092	ug/L		01/07/19 14:51	01/08/19 13:10	1
4,4'-DDE	ND	Н	0.050	0.012	ug/L		01/07/19 14:51	01/08/19 13:10	1
4,4'-DDT	ND	Н	0.050	0.011	ug/L		01/07/19 14:51	01/08/19 13:10	1
Dieldrin	ND	Н	0.050	0.0098	ug/L		01/07/19 14:51	01/08/19 13:10	1
Endosulfan I	ND	Н	0.050	0.011	ug/L		01/07/19 14:51	01/08/19 13:10	1
Endosulfan II	ND	Н	0.050	0.012	ug/L		01/07/19 14:51	01/08/19 13:10	1
Endosulfan sulfate	ND	Н	0.050	0.016	ug/L		01/07/19 14:51	01/08/19 13:10	1
Endrin	ND	Н	0.050	0.014	ug/L		01/07/19 14:51	01/08/19 13:10	1
Endrin aldehyde	ND	Н	0.050	0.016	ug/L		01/07/19 14:51	01/08/19 13:10	1
Heptachlor	ND	Н	0.050	0.0085	ug/L		01/07/19 14:51	01/08/19 13:10	1
Heptachlor epoxide	ND	Н	0.050	0.0074	ug/L		01/07/19 14:51	01/08/19 13:10	1
Toxaphene	ND	Н	0.50	0.12	ug/L		01/07/19 14:51	01/08/19 13:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	53		23 - 120				01/07/19 14:51	01/08/19 13:10	1
Tetrachloro-m-xylene	73		44 - 120				01/07/19 14:51	01/08/19 13:10	1

Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3.9	JB	4.9	1.4	mg/L		01/08/19 10:32	01/08/19 13:30	1
0.069	*	0.010	0.0050	mg/L		01/03/19 13:30	01/03/19 17:11	1
0.011		0.010	0.0050	mg/L		01/04/19 15:13	01/07/19 17:56	1
563		10.0	4.0	mg/L			12/26/18 14:02	1
ND		2.0	2.0	mg/L			12/22/18 12:30	1
Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
ND		4.0	4.0	mg/L	_		12/26/18 23:36	1
7.5	HF	0.1	0.1	SU			12/23/18 15:25	1
19.3	HF	0.001	0.001	Degrees C			12/23/18 15:25	1
	3.9 0.069 0.011 563 ND Result ND 7.5	563 ND Result Qualifier	3.9 JB 4.9 0.069 * 0.010 0.011 0.010 563 10.0 ND 2.0  Result Qualifier RL ND 4.0 7.5 HF 0.1	3.9 JB       4.9       1.4         0.069 *       0.010       0.0050         0.011       0.010       0.0050         563       10.0       4.0         ND       2.0       2.0         Result Qualifier       RL RL       RL         ND       4.0       4.0         7.5 HF       0.1       0.1	3.9 JB       4.9       1.4 mg/L         0.069 *       0.010       0.0050 mg/L         0.011       0.010       0.0050 mg/L         563       10.0       4.0 mg/L         ND       2.0       2.0 mg/L         Result Qualifier RL RL Unit         ND       4.0       4.0 mg/L         7.5 HF       0.1       0.1 SU	3.9 JB       4.9       1.4 mg/L         0.069 *       0.010       0.0050 mg/L         0.011       0.010       0.0050 mg/L         563       10.0       4.0 mg/L         ND       2.0       2.0 mg/L         Result       RL       RL       Unit       D         ND       4.0       4.0 mg/L         7.5 HF       0.1       0.1       SU	3.9 JB       4.9 0.010 0.0050 mg/L       01/08/19 10:32 01/03/19 13:30 0.0011 0.010 0.0050 mg/L       01/03/19 13:30 01/03/19 13:30 01/04/19 15:13         563 ND       10.0 4.0 mg/L 2.0 2.0 mg/L       4.0 mg/L 2.0 mg/L         Result Qualifier       RL RL Unit MD       D Prepared         ND       4.0 4.0 mg/L       4.0 mg/L         7.5 HF       0.1 0.1 SU	3.9 JB       4.9       1.4 mg/L       01/08/19 10:32       01/08/19 13:30         0.069 *       0.010       0.0050 mg/L       01/03/19 13:30       01/03/19 17:11         0.011       0.010       0.0050 mg/L       01/04/19 15:13       01/07/19 17:56         563       10.0       4.0 mg/L       12/26/18 14:02         ND       2.0       2.0 mg/L       Prepared       Analyzed         ND       4.0       4.0 mg/L       D       Prepared       Analyzed         ND       4.0       4.0 mg/L       12/26/18 23:36         7.5 HF       0.1       0.1 SU       12/23/18 15:25

1/23/2019

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-147191-1

Lab Sample ID: 480-147191-2

**Matrix: Wastewater** 

# Client Sample ID: Pre-Carbon Date Collected: 12/21/18 15:45

Date Received: 12/21/18 16:15

Analyte	ic Compounds by GC Result Qualifier	RL	MDL	Unit	D Prepared	Analyzed	Dil Fa
1,1,1-Trichloroethane	ND Qualifor	20		ug/L		01/04/19 17:02	2
1,1,2,2-Tetrachloroethane	ND	20		ug/L		01/04/19 17:02	2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20		ug/L		01/04/19 17:02	2
1,1,2-Trichloroethane	ND	20		ug/L		01/04/19 17:02	2
1,1-Dichloroethane	ND	20		ug/L		01/04/19 17:02	2
1,1-Dichloroethane	ND	20		ug/L		01/04/19 17:02	2
1,1-Dichloroetherie 1,2,4-Trichlorobenzene	ND	20		ug/L		01/04/19 17:02	2
1,2,4-Trimethylbenzene	ND	20		ug/L		01/04/19 17:02	2
1,2-Dibromo-3-Chloropropane	ND	20		ug/L		01/04/19 17:02	2
1,2-Dibromo-3-Chloropropane	ND	20		ug/L		01/04/19 17:02	2
				-			
1,2-Dichloroethane	ND	20		ug/L		01/04/19 17:02	2
1,2-Dichloropropane	ND	20		ug/L		01/04/19 17:02	2
1,3,5-Trimethylbenzene	ND	20		ug/L		01/04/19 17:02	2
1,3-Dichlorobenzene	ND	20		ug/L		01/04/19 17:02	2
1,4-Dichlorobenzene	ND	20		ug/L		01/04/19 17:02	2
2-Butanone (MEK)	ND	200		ug/L		01/04/19 17:02	2
2-Hexanone	ND	100		ug/L		01/04/19 17:02	2
4-Isopropyltoluene	ND	20		ug/L		01/04/19 17:02	2
4-Methyl-2-pentanone (MIBK)	ND	100		ug/L		01/04/19 17:02	2
Acetone	ND	200		ug/L		01/04/19 17:02	2
Benzene	1100	20		ug/L		01/04/19 17:02	2
Bromoform	ND *	20		ug/L		01/04/19 17:02	2
Bromomethane	ND	20		ug/L		01/04/19 17:02	2
Carbon disulfide	ND	20		ug/L		01/04/19 17:02	2
Carbon tetrachloride	ND *	20	5.4	ug/L		01/04/19 17:02	2
Chlorobenzene	ND	20	15	ug/L		01/04/19 17:02	2
Dibromochloromethane	ND *	20	6.4	ug/L		01/04/19 17:02	2
Chloroethane	ND	20	6.4	ug/L		01/04/19 17:02	2
Chloroform	ND	20	6.8	ug/L		01/04/19 17:02	2
Chloromethane	ND	20	7.0	ug/L		01/04/19 17:02	2
cis-1,2-Dichloroethene	ND	20	16	ug/L		01/04/19 17:02	2
Cyclohexane	ND	20	3.6	ug/L		01/04/19 17:02	2
Bromodichloromethane	ND *	20		ug/L		01/04/19 17:02	2
Dichlorodifluoromethane	ND	20		ug/L		01/04/19 17:02	2
Ethylbenzene	84	20		ug/L		01/04/19 17:02	2
1,2-Dibromoethane	ND	20		ug/L		01/04/19 17:02	2
sopropylbenzene	ND	20		ug/L		01/04/19 17:02	2
Methyl acetate	ND	50		ug/L		01/04/19 17:02	2
Methyl tert-butyl ether	ND	20		ug/L		01/04/19 17:02	2
Methylcyclohexane	ND	20		ug/L		01/04/19 17:02	2
Methylene Chloride	ND	20		ug/L		01/04/19 17:02	2
n,p-Xylene	31 J	40		ug/L		01/04/19 17:02	2
Naphthalene	130	20		ug/L		01/04/19 17:02	2
n-Butylbenzene	ND	20		ug/L ug/L		01/04/19 17:02	2
N-Propylbenzene	ND ND	20		ug/L ug/L		01/04/19 17:02	2
o-Xylene	<b>20</b>	20		ug/L		01/04/19 17:02	2
sec-Butylbenzene	ND	20		ug/L		01/04/19 17:02	2
Tetrachloroethene	ND	20 20		ug/L ug/L		01/04/19 17:02 01/04/19 17:02	2

TestAmerica Buffalo

1/23/2019

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Client: New York State D.E.C.

Date Received: 12/21/18 16:15

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-147191-1

Lab Sample ID: 480-147191-2

Prepared

<u>12/27/18 08:32</u> <u>12/27/18 21:26</u>

12/27/18 08:32 12/27/18 21:26

Analyzed

**Matrix: Wastewater** 

**Client Sample ID: Pre-Carbon** Date Collected: 12/21/18 15:45

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte

Calcium

Magnesium

Method: 8260C - Volatile O	rganic Compo	unds by G	C/MS (Conti	nued)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		20	18	ug/L			01/04/19 17:02	20
trans-1,3-Dichloropropene	ND		20	7.4	ug/L			01/04/19 17:02	20
Trichloroethene	ND		20	9.2	ug/L			01/04/19 17:02	20
Trichlorofluoromethane	ND		20	18	ug/L			01/04/19 17:02	20
Vinyl chloride	ND		20	18	ug/L			01/04/19 17:02	20
Xylenes, Total	51		40	13	ug/L			01/04/19 17:02	20
cis-1,3-Dichloropropene	ND		20	7.2	ug/L			01/04/19 17:02	20
Styrene	ND		20	15	ug/L			01/04/19 17:02	20
tert-Butylbenzene	ND		20	16	ug/L			01/04/19 17:02	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120					01/04/19 17:02	20
4-Bromofluorobenzene (Surr)	106		73 - 120					01/04/19 17:02	20
Toluene-d8 (Surr)	96		80 - 120					01/04/19 17:02	20
Dibromofluoromethane (Surr)	105		75 - 123					01/04/19 17:02	20

Potassium	3230		500	100	ug/L		12/27/18 08:32	12/27/18 21:26	1
Sodium	62600	В	1000	324	ug/L		12/27/18 08:32	12/27/18 21:26	1
General Chemistry	Dec. 14	O a l'Car	D.	MDI	1124	_	Danasasad	Accelorate	D.1. F
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	96.9	-	2.5	1 /	mg/L			12/28/18 18:04	5
Cilionae	30.3		2.5	1.4	IIIg/L			12/20/10 10:04	5
Sulfate	91.2		10.0		mg/L			12/27/18 20:51	5

RL

500

200

MDL Unit

100 ug/L

43.4 ug/L

Result Qualifier

101000 B

31500

Dil Fac

4

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

Lab Sample ID: 480-147191-1

**Matrix: Wastewater** 

Client Sample ID: Post-Carbon 2

Date Collected: 12/21/18 15:30 Date Received: 12/21/18 16:15

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C			453679	01/04/19 16:39	AEM	TAL BUF
Total/NA	Prep	3510C			453905	01/07/19 07:45	JMP	TAL BUF
Total/NA	Analysis	8270D		1	455225	01/16/19 14:58	RJS	TAL BUF
Total/NA	Prep	3510C			454032	01/07/19 14:51	AAP	TAL BUF
Total/NA	Analysis	608.3		1	454095	01/08/19 13:10	JLS	TAL BUF
Total/NA	Prep	1664B			454145	01/08/19 10:32	AJS	TAL BUF
Total/NA	Analysis	1664B		1	454181	01/08/19 13:30	AJS	TAL BUF
Total/NA	Prep	Distill/CN			453589	01/03/19 13:30	MDL	TAL BUF
Total/NA	Analysis	335.4		1	453630	01/03/19 17:11	CAP	TAL BUF
Total/NA	Prep	Distill/Phenol			453793	01/04/19 15:13	AEF	TAL BUF
Total/NA	Analysis	420.1		1	454067	01/07/19 17:56	SAH	TAL BUF
Total/NA	Analysis	SM 2540C		1	452534	12/26/18 14:02	RAF	TAL BUF
Total/NA	Analysis	SM 2540D		1	452606	12/26/18 23:36	SMH	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	452284	12/23/18 15:25	KEB	TAL BUF
Total/NA	Analysis	SM 5210B		1	452253	12/22/18 12:30	AED	TAL BUF

**Client Sample ID: Pre-Carbon** 

Date Collected: 12/21/18 15:45 Date Received: 12/21/18 16:15 Lab Sample ID: 480-147191-2
Matrix: Wastewater

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C			453679	01/04/19 17:02	AEM	TAL BUF
Total/NA	Prep	200.7			452513	12/27/18 08:32	VEG	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	452815	12/27/18 21:26	AMH	TAL BUF
Total/NA	Analysis	300.0		5	452727	12/27/18 20:51	EMD	TAL BUF
Total/NA	Analysis	300.0		5	452854	12/28/18 18:04	CLA	TAL BUF
Total/NA	Analysis	310.2		4	453637	01/03/19 17:26	SAH	TAL BUF

#### **Laboratory References:**

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

TestAmerica Buffalo

## **Accreditation/Certification Summary**

Client: New York State D.E.C. TestAmerica Job ID: 480-147191-1

Project/Site: Gastown WWTP #915171

## Laboratory: TestAmerica Buffalo

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

Authority	Program		<b>EPA Region</b>	<b>Identification Number</b>	Expiration Date
New York	NELAP		2	10026	03-31-19
The following analytes the agency does not of Analysis Method	•	rt, but the laboratory is r Matrix	not certified by the Analyt		list may include analytes for whi
Arialysis ivietriou	FIED MELLION	IVIALIIX	Allaivi		
335.4	 Distill/CN	Wastewater			
335.4 SM 4500 H+ B	Distill/CN	Wastewater Wastewater		de, Total	

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## **Method Summary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-147191-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
608.3	Organochlorine Pesticides in Water	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
1664B	HEM and SGT-HEM	1664B	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
420.1	Phenolics, Total Recoverable	MCAWW	TAL BUF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL BUF
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
SM 5210B	BOD, 5-Day	SM	TAL BUF
1664B	HEM and SGT-HEM (Aqueous)	1664B	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF
Distill/CN	Distillation, Cyanide	None	TAL BUF
Distill/Phenol	Distillation, Phenolics	None	TAL BUF

#### **Protocol References:**

1664B = EPA-821-98-002

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

EPA = US Environmental Protection Agency

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

None = None

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

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## **Sample Summary**

Client: New York State D.E.C.

Project/Site: Gastown WWTP #915171

TestAmerica Job ID: 480-147191-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-147191-1	Post-Carbon 2	Wastewater	12/21/18 15:30	12/21/18 16:15
480-147191-2	Pre-Carbon	Wastewater	12/21/18 15:45	12/21/18 16:15

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## Buffalo

10 Hazelwood Drive

# **Chain of Custody Record**



Amherst, NY 14228

THE LEADER IN ENVIRONMENTAL TESTING

	phone 716.504.9852 fax 716.691.7991															Name and Address of the Owner, where the Party of the Owner, where the Party of the Owner, where the Owner, which the Owner,					TestAmerica Laboratories, Inc.							
	Client Contact	Project Ma	nager: Gle	nn May (NY	(SDEC)		Site	Con	tact:	Tho	mas ]	Palm	er		Da					COC	No:							
	Groundwater & Environmental Services, Inc		16) 851-722				Lab	Con	tact	: 0	Johns	son			Ca	Carrier: Peter Zathay					ary		-	f_\_	_ cc	Cs		
	415 Lawrence Bell Drive, Suite 6		Analysis T	urnaround	Time							8021				sə	р		1	2			Job No.					
	Williamsville, NY 14221	Calendar	(C) or Wo	ork Days (W	)			_			2.7	- V			able	ticio	man	lid.	Spilo	OLM04.2								
	(800) 287-7857 Phone	_	AT if different	from Below _				j,	-		WO.	2			over	t Pes	De 1	Spil	S 0	5			L	Į.	М.	3		
	FAX	X	2	2 weeks				Ž .	etho		tol	list		ase	Rec	ıtan	ygei	d So	No.	SVOA			SE	B		œ.		
	Project Name: NYSDEC Gatown WWTP		1	week				Foca	Ž		L lis	ARS	tal	5	otal	Poll	OI	ende		20				C				
	Site: 915171			2 days					Loca	<u> </u>	) TC	ST	e, To	H Si	cs, T	rity	mica	dsn	101	ICE				480-1	47191	CO		
	P O # Callout 136076			l day			I I	E E	(a)	E E	IOD	IOD	anid	1+-p	enoli	Prio	oche	is	- B									
	Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	300.0_28D (MOD) Local Method	200.7 - (MOD) Local Method	310.2 - Alkalinity	8260B - (MOD) TCL list OLM04.2	8021B - (MOD) STARS list - VOA - 8021	335.4 - Cyanide, Total	SM4500_H+-pH 1664A Calc - Oil & Grease	420.4 - Phenolics, Total Recoverable	608_Pest - Priority Pollutant Pesticides	5210B - Biochemical Oxygen Demand	2540D - Total Suspended Solids	2540C_Caled - Total Disolved Solids	8270C-(MOD)	1			Sa	mple S	Specific	Notes	s:
	Post-Carbon 2	12/21/16	1530	Grab	W	18	N				X	X	X	x x	X	X	X	X Z	<b>X</b>	x								
	Pre-Carbon	12/21/18	1545	Grab	W	9	N	x	x :	x	X	X							1						1			
							Ц	4	4	1	1			1	_			1	1	4	1	1						
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17							Н	+	+	+	+		Н	+	+			+	+	+	+	+	-					
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	Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=Na	OH; 6= Other	r																									
	Possible Hazard Identification  Non-Hazard Flammable Skin Irritant	Poison E	, 🗆	Unknown				Sam	_		oosal To C						<b>ed i</b> t I By		ple				d long e For_	ger th	an 1 n	Month)		
	Special Instructions/QC Requirements & Comments:  Relinquished by:	Company:	GES		Date/T	ime:	Received by:  Company:						Date	e/Time	10		161	, (-										
<u>~</u>	Relinquished by:	Company:	101		Date/T				ived		- 6				-		Con	npany	_	٧			Date	/Time	18		101	U
1/23/20	Relinquished by:	Company:			Date/T	ime:		Rece	ived	by:							Cor	npany	<i>'</i> :				Date	e/Time	Date/Time:			

Client: New York State D.E.C.

Job Number: 480-147191-1

Login Number: 147191 List Source: TestAmerica Buffalo

List Number: 1

Creator: Harper, Marcus D

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