FORMER GASTOWN MGP SITE
SITE NO. 915171

2019 LAB REPORTS
FOR THE GROUNDWATER COLLECTION & TREATMENT SYSTEM

All lab reports for 2019 are available.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 480-148113-1
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:
1/30/2019 9:31:38 AM

Orlette Johnson, Senior Project Manager
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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.

Orlette Johnson
Senior Project Manager
1/30/2019 9:31:38 AM

Table of Contents

Definitions/Glossary

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

TestAmerica Job ID: 480-148113-1

Qualifiers

GC/MS VOA

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

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
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
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: 480-148113-1

Job ID: 480-148113-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-148113-1

Receipt
The samples were received on 1/18/2019 1:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.3º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-455755 recovered above the upper control limit for Dichlorobromomethane, Chlorodibromomethane, 1,1,2-Trichloro-1,2,2-trifluoroethane and Carbon tetrachloride. 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 (480-148113-1) and Pre CARBON (480-148113-2).

Method(s) 8260C: The laboratory control sample (LCS) for analytical batch 480-455755 recovered outside control limits for the following analytes: cis-1,3-Dichloropropene and Ethylene Dibromide. 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 (480-148113-1) and Pre CARBON (480-148113-2).

Method(s) 8260C: Due to the coelution of Ethyl Acetate with 2-Butanone (MEK) in the full spike solution, these analytes exceeded control limits in the laboratory control sample (LCS) associated with batch 480-455755 The following samples were affected : Post CARBON 2 (480-148113-1) and Pre CARBON (480-148113-2).

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre CARBON (480-148113-2). Elevated reporting limits (RLs) are provided.

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

HPLC/IC
Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre CARBON (480-148113-2). 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 (480-148113-1).

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

TestAmerica Job ID: 480-148113-1

Client Sample ID: Post CARBON 2
Date Collected: 01/18/19 12:30
Date Received: 01/18/19 13:00

Lab Sample ID: 480-148113-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			01/19/19 17:47	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			01/19/19 17:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			01/19/19 17:47	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			01/19/19 17:47	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			01/19/19 17:47	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			01/19/19 17:47	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			01/19/19 17:47	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			01/19/19 17:47	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			01/19/19 17:47	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			01/19/19 17:47	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			01/19/19 17:47	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			01/19/19 17:47	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			01/19/19 17:47	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			01/19/19 17:47	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			01/19/19 17:47	1
2-Butanone (MEK)	ND	*	10	1.3	ug/L			01/19/19 17:47	1
2-Hexanone	ND		5.0	1.2	ug/L			01/19/19 17:47	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			01/19/19 17:47	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			01/19/19 17:47	1
Acetone	**3.2**	**J**	10	3.0	ug/L			01/19/19 17:47	1
Benzene	ND		1.0	0.41	ug/L			01/19/19 17:47	1
Bromoform	ND		1.0	0.26	ug/L			01/19/19 17:47	1
Bromomethane	ND		1.0	0.69	ug/L			01/19/19 17:47	1
Carbon disulfide	ND		1.0	0.19	ug/L			01/19/19 17:47	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			01/19/19 17:47	1
Chlorobenzene	ND		1.0	0.75	ug/L			01/19/19 17:47	1
Dibromochloromethane	ND		1.0	0.32	ug/L			01/19/19 17:47	1
Chloroethane	ND		1.0	0.32	ug/L			01/19/19 17:47	1
Chloroform	**0.71**	**J**	1.0	0.34	ug/L			01/19/19 17:47	1
Chloromethane	ND		1.0	0.35	ug/L			01/19/19 17:47	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			01/19/19 17:47	1
Cyclohexane	ND		1.0	0.18	ug/L			01/19/19 17:47	1
Bromodichloromethane	ND		1.0	0.39	ug/L			01/19/19 17:47	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			01/19/19 17:47	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/19/19 17:47	1
1,2-Dibromoethane	ND	*	1.0	0.73	ug/L			01/19/19 17:47	1
Isopropylbenzene	ND		1.0	0.79	ug/L			01/19/19 17:47	1
Methyl acetate	ND		2.5	1.3	ug/L			01/19/19 17:47	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			01/19/19 17:47	1
Methylcyclohexane	ND		1.0	0.16	ug/L			01/19/19 17:47	1
Methylene Chloride	ND		1.0	0.44	ug/L			01/19/19 17:47	1
m,p-Xylene	ND		2.0	0.66	ug/L			01/19/19 17:47	1
Naphthalene	ND		1.0	0.43	ug/L			01/19/19 17:47	1
n-Butylbenzene	ND		1.0	0.64	ug/L			01/19/19 17:47	1
N-Propylbenzene	ND		1.0	0.69	ug/L			01/19/19 17:47	1
o-Xylene	ND		1.0	0.76	ug/L			01/19/19 17:47	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			01/19/19 17:47	1
Tetrachloroethene	ND		1.0	0.36	ug/L			01/19/19 17:47	1
Toluene	ND		1.0	0.51	ug/L			01/19/19 17:47	1

Client Sample ID: Post CARBON 2

Date Collected: 01/18/19 12:30
Date Received: 01/18/19 13:00

Lab Sample ID: 480-148113-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			01/19/19 17:47	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			01/19/19 17:47	1
Trichloroethene	ND		1.0	0.46	ug/L			01/19/19 17:47	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			01/19/19 17:47	1
Vinyl chloride	**1.9**		1.0	0.90	ug/L			01/19/19 17:47	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/19/19 17:47	1
cis-1,3-Dichloropropene	ND	*	1.0	0.36	ug/L			01/19/19 17:47	1
Styrene	ND		1.0	0.73	ug/L			01/19/19 17:47	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			01/19/19 17:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*		*01/19/19 17:47*	*1*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*		*01/19/19 17:47*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*01/19/19 17:47*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*01/19/19 17:47*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.15**		0.010	0.0050	mg/L		01/23/19 10:45	01/23/19 12:48	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.4**	**HF**	0.1	0.1	SU			01/21/19 15:42	1
Temperature	**20.1**	**HF**	0.001	0.001	Degrees C			01/21/19 15:42	1

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

TestAmerica Job ID: 480-148113-1

Client Sample ID: Pre CARBON
Date Collected: 01/18/19 12:35
Date Received: 01/18/19 13:00

Lab Sample ID: 480-148113-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		50	41	ug/L			01/19/19 18:14	50
1,1,2,2-Tetrachloroethane	ND		50	11	ug/L			01/19/19 18:14	50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50	16	ug/L			01/19/19 18:14	50
1,1,2-Trichloroethane	ND		50	12	ug/L			01/19/19 18:14	50
1,1-Dichloroethane	ND		50	19	ug/L			01/19/19 18:14	50
1,1-Dichloroethene	ND		50	15	ug/L			01/19/19 18:14	50
1,2,4-Trichlorobenzene	ND		50	21	ug/L			01/19/19 18:14	50
1,2,4-Trimethylbenzene	ND		50	38	ug/L			01/19/19 18:14	50
1,2-Dibromo-3-Chloropropane	ND		50	20	ug/L			01/19/19 18:14	50
1,2-Dichlorobenzene	ND		50	40	ug/L			01/19/19 18:14	50
1,2-Dichloroethane	ND		50	11	ug/L			01/19/19 18:14	50
1,2-Dichloropropane	ND		50	36	ug/L			01/19/19 18:14	50
1,3,5-Trimethylbenzene	ND		50	39	ug/L			01/19/19 18:14	50
1,3-Dichlorobenzene	ND		50	39	ug/L			01/19/19 18:14	50
1,4-Dichlorobenzene	ND		50	42	ug/L			01/19/19 18:14	50
2-Butanone (MEK)	ND	*	500	66	ug/L			01/19/19 18:14	50
2-Hexanone	ND		250	62	ug/L			01/19/19 18:14	50
4-Isopropyltoluene	ND		50	16	ug/L			01/19/19 18:14	50
4-Methyl-2-pentanone (MIBK)	ND		250	110	ug/L			01/19/19 18:14	50
Acetone	ND		500	150	ug/L			01/19/19 18:14	50
Benzene	**2900**		50	21	ug/L			01/19/19 18:14	50
Bromoform	ND		50	13	ug/L			01/19/19 18:14	50
Bromomethane	ND		50	35	ug/L			01/19/19 18:14	50
Carbon disulfide	ND		50	9.5	ug/L			01/19/19 18:14	50
Carbon tetrachloride	ND		50	14	ug/L			01/19/19 18:14	50
Chlorobenzene	ND		50	38	ug/L			01/19/19 18:14	50
Dibromochloromethane	ND		50	16	ug/L			01/19/19 18:14	50
Chloroethane	ND		50	16	ug/L			01/19/19 18:14	50
Chloroform	ND		50	17	ug/L			01/19/19 18:14	50
Chloromethane	ND		50	18	ug/L			01/19/19 18:14	50
cis-1,2-Dichloroethene	ND		50	41	ug/L			01/19/19 18:14	50
Cyclohexane	ND		50	9.0	ug/L			01/19/19 18:14	50
Bromodichloromethane	ND		50	20	ug/L			01/19/19 18:14	50
Dichlorodifluoromethane	ND		50	34	ug/L			01/19/19 18:14	50
Ethylbenzene	**160**		50	37	ug/L			01/19/19 18:14	50
1,2-Dibromoethane	ND	*	50	37	ug/L			01/19/19 18:14	50
Isopropylbenzene	ND		50	40	ug/L			01/19/19 18:14	50
Methyl acetate	ND		130	65	ug/L			01/19/19 18:14	50
Methyl tert-butyl ether	ND		50	8.0	ug/L			01/19/19 18:14	50
Methylcyclohexane	ND		50	8.0	ug/L			01/19/19 18:14	50
Methylene Chloride	ND		50	22	ug/L			01/19/19 18:14	50
m,p-Xylene	**120**		100	33	ug/L			01/19/19 18:14	50
Naphthalene	**230**		50	22	ug/L			01/19/19 18:14	50
n-Butylbenzene	ND		50	32	ug/L			01/19/19 18:14	50
N-Propylbenzene	ND		50	35	ug/L			01/19/19 18:14	50
o-Xylene	**60**		50	38	ug/L			01/19/19 18:14	50
sec-Butylbenzene	ND		50	38	ug/L			01/19/19 18:14	50
Tetrachloroethene	ND		50	18	ug/L			01/19/19 18:14	50
Toluene	**560**		50	26	ug/L			01/19/19 18:14	50

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

TestAmerica Job ID: 480-148113-1

Client Sample ID: Pre CARBON

Date Collected: 01/18/19 12:35
Date Received: 01/18/19 13:00

Lab Sample ID: 480-148113-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		50	45	ug/L			01/19/19 18:14	50
trans-1,3-Dichloropropene	ND		50	19	ug/L			01/19/19 18:14	50
Trichloroethene	ND		50	23	ug/L			01/19/19 18:14	50
Trichlorofluoromethane	ND		50	44	ug/L			01/19/19 18:14	50
Vinyl chloride	ND		50	45	ug/L			01/19/19 18:14	50
Xylenes, Total	**180**		100	33	ug/L			01/19/19 18:14	50
cis-1,3-Dichloropropene	ND	*	50	18	ug/L			01/19/19 18:14	50
Styrene	**42**	**J**	50	37	ug/L			01/19/19 18:14	50
tert-Butylbenzene	ND		50	41	ug/L			01/19/19 18:14	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*01/19/19 18:14*	*50*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*		*01/19/19 18:14*	*50*
Toluene-d8 (Surr)	*100*		*80 - 120*		*01/19/19 18:14*	*50*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*01/19/19 18:14*	*50*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**125000**		500	100	ug/L		01/21/19 09:40	01/21/19 23:00	1
Magnesium	**45600**		200	43.4	ug/L		01/21/19 09:40	01/21/19 23:00	1
Potassium	**3810**		500	100	ug/L		01/21/19 09:40	01/21/19 23:00	1
Sodium	**90900**		1000	324	ug/L		01/21/19 09:40	01/21/19 23:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**143**		2.5	1.4	mg/L			01/21/19 20:01	5
Sulfate	**116**		10.0	1.7	mg/L			01/21/19 20:01	5
Alkalinity, Total	**373**	**B**	40.0	16.0	mg/L			01/24/19 16:10	4

Lab Chronicle

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

TestAmerica Job ID: 480-148113-1

Client Sample ID: Post CARBON 2

Lab Sample ID: 480-148113-1

Date Collected: 01/18/19 12:30

Matrix: Water

Date Received: 01/18/19 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	455755	01/19/19 17:47	KMN	TAL BUF
Total/NA	Prep	Distill/CN			456263	01/23/19 10:45	AEF	TAL BUF
Total/NA	Analysis	335.4		1	456275	01/23/19 12:48	MDL	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	456038	01/21/19 15:42	KEB	TAL BUF

Client Sample ID: Pre CARBON

Lab Sample ID: 480-148113-2

Date Collected: 01/18/19 12:35

Matrix: Water

Date Received: 01/18/19 13:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		50	455755	01/19/19 18:14	KMN	TAL BUF
Total/NA	Prep	200.7			455766	01/21/19 09:40	KMP	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	456005	01/21/19 23:00	EMB	TAL BUF
Total/NA	Analysis	300.0		5	455961	01/21/19 20:01	EMD	TAL BUF
Total/NA	Analysis	310.2		4	456532	01/24/19 16:10	SAH	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

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

TestAmerica Job ID: 480-148113-1

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 are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
335.4	Distill/CN	Water	Cyanide, Total
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

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

TestAmerica Job ID: 480-148113-1

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

Sample Summary

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

TestAmerica Job ID: 480-148113-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-148113-1	Post CARBON 2	Water	01/18/19 12:30	01/18/19 13:00
480-148113-2	Pre CARBON	Water	01/18/19 12:35	01/18/19 13:00

Buffalo
10 Hazelwood Drive

Amherst, NY 14228
phone 716.504.9852 fax 716.691.7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Glenn May (NYSDEC)	Site Contact: Thomas Palmer	Date: 1/18/19	COC No:
Groundwater & Environmental Services, Inc	Tel/Fax: (716) 851-7220	Lab Contact: O. Johnson	Carrier:	____ of ____ COCs
495 Aero Drive Suite 3	Analysis Turnaround Time			Job No.
Cheektowaga, NY 14225	Calendar (C) or Work Days (W) _____			
(800) 287-7857 Phone	TAT if different from Below _____			
(866) 902-2187 FAX	[X] 2 weeks			
Project Name: NYSDEC Gatown WWTP	[ ] 1 week			
Site: 915171	[ ] 2 days			
P O # Callout 120597 GES Project #0901691-05-220	[ ] 1 day			

480-148113 Chain of Custody

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	8021B - (MOD) STARS list - VOA - 8021	335.4 - Cyanide, Total	SM4500_H+-pH	Sample Specific Notes:
Post-Carbon 2	1/18/19	1230	Grab	W	6	N					X	X	X	X	
Pre-Carbon	1/18/19	1235	Grab	W	6	N	X	X	X			X			

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
[ ] *Non-Hazard* [ ] *Flammable* [ ] *Skin Irritant* *Poison B* [ ] *Unknown* [ ]

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

Special Instructions/QC Requirements & Comments:

Peter Zaffram Sampler.

3.3°C #3

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	GES	1/18/19 1300		TAS	1/18/19 1300
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

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

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-148113-1

Login Number: 148113
List Number: 1
Creator: Harper, Marcus D

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (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	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 480-149106-1
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:
2/28/2019 7:48:34 AM

Orlette Johnson, Senior Project Manager
(484)685-0864
orlette.johnson@testamericainc.com

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

Orlette Johnson
Senior Project Manager
2/28/2019 7:48:34 AM

Table of Contents

Definitions/Glossary

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

TestAmerica Job ID: 480-149106-1

Qualifiers

GC/MS VOA

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

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
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
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: 480-149106-1

Job ID: 480-149106-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-149106-1

Comments
No additional comments.

Receipt
The samples were received on 2/15/2019 3:35 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.7º 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 (480-149106-2). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-459460 recovered above the upper control limit for Chlorodibromomethane. 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 (480-149106-1).

Method(s) 8260C: The laboratory control sample (LCS) for analytical batch 480-459460 recovered outside control limits for the following analytes: trans-1,3-Dichloropropene, Chlorodibromomethane and Bromoform. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, 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 (480-149106-2). 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) 310.2: The results reported for the following sample do not concur with results previously reported for this site: Pre-Carbon (480-149106-2). Reanalysis was performed, and the result(s) confirmed.

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 samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Post-Carbon 2 (480-149106-1) and (480-149079-C-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

TestAmerica Job ID: 480-149106-1

Client Sample ID: Post-Carbon 2
Date Collected: 02/15/19 12:15
Date Received: 02/15/19 15:35

Lab Sample ID: 480-149106-1
Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			02/18/19 14:07	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/18/19 14:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			02/18/19 14:07	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/18/19 14:07	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/18/19 14:07	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/18/19 14:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			02/18/19 14:07	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			02/18/19 14:07	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			02/18/19 14:07	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			02/18/19 14:07	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			02/18/19 14:07	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/18/19 14:07	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/18/19 14:07	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			02/18/19 14:07	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			02/18/19 14:07	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			02/18/19 14:07	1
2-Butanone (MEK)	ND		10	1.3	ug/L			02/18/19 14:07	1
2-Hexanone	ND		5.0	1.2	ug/L			02/18/19 14:07	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			02/18/19 14:07	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/18/19 14:07	1
Acetone	ND		10	3.0	ug/L			02/18/19 14:07	1
Benzene	ND		1.0	0.41	ug/L			02/18/19 14:07	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/18/19 14:07	1
Bromoform	ND	*	1.0	0.26	ug/L			02/18/19 14:07	1
Bromomethane	ND		1.0	0.69	ug/L			02/18/19 14:07	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/18/19 14:07	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/18/19 14:07	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/18/19 14:07	1
Chloroethane	ND		1.0	0.32	ug/L			02/18/19 14:07	1
Chloroform	**1.6**		1.0	0.34	ug/L			02/18/19 14:07	1
Chloromethane	ND		1.0	0.35	ug/L			02/18/19 14:07	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			02/18/19 14:07	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/18/19 14:07	1
Cyclohexane	ND		1.0	0.18	ug/L			02/18/19 14:07	1
Dibromochloromethane	ND	*	1.0	0.32	ug/L			02/18/19 14:07	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			02/18/19 14:07	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/18/19 14:07	1
Isopropylbenzene	ND		1.0	0.79	ug/L			02/18/19 14:07	1
m,p-Xylene	ND		2.0	0.66	ug/L			02/18/19 14:07	1
Methyl acetate	ND		2.5	1.3	ug/L			02/18/19 14:07	1
Methyl tert-butyl ether	**0.16**	**J**	1.0	0.16	ug/L			02/18/19 14:07	1
Methylcyclohexane	ND		1.0	0.16	ug/L			02/18/19 14:07	1
Methylene Chloride	ND		1.0	0.44	ug/L			02/18/19 14:07	1
Naphthalene	ND		1.0	0.43	ug/L			02/18/19 14:07	1
n-Butylbenzene	ND		1.0	0.64	ug/L			02/18/19 14:07	1
N-Propylbenzene	ND		1.0	0.69	ug/L			02/18/19 14:07	1
o-Xylene	ND		1.0	0.76	ug/L			02/18/19 14:07	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			02/18/19 14:07	1
Styrene	ND		1.0	0.73	ug/L			02/18/19 14:07	1

Client Sample ID: Post-Carbon 2

Date Collected: 02/15/19 12:15
Date Received: 02/15/19 15:35

Lab Sample ID: 480-149106-1

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	ND		1.0	0.81	ug/L			02/18/19 14:07	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/18/19 14:07	1
Toluene	ND		1.0	0.51	ug/L			02/18/19 14:07	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			02/18/19 14:07	1
trans-1,3-Dichloropropene	ND	*	1.0	0.37	ug/L			02/18/19 14:07	1
Trichloroethene	ND		1.0	0.46	ug/L			02/18/19 14:07	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			02/18/19 14:07	1
Vinyl chloride	**2.0**		1.0	0.90	ug/L			02/18/19 14:07	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/18/19 14:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*		*02/18/19 14:07*	*1*
4-Bromofluorobenzene (Surr)	*112*		*73 - 120*		*02/18/19 14:07*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*02/18/19 14:07*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*02/18/19 14:07*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.072**		0.010	0.0050	mg/L		02/20/19 13:40	02/20/19 16:31	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.6**	**HF**	0.1	0.1	SU			02/27/19 13:41	1
Temperature	**17.2**	**HF**	0.001	0.001	Degrees C			02/27/19 13:41	1

Client Sample ID: Pre-Carbon
Date Collected: 02/15/19 12:30
Date Received: 02/15/19 15:35

Lab Sample ID: 480-149106-2
Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		20	16	ug/L			02/15/19 22:50	20
1,1,2,2-Tetrachloroethane	ND		20	4.2	ug/L			02/15/19 22:50	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	6.2	ug/L			02/15/19 22:50	20
1,1,2-Trichloroethane	ND		20	4.6	ug/L			02/15/19 22:50	20
1,1-Dichloroethane	ND		20	7.6	ug/L			02/15/19 22:50	20
1,1-Dichloroethene	ND		20	5.8	ug/L			02/15/19 22:50	20
1,2,4-Trichlorobenzene	ND		20	8.2	ug/L			02/15/19 22:50	20
1,2,4-Trimethylbenzene	ND		20	15	ug/L			02/15/19 22:50	20
1,2-Dibromo-3-Chloropropane	ND		20	7.8	ug/L			02/15/19 22:50	20
1,2-Dibromoethane	ND		20	15	ug/L			02/15/19 22:50	20
1,2-Dichlorobenzene	ND		20	16	ug/L			02/15/19 22:50	20
1,2-Dichloroethane	ND		20	4.2	ug/L			02/15/19 22:50	20
1,2-Dichloropropane	ND		20	14	ug/L			02/15/19 22:50	20
1,3,5-Trimethylbenzene	ND		20	15	ug/L			02/15/19 22:50	20
1,3-Dichlorobenzene	ND		20	16	ug/L			02/15/19 22:50	20
1,4-Dichlorobenzene	ND		20	17	ug/L			02/15/19 22:50	20
2-Butanone (MEK)	ND		200	26	ug/L			02/15/19 22:50	20
2-Hexanone	ND		100	25	ug/L			02/15/19 22:50	20
4-Isopropyltoluene	ND		20	6.2	ug/L			02/15/19 22:50	20
4-Methyl-2-pentanone (MIBK)	ND		100	42	ug/L			02/15/19 22:50	20
Acetone	ND		200	60	ug/L			02/15/19 22:50	20
Benzene	**770**		20	8.2	ug/L			02/15/19 22:50	20
Bromodichloromethane	**7.8**	**J**	20	7.8	ug/L			02/15/19 22:50	20
Bromoform	ND		20	5.2	ug/L			02/15/19 22:50	20
Bromomethane	ND		20	14	ug/L			02/15/19 22:50	20
Carbon disulfide	ND		20	3.8	ug/L			02/15/19 22:50	20
Carbon tetrachloride	ND		20	5.4	ug/L			02/15/19 22:50	20
Chlorobenzene	ND		20	15	ug/L			02/15/19 22:50	20
Chloroethane	ND		20	6.4	ug/L			02/15/19 22:50	20
Chloroform	**15**	**J**	20	6.8	ug/L			02/15/19 22:50	20
Chloromethane	ND		20	7.0	ug/L			02/15/19 22:50	20
cis-1,2-Dichloroethene	ND		20	16	ug/L			02/15/19 22:50	20
cis-1,3-Dichloropropene	ND		20	7.2	ug/L			02/15/19 22:50	20
Cyclohexane	ND		20	3.6	ug/L			02/15/19 22:50	20
Dibromochloromethane	ND		20	6.4	ug/L			02/15/19 22:50	20
Dichlorodifluoromethane	ND		20	14	ug/L			02/15/19 22:50	20
Ethylbenzene	**42**		20	15	ug/L			02/15/19 22:50	20
Isopropylbenzene	ND		20	16	ug/L			02/15/19 22:50	20
m,p-Xylene	**19**	**J**	40	13	ug/L			02/15/19 22:50	20
Methyl acetate	ND		50	26	ug/L			02/15/19 22:50	20
Methyl tert-butyl ether	ND		20	3.2	ug/L			02/15/19 22:50	20
Methylcyclohexane	ND		20	3.2	ug/L			02/15/19 22:50	20
Methylene Chloride	**16**	**J**	20	8.8	ug/L			02/15/19 22:50	20
Naphthalene	**35**		20	8.6	ug/L			02/15/19 22:50	20
n-Butylbenzene	ND		20	13	ug/L			02/15/19 22:50	20
N-Propylbenzene	ND		20	14	ug/L			02/15/19 22:50	20
o-Xylene	ND		20	15	ug/L			02/15/19 22:50	20
sec-Butylbenzene	ND		20	15	ug/L			02/15/19 22:50	20
Styrene	ND		20	15	ug/L			02/15/19 22:50	20

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

TestAmerica Job ID: 480-149106-1

Client Sample ID: Pre-Carbon
Date Collected: 02/15/19 12:30
Date Received: 02/15/19 15:35

Lab Sample ID: 480-149106-2
Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	ND		20	16	ug/L			02/15/19 22:50	20
Tetrachloroethene	ND		20	7.2	ug/L			02/15/19 22:50	20
Toluene	**120**		20	10	ug/L			02/15/19 22:50	20
trans-1,2-Dichloroethene	ND		20	18	ug/L			02/15/19 22:50	20
trans-1,3-Dichloropropene	ND		20	7.4	ug/L			02/15/19 22:50	20
Trichloroethene	ND		20	9.2	ug/L			02/15/19 22:50	20
Trichlorofluoromethane	ND		20	18	ug/L			02/15/19 22:50	20
Vinyl chloride	ND		20	18	ug/L			02/15/19 22:50	20
Xylenes, Total	**19**	**J**	40	13	ug/L			02/15/19 22:50	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*02/15/19 22:50*	*20*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*02/15/19 22:50*	*20*
Toluene-d8 (Surr)	*100*		*80 - 120*		*02/15/19 22:50*	*20*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*02/15/19 22:50*	*20*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**106000**		500	100	ug/L		02/19/19 07:36	02/20/19 19:16	1
Magnesium	**27300**		200	43.4	ug/L		02/19/19 07:36	02/20/19 19:16	1
Potassium	**3660**		500	100	ug/L		02/19/19 07:36	02/20/19 19:16	1
Sodium	**137000**		1000	324	ug/L		02/19/19 07:36	02/20/19 19:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**226**		2.5	1.4	mg/L			02/18/19 13:35	5
Sulfate	**57.2**		10.0	1.7	mg/L			02/18/19 13:35	5
Alkalinity, Total	**198**	**B**	40.0	16.0	mg/L			02/20/19 13:32	4

Lab Chronicle

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

TestAmerica Job ID: 480-149106-1

Client Sample ID: Post-Carbon 2

Lab Sample ID: 480-149106-1

Date Collected: 02/15/19 12:15

Matrix: Wastewater

Date Received: 02/15/19 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	459460	02/18/19 14:07	NMC	TAL BUF
Total/NA	Prep	Distill/CN			459897	02/20/19 13:40	LAW	TAL BUF
Total/NA	Analysis	335.4		1	459917	02/20/19 16:31	MDL	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	460820	02/27/19 13:41	AEF	TAL BUF

Client Sample ID: Pre-Carbon

Lab Sample ID: 480-149106-2

Date Collected: 02/15/19 12:30

Matrix: Wastewater

Date Received: 02/15/19 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	459376	02/15/19 22:50	KMN	TAL BUF
Total/NA	Prep	200.7			459470	02/19/19 07:36	MV	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	460000	02/20/19 19:16	LMH	TAL BUF
Total/NA	Analysis	300.0		5	459479	02/18/19 13:35	EMD	TAL BUF
Total/NA	Analysis	310.2		4	459906	02/20/19 13:32	SAH	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

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

TestAmerica Job ID: 480-149106-1

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 are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
335.4	Distill/CN	Wastewater	Cyanide, Total
SM 4500 H+ B		Wastewater	pH
SM 4500 H+ B		Wastewater	Temperature

Method Summary

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

TestAmerica Job ID: 480-149106-1

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

Sample Summary

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

TestAmerica Job ID: 480-149106-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-149106-1	Post-Carbon 2	Wastewater	02/15/19 12:15	02/15/19 15:35
480-149106-2	Pre-Carbon	Wastewater	02/15/19 12:30	02/15/19 15:35

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Peter Zaffram	Lab PM: Johnson, Orlette S	Carrier Tracking No(s):	COC No: 480-108778-15804.1
Client Contact: Thomas Palmer	Phone: 7165535129	E-Mail: orlette.johnson@testamericainc.com		Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc				Job #:
Address: 415 Lawrence Bell Drive Suite 6	Due Date Requested:			
City: Williamsville	TAT Requested (days):			
State, Zip: NY, 14221				
Phone: 518-402-9662(Tel)	PO #: CallOut ID 136076			
Email: tpalmer@gesonline.com	WO #:			
Project Name: NYSDEC-Gastown WWTP: Site# 915171/Gastow Event Desc: M	Project #: 48002525			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:

480-149106 Chain of Custody

ahydrate

K - EDTA W - pH 4-5
L - EDA Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7 - Iron	8260B - (MOD) VOCs TCL OLM04.2 list	8021B - (MOD) STARS List - VOA - 8021	335.4 - Cyanide, Total	SM4500_H+ - pH	300.0_28D - Cl, SO4	200.7 - Ca, Fe, Mg, K, Na	310.2 - Alkalinity, Total	Total Number of containe	Special Instructions/Note:
			Preservation Code:				D	A	A	B	N	N	D	N		
~~Post Carbon 3~~				Water												
Post Carbon 2	2/15/19	1215	G	Water			X	X	X	X	X					
~~Post Carbon 1~~				Water												
Pre-Carbon	2/15/19	1230	G	Water			X		X			X	X	X		
~~Inside / Outside Sump~~				Water												

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	2/15/19 1535	GES		2-15-19 1535	TAB
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.7 #1

Ver: 08/04/2016

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-149106-1

Login Number: 149106
List Number: 1
Creator: Harper, Marcus D

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (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	DEC
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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ANALYTICAL REPORT

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

TestAmerica Job ID: 480-150484-1
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:
4/2/2019 3:03:20 PM

Orlette Johnson, Senior Project Manager
(484)685-0864
orlette.johnson@testamericainc.com

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

Orlette Johnson
Senior Project Manager
4/2/2019 3:03:20 PM

Table of Contents

Definitions/Glossary

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

TestAmerica Job ID: 480-150484-1

Qualifiers

GC/MS VOA

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

Metals

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

General Chemistry

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

Job ID: 480-150484-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-150484-1

Receipt
The samples were received on 3/19/2019 4:25 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-463704 recovered above the upper control limit for 2-Hexanone. 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 (480-150484-2).

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-463700 recovered above the upper control limit for trans-1,3-Dichloropropene. 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 (480-150484-1).

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-150484-2). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The laboratory control sample (LCS) for analytical batch 480-463700 recovered outside control limits for the following analytes: trans-1,3-Dichloropropene. 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 (480-150484-1).

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 (480-150484-2). 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.

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

General Chemistry
Method(s) 1664B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 480-463824 and analytical batch 480-463851 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) 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 (480-150484-1).

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 (MS/MSD) associated with preparation batch 480-463893.

Job ID: 480-150484-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

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

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

TestAmerica Job ID: 480-150484-1

Client Sample ID: Post-Carbon-2
Date Collected: 03/19/19 15:45
Date Received: 03/19/19 16:25

Lab Sample ID: 480-150484-1
Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			03/20/19 05:07	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			03/20/19 05:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			03/20/19 05:07	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			03/20/19 05:07	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/20/19 05:07	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			03/20/19 05:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			03/20/19 05:07	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			03/20/19 05:07	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			03/20/19 05:07	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			03/20/19 05:07	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			03/20/19 05:07	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			03/20/19 05:07	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			03/20/19 05:07	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			03/20/19 05:07	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			03/20/19 05:07	1
2-Butanone (MEK)	ND		10	1.3	ug/L			03/20/19 05:07	1
2-Hexanone	ND		5.0	1.2	ug/L			03/20/19 05:07	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			03/20/19 05:07	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			03/20/19 05:07	1
Acetone	ND		10	3.0	ug/L			03/20/19 05:07	1
Benzene	ND		1.0	0.41	ug/L			03/20/19 05:07	1
Bromoform	ND		1.0	0.26	ug/L			03/20/19 05:07	1
Bromomethane	ND		1.0	0.69	ug/L			03/20/19 05:07	1
Carbon disulfide	ND		1.0	0.19	ug/L			03/20/19 05:07	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			03/20/19 05:07	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/20/19 05:07	1
Dibromochloromethane	ND		1.0	0.32	ug/L			03/20/19 05:07	1
Chloroethane	ND		1.0	0.32	ug/L			03/20/19 05:07	1
Chloroform	**2.0**		1.0	0.34	ug/L			03/20/19 05:07	1
Chloromethane	ND		1.0	0.35	ug/L			03/20/19 05:07	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			03/20/19 05:07	1
Cyclohexane	ND		1.0	0.18	ug/L			03/20/19 05:07	1
Bromodichloromethane	ND		1.0	0.39	ug/L			03/20/19 05:07	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			03/20/19 05:07	1
Ethylbenzene	ND		1.0	0.74	ug/L			03/20/19 05:07	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			03/20/19 05:07	1
Isopropylbenzene	ND		1.0	0.79	ug/L			03/20/19 05:07	1
Methyl acetate	ND		2.5	1.3	ug/L			03/20/19 05:07	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			03/20/19 05:07	1
Methylcyclohexane	ND		1.0	0.16	ug/L			03/20/19 05:07	1
Methylene Chloride	ND		1.0	0.44	ug/L			03/20/19 05:07	1
m,p-Xylene	ND		2.0	0.66	ug/L			03/20/19 05:07	1
Naphthalene	ND		1.0	0.43	ug/L			03/20/19 05:07	1
n-Butylbenzene	ND		1.0	0.64	ug/L			03/20/19 05:07	1
N-Propylbenzene	ND		1.0	0.69	ug/L			03/20/19 05:07	1
o-Xylene	ND		1.0	0.76	ug/L			03/20/19 05:07	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			03/20/19 05:07	1
Tetrachloroethene	ND		1.0	0.36	ug/L			03/20/19 05:07	1
Toluene	ND		1.0	0.51	ug/L			03/20/19 05:07	1

Client Sample ID: Post-Carbon-2

Date Collected: 03/19/19 15:45
Date Received: 03/19/19 16:25

Lab Sample ID: 480-150484-1

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			03/20/19 05:07	1
trans-1,3-Dichloropropene	ND	*	1.0	0.37	ug/L			03/20/19 05:07	1
Trichloroethene	ND		1.0	0.46	ug/L			03/20/19 05:07	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			03/20/19 05:07	1
Vinyl chloride	**2.3**		1.0	0.90	ug/L			03/20/19 05:07	1
Xylenes, Total	ND		2.0	0.66	ug/L			03/20/19 05:07	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			03/20/19 05:07	1
Styrene	ND		1.0	0.73	ug/L			03/20/19 05:07	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			03/20/19 05:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*03/20/19 05:07*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*03/20/19 05:07*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*03/20/19 05:07*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*03/20/19 05:07*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		03/20/19 14:38	03/22/19 01:10	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		03/20/19 14:38	03/22/19 01:10	1
Acenaphthene	ND		5.0	0.41	ug/L		03/20/19 14:38	03/22/19 01:10	1
Acenaphthylene	ND		5.0	0.38	ug/L		03/20/19 14:38	03/22/19 01:10	1
Anthracene	ND		5.0	0.28	ug/L		03/20/19 14:38	03/22/19 01:10	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		03/20/19 14:38	03/22/19 01:10	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		03/20/19 14:38	03/22/19 01:10	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		03/20/19 14:38	03/22/19 01:10	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		03/20/19 14:38	03/22/19 01:10	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		03/20/19 14:38	03/22/19 01:10	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		03/20/19 14:38	03/22/19 01:10	1
Carbazole	ND		5.0	0.30	ug/L		03/20/19 14:38	03/22/19 01:10	1
Chrysene	ND		5.0	0.33	ug/L		03/20/19 14:38	03/22/19 01:10	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		03/20/19 14:38	03/22/19 01:10	1
Dibenzofuran	ND		10	0.51	ug/L		03/20/19 14:38	03/22/19 01:10	1
Fluoranthene	ND		5.0	0.40	ug/L		03/20/19 14:38	03/22/19 01:10	1
Fluorene	ND		5.0	0.36	ug/L		03/20/19 14:38	03/22/19 01:10	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		03/20/19 14:38	03/22/19 01:10	1
Naphthalene	ND		5.0	0.76	ug/L		03/20/19 14:38	03/22/19 01:10	1
Pentachlorophenol	ND		10	2.2	ug/L		03/20/19 14:38	03/22/19 01:10	1
Phenanthrene	ND		5.0	0.44	ug/L		03/20/19 14:38	03/22/19 01:10	1
Phenol	ND		5.0	0.39	ug/L		03/20/19 14:38	03/22/19 01:10	1
Pyrene	ND		5.0	0.34	ug/L		03/20/19 14:38	03/22/19 01:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*91*		*46 - 120*	*03/20/19 14:38*	*03/22/19 01:10*	*1*
2-Fluorobiphenyl	*103*		*48 - 120*	*03/20/19 14:38*	*03/22/19 01:10*	*1*
p-Terphenyl-d14	*98*		*59 - 136*	*03/20/19 14:38*	*03/22/19 01:10*	*1*
Phenol-d5	*55*		*22 - 120*	*03/20/19 14:38*	*03/22/19 01:10*	*1*
2-Fluorophenol	*74*		*35 - 120*	*03/20/19 14:38*	*03/22/19 01:10*	*1*
2,4,6-Tribromophenol	*84*		*41 - 120*	*03/20/19 14:38*	*03/22/19 01:10*	*1*

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

TestAmerica Job ID: 480-150484-1

Client Sample ID: Post-Carbon-2
Date Collected: 03/19/19 15:45
Date Received: 03/19/19 16:25

Lab Sample ID: 480-150484-1
Matrix: Wastewater

Method: 608.3 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.050	0.0081	ug/L		03/20/19 14:52	03/21/19 17:12	1
alpha-BHC	ND		0.050	0.0077	ug/L		03/20/19 14:52	03/21/19 17:12	1
beta-BHC	ND		0.050	0.025	ug/L		03/20/19 14:52	03/21/19 17:12	1
delta-BHC	ND		0.050	0.010	ug/L		03/20/19 14:52	03/21/19 17:12	1
gamma-BHC (Lindane)	ND		0.050	0.0080	ug/L		03/20/19 14:52	03/21/19 17:12	1
Chlordane (technical)	ND		0.50	0.29	ug/L		03/20/19 14:52	03/21/19 17:12	1
4,4'-DDD	ND		0.050	0.0092	ug/L		03/20/19 14:52	03/21/19 17:12	1
4,4'-DDE	ND		0.050	0.012	ug/L		03/20/19 14:52	03/21/19 17:12	1
4,4'-DDT	ND		0.050	0.011	ug/L		03/20/19 14:52	03/21/19 17:12	1
Dieldrin	ND		0.050	0.0098	ug/L		03/20/19 14:52	03/21/19 17:12	1
Endosulfan I	ND		0.050	0.011	ug/L		03/20/19 14:52	03/21/19 17:12	1
Endosulfan II	ND		0.050	0.012	ug/L		03/20/19 14:52	03/21/19 17:12	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		03/20/19 14:52	03/21/19 17:12	1
Endrin	ND		0.050	0.014	ug/L		03/20/19 14:52	03/21/19 17:12	1
Endrin aldehyde	ND		0.050	0.016	ug/L		03/20/19 14:52	03/21/19 17:12	1
Heptachlor	ND		0.050	0.0085	ug/L		03/20/19 14:52	03/21/19 17:12	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		03/20/19 14:52	03/21/19 17:12	1
Toxaphene	ND		0.50	0.12	ug/L		03/20/19 14:52	03/21/19 17:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*54*		*23 - 120*	*03/20/19 14:52*	*03/21/19 17:12*	*1*
Tetrachloro-m-xylene	*76*		*44 - 120*	*03/20/19 14:52*	*03/21/19 17:12*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	**1.4**	**J B**	4.7	1.3	mg/L		03/20/19 10:06	03/20/19 12:39	1
Cyanide, Total	**0.13**		0.010	0.0050	mg/L		03/26/19 23:48	03/27/19 13:55	1
Phenolics, Total Recoverable	ND		0.010	0.0050	mg/L		03/27/19 22:16	03/28/19 16:28	1
Total Dissolved Solids	**796**		10.0	4.0	mg/L			03/25/19 13:41	1
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			03/21/19 12:00	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	4.0	mg/L			03/25/19 00:52	1
pH	**7.6**	**HF**	0.1	0.1	SU			03/28/19 15:48	1
Temperature	**18.2**	**HF**	0.001	0.001	Degrees C			03/28/19 15:48	1

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

TestAmerica Job ID: 480-150484-1

Client Sample ID: Pre-Carbon
Date Collected: 03/19/19 15:55
Date Received: 03/19/19 16:25

Lab Sample ID: 480-150484-2
Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		20	16	ug/L			03/20/19 04:54	20
1,1,2,2-Tetrachloroethane	ND		20	4.2	ug/L			03/20/19 04:54	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	6.2	ug/L			03/20/19 04:54	20
1,1,2-Trichloroethane	ND		20	4.6	ug/L			03/20/19 04:54	20
1,1-Dichloroethane	ND		20	7.6	ug/L			03/20/19 04:54	20
1,1-Dichloroethene	ND		20	5.8	ug/L			03/20/19 04:54	20
1,2,4-Trichlorobenzene	ND		20	8.2	ug/L			03/20/19 04:54	20
1,2,4-Trimethylbenzene	ND		20	15	ug/L			03/20/19 04:54	20
1,2-Dibromo-3-Chloropropane	ND		20	7.8	ug/L			03/20/19 04:54	20
1,2-Dichlorobenzene	ND		20	16	ug/L			03/20/19 04:54	20
1,2-Dichloroethane	ND		20	4.2	ug/L			03/20/19 04:54	20
1,2-Dichloropropane	ND		20	14	ug/L			03/20/19 04:54	20
1,3,5-Trimethylbenzene	ND		20	15	ug/L			03/20/19 04:54	20
1,3-Dichlorobenzene	ND		20	16	ug/L			03/20/19 04:54	20
1,4-Dichlorobenzene	ND		20	17	ug/L			03/20/19 04:54	20
2-Butanone (MEK)	ND		200	26	ug/L			03/20/19 04:54	20
2-Hexanone	ND		100	25	ug/L			03/20/19 04:54	20
4-Isopropyltoluene	ND		20	6.2	ug/L			03/20/19 04:54	20
4-Methyl-2-pentanone (MIBK)	ND		100	42	ug/L			03/20/19 04:54	20
Acetone	ND		200	60	ug/L			03/20/19 04:54	20
Bromoform	ND		20	5.2	ug/L			03/20/19 04:54	20
Bromomethane	ND		20	14	ug/L			03/20/19 04:54	20
Carbon disulfide	ND		20	3.8	ug/L			03/20/19 04:54	20
Carbon tetrachloride	ND		20	5.4	ug/L			03/20/19 04:54	20
Chlorobenzene	ND		20	15	ug/L			03/20/19 04:54	20
Dibromochloromethane	ND		20	6.4	ug/L			03/20/19 04:54	20
Chloroethane	ND		20	6.4	ug/L			03/20/19 04:54	20
Chloroform	ND		20	6.8	ug/L			03/20/19 04:54	20
Chloromethane	ND		20	7.0	ug/L			03/20/19 04:54	20
cis-1,2-Dichloroethene	ND		20	16	ug/L			03/20/19 04:54	20
Cyclohexane	ND		20	3.6	ug/L			03/20/19 04:54	20
Bromodichloromethane	ND		20	7.8	ug/L			03/20/19 04:54	20
Dichlorodifluoromethane	ND		20	14	ug/L			03/20/19 04:54	20
Ethylbenzene	**120**		20	15	ug/L			03/20/19 04:54	20
1,2-Dibromoethane	ND		20	15	ug/L			03/20/19 04:54	20
Isopropylbenzene	ND		20	16	ug/L			03/20/19 04:54	20
Methyl acetate	ND		50	26	ug/L			03/20/19 04:54	20
Methyl tert-butyl ether	ND		20	3.2	ug/L			03/20/19 04:54	20
Methylcyclohexane	ND		20	3.2	ug/L			03/20/19 04:54	20
Methylene Chloride	ND		20	8.8	ug/L			03/20/19 04:54	20
m,p-Xylene	**72**		40	13	ug/L			03/20/19 04:54	20
Naphthalene	**100**		20	8.6	ug/L			03/20/19 04:54	20
n-Butylbenzene	ND		20	13	ug/L			03/20/19 04:54	20
N-Propylbenzene	ND		20	14	ug/L			03/20/19 04:54	20
o-Xylene	**45**		20	15	ug/L			03/20/19 04:54	20
sec-Butylbenzene	ND		20	15	ug/L			03/20/19 04:54	20
Tetrachloroethene	ND		20	7.2	ug/L			03/20/19 04:54	20
Toluene	**420**		20	10	ug/L			03/20/19 04:54	20
trans-1,2-Dichloroethene	ND		20	18	ug/L			03/20/19 04:54	20

Client Sample ID: Pre-Carbon

Date Collected: 03/19/19 15:55
Date Received: 03/19/19 16:25

Lab Sample ID: 480-150484-2

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		20	7.4	ug/L			03/20/19 04:54	20
Trichloroethene	ND		20	9.2	ug/L			03/20/19 04:54	20
Trichlorofluoromethane	ND		20	18	ug/L			03/20/19 04:54	20
Vinyl chloride	ND		20	18	ug/L			03/20/19 04:54	20
Xylenes, Total	**120**		40	13	ug/L			03/20/19 04:54	20
cis-1,3-Dichloropropene	ND		20	7.2	ug/L			03/20/19 04:54	20
Styrene	**40**		20	15	ug/L			03/20/19 04:54	20
tert-Butylbenzene	ND		20	16	ug/L			03/20/19 04:54	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*03/20/19 04:54*	*20*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*03/20/19 04:54*	*20*
Toluene-d8 (Surr)	*91*		*80 - 120*		*03/20/19 04:54*	*20*
Dibromofluoromethane (Surr)	*96*		*75 - 123*		*03/20/19 04:54*	*20*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**2400**		50	21	ug/L			03/20/19 17:24	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*		*03/20/19 17:24*	*50*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*03/20/19 17:24*	*50*
Toluene-d8 (Surr)	*92*		*80 - 120*		*03/20/19 17:24*	*50*
Dibromofluoromethane (Surr)	*93*		*75 - 123*		*03/20/19 17:24*	*50*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**133000**		500	100	ug/L		03/20/19 07:33	03/20/19 18:52	1
Magnesium	**44600**		200	43.4	ug/L		03/20/19 07:33	03/20/19 18:52	1
Potassium	**3710**	**B**	500	100	ug/L		03/20/19 07:33	03/20/19 18:52	1
Sodium	**97800**		1000	324	ug/L		03/20/19 07:33	03/20/19 18:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**168**		2.5	1.4	mg/L			03/20/19 12:31	5
Sulfate	**120**		10.0	1.7	mg/L			03/20/19 12:31	5
Alkalinity, Total	**331**	**B**	40.0	16.0	mg/L			03/27/19 10:57	4

Lab Chronicle

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

TestAmerica Job ID: 480-150484-1

Client Sample ID: Post-Carbon-2

Lab Sample ID: 480-150484-1

Date Collected: 03/19/19 15:45

Matrix: Wastewater

Date Received: 03/19/19 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	463700	03/20/19 05:07	KMN	TAL BUF
Total/NA	Prep	3510C			463893	03/20/19 14:38	ATG	TAL BUF
Total/NA	Analysis	8270D		1	464125	03/22/19 01:10	RJS	TAL BUF
Total/NA	Prep	3510C			463900	03/20/19 14:52	ATG	TAL BUF
Total/NA	Analysis	608.3		1	463992	03/21/19 17:12	JLS	TAL BUF
Total/NA	Prep	1664B			463824	03/20/19 10:06	AJS	TAL BUF
Total/NA	Analysis	1664B		1	463851	03/20/19 12:39	AJS	TAL BUF
Total/NA	Prep	Distill/CN			464846	03/26/19 23:48	AEF	TAL BUF
Total/NA	Analysis	335.4		1	465008	03/27/19 13:55	CLT	TAL BUF
Total/NA	Prep	Distill/Phenol			465065	03/27/19 22:16	AEF	TAL BUF
Total/NA	Analysis	420.1		1	465249	03/28/19 16:28	SAH	TAL BUF
Total/NA	Analysis	SM 2540C		1	464547	03/25/19 13:41	RAF	TAL BUF
Total/NA	Analysis	SM 2540D		1	464438	03/25/19 00:52	MLS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	465256	03/28/19 15:48	KEB	TAL BUF
Total/NA	Analysis	SM 5210B		1	464161	03/21/19 12:00	SAH	TAL BUF

Client Sample ID: Pre-Carbon

Lab Sample ID: 480-150484-2

Date Collected: 03/19/19 15:55

Matrix: Wastewater

Date Received: 03/19/19 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	463704	03/20/19 04:54	AMM	TAL BUF
Total/NA	Analysis	8260C	DL	50	463733	03/20/19 17:24	NMC	TAL BUF
Total/NA	Prep	200.7			463710	03/20/19 07:33	MV	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	464010	03/20/19 18:52	LMH	TAL BUF
Total/NA	Analysis	300.0		5	463814	03/20/19 12:31	EMD	TAL BUF
Total/NA	Analysis	310.2		4	464986	03/27/19 10:57	KEB	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

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

TestAmerica Job ID: 480-150484-1

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	03-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
335.4	Distill/CN	Wastewater	Cyanide, Total
SM 4500 H+ B		Wastewater	pH
SM 4500 H+ B		Wastewater	Temperature

Method Summary

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

TestAmerica Job ID: 480-150484-1

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

Sample Summary

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

TestAmerica Job ID: 480-150484-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-150484-1	Post-Carbon-2	Wastewater	03/19/19 15:45	03/19/19 16:25
480-150484-2	Pre-Carbon	Wastewater	03/19/19 15:55	03/19/19 16:25

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Peter Zeffiro	Lab PM: Johnson, Orlette S	Carrier Tracking No(s):	COC No: 480-123669-28089.1
Client Contact: Thomas Palmer	Phone: 716 553 5129	E-Mail: orlette.johnson@testamericainc.com		Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc				Job #:

Address: 415 Lawrence Bell Drive Suite 6	Due Date Requested:	Analysis Requested
City: Williamsville	TAT Requested (days): 14 Day 2 weeks	
State, Zip: NY, 14221		
Phone: 518-402-9662(Tel)	PO #: CallOut ID 136076	
Email: tpalmer@gesonline.com	WO #: GES Project # 0901691	
Project Name: Gastown WWTP #915171 - Quarterly Event Desc: Quarterly	Project #: 48002525	
Site: New York	SSOW#:	

480-150484 Chain of Custody

J - DI Water
K - EDTA
L - EDA
V - MCAA
W - pH 4-5
Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	420.4 - Phenolics, Total Recoverable	8260C - TCL + CP-51 (Stars)	608_Pest - Priority Pollutant Pesticides	8270C - (MOD) TCL SVOA	5210B - Biochemical Oxygen Demand	2540D - Total Suspended Solids	2540C_Calcd - Total Dissolved Solids	335.4 - Cyanide, Total	SM4500_H+ - pH	1664B - Oil and Grease	300.0_28D - (MOD) Cl, SO4	200.7 - Ca, Mg, K, Na	310.2 - Alkalinity, Total	Total Number of containers	Special Instructions/Note:
			Preservation Code:				S	A	N	N	N	N	N	B	N	S	N	D	N		
Post-Carbon 2	3/19/19	1545		Water			X	X	X	X	X	X	X	X	X	X					
Pre-Carbon	3/19/19	1555		Water				X									X	X	X		

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by: Peter Zeffiro	Date/Time: 3/19/19 1625	Company	Received by: Anthony Cikolb	Date/Time: 03/19/19 1625	Company TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.8 #1

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-150484-1

Login Number: 150484
List Number: 1
Creator: Harper, Marcus D

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (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	PZ
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	

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

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

Laboratory Job ID: 480-152290-1
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

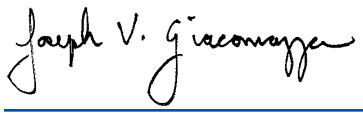
Joseph V. Giacomazza

Authorized for release by:
5/9/2019 11:40:10 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

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



Joe Giacomazza
Project Management Assistant II
5/9/2019 11:40:10 AM

Table of Contents

Definitions/Glossary

Client: New York State D.E.C.
Job ID: 480-152290-1
Project/Site: Gastown WWTP #915171

Qualifiers

GC/MS VOA

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

General Chemistry

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	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)

Job ID: 480-152290-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-152290-1

Comments
No additional comments.

Receipt
The samples were received on 4/19/2019 12:25 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.0º C.

Receipt Exceptions
A Chain-of-Custody (COC) was not received with these samples. One was later sent and received: Post-Carbon 2 (480-152290-1) and Pre-Carbon (480-152290-2).

GC/MS VOA
Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 490-590455 recovered outside control limits for the following analytes: Bromomethane. 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 matrix spike/matrix spike duplicate associated with analytical batch 490-590455 was unable to be analyzed due to instrument communication error. LCS/LCSD has been provided : (LCS 490-590455/3).

Method(s) 8260C: The laboratory control sample duplicate (LCSD) for analytical batch 490-590664 recovered outside control limits for the following analytes: Vinyl chloride and Dichlorodifluoromethane. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260C: The following sample was diluted due to the nature of the sample matrix: Pre-Carbon (480-152290-2). Elevated reporting limits (RLs) are provided.

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

HPLC/IC
Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-152290-2). 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 (480-152290-1).

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

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

Client: New York State D.E.C.
Job ID: 480-152290-1
Project/Site: Gastown WWTP #915171

Client Sample ID: Post-Carbon 2
Lab Sample ID: 480-152290-1
Date Collected: 04/19/19 10:30
Matrix: Wastewater
Date Received: 04/19/19 12:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.19	ug/L			04/25/19 19:10	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.19	ug/L			04/25/19 19:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15	ug/L			04/25/19 19:10	1
1,1,2-Trichloroethane	ND		1.0	0.19	ug/L			04/25/19 19:10	1
1,1-Dichloroethane	ND		1.0	0.24	ug/L			04/25/19 19:10	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			04/25/19 19:10	1
1,2,4-Trichlorobenzene	ND		1.0	0.20	ug/L			04/25/19 19:10	1
1,2,4-Trimethylbenzene	ND		1.0	0.17	ug/L			04/25/19 19:10	1
1,2-Dibromo-3-Chloropropane	ND		10	0.94	ug/L			04/25/19 19:10	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			04/25/19 19:10	1
1,2-Dichloroethane	ND		1.0	0.20	ug/L			04/25/19 19:10	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			04/25/19 19:10	1
1,3,5-Trimethylbenzene	ND		1.0	0.17	ug/L			04/25/19 19:10	1
1,3-Dichlorobenzene	ND		1.0	0.18	ug/L			04/25/19 19:10	1
1,4-Dichlorobenzene	ND		1.0	0.17	ug/L			04/25/19 19:10	1
2-Butanone (MEK)	ND		50	2.6	ug/L			04/25/19 19:10	1
2-Hexanone	ND		10	1.3	ug/L			04/25/19 19:10	1
4-Isopropyltoluene	ND		1.0	0.17	ug/L			04/25/19 19:10	1
4-Methyl-2-pentanone (MIBK)	ND		10	0.81	ug/L			04/25/19 19:10	1
Acetone	ND		25	2.7	ug/L			04/25/19 19:10	1
Benzene	ND		1.0	0.20	ug/L			04/25/19 19:10	1
Bromoform	ND		1.0	0.29	ug/L			04/25/19 19:10	1
Bromomethane	ND	*	1.0	0.35	ug/L			04/25/19 19:10	1
Carbon disulfide	ND		1.0	0.22	ug/L			04/25/19 19:10	1
Carbon tetrachloride	ND		1.0	0.18	ug/L			04/25/19 19:10	1
Chlorobenzene	ND		1.0	0.18	ug/L			04/25/19 19:10	1
Dibromochloromethane	ND		1.0	0.25	ug/L			04/25/19 19:10	1
Chloroethane	ND		1.0	0.36	ug/L			04/25/19 19:10	1
Chloroform	ND		1.0	0.23	ug/L			04/25/19 19:10	1
Chloromethane	ND		1.0	0.36	ug/L			04/25/19 19:10	1
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			04/25/19 19:10	1
Cyclohexane	ND		5.0	0.13	ug/L			04/25/19 19:10	1
Bromodichloromethane	ND		1.0	0.17	ug/L			04/25/19 19:10	1
Dichlorodifluoromethane	ND		1.0	0.17	ug/L			04/25/19 19:10	1
Ethylbenzene	ND		1.0	0.19	ug/L			04/25/19 19:10	1
1,2-Dibromoethane	ND		1.0	0.21	ug/L			04/25/19 19:10	1
Isopropylbenzene	ND		1.0	0.33	ug/L			04/25/19 19:10	1
Methyl acetate	ND		10	0.58	ug/L			04/25/19 19:10	1
Methyl tert-butyl ether	ND		1.0	0.17	ug/L			04/25/19 19:10	1
Methylcyclohexane	ND		5.0	0.090	ug/L			04/25/19 19:10	1
Methylene Chloride	ND		5.0	1.0	ug/L			04/25/19 19:10	1
m,p-Xylene	ND		2.0	0.38	ug/L			04/25/19 19:10	1
Naphthalene	ND		5.0	0.21	ug/L			04/25/19 19:10	1
n-Butylbenzene	ND		1.0	0.24	ug/L			04/25/19 19:10	1
N-Propylbenzene	ND		1.0	0.17	ug/L			04/25/19 19:10	1
o-Xylene	ND		1.0	0.20	ug/L			04/25/19 19:10	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			04/25/19 19:10	1
Tetrachloroethene	ND		1.0	0.14	ug/L			04/25/19 19:10	1
Toluene	ND		1.0	0.17	ug/L			04/25/19 19:10	1

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

Job ID: 480-152290-1

Client Sample ID: Post-Carbon 2
Date Collected: 04/19/19 10:30
Date Received: 04/19/19 12:25

Lab Sample ID: 480-152290-1
Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.23	ug/L			04/25/19 19:10	1
trans-1,3-Dichloropropene	ND		1.0	0.17	ug/L			04/25/19 19:10	1
Trichloroethene	ND		1.0	0.20	ug/L			04/25/19 19:10	1
Trichlorofluoromethane	ND		1.0	0.21	ug/L			04/25/19 19:10	1
Vinyl chloride	ND		1.0	0.18	ug/L			04/25/19 19:10	1
Xylenes, Total	ND		3.0	0.58	ug/L			04/25/19 19:10	1
cis-1,3-Dichloropropene	ND		1.0	0.17	ug/L			04/25/19 19:10	1
Styrene	ND		1.0	0.28	ug/L			04/25/19 19:10	1
tert-Butylbenzene	ND		1.0	0.17	ug/L			04/25/19 19:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*04/25/19 19:10*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*04/25/19 19:10*	*1*
Toluene-d8 (Surr)	*109*		*70 - 130*		*04/25/19 19:10*	*1*
Dibromofluoromethane (Surr)	*103*		*70 - 130*		*04/25/19 19:10*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.12**		0.010	0.0050	mg/L		05/02/19 13:35	05/02/19 17:39	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.4**	**HF**	0.1	0.1	SU			05/07/19 16:35	1
Temperature	**21.2**	**HF**	0.001	0.001	Degrees C			05/07/19 16:35	1

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

Job ID: 480-152290-1

Client Sample ID: Pre-Carbon

Date Collected: 04/19/19 10:45
Date Received: 04/19/19 12:25

Lab Sample ID: 480-152290-2

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.95	ug/L			04/26/19 12:10	5
1,1,2,2-Tetrachloroethane	ND		5.0	0.95	ug/L			04/26/19 12:10	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.75	ug/L			04/26/19 12:10	5
1,1,2-Trichloroethane	ND		5.0	0.95	ug/L			04/26/19 12:10	5
1,1-Dichloroethane	ND		5.0	1.2	ug/L			04/26/19 12:10	5
1,1-Dichloroethene	ND		5.0	1.3	ug/L			04/26/19 12:10	5
1,2,4-Trichlorobenzene	ND		5.0	1.0	ug/L			04/26/19 12:10	5
1,2,4-Trimethylbenzene	**5.6**		5.0	0.85	ug/L			04/26/19 12:10	5
1,2-Dibromo-3-Chloropropane	ND		50	4.7	ug/L			04/26/19 12:10	5
1,2-Dichlorobenzene	ND		5.0	0.95	ug/L			04/26/19 12:10	5
1,2-Dichloroethane	ND		5.0	1.0	ug/L			04/26/19 12:10	5
1,2-Dichloropropane	ND		5.0	1.3	ug/L			04/26/19 12:10	5
1,3,5-Trimethylbenzene	ND		5.0	0.85	ug/L			04/26/19 12:10	5
1,3-Dichlorobenzene	ND		5.0	0.90	ug/L			04/26/19 12:10	5
1,4-Dichlorobenzene	ND		5.0	0.85	ug/L			04/26/19 12:10	5
2-Butanone (MEK)	ND		250	13	ug/L			04/26/19 12:10	5
2-Hexanone	ND		50	6.4	ug/L			04/26/19 12:10	5
4-Isopropyltoluene	ND		5.0	0.85	ug/L			04/26/19 12:10	5
4-Methyl-2-pentanone (MIBK)	ND		50	4.1	ug/L			04/26/19 12:10	5
Acetone	ND		130	13	ug/L			04/26/19 12:10	5
Benzene	**2700**		25	5.0	ug/L			04/26/19 13:03	25
Bromoform	ND		5.0	1.5	ug/L			04/26/19 12:10	5
Bromomethane	ND		5.0	1.8	ug/L			04/26/19 12:10	5
Carbon disulfide	ND		5.0	1.1	ug/L			04/26/19 12:10	5
Carbon tetrachloride	ND		5.0	0.90	ug/L			04/26/19 12:10	5
Chlorobenzene	ND		5.0	0.90	ug/L			04/26/19 12:10	5
Dibromochloromethane	ND		5.0	1.3	ug/L			04/26/19 12:10	5
Chloroethane	ND		5.0	1.8	ug/L			04/26/19 12:10	5
Chloroform	**1.6**	**J**	5.0	1.2	ug/L			04/26/19 12:10	5
Chloromethane	ND		5.0	1.8	ug/L			04/26/19 12:10	5
cis-1,2-Dichloroethene	**8.0**		5.0	1.1	ug/L			04/26/19 12:10	5
Cyclohexane	ND		25	0.65	ug/L			04/26/19 12:10	5
Bromodichloromethane	ND		5.0	0.85	ug/L			04/26/19 12:10	5
Dichlorodifluoromethane	ND	*	5.0	0.85	ug/L			04/26/19 12:10	5
Ethylbenzene	**130**		5.0	0.95	ug/L			04/26/19 12:10	5
1,2-Dibromoethane	ND		5.0	1.1	ug/L			04/26/19 12:10	5
Isopropylbenzene	ND		5.0	1.7	ug/L			04/26/19 12:10	5
Methyl acetate	ND		50	2.9	ug/L			04/26/19 12:10	5
Methyl tert-butyl ether	ND		5.0	0.85	ug/L			04/26/19 12:10	5
Methylcyclohexane	ND		25	0.45	ug/L			04/26/19 12:10	5
Methylene Chloride	ND		25	5.0	ug/L			04/26/19 12:10	5
m,p-Xylene	**87**		10	1.9	ug/L			04/26/19 12:10	5
Naphthalene	**250**		25	1.1	ug/L			04/26/19 12:10	5
n-Butylbenzene	ND		5.0	1.2	ug/L			04/26/19 12:10	5
N-Propylbenzene	ND		5.0	0.85	ug/L			04/26/19 12:10	5
o-Xylene	**53**		5.0	1.0	ug/L			04/26/19 12:10	5
sec-Butylbenzene	ND		5.0	0.85	ug/L			04/26/19 12:10	5
Tetrachloroethene	ND		5.0	0.70	ug/L			04/26/19 12:10	5
Toluene	**470**		5.0	0.85	ug/L			04/26/19 12:10	5

Client: New York State D.E.C.
Job ID: 480-152290-1
Project/Site: Gastown WWTP #915171

Client Sample ID: Pre-Carbon
Lab Sample ID: 480-152290-2
Date Collected: 04/19/19 10:45
Matrix: Wastewater
Date Received: 04/19/19 12:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		5.0	1.2	ug/L			04/26/19 12:10	5
trans-1,3-Dichloropropene	ND		5.0	0.85	ug/L			04/26/19 12:10	5
Trichloroethene	ND		5.0	1.0	ug/L			04/26/19 12:10	5
Trichlorofluoromethane	ND		5.0	1.1	ug/L			04/26/19 12:10	5
Vinyl chloride	**2.9**	**J ***	5.0	0.90	ug/L			04/26/19 12:10	5
Xylenes, Total	**140**		15	2.9	ug/L			04/26/19 12:10	5
cis-1,3-Dichloropropene	ND		5.0	0.85	ug/L			04/26/19 12:10	5
Styrene	ND		5.0	1.4	ug/L			04/26/19 12:10	5
tert-Butylbenzene	ND		5.0	0.85	ug/L			04/26/19 12:10	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*70 - 130*		*04/26/19 12:10*	*5*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 130*		*04/26/19 13:03*	*25*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*		*04/26/19 12:10*	*5*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*		*04/26/19 13:03*	*25*
Toluene-d8 (Surr)	*98*		*70 - 130*		*04/26/19 12:10*	*5*
Toluene-d8 (Surr)	*95*		*70 - 130*		*04/26/19 13:03*	*25*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*04/26/19 12:10*	*5*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*04/26/19 13:03*	*25*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**145000**		500	100	ug/L		04/26/19 07:38	04/26/19 23:11	1
Magnesium	**47700**		200	43.4	ug/L		04/26/19 07:38	04/26/19 23:11	1
Potassium	**3900**		500	100	ug/L		04/26/19 07:38	04/26/19 23:11	1
Sodium	**96000**		1000	324	ug/L		04/26/19 07:38	04/26/19 23:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**186**		2.5	1.4	mg/L			04/26/19 16:03	5
Sulfate	**120**		10.0	1.7	mg/L			04/26/19 16:03	5
Alkalinity, Total	**304**		50.0	20.0	mg/L			05/02/19 17:27	5

Lab Chronicle

Client: New York State D.E.C.
Job ID: 480-152290-1
Project/Site: Gastown WWTP #915171

Client Sample ID: Post-Carbon 2
Lab Sample ID: 480-152290-1

Date Collected: 04/19/19 10:30
Matrix: Wastewater
Date Received: 04/19/19 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	590455	04/25/19 19:10	S1S	TAL NSH
Total/NA	Prep	Distill/CN			470967	05/02/19 13:35	LAW	TAL BUF
Total/NA	Analysis	335.4		1	470983	05/02/19 17:39	MDL	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	471719	05/07/19 16:35	AEF	TAL BUF

Client Sample ID: Pre-Carbon
Lab Sample ID: 480-152290-2

Date Collected: 04/19/19 10:45
Matrix: Wastewater
Date Received: 04/19/19 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	590664	04/26/19 12:10	S1S	TAL NSH
Total/NA	Analysis	8260C		25	590664	04/26/19 13:03	S1S	TAL NSH
Total/NA	Prep	200.7			469837	04/26/19 07:38	JMP	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	470207	04/26/19 23:11	LMH	TAL BUF
Total/NA	Analysis	300.0		5	469975	04/26/19 16:03	CLA	TAL BUF
Total/NA	Analysis	310.2		5	470991	05/02/19 17:27	SAH	TAL BUF

Laboratory References:

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

TAL NSH = Eurofins TestAmerica, Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Accreditation/Certification Summary

Client: New York State D.E.C.
Job ID: 480-152290-1
Project/Site: Gastown WWTP #915171

Laboratory: Eurofins 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	03-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
335.4	Distill/CN	Wastewater	Cyanide, Total
SM 4500 H+ B		Wastewater	pH
SM 4500 H+ B		Wastewater	Temperature

Laboratory: Eurofins TestAmerica, Nashville

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
A2LA	ISO/IEC 17025		0453.07	12-31-19
Alaska (UST)	State Program	10	UST-087	06-30-19
Arizona	State Program	9	AZ0473	05-05-20
Arkansas DEQ	State Program	6	88-0737	04-25-20
California	State Program	9	2938	06-30-19
Connecticut	State Program	1	PH-0220	12-31-19
Florida	NELAP	4	E87358	06-30-19
Georgia	State Program	4	NA: NELAP & A2LA	12-31-19
Illinois	NELAP	5	200010	12-09-19
Iowa	State Program	7	131	04-01-20
Kansas	NELAP	7	E-10229	10-31-19
Kentucky (UST)	State Program	4	19	06-30-19
Kentucky (WW)	State Program	4	90038	12-31-19
Louisiana	NELAP	6	30613	06-30-19
Maine	State Program	1	TN00032	11-03-19
Maryland	State Program	3	316	03-31-20
Massachusetts	State Program	1	M-TN032	06-30-19
Minnesota	NELAP	5	047-999-345	12-31-19
Mississippi	State Program	4	N/A	06-30-19
Nevada	State Program	9	TN00032	07-31-19
New Hampshire	NELAP	1	2963	10-09-19
New Jersey	NELAP	2	TN965	06-30-19
New York	NELAP	2	11342	03-31-20
North Carolina (WW/SW)	State Program	4	387	12-31-19
North Dakota	State Program	8	R-146	06-30-19
Ohio VAP	State Program	5	CL0033	04-30-19
Oklahoma	State Program	6	9412	08-31-19
Oregon	NELAP	10	TN200001	04-26-19 *
Pennsylvania	NELAP	3	68-00585	07-31-19
Rhode Island	State Program	1	LAO00268	12-30-19
South Carolina	State Program	4	84009 (001)	02-28-19 *
Tennessee	State Program	4	2008	02-23-20
Texas	NELAP	6	T104704077	08-31-19
USDA	Federal		P330-13-00306	04-10-20
Utah	NELAP	8	TN00032	07-31-19
Virginia	NELAP	3	460152	06-14-19
Washington	State Program	10	C789	07-19-19
West Virginia DEP	State Program	3	219	02-28-19 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Laboratory: Eurofins TestAmerica, Nashville (Continued)

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
Wisconsin	State Program	5	998020430	08-31-19
Wyoming (UST)	A2LA	8	453.07	12-31-19

Method Summary

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

Job ID: 480-152290-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL NSH
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 NSH
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 = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL NSH = Eurofins TestAmerica, Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Sample Summary

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

Job ID: 480-152290-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-152290-1	Post-Carbon 2	Wastewater	04/19/19 10:30	04/19/19 12:25
480-152290-2	Pre-Carbon	Wastewater	04/19/19 10:45	04/19/19 12:25

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: WL	Lab PM: Johnson, Orlette S	Carrier Tracking No(s):	COC No: 480-123660-28090.1
Client Contact: Thomas Palmer	Phone:	E-Mail: orlette.johnson@testamericainc.com		Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc				Job #:

Analysis Requested

Address: 415 Lawrence Bell Drive Suite 6	Due Date Requested:
City: Williamsville	TAT Requested (days):
State, Zip: NY, 14221	
Phone: 518-402-9662(Tel)	PO #: CallOut ID 136076
Email: tpalmer@gesonline.com	WO #: GES Project # 0901691
Project Name: Gastown WWTP #915171 - Monthly Event Desc: Monthly	Project #: 48002525
Site: New York	SSOW#:

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, M - Hexane, N - None, O - AsNaO2, P - Na2O4S

480-152290 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	335.4 - Cyanide, Total	SM4500_H+ - pH	8260C - TCL + CP-51 (Stars)	300.0_28D - Cl, SO4	200.7 - Ca, Mg, K, Na	310.2 - Alkalinity, Total	Total Number of	Special Instructions/Note:
			Preservation Code:				B	N	A	N	D	N		
Post-Carbon 2	4/18/19	1030	G	Water			X	X	X					
Pre-Carbon	4/18/19	1045	G	Water					X	X	X	X		

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	4/19/19 1225	GES	[signature]	4/19/19 1225	TAB
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 4.0 #1 ICE

Ver: 01/16/2019

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

480-152290 Chain of Custody

Cooler Received/Opened On 4/24/2019@ 930

Time Samples Removed From Cooler 16:40 Time Samples Placed In Storage 17:07 (2 Hour Window)

1. Tracking # 5332 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID_31470368 pH Strip Lot Chlorine Strip Lot

2. Temperature of rep. sample or temp blank when opened: 2.2 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? (YES)...NO...NA

If yes, how many and where: 1 (Front)

5. Were the seals intact, signed, and dated correctly? (YES)...NO...NA

6. Were custody papers inside cooler? (YES)...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) 2.2

7. Were custody seals on containers: YES (NO) and Intact YES...NO...(NA)

Were these signed and dated correctly? YES...NO...(NA)

8. Packing mat'l used? (Bubblewrap) Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: (Ice) Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? (YES)...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? (YES)...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...(NA)

13a. Were VOA vials received? (YES)...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...(NO)...NA


Larger than this.

14. Was there a Trip Blank in this cooler? YES...(NO)...NA If multiple coolers, sequence #

I certify that I unloaded the cooler and answered questions 7-14 (intial) 2.2

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...(NA)

b. Did the bottle labels indicate that the correct preservatives were used (YES)...NO...NA

16. Was residual chlorine present? YES...NO...(NA)

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) 2.2

17. Were custody papers properly filled out (ink, signed, etc)? (YES)...NO...NA

18. Did you sign the custody papers in the appropriate place? (YES)...NO...(NA)

19. Were correct containers used for the analysis requested? (YES)...NO...NA

20. Was sufficient amount of sample sent in each container? (YES)...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) 2.2

I certify that I attached a label with the unique LIMS number to each container (intial) 2.2

21. Were there Non-Conformance issues at login? (YES)...NO Was a NCM generated? (YES)...NO...#

BIS = Broken in shipment

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-152290-1

Login Number: 152290

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Kolb, Chris M

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

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

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

Laboratory Job ID: 480-155334-1
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

Joseph V. Giacomazza

Authorized for release by:
7/8/2019 11:28:45 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

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

Joe Giacomazza
Project Management Assistant II
7/8/2019 11:28:45 AM

Table of Contents

Definitions/Glossary

Client: New York State D.E.C.
Job ID: 480-155334-1
Project/Site: Gastown WWTP #915171

Qualifiers

GC/MS VOA

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

General Chemistry

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	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)

Job ID: 480-155334-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-155334-1

Comments
No additional comments.

Receipt
The samples were received on 6/21/2019 11:55 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.9º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-479388 recovered outside acceptance criteria, low biased, for Cyclohexane. 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. The following samples are impacted: Post-Carbon 2 (480-155334-1) and Pre-Carbon (480-155334-2).

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-479388 recovered outside acceptance criteria, low biased, for Chloromethane. 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. The following samples are impacted: Post-Carbon 2 (480-155334-1) and Pre-Carbon (480-155334-2).

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-155334-2). Elevated reporting limits (RLs) are provided.

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

HPLC/IC
Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-155334-2). 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 (480-155334-1).

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.
Job ID: 480-155334-1
Project/Site: Gastown WWTP #915171

Client Sample ID: Post-Carbon 2
Lab Sample ID: 480-155334-1
Date Collected: 06/21/19 11:30
Matrix: Wastewater
Date Received: 06/21/19 11:55

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/25/19 16:22	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/25/19 16:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/25/19 16:22	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/25/19 16:22	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/25/19 16:22	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/25/19 16:22	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/25/19 16:22	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			06/25/19 16:22	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/25/19 16:22	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/25/19 16:22	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/25/19 16:22	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/25/19 16:22	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			06/25/19 16:22	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/25/19 16:22	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/25/19 16:22	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/25/19 16:22	1
2-Hexanone	ND		5.0	1.2	ug/L			06/25/19 16:22	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			06/25/19 16:22	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/25/19 16:22	1
Acetone	ND		10	3.0	ug/L			06/25/19 16:22	1
Benzene	ND		1.0	0.41	ug/L			06/25/19 16:22	1
Bromoform	ND		1.0	0.26	ug/L			06/25/19 16:22	1
Bromomethane	ND		1.0	0.69	ug/L			06/25/19 16:22	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/25/19 16:22	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/25/19 16:22	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/25/19 16:22	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/25/19 16:22	1
Chloroethane	ND		1.0	0.32	ug/L			06/25/19 16:22	1
Chloroform	ND		1.0	0.34	ug/L			06/25/19 16:22	1
Chloromethane	ND		1.0	0.35	ug/L			06/25/19 16:22	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/25/19 16:22	1
Cyclohexane	ND		1.0	0.18	ug/L			06/25/19 16:22	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/25/19 16:22	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/25/19 16:22	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/25/19 16:22	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/25/19 16:22	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/25/19 16:22	1
Methyl acetate	ND		2.5	1.3	ug/L			06/25/19 16:22	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/25/19 16:22	1
Methylcyclohexane	ND		1.0	0.16	ug/L			06/25/19 16:22	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/25/19 16:22	1
m,p-Xylene	ND		2.0	0.66	ug/L			06/25/19 16:22	1
Naphthalene	ND		1.0	0.43	ug/L			06/25/19 16:22	1
n-Butylbenzene	ND		1.0	0.64	ug/L			06/25/19 16:22	1
N-Propylbenzene	ND		1.0	0.69	ug/L			06/25/19 16:22	1
o-Xylene	ND		1.0	0.76	ug/L			06/25/19 16:22	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			06/25/19 16:22	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/25/19 16:22	1
Toluene	ND		1.0	0.51	ug/L			06/25/19 16:22	1

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

Job ID: 480-155334-1

Client Sample ID: Post-Carbon 2
Date Collected: 06/21/19 11:30
Date Received: 06/21/19 11:55

Lab Sample ID: 480-155334-1
Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/25/19 16:22	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/25/19 16:22	1
Trichloroethene	ND		1.0	0.46	ug/L			06/25/19 16:22	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/25/19 16:22	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/25/19 16:22	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/25/19 16:22	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/25/19 16:22	1
Styrene	ND		1.0	0.73	ug/L			06/25/19 16:22	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			06/25/19 16:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*06/25/19 16:22*	*1*
4-Bromofluorobenzene (Surr)	*106*		*73 - 120*		*06/25/19 16:22*	*1*
Toluene-d8 (Surr)	*93*		*80 - 120*		*06/25/19 16:22*	*1*
Dibromofluoromethane (Surr)	*109*		*75 - 123*		*06/25/19 16:22*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.059**		0.010	0.0050	mg/L		07/01/19 15:05	07/02/19 13:06	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.3**	**HF**	0.1	0.1	SU			06/25/19 13:39	1
Temperature	**20.7**	**HF**	0.001	0.001	Degrees C			06/25/19 13:39	1

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

Job ID: 480-155334-1

Client Sample ID: Pre-Carbon

Date Collected: 06/21/19 11:40
Date Received: 06/21/19 11:55

Lab Sample ID: 480-155334-2

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		25	21	ug/L			06/25/19 16:46	25
1,1,2,2-Tetrachloroethane	ND		25	5.3	ug/L			06/25/19 16:46	25
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25	7.8	ug/L			06/25/19 16:46	25
1,1,2-Trichloroethane	ND		25	5.8	ug/L			06/25/19 16:46	25
1,1-Dichloroethane	ND		25	9.5	ug/L			06/25/19 16:46	25
1,1-Dichloroethene	ND		25	7.3	ug/L			06/25/19 16:46	25
1,2,4-Trichlorobenzene	ND		25	10	ug/L			06/25/19 16:46	25
1,2,4-Trimethylbenzene	ND		25	19	ug/L			06/25/19 16:46	25
1,2-Dibromo-3-Chloropropane	ND		25	9.8	ug/L			06/25/19 16:46	25
1,2-Dichlorobenzene	ND		25	20	ug/L			06/25/19 16:46	25
1,2-Dichloroethane	ND		25	5.3	ug/L			06/25/19 16:46	25
1,2-Dichloropropane	ND		25	18	ug/L			06/25/19 16:46	25
1,3,5-Trimethylbenzene	ND		25	19	ug/L			06/25/19 16:46	25
1,3-Dichlorobenzene	ND		25	20	ug/L			06/25/19 16:46	25
1,4-Dichlorobenzene	ND		25	21	ug/L			06/25/19 16:46	25
2-Butanone (MEK)	ND		250	33	ug/L			06/25/19 16:46	25
2-Hexanone	ND		130	31	ug/L			06/25/19 16:46	25
4-Isopropyltoluene	ND		25	7.8	ug/L			06/25/19 16:46	25
4-Methyl-2-pentanone (MIBK)	ND		130	53	ug/L			06/25/19 16:46	25
Acetone	ND		250	75	ug/L			06/25/19 16:46	25
Benzene	**980**		25	10	ug/L			06/25/19 16:46	25
Bromoform	ND		25	6.5	ug/L			06/25/19 16:46	25
Bromomethane	ND		25	17	ug/L			06/25/19 16:46	25
Carbon disulfide	ND		25	4.8	ug/L			06/25/19 16:46	25
Carbon tetrachloride	ND		25	6.8	ug/L			06/25/19 16:46	25
Chlorobenzene	ND		25	19	ug/L			06/25/19 16:46	25
Dibromochloromethane	ND		25	8.0	ug/L			06/25/19 16:46	25
Chloroethane	ND		25	8.0	ug/L			06/25/19 16:46	25
Chloroform	ND		25	8.5	ug/L			06/25/19 16:46	25
Chloromethane	ND		25	8.8	ug/L			06/25/19 16:46	25
cis-1,2-Dichloroethene	ND		25	20	ug/L			06/25/19 16:46	25
Cyclohexane	ND		25	4.5	ug/L			06/25/19 16:46	25
Bromodichloromethane	ND		25	9.8	ug/L			06/25/19 16:46	25
Dichlorodifluoromethane	ND		25	17	ug/L			06/25/19 16:46	25
Ethylbenzene	ND		25	19	ug/L			06/25/19 16:46	25
1,2-Dibromoethane	ND		25	18	ug/L			06/25/19 16:46	25
Isopropylbenzene	ND		25	20	ug/L			06/25/19 16:46	25
Methyl acetate	ND		63	33	ug/L			06/25/19 16:46	25
Methyl tert-butyl ether	ND		25	4.0	ug/L			06/25/19 16:46	25
Methylcyclohexane	ND		25	4.0	ug/L			06/25/19 16:46	25
Methylene Chloride	ND		25	11	ug/L			06/25/19 16:46	25
m,p-Xylene	**40**	**J**	50	17	ug/L			06/25/19 16:46	25
Naphthalene	**34**		25	11	ug/L			06/25/19 16:46	25
n-Butylbenzene	ND		25	16	ug/L			06/25/19 16:46	25
N-Propylbenzene	ND		25	17	ug/L			06/25/19 16:46	25
o-Xylene	**23**	**J**	25	19	ug/L			06/25/19 16:46	25
sec-Butylbenzene	ND		25	19	ug/L			06/25/19 16:46	25
Tetrachloroethene	ND		25	9.0	ug/L			06/25/19 16:46	25
Toluene	**120**		25	13	ug/L			06/25/19 16:46	25

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

Job ID: 480-155334-1

Client Sample ID: Pre-Carbon

Date Collected: 06/21/19 11:40
Date Received: 06/21/19 11:55

Lab Sample ID: 480-155334-2

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		25	23	ug/L			06/25/19 16:46	25
trans-1,3-Dichloropropene	ND		25	9.3	ug/L			06/25/19 16:46	25
Trichloroethene	ND		25	12	ug/L			06/25/19 16:46	25
Trichlorofluoromethane	ND		25	22	ug/L			06/25/19 16:46	25
Vinyl chloride	ND		25	23	ug/L			06/25/19 16:46	25
Xylenes, Total	**63**		50	17	ug/L			06/25/19 16:46	25
cis-1,3-Dichloropropene	ND		25	9.0	ug/L			06/25/19 16:46	25
Styrene	ND		25	18	ug/L			06/25/19 16:46	25
tert-Butylbenzene	ND		25	20	ug/L			06/25/19 16:46	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*06/25/19 16:46*	*25*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*06/25/19 16:46*	*25*
Toluene-d8 (Surr)	*94*		*80 - 120*		*06/25/19 16:46*	*25*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*06/25/19 16:46*	*25*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**108000**		500	100	ug/L		06/25/19 14:20	06/28/19 16:07	1
Magnesium	**33400**		200	43.4	ug/L		06/25/19 14:20	06/28/19 16:07	1
Potassium	**4940**		500	100	ug/L		06/25/19 14:20	06/28/19 16:07	1
Sodium	**84900**		1000	324	ug/L		06/25/19 14:20	06/28/19 16:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**134**		2.5	1.4	mg/L			06/26/19 12:44	5
Sulfate	**83.7**		10.0	1.7	mg/L			06/26/19 12:44	5
Alkalinity, Total	**273**		40.0	16.0	mg/L			07/05/19 15:27	4

Lab Chronicle

Client: New York State D.E.C.
Job ID: 480-155334-1
Project/Site: Gastown WWTP #915171

Client Sample ID: Post-Carbon 2
Lab Sample ID: 480-155334-1
Date Collected: 06/21/19 11:30
Matrix: Wastewater
Date Received: 06/21/19 11:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	479388	06/25/19 16:22	AEM	TAL BUF
Total/NA	Prep	Distill/CN			480438	07/01/19 15:05	AJL	TAL BUF
Total/NA	Analysis	335.4		1	480570	07/02/19 13:06	MDL	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	479558	06/25/19 13:39	KMF	TAL BUF

Client Sample ID: Pre-Carbon
Lab Sample ID: 480-155334-2
Date Collected: 06/21/19 11:40
Matrix: Wastewater
Date Received: 06/21/19 11:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		25	479388	06/25/19 16:46	AEM	TAL BUF
Total/NA	Prep	200.7			479530	06/25/19 14:20	EMB	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	480340	06/28/19 16:07	AMH	TAL BUF
Total/NA	Analysis	300.0		5	479685	06/26/19 12:44	IMZ	TAL BUF
Total/NA	Analysis	310.2		4	481031	07/05/19 15:27	KEB	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: New York State D.E.C.
Job ID: 480-155334-1
Project/Site: Gastown WWTP #915171

Laboratory: Eurofins 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	03-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
335.4	Distill/CN	Wastewater	Cyanide, Total
SM 4500 H+ B		Wastewater	pH
SM 4500 H+ B		Wastewater	Temperature

Method Summary

Client: New York State D.E.C.
Job ID: 480-155334-1
Project/Site: Gastown WWTP #915171

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

Sample Summary

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

Job ID: 480-155334-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-155334-1	Post-Carbon 2	Wastewater	06/21/19 11:30	06/21/19 11:55	
480-155334-2	Pre-Carbon	Wastewater	06/21/19 11:40	06/21/19 11:55	

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: MVR	Lab PM: Johnson, Orlette S	Carrier Tracking No(s):	COC No: 480-123660-28090.1
Client Contact: Thomas Palmer	Phone: 8002587857	E-Mail: orlette.johnson@testamericainc.com		Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc				Job #:

Address: 415 Lawrence Bell Drive Suite 6	Due Date Requested:
City: Williamsville	TAT Requested (days): 5TD
State, Zip: NY, 14221	
Phone: 518-402-9662(Tel)	PO #: CallOut ID 136076
Email: tpalmer@gesonline.com	WO #: GES Project # 0901691
Project Name: Gastown WWTP #915171 - Monthly Event Desc: Monthly	Project #: 48002525
Site: New York	SSOW#:

480-155334 Chain of Custody

Analysis Requested

Codes:
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)
I - Ice
J - DI Water
K - EDTA
L - EDA
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	335.4 - Cyanide, Total	SM4500_H+ - pH	8260C - TCL + CP-51 (Stars)	300.0_28D - Cl, SO4	200.7 - Ca, Mg, K, Na	310.2 - Alkalinity, Total	Total Number of containers	Special Instructions/Note:
			Preservation Code:				B	N	A	N	D	N		
Post-Carbon 2	6/21/19	1130	G	Water	N	N	X	X	X					
Pre-Carbon	6/21/19	1140	G	Water	N	N			X	X	X	X		

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

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

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

Special Instructions/QC Requirements:

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

	Date/Time	Company		Date/Time	Company
Relinquished by: MVR	6/21 1155	OGS	Received by:	6/21/19 1155	ARB.
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.9 #1

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-155334-1

Login Number: 155334

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Harper, Marcus D

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	OGS
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	

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

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

Laboratory Job ID: 480-153683-1
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

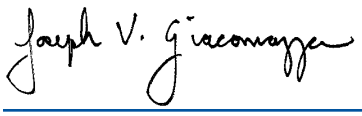
Joseph V. Giacomazza

Authorized for release by:
7/17/2019 2:51:13 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

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



Joe Giacomazza
Project Management Assistant II
7/17/2019 2:51:13 PM

Table of Contents

Definitions/Glossary

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

Job ID: 480-153683-1

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

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

GC Semi VOA

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

General Chemistry

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
H	Sample was prepped or analyzed beyond the specified holding time
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Job ID: 480-153683-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-153683-1

Comments
No additional comments.

Receipt
The samples were received on 5/17/2019 12:35 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.9º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-474636 recovered outside acceptance criteria, low biased, for 1,1-Dichloroethene. 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. the following samples are impacted: Post-Carbon 2 (480-153683-1) and Pre-Carbon (480-153683-2).

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 480-474636 The following samples were affected : Post-Carbon 2 (480-153683-1) and Pre-Carbon (480-153683-2).

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-153683-2). 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
Method(s) 8270D: The laboratory control sample (LCS) for preparation batch 480-473786 and analytical batch 480-474183 recovered outside control limits for the following analytes: Pentachlorophenol. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. The following sample is impacted:Post-Carbon (480-153683-1).

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 (480-153683-2). 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 laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 480-473851 and analytical batch 480-474055 recovered outside control limits for the following analytes: 4,4'-DDT. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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 480-476855 and analytical batch 480-476865 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) 420.1, 9065: The following sample was prepared within analytical hold time but were analyzed outside of analytical holding time due to Instrument issues: Post-Carbon 2 (480-153683-1).

Job ID: 480-153683-1 (Continued)

Laboratory: Eurofins TestAmerica, Buffalo (Continued)

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 (480-153683-1).

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 480-473851.

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

Job ID: 480-153683-1

Client Sample ID: Post-Carbon 2

Date Collected: 05/17/19 10:30
Date Received: 05/17/19 12:35

Lab Sample ID: 480-153683-1

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/25/19 17:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/25/19 17:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/25/19 17:50	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/25/19 17:50	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/25/19 17:50	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/25/19 17:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/25/19 17:50	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			05/25/19 17:50	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/25/19 17:50	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/25/19 17:50	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/25/19 17:50	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/25/19 17:50	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			05/25/19 17:50	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/25/19 17:50	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/25/19 17:50	1
2-Butanone (MEK)	ND	*	10	1.3	ug/L			05/25/19 17:50	1
2-Hexanone	ND		5.0	1.2	ug/L			05/25/19 17:50	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			05/25/19 17:50	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/25/19 17:50	1
Acetone	ND		10	3.0	ug/L			05/25/19 17:50	1
Benzene	ND		1.0	0.41	ug/L			05/25/19 17:50	1
Bromoform	ND		1.0	0.26	ug/L			05/25/19 17:50	1
Bromomethane	ND		1.0	0.69	ug/L			05/25/19 17:50	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/25/19 17:50	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/25/19 17:50	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/25/19 17:50	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/25/19 17:50	1
Chloroethane	ND		1.0	0.32	ug/L			05/25/19 17:50	1
Chloroform	ND		1.0	0.34	ug/L			05/25/19 17:50	1
Chloromethane	ND		1.0	0.35	ug/L			05/25/19 17:50	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/25/19 17:50	1
Cyclohexane	ND		1.0	0.18	ug/L			05/25/19 17:50	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/25/19 17:50	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/25/19 17:50	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/25/19 17:50	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/25/19 17:50	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/25/19 17:50	1
Methyl acetate	ND		2.5	1.3	ug/L			05/25/19 17:50	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/25/19 17:50	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/25/19 17:50	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/25/19 17:50	1
m,p-Xylene	ND		2.0	0.66	ug/L			05/25/19 17:50	1
Naphthalene	ND		1.0	0.43	ug/L			05/25/19 17:50	1
n-Butylbenzene	ND		1.0	0.64	ug/L			05/25/19 17:50	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/25/19 17:50	1
o-Xylene	ND		1.0	0.76	ug/L			05/25/19 17:50	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			05/25/19 17:50	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/25/19 17:50	1
Toluene	ND		1.0	0.51	ug/L			05/25/19 17:50	1

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

Job ID: 480-153683-1

Client Sample ID: Post-Carbon 2

Date Collected: 05/17/19 10:30
Date Received: 05/17/19 12:35

Lab Sample ID: 480-153683-1

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/25/19 17:50	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/25/19 17:50	1
Trichloroethene	ND		1.0	0.46	ug/L			05/25/19 17:50	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/25/19 17:50	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/25/19 17:50	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/25/19 17:50	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/25/19 17:50	1
Styrene	ND		1.0	0.73	ug/L			05/25/19 17:50	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			05/25/19 17:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*		*05/25/19 17:50*	*1*
4-Bromofluorobenzene (Surr)	*91*		*73 - 120*		*05/25/19 17:50*	*1*
Toluene-d8 (Surr)	*93*		*80 - 120*		*05/25/19 17:50*	*1*
Dibromofluoromethane (Surr)	*96*		*75 - 123*		*05/25/19 17:50*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		05/20/19 15:58	05/23/19 03:16	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		05/20/19 15:58	05/23/19 03:16	1
Acenaphthene	ND		5.0	0.41	ug/L		05/20/19 15:58	05/23/19 03:16	1
Acenaphthylene	ND		5.0	0.38	ug/L		05/20/19 15:58	05/23/19 03:16	1
Anthracene	ND		5.0	0.28	ug/L		05/20/19 15:58	05/23/19 03:16	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		05/20/19 15:58	05/23/19 03:16	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		05/20/19 15:58	05/23/19 03:16	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		05/20/19 15:58	05/23/19 03:16	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		05/20/19 15:58	05/23/19 03:16	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		05/20/19 15:58	05/23/19 03:16	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		05/20/19 15:58	05/23/19 03:16	1
Carbazole	ND		5.0	0.30	ug/L		05/20/19 15:58	05/23/19 03:16	1
Chrysene	ND		5.0	0.33	ug/L		05/20/19 15:58	05/23/19 03:16	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		05/20/19 15:58	05/23/19 03:16	1
Dibenzofuran	ND		10	0.51	ug/L		05/20/19 15:58	05/23/19 03:16	1
Fluoranthene	ND		5.0	0.40	ug/L		05/20/19 15:58	05/23/19 03:16	1
Fluorene	ND		5.0	0.36	ug/L		05/20/19 15:58	05/23/19 03:16	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		05/20/19 15:58	05/23/19 03:16	1
Naphthalene	ND		5.0	0.76	ug/L		05/20/19 15:58	05/23/19 03:16	1
Pentachlorophenol	ND	*	10	2.2	ug/L		05/20/19 15:58	05/23/19 03:16	1
Phenanthrene	ND		5.0	0.44	ug/L		05/20/19 15:58	05/23/19 03:16	1
Phenol	ND		5.0	0.39	ug/L		05/20/19 15:58	05/23/19 03:16	1
Pyrene	ND		5.0	0.34	ug/L		05/20/19 15:58	05/23/19 03:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*85*		*46 - 120*	*05/20/19 15:58*	*05/23/19 03:16*	*1*
2-Fluorobiphenyl	*88*		*48 - 120*	*05/20/19 15:58*	*05/23/19 03:16*	*1*
p-Terphenyl-d14	*98*		*59 - 136*	*05/20/19 15:58*	*05/23/19 03:16*	*1*
Phenol-d5	*46*		*22 - 120*	*05/20/19 15:58*	*05/23/19 03:16*	*1*
2-Fluorophenol	*57*		*35 - 120*	*05/20/19 15:58*	*05/23/19 03:16*	*1*
2,4,6-Tribromophenol	*82*		*41 - 120*	*05/20/19 15:58*	*05/23/19 03:16*	*1*

Client Sample Results

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

Job ID: 480-153683-1

Client Sample ID: Post-Carbon 2

Date Collected: 05/17/19 10:30
Date Received: 05/17/19 12:35

Lab Sample ID: 480-153683-1

Matrix: Wastewater

Method: 608.3 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.048	0.0077	ug/L		05/21/19 08:18	05/22/19 10:57	1
alpha-BHC	ND		0.048	0.0073	ug/L		05/21/19 08:18	05/22/19 10:57	1
beta-BHC	ND		0.048	0.024	ug/L		05/21/19 08:18	05/22/19 10:57	1
delta-BHC	ND		0.048	0.0095	ug/L		05/21/19 08:18	05/22/19 10:57	1
gamma-BHC (Lindane)	ND		0.048	0.0076	ug/L		05/21/19 08:18	05/22/19 10:57	1
Chlordane (technical)	ND		0.48	0.28	ug/L		05/21/19 08:18	05/22/19 10:57	1
4,4'-DDD	ND		0.048	0.0088	ug/L		05/21/19 08:18	05/22/19 10:57	1
4,4'-DDE	ND		0.048	0.011	ug/L		05/21/19 08:18	05/22/19 10:57	1
4,4'-DDT	ND	*	0.048	0.010	ug/L		05/21/19 08:18	05/22/19 10:57	1
Dieldrin	ND		0.048	0.0093	ug/L		05/21/19 08:18	05/22/19 10:57	1
Endosulfan I	ND		0.048	0.010	ug/L		05/21/19 08:18	05/22/19 10:57	1
Endosulfan II	ND		0.048	0.011	ug/L		05/21/19 08:18	05/22/19 10:57	1
Endosulfan sulfate	ND		0.048	0.015	ug/L		05/21/19 08:18	05/22/19 10:57	1
Endrin	ND		0.048	0.013	ug/L		05/21/19 08:18	05/22/19 10:57	1
Endrin aldehyde	ND		0.048	0.016	ug/L		05/21/19 08:18	05/22/19 10:57	1
Heptachlor	ND		0.048	0.0081	ug/L		05/21/19 08:18	05/22/19 10:57	1
Heptachlor epoxide	ND		0.048	0.0070	ug/L		05/21/19 08:18	05/22/19 10:57	1
Toxaphene	ND		0.48	0.11	ug/L		05/21/19 08:18	05/22/19 10:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*80*		*23 - 120*	*05/21/19 08:18*	*05/22/19 10:57*	*1*
Tetrachloro-m-xylene	*81*		*44 - 120*	*05/21/19 08:18*	*05/22/19 10:57*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	**2.7**	**J F1 B**	5.0	1.4	mg/L		06/08/19 08:53	06/08/19 11:32	1
Cyanide, Total	**0.17**		0.010	0.0050	mg/L		05/29/19 16:28	05/30/19 19:31	1
Phenolics, Total Recoverable	**0.014**	**B ***	0.010	0.0050	mg/L		06/13/19 11:55	06/13/19 23:30	1
Phenolics, Total Recoverable	**0.0065**	**J H**	0.010	0.0050	mg/L		06/13/19 11:55	06/17/19 21:14	1
Total Dissolved Solids	**813**		10.0	4.0	mg/L			05/24/19 10:41	1
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			05/19/19 06:48	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	4.0	mg/L			05/23/19 17:35	1
pH	**7.4**	**HF**	0.1	0.1	SU			05/22/19 17:02	1
Temperature	**18.4**	**HF**	0.001	0.001	Degrees C			05/22/19 17:02	1

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

Job ID: 480-153683-1

Client Sample ID: Pre-Carbon

Date Collected: 05/17/19 10:45
Date Received: 05/17/19 12:35

Lab Sample ID: 480-153683-2

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		25	21	ug/L			05/25/19 18:14	25
1,1,2,2-Tetrachloroethane	ND		25	5.3	ug/L			05/25/19 18:14	25
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25	7.8	ug/L			05/25/19 18:14	25
1,1,2-Trichloroethane	ND		25	5.8	ug/L			05/25/19 18:14	25
1,1-Dichloroethane	ND		25	9.5	ug/L			05/25/19 18:14	25
1,1-Dichloroethene	ND		25	7.3	ug/L			05/25/19 18:14	25
1,2,4-Trichlorobenzene	ND		25	10	ug/L			05/25/19 18:14	25
1,2,4-Trimethylbenzene	ND		25	19	ug/L			05/25/19 18:14	25
1,2-Dibromo-3-Chloropropane	ND		25	9.8	ug/L			05/25/19 18:14	25
1,2-Dichlorobenzene	ND		25	20	ug/L			05/25/19 18:14	25
1,2-Dichloroethane	ND		25	5.3	ug/L			05/25/19 18:14	25
1,2-Dichloropropane	ND		25	18	ug/L			05/25/19 18:14	25
1,3,5-Trimethylbenzene	ND		25	19	ug/L			05/25/19 18:14	25
1,3-Dichlorobenzene	ND		25	20	ug/L			05/25/19 18:14	25
1,4-Dichlorobenzene	ND		25	21	ug/L			05/25/19 18:14	25
2-Butanone (MEK)	ND	*	250	33	ug/L			05/25/19 18:14	25
2-Hexanone	ND		130	31	ug/L			05/25/19 18:14	25
4-Isopropyltoluene	ND		25	7.8	ug/L			05/25/19 18:14	25
4-Methyl-2-pentanone (MIBK)	ND		130	53	ug/L			05/25/19 18:14	25
Acetone	ND		250	75	ug/L			05/25/19 18:14	25
Benzene	**2300**		25	10	ug/L			05/25/19 18:14	25
Bromoform	ND		25	6.5	ug/L			05/25/19 18:14	25
Bromomethane	ND		25	17	ug/L			05/25/19 18:14	25
Carbon disulfide	ND		25	4.8	ug/L			05/25/19 18:14	25
Carbon tetrachloride	ND		25	6.8	ug/L			05/25/19 18:14	25
Chlorobenzene	ND		25	19	ug/L			05/25/19 18:14	25
Dibromochloromethane	ND		25	8.0	ug/L			05/25/19 18:14	25
Chloroethane	ND		25	8.0	ug/L			05/25/19 18:14	25
Chloroform	**23**	**J**	25	8.5	ug/L			05/25/19 18:14	25
Chloromethane	**9.9**	**J**	25	8.8	ug/L			05/25/19 18:14	25
cis-1,2-Dichloroethene	ND		25	20	ug/L			05/25/19 18:14	25
Cyclohexane	ND		25	4.5	ug/L			05/25/19 18:14	25
Bromodichloromethane	ND		25	9.8	ug/L			05/25/19 18:14	25
Dichlorodifluoromethane	ND		25	17	ug/L			05/25/19 18:14	25
Ethylbenzene	**58**		25	19	ug/L			05/25/19 18:14	25
1,2-Dibromoethane	ND		25	18	ug/L			05/25/19 18:14	25
Isopropylbenzene	ND		25	20	ug/L			05/25/19 18:14	25
Methyl acetate	ND		63	33	ug/L			05/25/19 18:14	25
Methyl tert-butyl ether	ND		25	4.0	ug/L			05/25/19 18:14	25
Methylcyclohexane	ND		25	4.0	ug/L			05/25/19 18:14	25
Methylene Chloride	**17**	**J**	25	11	ug/L			05/25/19 18:14	25
m,p-Xylene	**73**		50	17	ug/L			05/25/19 18:14	25
Naphthalene	**100**		25	11	ug/L			05/25/19 18:14	25
n-Butylbenzene	ND		25	16	ug/L			05/25/19 18:14	25
N-Propylbenzene	ND		25	17	ug/L			05/25/19 18:14	25
o-Xylene	**43**		25	19	ug/L			05/25/19 18:14	25
sec-Butylbenzene	ND		25	19	ug/L			05/25/19 18:14	25
Tetrachloroethene	ND		25	9.0	ug/L			05/25/19 18:14	25
Toluene	**340**		25	13	ug/L			05/25/19 18:14	25

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

Job ID: 480-153683-1

Client Sample ID: Pre-Carbon

Date Collected: 05/17/19 10:45
Date Received: 05/17/19 12:35

Lab Sample ID: 480-153683-2

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		25	23	ug/L			05/25/19 18:14	25
trans-1,3-Dichloropropene	ND		25	9.3	ug/L			05/25/19 18:14	25
Trichloroethene	ND		25	12	ug/L			05/25/19 18:14	25
Trichlorofluoromethane	ND		25	22	ug/L			05/25/19 18:14	25
Vinyl chloride	ND		25	23	ug/L			05/25/19 18:14	25
Xylenes, Total	**120**		50	17	ug/L			05/25/19 18:14	25
cis-1,3-Dichloropropene	ND		25	9.0	ug/L			05/25/19 18:14	25
Styrene	ND		25	18	ug/L			05/25/19 18:14	25
tert-Butylbenzene	ND		25	20	ug/L			05/25/19 18:14	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*05/25/19 18:14*	*25*
4-Bromofluorobenzene (Surr)	*90*		*73 - 120*		*05/25/19 18:14*	*25*
Toluene-d8 (Surr)	*92*		*80 - 120*		*05/25/19 18:14*	*25*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*05/25/19 18:14*	*25*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**149000**		500	100	ug/L		05/20/19 13:23	05/23/19 17:02	1
Magnesium	**47300**		200	43.4	ug/L		05/20/19 13:23	05/23/19 17:02	1
Potassium	**5260**		500	100	ug/L		05/20/19 13:23	05/23/19 17:02	1
Sodium	**100000**		1000	324	ug/L		05/20/19 13:23	05/23/19 17:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**198**		2.5	1.4	mg/L			05/31/19 18:42	5
Sulfate	**125**		10.0	1.7	mg/L			05/31/19 18:42	5
Alkalinity, Total	**330**		40.0	16.0	mg/L			05/30/19 11:46	4

Lab Chronicle

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

Job ID: 480-153683-1

Client Sample ID: Post-Carbon 2

Lab Sample ID: 480-153683-1

Date Collected: 05/17/19 10:30

Matrix: Wastewater

Date Received: 05/17/19 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	474636	05/25/19 17:50	KMN	TAL BUF
Total/NA	Prep	3510C			473786	05/20/19 15:58	ATG	TAL BUF
Total/NA	Analysis	8270D		1	474183	05/23/19 03:16	PJQ	TAL BUF
Total/NA	Prep	3510C			473851	05/21/19 08:18	JMP	TAL BUF
Total/NA	Analysis	608.3		1	474055	05/22/19 10:57	JLS	TAL BUF
Total/NA	Prep	1664B			476855	06/08/19 08:53		TAL BUF
Total/NA	Analysis	1664B		1	476865	06/08/19 11:32	AJS	TAL BUF
Total/NA	Prep	Distill/CN			475165	05/29/19 16:28	AJL	TAL BUF
Total/NA	Analysis	335.4		1	475457	05/30/19 19:31	JRS1	TAL BUF
Total/NA	Prep	Distill/Phenol			477642	06/13/19 11:55	DLR	TAL BUF
Total/NA	Analysis	420.1		1	478011	06/13/19 23:30	KEB	TAL BUF
Total/NA	Prep	Distill/Phenol			477642	06/13/19 11:55	DLR	TAL BUF
Total/NA	Analysis	420.1		1	478341	06/17/19 21:14	KEB	TAL BUF
Total/NA	Analysis	SM 2540C		1	474591	05/24/19 10:41	CSS	TAL BUF
Total/NA	Analysis	SM 2540D		1	474487	05/23/19 17:35	SMH	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	474365	05/22/19 17:02	KMF	TAL BUF
Total/NA	Analysis	SM 5210B		1	473604	05/19/19 06:48	MDL	TAL BUF

Client Sample ID: Pre-Carbon

Lab Sample ID: 480-153683-2

Date Collected: 05/17/19 10:45

Matrix: Wastewater

Date Received: 05/17/19 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		25	474636	05/25/19 18:14	KMN	TAL BUF
Total/NA	Prep	200.7			473691	05/20/19 13:23	EMB	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	474577	05/23/19 17:02	AMH	TAL BUF
Total/NA	Analysis	300.0		5	475580	05/31/19 18:42	RJS	TAL BUF
Total/NA	Analysis	310.2		4	475409	05/30/19 11:46	KEB	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: New York State D.E.C.
Job ID: 480-153683-1
Project/Site: Gastown WWTP #915171

Laboratory: Eurofins 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	03-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
335.4	Distill/CN	Wastewater	Cyanide, Total
SM 4500 H+ B		Wastewater	pH
SM 4500 H+ B		Wastewater	Temperature

Method Summary

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

Job ID: 480-153683-1

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

Sample Summary

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

Job ID: 480-153683-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-153683-1	Post-Carbon 2	Wastewater	05/17/19 10:30	05/17/19 12:35	
480-153683-2	Pre-Carbon	Wastewater	05/17/19 10:45	05/17/19 12:35	

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler:	Lab PM: Johnson, Orlette S	Carrier Tracking No(s):	COC No: 480-123669-28089.1
Client Contact: Thomas Palmer	Phone:	E-Mail: orlette.johnson@testamericainc.com		Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc				Job #:
Address: 415 Lawrence Bell Drive Suite 6	Due Date Requested:			
City: Williamsville	TAT Requested (days): STD			
State, Zip: NY, 14221				
Phone: 518-402-9662(Tel)	PO #: CallOut ID 136076			
Email: tpalmer@gesonline.com	WO #: GES Project # 0901691			
Project Name: Gastown WWTP #915171 - Quarterly Event Desc: Quarterly	Project #: 48002525			
Site: New York	SSOW#:			

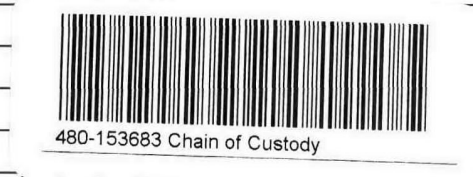
Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	420.4 - Phenolics, Total Recoverable	8260C - TCL + CP-51 (Stars)	608_Pest - Priority Pollutant Pesticides	8270C - (MOD) TCL SVOA	5210B - Biochemical Oxygen Demand	2540D - Total Suspended Solids	2540C_Calcd - Total Dissolved Solids	335.4 - Cyanide, Total	SM4500_H+ - pH	1664B - Oil and Grease	300.0_28D - (MOD) Cl, SO4	200.7 - Ca, Mg, K, Na	310.2 - Alkalinity, Total	Total Number of containers	Special Instructions/Note:
			Preservation Code:				S	A	N	N	N	N	N	B	N	S	N	D	N		
Post-Carbon 2	5/17	1030	G	Water			X	X	X	X	X	X	X	X	X	X					
Pre-Carbon	5/17	1045	G	Water				X									X	X	X		



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

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

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

Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		5/17 1235	GES		5/17/19 1235	TMB
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: #1 3.9°C

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: New York State D.E.C. Job Number: 480-153683-1

Login Number: 153683 **List Source: Eurofins TestAmerica, Buffalo**
List Number: 1
Creator: Kolb, Chris M

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 480-156158-1
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:
7/30/2019 8:03:38 AM

Orlette Johnson, Senior Project Manager
(484)685-0864
orlette.johnson@testamericainc.com

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

Orlette Johnson
Senior Project Manager
7/30/2019 8:03:38 AM

Table of Contents

Definitions/Glossary

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

Job ID: 480-156158-1

Qualifiers

GC/MS VOA

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

General Chemistry

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	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)

Job ID: 480-156158-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-156158-1

Receipt
The samples were received on 7/12/2019 12:45 PM; 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: The continuing calibration verification (CCV) associated with batch 480-482370 recovered above the upper control limit for 2-Butanone (MEK). The samples associated with this CCV were non-detect for the affected analyte; therefore, the data have been reported. The following samples are impacted: Post-Carbon 2 (480-156158-1) and Pre-Carbon (480-156158-2).

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-156158-2), (480-156158-E-2 MS) and (480-156158-E-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 (480-156158-2). 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) 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 (480-156158-1).

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

Job ID: 480-156158-1

Client Sample ID: Post-Carbon 2

Date Collected: 07/12/19 12:00
Date Received: 07/12/19 12:45

Lab Sample ID: 480-156158-1

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/17/19 17:59	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			07/17/19 17:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			07/17/19 17:59	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/17/19 17:59	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/17/19 17:59	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/17/19 17:59	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/17/19 17:59	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			07/17/19 17:59	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			07/17/19 17:59	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/17/19 17:59	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/17/19 17:59	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/17/19 17:59	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			07/17/19 17:59	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/17/19 17:59	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/17/19 17:59	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/17/19 17:59	1
2-Hexanone	ND		5.0	1.2	ug/L			07/17/19 17:59	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			07/17/19 17:59	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			07/17/19 17:59	1
Acetone	**5.8**	**J**	10	3.0	ug/L			07/17/19 17:59	1
Benzene	**0.64**	**J**	1.0	0.41	ug/L			07/17/19 17:59	1
Bromoform	ND		1.0	0.26	ug/L			07/17/19 17:59	1
Bromomethane	ND		1.0	0.69	ug/L			07/17/19 17:59	1
Carbon disulfide	ND		1.0	0.19	ug/L			07/17/19 17:59	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/17/19 17:59	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/17/19 17:59	1
Dibromochloromethane	ND		1.0	0.32	ug/L			07/17/19 17:59	1
Chloroethane	ND		1.0	0.32	ug/L			07/17/19 17:59	1
Chloroform	**0.34**	**J**	1.0	0.34	ug/L			07/17/19 17:59	1
Chloromethane	ND		1.0	0.35	ug/L			07/17/19 17:59	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/17/19 17:59	1
Cyclohexane	ND		1.0	0.18	ug/L			07/17/19 17:59	1
Bromodichloromethane	ND		1.0	0.39	ug/L			07/17/19 17:59	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/17/19 17:59	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/17/19 17:59	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			07/17/19 17:59	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/17/19 17:59	1
Methyl acetate	ND		2.5	1.3	ug/L			07/17/19 17:59	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/17/19 17:59	1
Methylcyclohexane	ND		1.0	0.16	ug/L			07/17/19 17:59	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/17/19 17:59	1
m,p-Xylene	ND		2.0	0.66	ug/L			07/17/19 17:59	1
Naphthalene	ND		1.0	0.43	ug/L			07/17/19 17:59	1
n-Butylbenzene	ND		1.0	0.64	ug/L			07/17/19 17:59	1
N-Propylbenzene	ND		1.0	0.69	ug/L			07/17/19 17:59	1
o-Xylene	ND		1.0	0.76	ug/L			07/17/19 17:59	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			07/17/19 17:59	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/17/19 17:59	1
Toluene	ND		1.0	0.51	ug/L			07/17/19 17:59	1

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

Job ID: 480-156158-1

Client Sample ID: Post-Carbon 2

Lab Sample ID: 480-156158-1

Date Collected: 07/12/19 12:00

Matrix: Wastewater

Date Received: 07/12/19 12:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/17/19 17:59	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			07/17/19 17:59	1
Trichloroethene	ND		1.0	0.46	ug/L			07/17/19 17:59	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/17/19 17:59	1
Vinyl chloride	**0.98**	**J**	1.0	0.90	ug/L			07/17/19 17:59	1
Xylenes, Total	ND		2.0	0.66	ug/L			07/17/19 17:59	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			07/17/19 17:59	1
Styrene	ND		1.0	0.73	ug/L			07/17/19 17:59	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			07/17/19 17:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*07/17/19 17:59*	*1*
4-Bromofluorobenzene (Surr)	*92*		*73 - 120*		*07/17/19 17:59*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*07/17/19 17:59*	*1*
Dibromofluoromethane (Surr)	*96*		*75 - 123*		*07/17/19 17:59*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.15**		0.010	0.0050	mg/L		07/22/19 14:55	07/23/19 12:37	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.5**	**HF**	0.1	0.1	SU			07/23/19 13:45	1
Temperature	**20.7**	**HF**	0.001	0.001	Degrees C			07/23/19 13:45	1

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

Job ID: 480-156158-1

Client Sample ID: Pre-Carbon

Date Collected: 07/12/19 12:15
Date Received: 07/12/19 12:45

Lab Sample ID: 480-156158-2

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		25	21	ug/L			07/17/19 18:22	25
1,1,2,2-Tetrachloroethane	ND		25	5.3	ug/L			07/17/19 18:22	25
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25	7.8	ug/L			07/17/19 18:22	25
1,1,2-Trichloroethane	ND		25	5.8	ug/L			07/17/19 18:22	25
1,1-Dichloroethane	ND		25	9.5	ug/L			07/17/19 18:22	25
1,1-Dichloroethene	ND		25	7.3	ug/L			07/17/19 18:22	25
1,2,4-Trichlorobenzene	ND		25	10	ug/L			07/17/19 18:22	25
1,2,4-Trimethylbenzene	**29**		25	19	ug/L			07/17/19 18:22	25
1,2-Dibromo-3-Chloropropane	ND		25	9.8	ug/L			07/17/19 18:22	25
1,2-Dichlorobenzene	ND		25	20	ug/L			07/17/19 18:22	25
1,2-Dichloroethane	ND		25	5.3	ug/L			07/17/19 18:22	25
1,2-Dichloropropane	ND		25	18	ug/L			07/17/19 18:22	25
1,3,5-Trimethylbenzene	ND		25	19	ug/L			07/17/19 18:22	25
1,3-Dichlorobenzene	ND		25	20	ug/L			07/17/19 18:22	25
1,4-Dichlorobenzene	ND		25	21	ug/L			07/17/19 18:22	25
2-Butanone (MEK)	ND		250	33	ug/L			07/17/19 18:22	25
2-Hexanone	ND		130	31	ug/L			07/17/19 18:22	25
4-Isopropyltoluene	ND		25	7.8	ug/L			07/17/19 18:22	25
4-Methyl-2-pentanone (MIBK)	ND		130	53	ug/L			07/17/19 18:22	25
Acetone	ND		250	75	ug/L			07/17/19 18:22	25
Bromoform	ND		25	6.5	ug/L			07/17/19 18:22	25
Bromomethane	ND		25	17	ug/L			07/17/19 18:22	25
Carbon disulfide	ND		25	4.8	ug/L			07/17/19 18:22	25
Carbon tetrachloride	ND		25	6.8	ug/L			07/17/19 18:22	25
Chlorobenzene	ND		25	19	ug/L			07/17/19 18:22	25
Dibromochloromethane	ND		25	8.0	ug/L			07/17/19 18:22	25
Chloroethane	ND		25	8.0	ug/L			07/17/19 18:22	25
Chloroform	**12**	**J**	25	8.5	ug/L			07/17/19 18:22	25
Chloromethane	ND		25	8.8	ug/L			07/17/19 18:22	25
cis-1,2-Dichloroethene	ND		25	20	ug/L			07/17/19 18:22	25
Cyclohexane	ND		25	4.5	ug/L			07/17/19 18:22	25
Bromodichloromethane	ND		25	9.8	ug/L			07/17/19 18:22	25
Dichlorodifluoromethane	ND		25	17	ug/L			07/17/19 18:22	25
Ethylbenzene	**40**		25	19	ug/L			07/17/19 18:22	25
1,2-Dibromoethane	ND		25	18	ug/L			07/17/19 18:22	25
Isopropylbenzene	ND		25	20	ug/L			07/17/19 18:22	25
Methyl acetate	ND		63	33	ug/L			07/17/19 18:22	25
Methyl tert-butyl ether	ND		25	4.0	ug/L			07/17/19 18:22	25
Methylcyclohexane	ND		25	4.0	ug/L			07/17/19 18:22	25
Methylene Chloride	ND		25	11	ug/L			07/17/19 18:22	25
m,p-Xylene	**230**		50	17	ug/L			07/17/19 18:22	25
Naphthalene	**1100**		25	11	ug/L			07/17/19 18:22	25
n-Butylbenzene	ND		25	16	ug/L			07/17/19 18:22	25
N-Propylbenzene	ND		25	17	ug/L			07/17/19 18:22	25
o-Xylene	**130**		25	19	ug/L			07/17/19 18:22	25
sec-Butylbenzene	ND		25	19	ug/L			07/17/19 18:22	25
Tetrachloroethene	ND		25	9.0	ug/L			07/17/19 18:22	25
Toluene	**1300**		25	13	ug/L			07/17/19 18:22	25
trans-1,2-Dichloroethene	ND		25	23	ug/L			07/17/19 18:22	25

Client Sample ID: Pre-Carbon

Date Collected: 07/12/19 12:15
Date Received: 07/12/19 12:45

Lab Sample ID: 480-156158-2

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		25	9.3	ug/L			07/17/19 18:22	25
Trichloroethene	ND		25	12	ug/L			07/17/19 18:22	25
Trichlorofluoromethane	ND		25	22	ug/L			07/17/19 18:22	25
Vinyl chloride	ND		25	23	ug/L			07/17/19 18:22	25
Xylenes, Total	**360**		50	17	ug/L			07/17/19 18:22	25
cis-1,3-Dichloropropene	ND		25	9.0	ug/L			07/17/19 18:22	25
Styrene	**120**		25	18	ug/L			07/17/19 18:22	25
tert-Butylbenzene	ND		25	20	ug/L			07/17/19 18:22	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*07/17/19 18:22*	*25*
4-Bromofluorobenzene (Surr)	*93*		*73 - 120*		*07/17/19 18:22*	*25*
Toluene-d8 (Surr)	*98*		*80 - 120*		*07/17/19 18:22*	*25*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*07/17/19 18:22*	*25*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**7200**		200	82	ug/L			07/17/19 23:28	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*07/17/19 23:28*	*200*
4-Bromofluorobenzene (Surr)	*94*		*73 - 120*		*07/17/19 23:28*	*200*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/17/19 23:28*	*200*
Dibromofluoromethane (Surr)	*92*		*75 - 123*		*07/17/19 23:28*	*200*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**133000**		500	100	ug/L		07/17/19 11:25	07/17/19 18:25	1
Magnesium	**54700**		200	43.4	ug/L		07/17/19 11:25	07/17/19 18:25	1
Potassium	**4180**		500	100	ug/L		07/17/19 11:25	07/17/19 18:25	1
Sodium	**114000**		1000	324	ug/L		07/17/19 11:25	07/17/19 18:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**232**		2.5	1.4	mg/L			07/17/19 20:58	5
Sulfate	**126**		10.0	1.7	mg/L			07/17/19 20:58	5
Alkalinity, Total	**384**		40.0	16.0	mg/L			07/23/19 20:16	4

Lab Chronicle

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

Job ID: 480-156158-1

Client Sample ID: Post-Carbon 2

Lab Sample ID: 480-156158-1
Date Collected: 07/12/19 12:00
Matrix: Wastewater
Date Received: 07/12/19 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	482370	07/17/19 17:59	AEM	TAL BUF
Total/NA	Prep	Distill/CN			483253	07/22/19 14:55	AJL	TAL BUF
Total/NA	Analysis	335.4		1	483298	07/23/19 12:37	MDL	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	483343	07/23/19 13:45	KEB	TAL BUF

Client Sample ID: Pre-Carbon

Lab Sample ID: 480-156158-2
Date Collected: 07/12/19 12:15
Matrix: Wastewater
Date Received: 07/12/19 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		25	482370	07/17/19 18:22	AEM	TAL BUF
Total/NA	Analysis	8260C	DL	200	482533	07/17/19 23:28	AMM	TAL BUF
Total/NA	Prep	200.7			482298	07/17/19 11:25	EMB	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	482561	07/17/19 18:25	AMH	TAL BUF
Total/NA	Analysis	300.0		5	482404	07/17/19 20:58	IMZ	TAL BUF
Total/NA	Analysis	310.2		4	483578	07/23/19 20:16	SRW	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: New York State D.E.C.
Job ID: 480-156158-1
Project/Site: Gastown WWTP #915171

Laboratory: Eurofins 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	03-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
335.4	Distill/CN	Wastewater	Cyanide, Total
SM 4500 H+ B		Wastewater	pH
SM 4500 H+ B		Wastewater	Temperature

Method Summary

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

Job ID: 480-156158-1

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

Sample Summary

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

Job ID: 480-156158-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-156158-1	Post-Carbon 2	Wastewater	07/12/19 12:00	07/12/19 12:45	
480-156158-2	Pre-Carbon	Wastewater	07/12/19 12:15	07/12/19 12:45	

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Peter Zaffram	Lab PM: Johnson, Orlette S	Carrier Tracking No(s):	COC No: 480-123660-28090.1
Client Contact: Thomas Palmer	Phone:	E-Mail: orlette.johnson@testamericainc.com		Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc		Analysis Requested		Job #:

Address: 415 Lawrence Bell Drive Suite 6	Due Date Requested:	Preservation Codes:
City: Williamsville	TAT Requested (days):	
State, Zip: NY, 14221		
Phone: 518-402-9662(Tel)	PO #: CallOut ID 136076	
Email: tpalmer@gesonline.com	WO #: GES Project # 0901691	
Project Name: Gastown WWTP #915171 - Monthly Event Desc: Monthly	Project #: 48002525	
Site: New York	SSOW#:	

480-156158 Chain of Custody

K - EDTA W - pH 4-5
L - EDA Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	335.4 - Cyanide, Total	SM4500_H+ - pH	8260C - TCL + CP-51 (Stars)	300.0_28D - Cl, SO4	200.7 - Ca, Mg, K, Na	310.2 - Alkalinity, Total	Total Number of containe	Special Instructions/Note:
			Preservation Code:				B	N	A	N	D	N		
Post-Carbon 2	7/12/19	1200	G	Water			X	X	X					
Pre-Carbon	7/12/19	1215	G	Water					X	X	X	X		

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

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

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

Special Instructions/QC Requirements:

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

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	7/12/19 1245			7/12/19 1245	MAB
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.6 #1 ICE

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: New York State D.E.C. Job Number: 480-156158-1

Login Number: 156158 **List Source: Eurofins TestAmerica, Buffalo**
List Number: 1
Creator: Kolb, Chris M

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

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

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

Laboratory Job ID: 480-157314-1
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

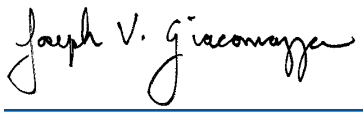
Joseph V. Giacomazza

Authorized for release by:
8/26/2019 12:35:04 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

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
8/26/2019 12:35:04 PM

Table of Contents

Definitions/Glossary

Client: New York State D.E.C.
Job ID: 480-157314-1
Project/Site: Gastown WWTP #915171

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

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

GC Semi VOA

Qualifier	Qualifier Description
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Metals

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

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
H	Sample was prepped or analyzed beyond the specified holding time
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

Job ID: 480-157314-1

Job ID: 480-157314-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-157314-1

Comments
No additional comments.

Receipt
The samples were received on 8/7/2019 3:47 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.9º 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 (480-157314-2). 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: Pre-Carbon (480-157314-2). 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 (480-157314-2). 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.

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

General Chemistry
Method(s) SM 2540C: Reanalysis of the following sample was performed outside of the analytical holding time due to confirmation of historical failure; both results are reported : Post-Carbon 2 (480-157314-1).

Method(s) SM 5210B: The residual D.O. in sample (480-157328-A-4) was < 1.0 mg/L in all dilutions tested; they were over depleted. Results were reported, but they may be biased low.

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 (480-157314-1).

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 480-485979.

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

Job ID: 480-157314-1

Client Sample ID: Post-Carbon 2

Date Collected: 08/07/19 15:15
Date Received: 08/07/19 15:47

Lab Sample ID: 480-157314-1

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			08/12/19 17:58	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			08/12/19 17:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			08/12/19 17:58	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			08/12/19 17:58	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			08/12/19 17:58	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			08/12/19 17:58	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			08/12/19 17:58	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			08/12/19 17:58	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			08/12/19 17:58	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			08/12/19 17:58	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/12/19 17:58	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			08/12/19 17:58	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			08/12/19 17:58	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			08/12/19 17:58	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			08/12/19 17:58	1
2-Butanone (MEK)	ND		10	1.3	ug/L			08/12/19 17:58	1
2-Hexanone	ND		5.0	1.2	ug/L			08/12/19 17:58	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			08/12/19 17:58	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			08/12/19 17:58	1
Acetone	**6.0**	**J**	10	3.0	ug/L			08/12/19 17:58	1
Benzene	**0.41**	**J**	1.0	0.41	ug/L			08/12/19 17:58	1
Bromoform	ND		1.0	0.26	ug/L			08/12/19 17:58	1
Bromomethane	ND		1.0	0.69	ug/L			08/12/19 17:58	1
Carbon disulfide	ND		1.0	0.19	ug/L			08/12/19 17:58	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			08/12/19 17:58	1
Chlorobenzene	ND		1.0	0.75	ug/L			08/12/19 17:58	1
Dibromochloromethane	ND		1.0	0.32	ug/L			08/12/19 17:58	1
Chloroethane	ND		1.0	0.32	ug/L			08/12/19 17:58	1
Chloroform	ND		1.0	0.34	ug/L			08/12/19 17:58	1
Chloromethane	**0.51**	**J**	1.0	0.35	ug/L			08/12/19 17:58	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			08/12/19 17:58	1
Cyclohexane	ND		1.0	0.18	ug/L			08/12/19 17:58	1
Bromodichloromethane	ND		1.0	0.39	ug/L			08/12/19 17:58	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			08/12/19 17:58	1
Ethylbenzene	ND		1.0	0.74	ug/L			08/12/19 17:58	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			08/12/19 17:58	1
Isopropylbenzene	ND		1.0	0.79	ug/L			08/12/19 17:58	1
Methyl acetate	ND		2.5	1.3	ug/L			08/12/19 17:58	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			08/12/19 17:58	1
Methylcyclohexane	ND		1.0	0.16	ug/L			08/12/19 17:58	1
Methylene Chloride	**0.49**	**J**	1.0	0.44	ug/L			08/12/19 17:58	1
m,p-Xylene	ND		2.0	0.66	ug/L			08/12/19 17:58	1
Naphthalene	ND		1.0	0.43	ug/L			08/12/19 17:58	1
n-Butylbenzene	ND		1.0	0.64	ug/L			08/12/19 17:58	1
N-Propylbenzene	ND		1.0	0.69	ug/L			08/12/19 17:58	1
o-Xylene	ND		1.0	0.76	ug/L			08/12/19 17:58	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			08/12/19 17:58	1
Tetrachloroethene	ND		1.0	0.36	ug/L			08/12/19 17:58	1
Toluene	ND		1.0	0.51	ug/L			08/12/19 17:58	1

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

Job ID: 480-157314-1

Client Sample ID: Post-Carbon 2

Date Collected: 08/07/19 15:15
Date Received: 08/07/19 15:47

Lab Sample ID: 480-157314-1

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			08/12/19 17:58	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			08/12/19 17:58	1
Trichloroethene	ND		1.0	0.46	ug/L			08/12/19 17:58	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			08/12/19 17:58	1
Vinyl chloride	**0.92**	**J**	1.0	0.90	ug/L			08/12/19 17:58	1
Xylenes, Total	ND		2.0	0.66	ug/L			08/12/19 17:58	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			08/12/19 17:58	1
Styrene	ND		1.0	0.73	ug/L			08/12/19 17:58	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			08/12/19 17:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*08/12/19 17:58*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*08/12/19 17:58*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*08/12/19 17:58*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*08/12/19 17:58*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		08/12/19 08:09	08/12/19 20:49	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		08/12/19 08:09	08/12/19 20:49	1
Acenaphthene	ND		5.0	0.41	ug/L		08/12/19 08:09	08/12/19 20:49	1
Acenaphthylene	ND		5.0	0.38	ug/L		08/12/19 08:09	08/12/19 20:49	1
Anthracene	ND		5.0	0.28	ug/L		08/12/19 08:09	08/12/19 20:49	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		08/12/19 08:09	08/12/19 20:49	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		08/12/19 08:09	08/12/19 20:49	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		08/12/19 08:09	08/12/19 20:49	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		08/12/19 08:09	08/12/19 20:49	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		08/12/19 08:09	08/12/19 20:49	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		08/12/19 08:09	08/12/19 20:49	1
Carbazole	ND		5.0	0.30	ug/L		08/12/19 08:09	08/12/19 20:49	1
Chrysene	ND		5.0	0.33	ug/L		08/12/19 08:09	08/12/19 20:49	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		08/12/19 08:09	08/12/19 20:49	1
Dibenzofuran	ND		10	0.51	ug/L		08/12/19 08:09	08/12/19 20:49	1
Fluoranthene	ND		5.0	0.40	ug/L		08/12/19 08:09	08/12/19 20:49	1
Fluorene	ND		5.0	0.36	ug/L		08/12/19 08:09	08/12/19 20:49	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		08/12/19 08:09	08/12/19 20:49	1
Naphthalene	ND		5.0	0.76	ug/L		08/12/19 08:09	08/12/19 20:49	1
Pentachlorophenol	ND		10	2.2	ug/L		08/12/19 08:09	08/12/19 20:49	1
Phenanthrene	**1.3**	**J B**	5.0	0.44	ug/L		08/12/19 08:09	08/12/19 20:49	1
Phenol	ND		5.0	0.39	ug/L		08/12/19 08:09	08/12/19 20:49	1
Pyrene	ND		5.0	0.34	ug/L		08/12/19 08:09	08/12/19 20:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*79*		*46 - 120*	*08/12/19 08:09*	*08/12/19 20:49*	*1*
2-Fluorobiphenyl	*82*		*48 - 120*	*08/12/19 08:09*	*08/12/19 20:49*	*1*
p-Terphenyl-d14	*79*		*59 - 136*	*08/12/19 08:09*	*08/12/19 20:49*	*1*
Phenol-d5	*42*		*22 - 120*	*08/12/19 08:09*	*08/12/19 20:49*	*1*
2-Fluorophenol	*59*		*35 - 120*	*08/12/19 08:09*	*08/12/19 20:49*	*1*
2,4,6-Tribromophenol	*64*		*41 - 120*	*08/12/19 08:09*	*08/12/19 20:49*	*1*

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

Job ID: 480-157314-1

Client Sample ID: Post-Carbon 2

Date Collected: 08/07/19 15:15
Date Received: 08/07/19 15:47

Lab Sample ID: 480-157314-1

Matrix: Wastewater

Method: 608.3 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.048	0.0078	ug/L		08/08/19 07:59	08/08/19 15:29	1
alpha-BHC	ND		0.048	0.0074	ug/L		08/08/19 07:59	08/08/19 15:29	1
beta-BHC	ND		0.048	0.024	ug/L		08/08/19 07:59	08/08/19 15:29	1
delta-BHC	ND		0.048	0.0096	ug/L		08/08/19 07:59	08/08/19 15:29	1
gamma-BHC (Lindane)	ND		0.048	0.0077	ug/L		08/08/19 07:59	08/08/19 15:29	1
Chlordane (technical)	ND		0.48	0.28	ug/L		08/08/19 07:59	08/08/19 15:29	1
4,4'-DDD	ND		0.048	0.0088	ug/L		08/08/19 07:59	08/08/19 15:29	1
4,4'-DDE	ND		0.048	0.011	ug/L		08/08/19 07:59	08/08/19 15:29	1
4,4'-DDT	ND		0.048	0.011	ug/L		08/08/19 07:59	08/08/19 15:29	1
Dieldrin	ND		0.048	0.0094	ug/L		08/08/19 07:59	08/08/19 15:29	1
Endosulfan I	ND		0.048	0.011	ug/L		08/08/19 07:59	08/08/19 15:29	1
Endosulfan II	ND		0.048	0.012	ug/L		08/08/19 07:59	08/08/19 15:29	1
Endosulfan sulfate	ND		0.048	0.015	ug/L		08/08/19 07:59	08/08/19 15:29	1
Endrin	ND		0.048	0.013	ug/L		08/08/19 07:59	08/08/19 15:29	1
Endrin aldehyde	ND		0.048	0.016	ug/L		08/08/19 07:59	08/08/19 15:29	1
Heptachlor	ND		0.048	0.0082	ug/L		08/08/19 07:59	08/08/19 15:29	1
Heptachlor epoxide	ND		0.048	0.0071	ug/L		08/08/19 07:59	08/08/19 15:29	1
Toxaphene	ND		0.48	0.12	ug/L		08/08/19 07:59	08/08/19 15:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*44*	*p*	*23 - 120*	*08/08/19 07:59*	*08/08/19 15:29*	*1*
Tetrachloro-m-xylene	*68*		*44 - 120*	*08/08/19 07:59*	*08/08/19 15:29*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	ND		4.8	1.3	mg/L		08/09/19 18:52	08/09/19 21:30	1
Cyanide, Total	**0.12**		0.010	0.0050	mg/L		08/13/19 17:40	08/14/19 13:44	1
Phenolics, Total Recoverable	**0.012**	**B**	0.010	0.0050	mg/L		08/20/19 15:32	08/20/19 17:15	1
Total Dissolved Solids	**581**	**H**	10.0	4.0	mg/L			08/21/19 12:57	1
Biochemical Oxygen Demand	ND		6.0	6.0	mg/L			08/08/19 17:51	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	4.0	mg/L			08/09/19 10:21	1
pH	**7.1**	**HF**	0.1	0.1	SU			08/13/19 19:24	1
Temperature	**20.1**	**HF**	0.001	0.001	Degrees C			08/13/19 19:24	1

Client: New York State D.E.C.
Job ID: 480-157314-1
Project/Site: Gastown WWTP #915171

Client Sample ID: Pre-Carbon
Lab Sample ID: 480-157314-2
Date Collected: 08/07/19 15:30
Matrix: Wastewater
Date Received: 08/07/19 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		25	21	ug/L			08/12/19 18:21	25
1,1,2,2-Tetrachloroethane	ND		25	5.3	ug/L			08/12/19 18:21	25
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25	7.8	ug/L			08/12/19 18:21	25
1,1,2-Trichloroethane	ND		25	5.8	ug/L			08/12/19 18:21	25
1,1-Dichloroethane	ND		25	9.5	ug/L			08/12/19 18:21	25
1,1-Dichloroethene	ND		25	7.3	ug/L			08/12/19 18:21	25
1,2,4-Trichlorobenzene	ND		25	10	ug/L			08/12/19 18:21	25
1,2,4-Trimethylbenzene	ND		25	19	ug/L			08/12/19 18:21	25
1,2-Dibromo-3-Chloropropane	ND		25	9.8	ug/L			08/12/19 18:21	25
1,2-Dichlorobenzene	ND		25	20	ug/L			08/12/19 18:21	25
1,2-Dichloroethane	ND		25	5.3	ug/L			08/12/19 18:21	25
1,2-Dichloropropane	ND		25	18	ug/L			08/12/19 18:21	25
1,3,5-Trimethylbenzene	ND		25	19	ug/L			08/12/19 18:21	25
1,3-Dichlorobenzene	ND		25	20	ug/L			08/12/19 18:21	25
1,4-Dichlorobenzene	ND		25	21	ug/L			08/12/19 18:21	25
2-Butanone (MEK)	ND		250	33	ug/L			08/12/19 18:21	25
2-Hexanone	ND		130	31	ug/L			08/12/19 18:21	25
4-Isopropyltoluene	ND		25	7.8	ug/L			08/12/19 18:21	25
4-Methyl-2-pentanone (MIBK)	ND		130	53	ug/L			08/12/19 18:21	25
Acetone	ND		250	75	ug/L			08/12/19 18:21	25
Bromoform	ND		25	6.5	ug/L			08/12/19 18:21	25
Bromomethane	ND		25	17	ug/L			08/12/19 18:21	25
Carbon disulfide	ND		25	4.8	ug/L			08/12/19 18:21	25
Carbon tetrachloride	ND		25	6.8	ug/L			08/12/19 18:21	25
Chlorobenzene	ND		25	19	ug/L			08/12/19 18:21	25
Dibromochloromethane	ND		25	8.0	ug/L			08/12/19 18:21	25
Chloroethane	ND		25	8.0	ug/L			08/12/19 18:21	25
Chloroform	**37**		25	8.5	ug/L			08/12/19 18:21	25
Chloromethane	ND		25	8.8	ug/L			08/12/19 18:21	25
cis-1,2-Dichloroethene	ND		25	20	ug/L			08/12/19 18:21	25
Cyclohexane	ND		25	4.5	ug/L			08/12/19 18:21	25
Bromodichloromethane	ND		25	9.8	ug/L			08/12/19 18:21	25
Dichlorodifluoromethane	ND		25	17	ug/L			08/12/19 18:21	25
Ethylbenzene	**120**		25	19	ug/L			08/12/19 18:21	25
1,2-Dibromoethane	ND		25	18	ug/L			08/12/19 18:21	25
Isopropylbenzene	ND		25	20	ug/L			08/12/19 18:21	25
Methyl acetate	ND		63	33	ug/L			08/12/19 18:21	25
Methyl tert-butyl ether	ND		25	4.0	ug/L			08/12/19 18:21	25
Methylcyclohexane	ND		25	4.0	ug/L			08/12/19 18:21	25
Methylene Chloride	**22**	**J**	25	11	ug/L			08/12/19 18:21	25
m,p-Xylene	**89**		50	17	ug/L			08/12/19 18:21	25
Naphthalene	**480**		25	11	ug/L			08/12/19 18:21	25
n-Butylbenzene	ND		25	16	ug/L			08/12/19 18:21	25
N-Propylbenzene	ND		25	17	ug/L			08/12/19 18:21	25
o-Xylene	**54**		25	19	ug/L			08/12/19 18:21	25
sec-Butylbenzene	ND		25	19	ug/L			08/12/19 18:21	25
Tetrachloroethene	ND		25	9.0	ug/L			08/12/19 18:21	25
Toluene	**390**		25	13	ug/L			08/12/19 18:21	25
trans-1,2-Dichloroethene	ND		25	23	ug/L			08/12/19 18:21	25

Client Sample ID: Pre-Carbon

Date Collected: 08/07/19 15:30
Date Received: 08/07/19 15:47

Lab Sample ID: 480-157314-2

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		25	9.3	ug/L			08/12/19 18:21	25
Trichloroethene	ND		25	12	ug/L			08/12/19 18:21	25
Trichlorofluoromethane	ND		25	22	ug/L			08/12/19 18:21	25
Vinyl chloride	ND		25	23	ug/L			08/12/19 18:21	25
Xylenes, Total	**140**		50	17	ug/L			08/12/19 18:21	25
cis-1,3-Dichloropropene	ND		25	9.0	ug/L			08/12/19 18:21	25
Styrene	**20**	**J**	25	18	ug/L			08/12/19 18:21	25
tert-Butylbenzene	ND		25	20	ug/L			08/12/19 18:21	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*08/12/19 18:21*	*25*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*08/12/19 18:21*	*25*
Toluene-d8 (Surr)	*97*		*80 - 120*		*08/12/19 18:21*	*25*
Dibromofluoromethane (Surr)	*107*		*75 - 123*		*08/12/19 18:21*	*25*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**2900**		50	21	ug/L			08/13/19 01:30	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*08/13/19 01:30*	*50*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*08/13/19 01:30*	*50*
Toluene-d8 (Surr)	*101*		*80 - 120*		*08/13/19 01:30*	*50*
Dibromofluoromethane (Surr)	*107*		*75 - 123*		*08/13/19 01:30*	*50*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**92900**		500	100	ug/L		08/09/19 08:04	08/09/19 16:21	1
Magnesium	**29700**		200	43.4	ug/L		08/09/19 08:04	08/09/19 16:21	1
Potassium	**2670**		500	100	ug/L		08/09/19 08:04	08/23/19 19:35	1
Sodium	**72000**	**B**	1000	324	ug/L		08/09/19 08:04	08/09/19 16:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**177**		2.5	1.4	mg/L			08/09/19 11:56	5
Sulfate	**85.9**		10.0	1.7	mg/L			08/09/19 11:56	5
Alkalinity, Total	**188**		40.0	16.0	mg/L			08/08/19 21:47	4

Lab Chronicle

Client: New York State D.E.C.
Job ID: 480-157314-1
Project/Site: Gastown WWTP #915171

Client Sample ID: Post-Carbon 2
Lab Sample ID: 480-157314-1
Date Collected: 08/07/19 15:15
Matrix: Wastewater
Date Received: 08/07/19 15:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	486412	08/12/19 17:58	AEM	TAL BUF
Total/NA	Prep	3510C			486428	08/12/19 08:09	JMP	TAL BUF
Total/NA	Analysis	8270D		1	486572	08/12/19 20:49	PJQ	TAL BUF
Total/NA	Prep	3510C			485979	08/08/19 07:59	JMP	TAL BUF
Total/NA	Analysis	608.3		1	485989	08/08/19 15:29	JLS	TAL BUF
Total/NA	Prep	1664B			486356	08/09/19 18:52	MJB	TAL BUF
Total/NA	Analysis	1664B		1	486358	08/09/19 21:30	MJB	TAL BUF
Total/NA	Prep	Distill/CN			486948	08/13/19 17:40	AJL	TAL BUF
Total/NA	Analysis	335.4		1	487031	08/14/19 13:44	MDL	TAL BUF
Total/NA	Prep	Distill/Phenol			487946	08/20/19 15:32	AJL	TAL BUF
Total/NA	Analysis	420.1		1	487973	08/20/19 17:15	SRW	TAL BUF
Total/NA	Analysis	SM 2540C		1	488136	08/21/19 12:57	ZFM	TAL BUF
Total/NA	Analysis	SM 2540D		1	486224	08/09/19 10:21	CSS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	486839	08/13/19 19:24	AEF	TAL BUF
Total/NA	Analysis	SM 5210B		1	486141	08/08/19 17:51	BEF	TAL BUF

Client Sample ID: Pre-Carbon
Lab Sample ID: 480-157314-2
Date Collected: 08/07/19 15:30
Matrix: Wastewater
Date Received: 08/07/19 15:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		25	486412	08/12/19 18:21	AEM	TAL BUF
Total/NA	Analysis	8260C	DL	50	486610	08/13/19 01:30	BTP	TAL BUF
Total/NA	Prep	200.7			486148	08/09/19 08:04	EMB	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	488653	08/23/19 19:35	LMH	TAL BUF
Total/NA	Prep	200.7			486148	08/09/19 08:04	EMB	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	486514	08/09/19 16:21	AMH	TAL BUF
Total/NA	Analysis	300.0		5	486216	08/09/19 11:56	IMZ	TAL BUF
Total/NA	Analysis	310.2		4	486139	08/08/19 21:47	SRW	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: New York State D.E.C.
Job ID: 480-157314-1
Project/Site: Gastown WWTP #915171

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
335.4	Distill/CN	Wastewater	Cyanide, Total
SM 4500 H+ B		Wastewater	pH
SM 4500 H+ B		Wastewater	Temperature

Method Summary

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

Job ID: 480-157314-1

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

Sample Summary

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

Job ID: 480-157314-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-157314-1	Post-Carbon 2	Wastewater	08/07/19 15:15	08/07/19 15:47	
480-157314-2	Pre-Carbon	Wastewater	08/07/19 15:30	08/07/19 15:47	

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: MJL	Lab PM: Johnson, Orlette S	Carrier Tracking No(s):	COC No: 480-123669-28089.1
Client Contact: Thomas Palmer	Phone: 800 287 7887	E-Mail: orlette.johnson@testamericainc.com		Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc				Job #:
Address: 415 Lawrence Bell Drive Suite 6	Due Date Requested:			
City: Williamsville	TAT Requested (days):			
State, Zip: NY, 14221				
Phone: 518-402-9662(Tel)	PO #: CallOut ID 136076			
Email: tpalmer@gesonline.com	WO #: GES Project # 0901691			
Project Name: Gastown WWTP #915171 - Quarterly Event Desc: Quarterly	Project #: 48002525			
Site: New York	SSOW#:			

Analysis Requested

480-157314 Chain of Custody

J - DI Water
K - EDTA
L - EDA
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	420.4 - Phenolics, Total Recoverable	8260C - TCL + CP-51 (Stars)	608_Pest - Priority Pollutant Pesticides	8270C - (MOD) TCL SVOA	5210B - Biochemical Oxygen Demand	2540D - Total Suspended Solids	2540C_Calcd - Total Dissolved Solids	335.4 - Cyanide, Total	SM4500_H+ - pH	1664B - Oil and Grease	300.0_28D - (MOD) Cl, SO4	200.7 - Ca, Mg, K, Na	310.2 - Alkalinity, Total	Total Number of containers	Special Instructions/Note:
			Preservation Code:				S	A	N	N	N	N	N	B	N	S	N	D	N		
Post-Carbon 2	8/7/19	1515	G	Water		N N	X	X	X	X	X	X	X	X	X	X					
Pre-Carbon	8/7/19	1530	G	Water		N N		X									X	X	X		

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

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

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

Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		8/7/19 1547	GES	Jennifer Linch	8/7/19 1547	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	8-7-19 1547	TAS

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 1.9 #1

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-157314-1

Login Number: 157314

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Harper, Marcus D

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	

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

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

Laboratory Job ID: 480-159813-1
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

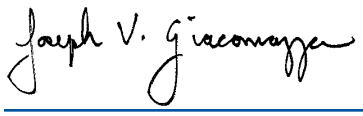
Joseph V. Giacomazza

Authorized for release by:
10/9/2019 9:45:42 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

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
10/9/2019 9:45:43 AM

Table of Contents

Definitions/Glossary

Client: New York State D.E.C.
Job ID: 480-159813-1
Project/Site: Gastown WWTP #915171

Qualifiers

GC/MS VOA

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

Metals

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

General Chemistry

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
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)

Job ID: 480-159813-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-159813-1

Comments
No additional comments.

Receipt
The samples were received on 9/25/2019 2:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.9º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-495480 recovered outside acceptance criteria, low biased, for Naphthalene. 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. The following samples are impacted: Post-Carbon 2 (480-159813-1).

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-495480 recovered above the upper control limit for 2-Butanone (MEK). 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 (480-159813-1) and Pre-Carbon (480-159813-2).

Method(s) 8260C: The continuing calibration verification (CCV) analyzed in batch 480-495480 was outside the method criteria for the following analyte(s): Naphthalene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated. The following samples are impacted: Pre-Carbon (480-159813-2).

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-159813-2). Elevated reporting limits (RLs) are provided.

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

HPLC/IC
Method(s) 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-159813-2). 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) 335.4: The laboratory control sample (LCS) for preparation batch 480-495511 and analytical batch 480-495757 recovered outside control limits for the following analytes: Cyanide.

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 (480-159813-1).

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

Job ID: 480-159813-1

Client Sample ID: Post-Carbon 2

Date Collected: 09/25/19 14:00
Date Received: 09/25/19 14:30

Lab Sample ID: 480-159813-1

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/02/19 22:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			10/02/19 22:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			10/02/19 22:48	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			10/02/19 22:48	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			10/02/19 22:48	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			10/02/19 22:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			10/02/19 22:48	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/02/19 22:48	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			10/02/19 22:48	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			10/02/19 22:48	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/02/19 22:48	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			10/02/19 22:48	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/02/19 22:48	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			10/02/19 22:48	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			10/02/19 22:48	1
2-Butanone (MEK)	ND		10	1.3	ug/L			10/02/19 22:48	1
2-Hexanone	ND		5.0	1.2	ug/L			10/02/19 22:48	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			10/02/19 22:48	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			10/02/19 22:48	1
Acetone	**4.5**	**J**	10	3.0	ug/L			10/02/19 22:48	1
Benzene	**5.6**		1.0	0.41	ug/L			10/02/19 22:48	1
Bromoform	ND		1.0	0.26	ug/L			10/02/19 22:48	1
Bromomethane	ND		1.0	0.69	ug/L			10/02/19 22:48	1
Carbon disulfide	ND		1.0	0.19	ug/L			10/02/19 22:48	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			10/02/19 22:48	1
Chlorobenzene	ND		1.0	0.75	ug/L			10/02/19 22:48	1
Dibromochloromethane	ND		1.0	0.32	ug/L			10/02/19 22:48	1
Chloroethane	ND		1.0	0.32	ug/L			10/02/19 22:48	1
Chloroform	**0.61**	**J**	1.0	0.34	ug/L			10/02/19 22:48	1
Chloromethane	ND		1.0	0.35	ug/L			10/02/19 22:48	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			10/02/19 22:48	1
Cyclohexane	ND		1.0	0.18	ug/L			10/02/19 22:48	1
Bromodichloromethane	ND		1.0	0.39	ug/L			10/02/19 22:48	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			10/02/19 22:48	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/02/19 22:48	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			10/02/19 22:48	1
Isopropylbenzene	ND		1.0	0.79	ug/L			10/02/19 22:48	1
Methyl acetate	ND		2.5	1.3	ug/L			10/02/19 22:48	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/02/19 22:48	1
Methylcyclohexane	ND		1.0	0.16	ug/L			10/02/19 22:48	1
Methylene Chloride	ND		1.0	0.44	ug/L			10/02/19 22:48	1
m,p-Xylene	ND		2.0	0.66	ug/L			10/02/19 22:48	1
Naphthalene	ND		1.0	0.43	ug/L			10/02/19 22:48	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/02/19 22:48	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/02/19 22:48	1
o-Xylene	ND		1.0	0.76	ug/L			10/02/19 22:48	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			10/02/19 22:48	1
Tetrachloroethene	ND		1.0	0.36	ug/L			10/02/19 22:48	1
Toluene	ND		1.0	0.51	ug/L			10/02/19 22:48	1

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

Job ID: 480-159813-1

Client Sample ID: Post-Carbon 2

Date Collected: 09/25/19 14:00
Date Received: 09/25/19 14:30

Lab Sample ID: 480-159813-1

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			10/02/19 22:48	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			10/02/19 22:48	1
Trichloroethene	ND		1.0	0.46	ug/L			10/02/19 22:48	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			10/02/19 22:48	1
Vinyl chloride	ND		1.0	0.90	ug/L			10/02/19 22:48	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/02/19 22:48	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			10/02/19 22:48	1
Styrene	ND		1.0	0.73	ug/L			10/02/19 22:48	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			10/02/19 22:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*77 - 120*		*10/02/19 22:48*	*1*
4-Bromofluorobenzene (Surr)	*115*		*73 - 120*		*10/02/19 22:48*	*1*
Toluene-d8 (Surr)	*113*		*80 - 120*		*10/02/19 22:48*	*1*
Dibromofluoromethane (Surr)	*110*		*75 - 123*		*10/02/19 22:48*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.083**	*	0.010	0.0050	mg/L		10/02/19 14:47	10/03/19 13:24	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.5**	**HF**	0.1	0.1	SU			10/08/19 10:00	1
Temperature	**19.2**	**HF**	0.001	0.001	Degrees C			10/08/19 10:00	1

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

Job ID: 480-159813-1

Client Sample ID: Pre-Carbon

Date Collected: 09/25/19 14:15
Date Received: 09/25/19 14:30

Lab Sample ID: 480-159813-2

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		50	41	ug/L			10/02/19 23:11	50
1,1,2,2-Tetrachloroethane	ND		50	11	ug/L			10/02/19 23:11	50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50	16	ug/L			10/02/19 23:11	50
1,1,2-Trichloroethane	ND		50	12	ug/L			10/02/19 23:11	50
1,1-Dichloroethane	ND		50	19	ug/L			10/02/19 23:11	50
1,1-Dichloroethene	ND		50	15	ug/L			10/02/19 23:11	50
1,2,4-Trichlorobenzene	ND		50	21	ug/L			10/02/19 23:11	50
1,2,4-Trimethylbenzene	ND		50	38	ug/L			10/02/19 23:11	50
1,2-Dibromo-3-Chloropropane	ND		50	20	ug/L			10/02/19 23:11	50
1,2-Dichlorobenzene	ND		50	40	ug/L			10/02/19 23:11	50
1,2-Dichloroethane	ND		50	11	ug/L			10/02/19 23:11	50
1,2-Dichloropropane	ND		50	36	ug/L			10/02/19 23:11	50
1,3,5-Trimethylbenzene	ND		50	39	ug/L			10/02/19 23:11	50
1,3-Dichlorobenzene	ND		50	39	ug/L			10/02/19 23:11	50
1,4-Dichlorobenzene	ND		50	42	ug/L			10/02/19 23:11	50
2-Butanone (MEK)	ND		500	66	ug/L			10/02/19 23:11	50
2-Hexanone	ND		250	62	ug/L			10/02/19 23:11	50
4-Isopropyltoluene	ND		50	16	ug/L			10/02/19 23:11	50
4-Methyl-2-pentanone (MIBK)	ND		250	110	ug/L			10/02/19 23:11	50
Acetone	ND		500	150	ug/L			10/02/19 23:11	50
Benzene	**2600**		50	21	ug/L			10/02/19 23:11	50
Bromoform	ND		50	13	ug/L			10/02/19 23:11	50
Bromomethane	ND		50	35	ug/L			10/02/19 23:11	50
Carbon disulfide	ND		50	9.5	ug/L			10/02/19 23:11	50
Carbon tetrachloride	ND		50	14	ug/L			10/02/19 23:11	50
Chlorobenzene	ND		50	38	ug/L			10/02/19 23:11	50
Dibromochloromethane	ND		50	16	ug/L			10/02/19 23:11	50
Chloroethane	ND		50	16	ug/L			10/02/19 23:11	50
Chloroform	**20**	**J**	50	17	ug/L			10/02/19 23:11	50
Chloromethane	ND		50	18	ug/L			10/02/19 23:11	50
cis-1,2-Dichloroethene	ND		50	41	ug/L			10/02/19 23:11	50
Cyclohexane	ND		50	9.0	ug/L			10/02/19 23:11	50
Bromodichloromethane	ND		50	20	ug/L			10/02/19 23:11	50
Dichlorodifluoromethane	ND		50	34	ug/L			10/02/19 23:11	50
Ethylbenzene	**73**		50	37	ug/L			10/02/19 23:11	50
1,2-Dibromoethane	ND		50	37	ug/L			10/02/19 23:11	50
Isopropylbenzene	ND		50	40	ug/L			10/02/19 23:11	50
Methyl acetate	ND		130	65	ug/L			10/02/19 23:11	50
Methyl tert-butyl ether	ND		50	8.0	ug/L			10/02/19 23:11	50
Methylcyclohexane	ND		50	8.0	ug/L			10/02/19 23:11	50
Methylene Chloride	ND		50	22	ug/L			10/02/19 23:11	50
m,p-Xylene	**57**	**J**	100	33	ug/L			10/02/19 23:11	50
Naphthalene	**140**		50	22	ug/L			10/02/19 23:11	50
n-Butylbenzene	ND		50	32	ug/L			10/02/19 23:11	50
N-Propylbenzene	ND		50	35	ug/L			10/02/19 23:11	50
o-Xylene	**39**	**J**	50	38	ug/L			10/02/19 23:11	50
sec-Butylbenzene	ND		50	38	ug/L			10/02/19 23:11	50
Tetrachloroethene	ND		50	18	ug/L			10/02/19 23:11	50
Toluene	**390**		50	26	ug/L			10/02/19 23:11	50

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

Job ID: 480-159813-1

Client Sample ID: Pre-Carbon

Date Collected: 09/25/19 14:15
Date Received: 09/25/19 14:30

Lab Sample ID: 480-159813-2

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		50	45	ug/L			10/02/19 23:11	50
trans-1,3-Dichloropropene	ND		50	19	ug/L			10/02/19 23:11	50
Trichloroethene	ND		50	23	ug/L			10/02/19 23:11	50
Trichlorofluoromethane	ND		50	44	ug/L			10/02/19 23:11	50
Vinyl chloride	ND		50	45	ug/L			10/02/19 23:11	50
Xylenes, Total	**96**	**J**	100	33	ug/L			10/02/19 23:11	50
cis-1,3-Dichloropropene	ND		50	18	ug/L			10/02/19 23:11	50
Styrene	ND		50	37	ug/L			10/02/19 23:11	50
tert-Butylbenzene	ND		50	41	ug/L			10/02/19 23:11	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*		*10/02/19 23:11*	*50*
4-Bromofluorobenzene (Surr)	*111*		*73 - 120*		*10/02/19 23:11*	*50*
Toluene-d8 (Surr)	*113*		*80 - 120*		*10/02/19 23:11*	*50*
Dibromofluoromethane (Surr)	*115*		*75 - 123*		*10/02/19 23:11*	*50*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**108000**		500	100	ug/L		09/27/19 09:03	10/01/19 22:09	1
Magnesium	**41800**		200	43.4	ug/L		09/27/19 09:03	09/28/19 19:35	1
Potassium	**21200**	**F1**	500	100	ug/L		09/27/19 09:03	09/28/19 19:35	1
Sodium	**130000**		1000	324	ug/L		09/27/19 09:03	09/28/19 19:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**207**		2.5	1.4	mg/L			10/05/19 17:24	5
Sulfate	**148**		10.0	1.7	mg/L			10/05/19 17:24	5
Alkalinity, Total	**359**	**B**	40.0	16.0	mg/L			10/08/19 18:07	4

Lab Chronicle

Client: New York State D.E.C.
Job ID: 480-159813-1
Project/Site: Gastown WWTP #915171

Client Sample ID: Post-Carbon 2
Lab Sample ID: 480-159813-1
Date Collected: 09/25/19 14:00
Matrix: Wastewater
Date Received: 09/25/19 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	495480	10/02/19 22:48	KMN	TAL BUF
Total/NA	Prep	Distill/CN			495511	10/02/19 14:47	ZFM	TAL BUF
Total/NA	Analysis	335.4		1	495757	10/03/19 13:24	MDL	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	496648	10/08/19 10:00	KEB	TAL BUF

Client Sample ID: Pre-Carbon
Lab Sample ID: 480-159813-2
Date Collected: 09/25/19 14:15
Matrix: Wastewater
Date Received: 09/25/19 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		50	495480	10/02/19 23:11	KMN	TAL BUF
Total/NA	Prep	200.7			494483	09/27/19 09:03	KMP	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	495321	10/01/19 22:09	AMH	TAL BUF
Total/NA	Prep	200.7			494483	09/27/19 09:03	KMP	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	494861	09/28/19 19:35	AMH	TAL BUF
Total/NA	Analysis	300.0		5	496156	10/05/19 17:24	IMZ	TAL BUF
Total/NA	Analysis	310.2		4	496784	10/08/19 18:07	SRW	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: New York State D.E.C.
Job ID: 480-159813-1
Project/Site: Gastown WWTP #915171

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
335.4	Distill/CN	Wastewater	Cyanide, Total
SM 4500 H+ B		Wastewater	pH
SM 4500 H+ B		Wastewater	Temperature

Method Summary

Client: New York State D.E.C.
Job ID: 480-159813-1
Project/Site: Gastown WWTP #915171

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

Sample Summary

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

Job ID: 480-159813-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-159813-1	Post-Carbon 2	Wastewater	09/25/19 14:00	09/25/19 14:30	
480-159813-2	Pre-Carbon	Wastewater	09/25/19 14:15	09/25/19 14:30	

Eurofins 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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Client Information
Client Contact: Thomas Palmer
Company: Groundwater & Environmental Services Inc
Address: 415 Lawrence Bell Drive Suite 6
City: Williamsville
State, Zip: NY, 14221
Phone: 518-402-9662(Tel)
Email: tpalmer@gesonline.com
Project Name: Gastown WWTP #915171 - Monthly Event Desc: Monthly
Site: New York

Sampler: MR
Phone: 800 287 7857
Due Date Requested:
TAT Requested (days): 5+D
PO #: CallOut ID 136076
WO #:
Project #: 48002525
SSOW#:

Lab PM: Johnson, Orlette S
E-Mail: orlette.johnson@testamericainc.com

Carrier Tracking No(s):
480-159813 Chain of Custody

COC No: 480-123665-28090.1

Analysis

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	335.4 - Cyanide, Total	SM4500_H+ - pH	8260C - TCL + CP-51 (Stars)	300.0_28D - Cl, SO4	200.7 - Ca, Mg, K, Na	310.2 - Alkalinity, Total	Total Number of containers	Special Instructions/Note:
			Preservation Code:				B	N	A	N	D	N		
Post-Carbon 2	9/25	1400	G	Water			1	1	1					
Pre-Carbon	9/25	1415	G	Water					1	1	1	1		

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)
Other:

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

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

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 9/25/19 1430	Company: GES	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 9-25-19 1430	Company: TAB	

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 2.9 #1

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-159813-1

Login Number: 159813

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Stopa, Erik 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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ANALYTICAL REPORT

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

Laboratory Job ID: 480-160947-1
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

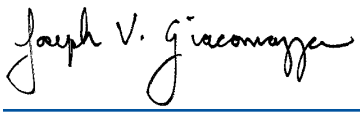
Joseph V. Giacomazza

Authorized for release by:
10/31/2019 8:49:51 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

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
10/31/2019 8:49:51 AM

Table of Contents

Client: New York State D.E.C.
Job ID: 480-160947-1
Project/Site: Gastown WWTP #915171

Qualifiers

GC/MS VOA

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

General Chemistry

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	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)

Job ID: 480-160947-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-160947-1

Comments
No additional comments.

Receipt
The samples were received on 10/16/2019 11:50 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.2º C.

GC/MS VOA
Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-160947-2), (480-160947-D-2 MS) and (480-160947-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 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-160947-2). 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 335.4: The laboratory control sample (LCS) for preparation batch 480-499236 and analytical batch 480-499415 recovered outside control limits for the following analytes: Cyanide. The LCS recovery was high. The sample was reanalyzed and the result was confirmed.

Methods 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 (480-160947-1).

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

Job ID: 480-160947-1

Client Sample ID: Post-Carbon 2

Date Collected: 10/16/19 11:15
Date Received: 10/16/19 11:50

Lab Sample ID: 480-160947-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/22/19 02:24	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			10/22/19 02:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			10/22/19 02:24	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			10/22/19 02:24	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			10/22/19 02:24	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			10/22/19 02:24	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			10/22/19 02:24	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/22/19 02:24	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			10/22/19 02:24	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			10/22/19 02:24	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/22/19 02:24	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			10/22/19 02:24	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/22/19 02:24	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			10/22/19 02:24	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			10/22/19 02:24	1
2-Butanone (MEK)	ND		10	1.3	ug/L			10/22/19 02:24	1
2-Hexanone	ND		5.0	1.2	ug/L			10/22/19 02:24	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			10/22/19 02:24	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			10/22/19 02:24	1
Acetone	ND		10	3.0	ug/L			10/22/19 02:24	1
Benzene	**20**		1.0	0.41	ug/L			10/22/19 02:24	1
Bromoform	ND		1.0	0.26	ug/L			10/22/19 02:24	1
Bromomethane	ND		1.0	0.69	ug/L			10/22/19 02:24	1
Carbon disulfide	ND		1.0	0.19	ug/L			10/22/19 02:24	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			10/22/19 02:24	1
Chlorobenzene	ND		1.0	0.75	ug/L			10/22/19 02:24	1
Dibromochloromethane	ND		1.0	0.32	ug/L			10/22/19 02:24	1
Chloroethane	ND		1.0	0.32	ug/L			10/22/19 02:24	1
Chloroform	**0.74**	**J**	1.0	0.34	ug/L			10/22/19 02:24	1
Chloromethane	ND		1.0	0.35	ug/L			10/22/19 02:24	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			10/22/19 02:24	1
Cyclohexane	ND		1.0	0.18	ug/L			10/22/19 02:24	1
Bromodichloromethane	ND		1.0	0.39	ug/L			10/22/19 02:24	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			10/22/19 02:24	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/22/19 02:24	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			10/22/19 02:24	1
Isopropylbenzene	ND		1.0	0.79	ug/L			10/22/19 02:24	1
Methyl acetate	ND		2.5	1.3	ug/L			10/22/19 02:24	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/22/19 02:24	1
Methylcyclohexane	ND		1.0	0.16	ug/L			10/22/19 02:24	1
Methylene Chloride	ND		1.0	0.44	ug/L			10/22/19 02:24	1
m,p-Xylene	ND		2.0	0.66	ug/L			10/22/19 02:24	1
Naphthalene	ND		1.0	0.43	ug/L			10/22/19 02:24	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/22/19 02:24	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/22/19 02:24	1
o-Xylene	ND		1.0	0.76	ug/L			10/22/19 02:24	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			10/22/19 02:24	1
Tetrachloroethene	ND		1.0	0.36	ug/L			10/22/19 02:24	1
Toluene	ND		1.0	0.51	ug/L			10/22/19 02:24	1

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

Job ID: 480-160947-1

Client Sample ID: Post-Carbon 2

Date Collected: 10/16/19 11:15
Date Received: 10/16/19 11:50

Lab Sample ID: 480-160947-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			10/22/19 02:24	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			10/22/19 02:24	1
Trichloroethene	ND		1.0	0.46	ug/L			10/22/19 02:24	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			10/22/19 02:24	1
Vinyl chloride	**1.1**		1.0	0.90	ug/L			10/22/19 02:24	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/22/19 02:24	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			10/22/19 02:24	1
Styrene	ND		1.0	0.73	ug/L			10/22/19 02:24	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			10/22/19 02:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*		*10/22/19 02:24*	*1*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*10/22/19 02:24*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*10/22/19 02:24*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*10/22/19 02:24*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.12**		0.010	0.0050	mg/L		10/21/19 12:50	10/22/19 09:28	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.4**	**HF**	0.1	0.1	SU			10/24/19 14:32	1
Temperature	**19.1**	**HF**	0.001	0.001	Degrees C			10/24/19 14:32	1

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

Job ID: 480-160947-1

Client Sample ID: Pre-Carbon

Date Collected: 10/16/19 11:30
Date Received: 10/16/19 11:50

Lab Sample ID: 480-160947-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		50	41	ug/L			10/22/19 02:47	50
1,1,2,2-Tetrachloroethane	ND		50	11	ug/L			10/22/19 02:47	50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50	16	ug/L			10/22/19 02:47	50
1,1,2-Trichloroethane	ND		50	12	ug/L			10/22/19 02:47	50
1,1-Dichloroethane	ND		50	19	ug/L			10/22/19 02:47	50
1,1-Dichloroethene	ND		50	15	ug/L			10/22/19 02:47	50
1,2,4-Trichlorobenzene	ND		50	21	ug/L			10/22/19 02:47	50
1,2,4-Trimethylbenzene	ND		50	38	ug/L			10/22/19 02:47	50
1,2-Dibromo-3-Chloropropane	ND		50	20	ug/L			10/22/19 02:47	50
1,2-Dichlorobenzene	ND		50	40	ug/L			10/22/19 02:47	50
1,2-Dichloroethane	ND		50	11	ug/L			10/22/19 02:47	50
1,2-Dichloropropane	ND		50	36	ug/L			10/22/19 02:47	50
1,3,5-Trimethylbenzene	ND		50	39	ug/L			10/22/19 02:47	50
1,3-Dichlorobenzene	ND		50	39	ug/L			10/22/19 02:47	50
1,4-Dichlorobenzene	ND		50	42	ug/L			10/22/19 02:47	50
2-Butanone (MEK)	ND		500	66	ug/L			10/22/19 02:47	50
2-Hexanone	ND		250	62	ug/L			10/22/19 02:47	50
4-Isopropyltoluene	ND		50	16	ug/L			10/22/19 02:47	50
4-Methyl-2-pentanone (MIBK)	ND		250	110	ug/L			10/22/19 02:47	50
Acetone	ND		500	150	ug/L			10/22/19 02:47	50
Benzene	**1500**		50	21	ug/L			10/22/19 02:47	50
Bromoform	ND		50	13	ug/L			10/22/19 02:47	50
Bromomethane	ND		50	35	ug/L			10/22/19 02:47	50
Carbon disulfide	ND		50	9.5	ug/L			10/22/19 02:47	50
Carbon tetrachloride	ND		50	14	ug/L			10/22/19 02:47	50
Chlorobenzene	ND		50	38	ug/L			10/22/19 02:47	50
Dibromochloromethane	ND		50	16	ug/L			10/22/19 02:47	50
Chloroethane	ND		50	16	ug/L			10/22/19 02:47	50
Chloroform	**18**	**J**	50	17	ug/L			10/22/19 02:47	50
Chloromethane	ND		50	18	ug/L			10/22/19 02:47	50
cis-1,2-Dichloroethene	ND		50	41	ug/L			10/22/19 02:47	50
Cyclohexane	ND		50	9.0	ug/L			10/22/19 02:47	50
Bromodichloromethane	ND		50	20	ug/L			10/22/19 02:47	50
Dichlorodifluoromethane	ND	F1	50	34	ug/L			10/22/19 02:47	50
Ethylbenzene	**130**		50	37	ug/L			10/22/19 02:47	50
1,2-Dibromoethane	ND		50	37	ug/L			10/22/19 02:47	50
Isopropylbenzene	ND		50	40	ug/L			10/22/19 02:47	50
Methyl acetate	ND		130	65	ug/L			10/22/19 02:47	50
Methyl tert-butyl ether	ND		50	8.0	ug/L			10/22/19 02:47	50
Methylcyclohexane	ND		50	8.0	ug/L			10/22/19 02:47	50
Methylene Chloride	**30**	**J**	50	22	ug/L			10/22/19 02:47	50
m,p-Xylene	**74**	**J**	100	33	ug/L			10/22/19 02:47	50
Naphthalene	**310**		50	22	ug/L			10/22/19 02:47	50
n-Butylbenzene	ND		50	32	ug/L			10/22/19 02:47	50
N-Propylbenzene	ND		50	35	ug/L			10/22/19 02:47	50
o-Xylene	**49**	**J**	50	38	ug/L			10/22/19 02:47	50
sec-Butylbenzene	ND		50	38	ug/L			10/22/19 02:47	50
Tetrachloroethene	ND		50	18	ug/L			10/22/19 02:47	50
Toluene	**380**		50	26	ug/L			10/22/19 02:47	50

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

Job ID: 480-160947-1

Client Sample ID: Pre-Carbon

Date Collected: 10/16/19 11:30
Date Received: 10/16/19 11:50

Lab Sample ID: 480-160947-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		50	45	ug/L			10/22/19 02:47	50
trans-1,3-Dichloropropene	ND		50	19	ug/L			10/22/19 02:47	50
Trichloroethene	ND		50	23	ug/L			10/22/19 02:47	50
Trichlorofluoromethane	ND		50	44	ug/L			10/22/19 02:47	50
Vinyl chloride	ND		50	45	ug/L			10/22/19 02:47	50
Xylenes, Total	**120**		100	33	ug/L			10/22/19 02:47	50
cis-1,3-Dichloropropene	ND		50	18	ug/L			10/22/19 02:47	50
Styrene	ND		50	37	ug/L			10/22/19 02:47	50
tert-Butylbenzene	ND		50	41	ug/L			10/22/19 02:47	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*10/22/19 02:47*	*50*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*10/22/19 02:47*	*50*
Toluene-d8 (Surr)	*100*		*80 - 120*		*10/22/19 02:47*	*50*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*10/22/19 02:47*	*50*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**76600**		500	100	ug/L		10/18/19 06:44	10/19/19 02:45	1
Magnesium	**21500**		200	43.4	ug/L		10/18/19 06:44	10/19/19 02:45	1
Potassium	**2320**		500	100	ug/L		10/18/19 06:44	10/22/19 10:13	1
Sodium	**57700**		1000	324	ug/L		10/18/19 06:44	10/19/19 02:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**98.9**		2.5	1.4	mg/L			10/23/19 19:28	5
Sulfate	**91.3**		10.0	1.7	mg/L			10/23/19 19:28	5
Alkalinity, Total	**171**		30.0	12.0	mg/L			10/30/19 23:57	3

Lab Chronicle

Client: New York State D.E.C.
Job ID: 480-160947-1
Project/Site: Gastown WWTP #915171

Client Sample ID: Post-Carbon 2
Lab Sample ID: 480-160947-1

Date Collected: 10/16/19 11:15
Matrix: Water
Date Received: 10/16/19 11:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	499245	10/22/19 02:24	RJF	TAL BUF
Total/NA	Prep	Distill/CN			499236	10/21/19 12:50	MDL	TAL BUF
Total/NA	Analysis	335.4		1	499415	10/22/19 09:28	MDL	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	500055	10/24/19 14:32	KEB	TAL BUF

Client Sample ID: Pre-Carbon
Lab Sample ID: 480-160947-2

Date Collected: 10/16/19 11:30
Matrix: Water
Date Received: 10/16/19 11:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		50	499245	10/22/19 02:47	RJF	TAL BUF
Total/NA	Prep	200.7			498661	10/18/19 06:44	JLC	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	499008	10/19/19 02:45	EMB	TAL BUF
Total/NA	Prep	200.7			498661	10/18/19 06:44	JLC	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	499646	10/22/19 10:13	LMH	TAL BUF
Total/NA	Analysis	300.0		5	499698	10/23/19 19:28	IMZ	TAL BUF
Total/NA	Analysis	310.2		3	501356	10/30/19 23:57	SRW	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: New York State D.E.C.
Job ID: 480-160947-1
Project/Site: Gastown WWTP #915171

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
335.4	Distill/CN	Water	Cyanide, Total
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

Client: New York State D.E.C.
Job ID: 480-160947-1
Project/Site: Gastown WWTP #915171

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

Sample Summary

Client: New York State D.E.C.
Job ID: 480-160947-1
Project/Site: Gastown WWTP #915171

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-160947-1	Post-Carbon 2	Water	10/16/19 11:15	10/16/19 11:50	
480-160947-2	Pre-Carbon	Water	10/16/19 11:30	10/16/19 11:50	

Buffalo
10 Hazelwood Drive

Amherst, NY 14228
phone 716.504.9852 fax 716.691.7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Glenn May (NYSDEC)	Site Contact: Thomas Palmer	Date: WOR 10/16/19	COC No:
Groundwater & Environmental Services, Inc	Tel/Fax: (716) 851-7220	Lab Contact: O. Johnson	Carrier:	1 of 1 COCs
495 Aero Drive Suite 3	Analysis Turnaround Time			Job No.
Cheektowaga, NY 14225	Calendar (C) or Work Days (W) _____			
(800) 287-7857 Phone	TAT if different from Below _____			
(866) 902-2187 FAX	[X] 2 weeks			
Project Name: NYSDEC Gatown WWTP	[ ] 1 week			
Site: 915171	[ ] 2 days			
P O # Callout 120597 GES Project #0901691-05-220	[ ] 1 day			

480-160947 Chain of Custody

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			TCL and STARS list - VOA - 8260	335.4 - Cyanide, Total	SM4500_H+-pH	Sample Specific Notes:
Post-Carbon 2	10/16	1115	Grab	W	5	N						X	X	X	
Pre-Carbon	10/16	1130	Grab	W	6	N	X	X	X			X			

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
[ ] *Non-Hazard* [ ] *Flammable* [ ] *Skin Irritant* *Poison B* [ ] *Unknown* [X]

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

Special Instructions/QC Requirements & Comments:

#1 3.2

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	GES	10/16 1150		TAL	10/16/19 1150
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

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

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-160947-1

Login Number: 160947

List Source: Eurofins 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	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

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

Laboratory Job ID: 480-163310-1
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

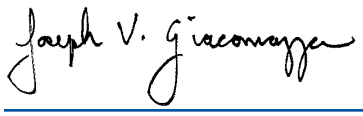
Joseph V. Giacomazza

Authorized for release by:
12/12/2019 2:53:17 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

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



Joe Giacomazza
Project Management Assistant II
12/12/2019 2:53:17 PM

Table of Contents

Definitions/Glossary

Client: New York State D.E.C.
Job ID: 480-163310-1
Project/Site: Gastown WWTP #915171

Qualifiers

GC/MS VOA

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

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Job ID: 480-163310-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-163310-1

Comments
No additional comments.

Receipt
The samples were received on 11/26/2019 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.2º C and 2.4º C.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 480-507035 recovered outside acceptance criteria, low biased, for Chloromethane and Vinyl chloride. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated sample(s) were non-detect for this analyte, the data have been reported. The following sample is impacted: Pre-Carbon (480-163310-2).

Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-163310-2). 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
Method 8270D: The continuing calibration verification (CCV) associated with batch 480-507678 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 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-163310-2). 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 608.3: The continuing calibration verification (CCV) associated with batch 480-507295 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 (480-163310-1).

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
Methods 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 (480-163310-1).

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

Organic Prep
Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-507055.

Job ID: 480-163310-1 (Continued)

Laboratory: Eurofins TestAmerica, Buffalo (Continued)

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

Job ID: 480-163310-1

Client Sample ID: Post-Carbon 2

Date Collected: 11/26/19 09:45
Date Received: 11/26/19 10:30

Lab Sample ID: 480-163310-1

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/27/19 23:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/27/19 23:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/27/19 23:09	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/27/19 23:09	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/27/19 23:09	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/27/19 23:09	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/27/19 23:09	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/27/19 23:09	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/27/19 23:09	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/27/19 23:09	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/27/19 23:09	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/27/19 23:09	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/27/19 23:09	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/27/19 23:09	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/27/19 23:09	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/27/19 23:09	1
2-Hexanone	ND		5.0	1.2	ug/L			11/27/19 23:09	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			11/27/19 23:09	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/27/19 23:09	1
Acetone	ND		10	3.0	ug/L			11/27/19 23:09	1
Benzene	**14**		1.0	0.41	ug/L			11/27/19 23:09	1
Bromoform	ND		1.0	0.26	ug/L			11/27/19 23:09	1
Bromomethane	ND		1.0	0.69	ug/L			11/27/19 23:09	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/27/19 23:09	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/27/19 23:09	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/27/19 23:09	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/27/19 23:09	1
Chloroethane	ND		1.0	0.32	ug/L			11/27/19 23:09	1
Chloroform	**1.2**		1.0	0.34	ug/L			11/27/19 23:09	1
Chloromethane	ND		1.0	0.35	ug/L			11/27/19 23:09	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/27/19 23:09	1
Cyclohexane	ND		1.0	0.18	ug/L			11/27/19 23:09	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/27/19 23:09	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/27/19 23:09	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/19 23:09	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/27/19 23:09	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/27/19 23:09	1
Methyl acetate	ND		2.5	1.3	ug/L			11/27/19 23:09	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/27/19 23:09	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/27/19 23:09	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/27/19 23:09	1
m,p-Xylene	ND		2.0	0.66	ug/L			11/27/19 23:09	1
Naphthalene	ND		1.0	0.43	ug/L			11/27/19 23:09	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/27/19 23:09	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/27/19 23:09	1
o-Xylene	ND		1.0	0.76	ug/L			11/27/19 23:09	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/27/19 23:09	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/27/19 23:09	1
Toluene	ND		1.0	0.51	ug/L			11/27/19 23:09	1

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

Job ID: 480-163310-1

Client Sample ID: Post-Carbon 2

Date Collected: 11/26/19 09:45
Date Received: 11/26/19 10:30

Lab Sample ID: 480-163310-1

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/27/19 23:09	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/27/19 23:09	1
Trichloroethene	ND		1.0	0.46	ug/L			11/27/19 23:09	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/27/19 23:09	1
Vinyl chloride	**1.1**		1.0	0.90	ug/L			11/27/19 23:09	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/27/19 23:09	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/27/19 23:09	1
Styrene	ND		1.0	0.73	ug/L			11/27/19 23:09	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/27/19 23:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*		*11/27/19 23:09*	*1*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*11/27/19 23:09*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*11/27/19 23:09*	*1*
Dibromofluoromethane (Surr)	*97*		*75 - 123*		*11/27/19 23:09*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		11/27/19 15:43	12/03/19 07:01	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		11/27/19 15:43	12/03/19 07:01	1
Acenaphthene	ND		5.0	0.41	ug/L		11/27/19 15:43	12/03/19 07:01	1
Acenaphthylene	ND		5.0	0.38	ug/L		11/27/19 15:43	12/03/19 07:01	1
Anthracene	ND		5.0	0.28	ug/L		11/27/19 15:43	12/03/19 07:01	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		11/27/19 15:43	12/03/19 07:01	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		11/27/19 15:43	12/03/19 07:01	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		11/27/19 15:43	12/03/19 07:01	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		11/27/19 15:43	12/03/19 07:01	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		11/27/19 15:43	12/03/19 07:01	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		11/27/19 15:43	12/03/19 07:01	1
Carbazole	ND		5.0	0.30	ug/L		11/27/19 15:43	12/03/19 07:01	1
Chrysene	ND		5.0	0.33	ug/L		11/27/19 15:43	12/03/19 07:01	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		11/27/19 15:43	12/03/19 07:01	1
Dibenzofuran	ND		10	0.51	ug/L		11/27/19 15:43	12/03/19 07:01	1
Fluoranthene	ND		5.0	0.40	ug/L		11/27/19 15:43	12/03/19 07:01	1
Fluorene	ND		5.0	0.36	ug/L		11/27/19 15:43	12/03/19 07:01	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		11/27/19 15:43	12/03/19 07:01	1
Naphthalene	ND		5.0	0.76	ug/L		11/27/19 15:43	12/03/19 07:01	1
Pentachlorophenol	ND		10	2.2	ug/L		11/27/19 15:43	12/03/19 07:01	1
Phenanthrene	ND		5.0	0.44	ug/L		11/27/19 15:43	12/03/19 07:01	1
Phenol	ND		5.0	0.39	ug/L		11/27/19 15:43	12/03/19 07:01	1
Pyrene	ND		5.0	0.34	ug/L		11/27/19 15:43	12/03/19 07:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*108*		*46 - 120*	*11/27/19 15:43*	*12/03/19 07:01*	*1*
2-Fluorobiphenyl	*111*		*48 - 120*	*11/27/19 15:43*	*12/03/19 07:01*	*1*
p-Terphenyl-d14	*129*		*60 - 148*	*11/27/19 15:43*	*12/03/19 07:01*	*1*
Phenol-d5	*52*		*22 - 120*	*11/27/19 15:43*	*12/03/19 07:01*	*1*
2-Fluorophenol	*67*		*35 - 120*	*11/27/19 15:43*	*12/03/19 07:01*	*1*
2,4,6-Tribromophenol	*65*		*41 - 120*	*11/27/19 15:43*	*12/03/19 07:01*	*1*

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

Job ID: 480-163310-1

Client Sample ID: Post-Carbon 2

Date Collected: 11/26/19 09:45
Date Received: 11/26/19 10:30

Lab Sample ID: 480-163310-1

Matrix: Wastewater

Method: 608.3 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.049	0.0079	ug/L		11/27/19 08:53	11/29/19 13:28	1
alpha-BHC	ND		0.049	0.0075	ug/L		11/27/19 08:53	11/29/19 13:28	1
beta-BHC	ND		0.049	0.024	ug/L		11/27/19 08:53	11/29/19 13:28	1
delta-BHC	ND		0.049	0.0098	ug/L		11/27/19 08:53	11/29/19 13:28	1
gamma-BHC (Lindane)	ND		0.049	0.0078	ug/L		11/27/19 08:53	11/29/19 13:28	1
Chlordane (technical)	ND		0.49	0.28	ug/L		11/27/19 08:53	11/29/19 13:28	1
4,4'-DDD	ND		0.049	0.0090	ug/L		11/27/19 08:53	11/29/19 13:28	1
4,4'-DDE	ND		0.049	0.011	ug/L		11/27/19 08:53	11/29/19 13:28	1
4,4'-DDT	ND		0.049	0.011	ug/L		11/27/19 08:53	11/29/19 13:28	1
Dieldrin	ND		0.049	0.0096	ug/L		11/27/19 08:53	11/29/19 13:28	1
Endosulfan I	ND		0.049	0.011	ug/L		11/27/19 08:53	11/29/19 13:28	1
Endosulfan II	ND		0.049	0.012	ug/L		11/27/19 08:53	11/29/19 13:28	1
Endosulfan sulfate	ND		0.049	0.015	ug/L		11/27/19 08:53	11/29/19 13:28	1
Endrin	ND		0.049	0.014	ug/L		11/27/19 08:53	11/29/19 13:28	1
Endrin aldehyde	ND		0.049	0.016	ug/L		11/27/19 08:53	11/29/19 13:28	1
Heptachlor	ND		0.049	0.0083	ug/L		11/27/19 08:53	11/29/19 13:28	1
Heptachlor epoxide	ND		0.049	0.0073	ug/L		11/27/19 08:53	11/29/19 13:28	1
Toxaphene	ND		0.49	0.12	ug/L		11/27/19 08:53	11/29/19 13:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*51*		*23 - 120*	*11/27/19 08:53*	*11/29/19 13:28*	*1*
Tetrachloro-m-xylene	*75*		*44 - 120*	*11/27/19 08:53*	*11/29/19 13:28*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	**4.0**	**J F1**	4.8	1.3	mg/L		12/04/19 11:17	12/04/19 15:47	1
Cyanide, Total	**0.11**		0.010	0.0050	mg/L		12/04/19 10:30	12/04/19 12:50	1
Phenolics, Total Recoverable	**0.020**	**F1**	0.010	0.0050	mg/L		12/05/19 15:59	12/05/19 18:17	1
Total Dissolved Solids	**961**		10.0	4.0	mg/L			12/02/19 12:13	1
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			11/27/19 12:08	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.2	4.2	mg/L			11/29/19 13:59	1
pH	**7.5**	**HF**	0.1	0.1	SU			12/10/19 16:35	1
Temperature	**18.6**	**HF**	0.001	0.001	Degrees C			12/10/19 16:35	1

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

Job ID: 480-163310-1

Client Sample ID: Pre-Carbon

Date Collected: 11/26/19 09:55
Date Received: 11/26/19 10:30

Lab Sample ID: 480-163310-2

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		50	41	ug/L			11/27/19 18:23	50
1,1,2,2-Tetrachloroethane	ND		50	11	ug/L			11/27/19 18:23	50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50	16	ug/L			11/27/19 18:23	50
1,1,2-Trichloroethane	ND		50	12	ug/L			11/27/19 18:23	50
1,1-Dichloroethane	ND		50	19	ug/L			11/27/19 18:23	50
1,1-Dichloroethene	ND		50	15	ug/L			11/27/19 18:23	50
1,2,4-Trichlorobenzene	ND		50	21	ug/L			11/27/19 18:23	50
1,2,4-Trimethylbenzene	ND		50	38	ug/L			11/27/19 18:23	50
1,2-Dibromo-3-Chloropropane	ND		50	20	ug/L			11/27/19 18:23	50
1,2-Dichlorobenzene	ND		50	40	ug/L			11/27/19 18:23	50
1,2-Dichloroethane	ND		50	11	ug/L			11/27/19 18:23	50
1,2-Dichloropropane	ND		50	36	ug/L			11/27/19 18:23	50
1,3,5-Trimethylbenzene	ND		50	39	ug/L			11/27/19 18:23	50
1,3-Dichlorobenzene	ND		50	39	ug/L			11/27/19 18:23	50
1,4-Dichlorobenzene	ND		50	42	ug/L			11/27/19 18:23	50
2-Butanone (MEK)	ND		500	66	ug/L			11/27/19 18:23	50
2-Hexanone	ND		250	62	ug/L			11/27/19 18:23	50
4-Isopropyltoluene	ND		50	16	ug/L			11/27/19 18:23	50
4-Methyl-2-pentanone (MIBK)	ND		250	110	ug/L			11/27/19 18:23	50
Acetone	ND		500	150	ug/L			11/27/19 18:23	50
Benzene	**2800**		50	21	ug/L			11/27/19 18:23	50
Bromoform	ND		50	13	ug/L			11/27/19 18:23	50
Bromomethane	ND		50	35	ug/L			11/27/19 18:23	50
Carbon disulfide	ND		50	9.5	ug/L			11/27/19 18:23	50
Carbon tetrachloride	ND		50	14	ug/L			11/27/19 18:23	50
Chlorobenzene	ND		50	38	ug/L			11/27/19 18:23	50
Dibromochloromethane	ND		50	16	ug/L			11/27/19 18:23	50
Chloroethane	ND		50	16	ug/L			11/27/19 18:23	50
Chloroform	ND		50	17	ug/L			11/27/19 18:23	50
Chloromethane	ND		50	18	ug/L			11/27/19 18:23	50
cis-1,2-Dichloroethene	ND		50	41	ug/L			11/27/19 18:23	50
Cyclohexane	ND		50	9.0	ug/L			11/27/19 18:23	50
Bromodichloromethane	ND		50	20	ug/L			11/27/19 18:23	50
Dichlorodifluoromethane	ND		50	34	ug/L			11/27/19 18:23	50
Ethylbenzene	**130**		50	37	ug/L			11/27/19 18:23	50
1,2-Dibromoethane	ND		50	37	ug/L			11/27/19 18:23	50
Isopropylbenzene	ND		50	40	ug/L			11/27/19 18:23	50
Methyl acetate	ND		130	65	ug/L			11/27/19 18:23	50
Methyl tert-butyl ether	ND		50	8.0	ug/L			11/27/19 18:23	50
Methylcyclohexane	ND		50	8.0	ug/L			11/27/19 18:23	50
Methylene Chloride	ND		50	22	ug/L			11/27/19 18:23	50
m,p-Xylene	**64**	**J**	100	33	ug/L			11/27/19 18:23	50
Naphthalene	**200**		50	22	ug/L			11/27/19 18:23	50
n-Butylbenzene	ND		50	32	ug/L			11/27/19 18:23	50
N-Propylbenzene	ND		50	35	ug/L			11/27/19 18:23	50
o-Xylene	**56**		50	38	ug/L			11/27/19 18:23	50
sec-Butylbenzene	ND		50	38	ug/L			11/27/19 18:23	50
Tetrachloroethene	ND		50	18	ug/L			11/27/19 18:23	50
Toluene	**340**		50	26	ug/L			11/27/19 18:23	50

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

Job ID: 480-163310-1

Client Sample ID: Pre-Carbon

Date Collected: 11/26/19 09:55
Date Received: 11/26/19 10:30

Lab Sample ID: 480-163310-2

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		50	45	ug/L			11/27/19 18:23	50
trans-1,3-Dichloropropene	ND		50	19	ug/L			11/27/19 18:23	50
Trichloroethene	ND		50	23	ug/L			11/27/19 18:23	50
Trichlorofluoromethane	ND		50	44	ug/L			11/27/19 18:23	50
Vinyl chloride	ND		50	45	ug/L			11/27/19 18:23	50
Xylenes, Total	**120**		100	33	ug/L			11/27/19 18:23	50
cis-1,3-Dichloropropene	ND		50	18	ug/L			11/27/19 18:23	50
Styrene	ND		50	37	ug/L			11/27/19 18:23	50
tert-Butylbenzene	ND		50	41	ug/L			11/27/19 18:23	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*11/27/19 18:23*	*50*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*11/27/19 18:23*	*50*
Toluene-d8 (Surr)	*96*		*80 - 120*		*11/27/19 18:23*	*50*
Dibromofluoromethane (Surr)	*110*		*75 - 123*		*11/27/19 18:23*	*50*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**125000**		500	100	ug/L		11/29/19 07:21	11/30/19 12:51	1
Magnesium	**45000**		200	43.4	ug/L		11/29/19 07:21	11/30/19 12:51	1
Potassium	**4840**		500	100	ug/L		11/29/19 07:21	11/30/19 12:51	1
Sodium	**115000**		1000	324	ug/L		11/29/19 07:21	11/30/19 12:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**182**		2.5	1.4	mg/L			11/29/19 20:28	5
Sulfate	**112**		10.0	1.7	mg/L			11/29/19 20:28	5
Alkalinity, Total	**349**		40.0	16.0	mg/L			12/06/19 18:49	4

Lab Chronicle

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

Job ID: 480-163310-1

Client Sample ID: Post-Carbon 2

Lab Sample ID: 480-163310-1
Matrix: Wastewater
Date Collected: 11/26/19 09:45
Date Received: 11/26/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	507223	11/27/19 23:09	BTP	TAL BUF
Total/NA	Prep	3510C			507183	11/27/19 15:43	AAP	TAL BUF
Total/NA	Analysis	8270D		1	507678	12/03/19 07:01	RJS	TAL BUF
Total/NA	Prep	3510C			507055	11/27/19 08:53	JMP	TAL BUF
Total/NA	Analysis	608.3		1	507295	11/29/19 13:28	MAN	TAL BUF
Total/NA	Prep	1664B			508046	12/04/19 11:17	CRK	TAL BUF
Total/NA	Analysis	1664B		1	508139	12/04/19 15:47	CRK	TAL BUF
Total/NA	Prep	Distill/CN			508039	12/04/19 10:30	JRF	TAL BUF
Total/NA	Analysis	335.4		1	508078	12/04/19 12:50	CLT	TAL BUF
Total/NA	Prep	Distill/Phenol			508371	12/05/19 15:59	NLA	TAL BUF
Total/NA	Analysis	420.1		1	508405	12/05/19 18:17	SRW	TAL BUF
Total/NA	Analysis	SM 2540C		1	507641	12/02/19 12:13	CSS	TAL BUF
Total/NA	Analysis	SM 2540D		1	507378	11/29/19 13:59	CSS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	509151	12/10/19 16:35	CRK	TAL BUF
Total/NA	Analysis	SM 5210B		1	507182	11/27/19 12:08	SRA	TAL BUF

Client Sample ID: Pre-Carbon

Lab Sample ID: 480-163310-2
Matrix: Wastewater
Date Collected: 11/26/19 09:55
Date Received: 11/26/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		50	507035	11/27/19 18:23	CDC	TAL BUF
Total/NA	Prep	200.7			507000	11/29/19 07:21	EMB	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	507572	11/30/19 12:51	AMH	TAL BUF
Total/NA	Analysis	300.0		5	507360	11/29/19 20:28	IMZ	TAL BUF
Total/NA	Analysis	310.2		4	508622	12/06/19 18:49	SRW	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: New York State D.E.C.
Job ID: 480-163310-1
Project/Site: Gastown WWTP #915171

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
335.4	Distill/CN	Wastewater	Cyanide, Total
SM 4500 H+ B		Wastewater	pH
SM 4500 H+ B		Wastewater	Temperature

Method Summary

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

Job ID: 480-163310-1

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

Sample Summary

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

Job ID: 480-163310-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-163310-1	Post-Carbon 2	Wastewater	11/26/19 09:45	11/26/19 10:30	
480-163310-2	Pre-Carbon	Wastewater	11/26/19 09:55	11/26/19 10:30	

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Peter Zaffram	Lab PM: Johnson, Orlette S	Carrier Tracking No(s):	COC No: 480-123669-28089.1
Client Contact: Thomas Palmer	Phone: 716 553-5129	E-Mail: orlette.johnson@testamericainc.com		Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc				Job #:

Address: 415 Lawrence Bell Drive Suite 6	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Williamsville	TAT Requested (days): Standard		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: NY, 14221			
Phone: 518-402-9662(Tel)	PO #: CallOut ID 136076		
Email: tpalmer@gesonline.com	WO #: GES Project # 0901691 - 05 - 220		
Project Name: Gastown WWTP #915171 - Quarterly Event Desc: Quarterly	Project #: 48002525		Other:
Site: New York	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	420.4 - Phenolics, Total Recoverable	8260C - TCL + CP-51 (Stars)	608_Pest - Priority Pollutant Pesticides	8270C - (MOD) TCL SVOA	5210B - Biochemical Oxygen Demand	2540D - Total Suspended Solids	2540C_Calcd - Total Dissolved Solids	335.4 - Cyanide, Total	SM4500_H+ - pH	1664B - Oil and Grease	300.0_28D - (MOD) Cl, SO4	200.7 - Ca, Mg, K, Na	310.2 - Alkalinity, Total	Total Number of containers	Special Instructions/Note:
			Preservation Code:				S	A	N	N	N	N	N	B	N	S	N	D	N		
Post-Carbon 2	11/26/19	0945	G	Water			X	X	X	X	X	X	X	X	X	X				23	
Pre-Carbon	11/26/19	0955	G	Water				X									X	X	X	3	

480-163310 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date: 11/26/19	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		11/26/19 10:30	GES	Kara Mahrer	11-26-19 10:30	TAB/BF
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2, 2.2 4 H1R

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: New York State D.E.C. Job Number: 480-163310-1

Login Number: 163310 **List Source: Eurofins TestAmerica, Buffalo**
List Number: 1
Creator: Manhardt, Kara M

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 480-164546-1
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

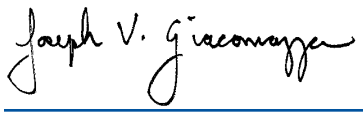
Joseph V. Giacomazza

Authorized for release by:
1/6/2020 11:57:54 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

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



Joe Giacomazza
Project Management Assistant II
1/6/2020 11:57:54 AM

Table of Contents

Definitions/Glossary

Client: New York State D.E.C.
Job ID: 480-164546-1
Project/Site: Gastown WWTP #915171

Qualifiers

GC/MS VOA

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

General Chemistry

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

Job ID: 480-164546-1

Job ID: 480-164546-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-164546-1

Comments
No additional comments.

Receipt
The samples were received on 12/20/2019 3:52 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.1° C.

GC/MS VOA
Method 8260C: Due to the coelution of Ethyl Acetate with 2-Butanone in the full spike solution, these analytes exceeded control limits in the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) associated with batch 511738. The following samples were affected : Post-Carbon-2 (480-164546-1) and Pre-Carbon (480-164546-2).

Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-164546-2). Elevated reporting limits (RLs) are provided.

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

HPLC/IC
Method 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: Pre-Carbon (480-164546-2). 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
Methods 335.4, 9012B: The laboratory control sample (LCS) associated with preparation batch 480-511457 and analytical batch 480-511660 was outside acceptance criteria.The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Methods 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 (480-164546-1).

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.
Job ID: 480-164546-1
Project/Site: Gastown WWTP #915171

Client Sample ID: Post-Carbon-2
Lab Sample ID: 480-164546-1
Date Collected: 12/20/19 13:30
Matrix: Wastewater
Date Received: 12/20/19 15:52

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			12/26/19 14:58	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/26/19 14:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/26/19 14:58	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/26/19 14:58	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/26/19 14:58	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/26/19 14:58	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/26/19 14:58	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			12/26/19 14:58	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/26/19 14:58	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/26/19 14:58	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/26/19 14:58	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/26/19 14:58	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			12/26/19 14:58	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/26/19 14:58	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/26/19 14:58	1
2-Butanone (MEK)	ND	*	10	1.3	ug/L			12/26/19 14:58	1
2-Hexanone	ND		5.0	1.2	ug/L			12/26/19 14:58	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			12/26/19 14:58	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/26/19 14:58	1
Acetone	ND		10	3.0	ug/L			12/26/19 14:58	1
Benzene	**14**		1.0	0.41	ug/L			12/26/19 14:58	1
Bromoform	ND		1.0	0.26	ug/L			12/26/19 14:58	1
Bromomethane	ND		1.0	0.69	ug/L			12/26/19 14:58	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/26/19 14:58	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/26/19 14:58	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/26/19 14:58	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/26/19 14:58	1
Chloroethane	ND		1.0	0.32	ug/L			12/26/19 14:58	1
Chloroform	**2.6**		1.0	0.34	ug/L			12/26/19 14:58	1
Chloromethane	ND		1.0	0.35	ug/L			12/26/19 14:58	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/26/19 14:58	1
Cyclohexane	ND		1.0	0.18	ug/L			12/26/19 14:58	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/26/19 14:58	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/26/19 14:58	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/26/19 14:58	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/26/19 14:58	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/26/19 14:58	1
Methyl acetate	ND		2.5	1.3	ug/L			12/26/19 14:58	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/26/19 14:58	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/26/19 14:58	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/26/19 14:58	1
m,p-Xylene	ND		2.0	0.66	ug/L			12/26/19 14:58	1
Naphthalene	ND		1.0	0.43	ug/L			12/26/19 14:58	1
n-Butylbenzene	ND		1.0	0.64	ug/L			12/26/19 14:58	1
N-Propylbenzene	ND		1.0	0.69	ug/L			12/26/19 14:58	1
o-Xylene	ND		1.0	0.76	ug/L			12/26/19 14:58	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			12/26/19 14:58	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/26/19 14:58	1
Toluene	ND		1.0	0.51	ug/L			12/26/19 14:58	1

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

Job ID: 480-164546-1

Client Sample ID: Post-Carbon-2
Date Collected: 12/20/19 13:30
Date Received: 12/20/19 15:52

Lab Sample ID: 480-164546-1
Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/26/19 14:58	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/26/19 14:58	1
Trichloroethene	ND		1.0	0.46	ug/L			12/26/19 14:58	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/26/19 14:58	1
Vinyl chloride	**1.1**		1.0	0.90	ug/L			12/26/19 14:58	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/26/19 14:58	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/26/19 14:58	1
Styrene	ND		1.0	0.73	ug/L			12/26/19 14:58	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			12/26/19 14:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*12/26/19 14:58*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*12/26/19 14:58*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*12/26/19 14:58*	*1*
Dibromofluoromethane (Surr)	*107*		*75 - 123*		*12/26/19 14:58*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.11**	*	0.010	0.0050	mg/L		12/23/19 12:53	12/24/19 11:46	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**8.6**	**HF**	0.1	0.1	SU			12/31/19 09:30	1
Temperature	**19.2**	**HF**	0.001	0.001	Degrees C			12/31/19 09:30	1

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

Job ID: 480-164546-1

Client Sample ID: Pre-Carbon
Date Collected: 12/20/19 13:35
Date Received: 12/20/19 15:52

Lab Sample ID: 480-164546-2
Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			12/26/19 15:22	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/26/19 15:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/26/19 15:22	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/26/19 15:22	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/26/19 15:22	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/26/19 15:22	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/26/19 15:22	1
1,2,4-Trimethylbenzene	**9.7**		1.0	0.75	ug/L			12/26/19 15:22	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/26/19 15:22	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/26/19 15:22	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/26/19 15:22	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/26/19 15:22	1
1,3,5-Trimethylbenzene	**2.1**		1.0	0.77	ug/L			12/26/19 15:22	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/26/19 15:22	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/26/19 15:22	1
2-Butanone (MEK)	ND	*	10	1.3	ug/L			12/26/19 15:22	1
2-Hexanone	ND		5.0	1.2	ug/L			12/26/19 15:22	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			12/26/19 15:22	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/26/19 15:22	1
Acetone	**5.2**	**J**	10	3.0	ug/L			12/26/19 15:22	1
Bromoform	ND		1.0	0.26	ug/L			12/26/19 15:22	1
Bromomethane	ND		1.0	0.69	ug/L			12/26/19 15:22	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/26/19 15:22	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/26/19 15:22	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/26/19 15:22	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/26/19 15:22	1
Chloroethane	ND		1.0	0.32	ug/L			12/26/19 15:22	1
Chloroform	**1.7**		1.0	0.34	ug/L			12/26/19 15:22	1
Chloromethane	ND		1.0	0.35	ug/L			12/26/19 15:22	1
cis-1,2-Dichloroethene	**6.1**		1.0	0.81	ug/L			12/26/19 15:22	1
Cyclohexane	ND		1.0	0.18	ug/L			12/26/19 15:22	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/26/19 15:22	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/26/19 15:22	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/26/19 15:22	1
Isopropylbenzene	**1.4**		1.0	0.79	ug/L			12/26/19 15:22	1
Methyl acetate	ND		2.5	1.3	ug/L			12/26/19 15:22	1
Methyl tert-butyl ether	**0.18**	**J**	1.0	0.16	ug/L			12/26/19 15:22	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/26/19 15:22	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/26/19 15:22	1
m,p-Xylene	**83**		2.0	0.66	ug/L			12/26/19 15:22	1
n-Butylbenzene	ND		1.0	0.64	ug/L			12/26/19 15:22	1
N-Propylbenzene	ND		1.0	0.69	ug/L			12/26/19 15:22	1
o-Xylene	**55**		1.0	0.76	ug/L			12/26/19 15:22	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			12/26/19 15:22	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/26/19 15:22	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/26/19 15:22	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/26/19 15:22	1
Trichloroethene	ND		1.0	0.46	ug/L			12/26/19 15:22	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/26/19 15:22	1

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

Job ID: 480-164546-1

Client Sample ID: Pre-Carbon

Date Collected: 12/20/19 13:35
Date Received: 12/20/19 15:52

Lab Sample ID: 480-164546-2

Matrix: Wastewater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	**1.6**		1.0	0.90	ug/L			12/26/19 15:22	1
Xylenes, Total	**140**		2.0	0.66	ug/L			12/26/19 15:22	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/26/19 15:22	1
Styrene	ND		1.0	0.73	ug/L			12/26/19 15:22	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			12/26/19 15:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*12/26/19 15:22*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*12/26/19 15:22*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*12/26/19 15:22*	*1*
Dibromofluoromethane (Surr)	*110*		*75 - 123*		*12/26/19 15:22*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**2800**		40	16	ug/L			12/27/19 15:55	40
Ethylbenzene	**170**		40	30	ug/L			12/27/19 15:55	40
Naphthalene	**240**		40	17	ug/L			12/27/19 15:55	40
Toluene	**470**		40	20	ug/L			12/27/19 15:55	40

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*		*12/27/19 15:55*	*40*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*12/27/19 15:55*	*40*
Toluene-d8 (Surr)	*98*		*80 - 120*		*12/27/19 15:55*	*40*
Dibromofluoromethane (Surr)	*109*		*75 - 123*		*12/27/19 15:55*	*40*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**122000**		500	100	ug/L		12/24/19 09:27	12/27/19 11:52	1
Magnesium	**39000**		200	43.4	ug/L		12/24/19 09:27	12/26/19 16:12	1
Potassium	**3670**		500	100	ug/L		12/24/19 09:27	12/26/19 16:12	1
Sodium	**89400**		1000	324	ug/L		12/24/19 09:27	12/27/19 11:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**164**		2.5	1.4	mg/L			12/30/19 20:19	5
Sulfate	**125**		10.0	1.7	mg/L			12/30/19 20:19	5
Alkalinity, Total	**341**		40.0	16.0	mg/L			12/26/19 19:22	4

Lab Chronicle

Client: New York State D.E.C.
Job ID: 480-164546-1
Project/Site: Gastown WWTP #915171

Client Sample ID: Post-Carbon-2
Lab Sample ID: 480-164546-1
Date Collected: 12/20/19 13:30
Matrix: Wastewater
Date Received: 12/20/19 15:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	511738	12/26/19 14:58	BTP	TAL BUF
Total/NA	Prep	Distill/CN			511457	12/23/19 12:53	AJL	TAL BUF
Total/NA	Analysis	335.4		1	511660	12/24/19 11:46	MDL	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	512372	12/31/19 09:30	CSS	TAL BUF

Client Sample ID: Pre-Carbon
Lab Sample ID: 480-164546-2
Date Collected: 12/20/19 13:35
Matrix: Wastewater
Date Received: 12/20/19 15:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	511738	12/26/19 15:22	BTP	TAL BUF
Total/NA	Analysis	8260C	DL	40	511927	12/27/19 15:55	BTP	TAL BUF
Total/NA	Prep	200.7			511608	12/24/19 09:27	NSW	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	511904	12/26/19 16:12	AMH	TAL BUF
Total/NA	Prep	200.7			511608	12/24/19 09:27	NSW	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	512012	12/27/19 11:52	AMH	TAL BUF
Total/NA	Analysis	300.0		5	512244	12/30/19 20:19	IMZ	TAL BUF
Total/NA	Analysis	310.2		4	511893	12/26/19 19:22	SRW	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: New York State D.E.C.
Job ID: 480-164546-1
Project/Site: Gastown WWTP #915171

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
335.4	Distill/CN	Wastewater	Cyanide, Total
SM 4500 H+ B		Wastewater	pH
SM 4500 H+ B		Wastewater	Temperature

Method Summary

Client: New York State D.E.C.
Job ID: 480-164546-1
Project/Site: Gastown WWTP #915171

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

Sample Summary

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

Job ID: 480-164546-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-164546-1	Post-Carbon-2	Wastewater	12/20/19 13:30	12/20/19 15:52	
480-164546-2	Pre-Carbon	Wastewater	12/20/19 13:35	12/20/19 15:52	

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Peter Zaffram	Lab PM: Johnson, Orlette S	Carrier Tracking No(s):	COC No: 480-123660-28090.1
Client Contact: Thomas Palmer	Phone: (716) 553-5729	E-Mail: orlette.johnson@testamericainc.com		Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc				Job #:

Address: 415 Lawrence Bell Drive Suite 6	Due Date Requested:	Analysis Requested
City: Williamsville	TAT Requested (days): Standard	
State, Zip: NY, 14221		
Phone: 518-402-9662(Tel)	PO #: CallOut ID 136076	
Email: tpalmer@gesonline.com	WO #: GES Project # 0901691 -05-220	
Project Name: Gastown WWTP #915171 - Monthly Event Desc: Monthly	Project #: 48002525	
Site: New York	SSOW#:	

480-164546 Chain of Custody

J - DI Water
K - EDTA
L - EDA
V - MCAA
W - pH 4-5
Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	335.4 - Cyanide, Total	SM4500_H+ - pH	8260C - TCL + CP-51 (Stars)	300.0_28D - Cl, SO4	200.7 - Ca, Mg, K, Na	310.2 - Alkalinity, Total	Total Number of containers	Special Instructions/Note:
			Preservation Code:				B	N	A	N	D	N		
Post-Carbon 2	12/20/19	1330	G	Water			X	X	X					
Pre-Carbon	12/20/19	1335	G	Water					X	X	X	X		

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time: 12/20/19 1552	Company: GES	Received by: Kaa Mahardt	Date/Time: 12-20-19 1552	Company: TAB/BF
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.1 #1 IR

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-164546-1

Login Number: 164546

List Source: Eurofins 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	
Chlorine Residual checked.	N/A	