

# 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: 480-86456-1

Client Project/Site: GE Tonawanda

For:

Clean Harbors Environmental Services Inc

42 Longwater Drive

Norwell, Massachusetts 02061

Attn: Chris Nelson



Authorized for release by:

9/9/2015 3:12:06 PM

Rebecca Jones, Project Management Assistant I

[rebecca.jones@testamericainc.com](mailto:rebecca.jones@testamericainc.com)

Designee for

John Schove, Project Manager II

(716)504-9838

[john.schove@testamericainc.com](mailto:john.schove@testamericainc.com)

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

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

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# Definitions/Glossary

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

## Qualifiers

### GC Semi VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits

### General Chemistry

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

## Glossary

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

# Case Narrative

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

**Job ID: 480-86456-1**

**Laboratory: TestAmerica Buffalo**

## Narrative

### Job Narrative 480-86456-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 9/1/2015 5:02 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.0° C.

#### GC/MS VOA

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

#### GC/MS Semi VOA

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

#### GC Semi VOA

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

#### Metals

Method(s) 6010C: The following sample was diluted due to the presence of Calcium which interferes with Total Copper: TYPE II (480-86456-3). Elevated reporting limits (RLs) are provided.

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

#### General Chemistry

Method(s) 9012B: The laboratory control sample (LCS) for batch 480-261663 recovered outside control limits for the following analytes: Cyanide. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.COMMON FILL (480-86456-1), TOPSOIL (480-86456-2) and TYPE II (480-86456-3)

Method(s) 7196A: The following sample was diluted due to the nature of the sample matrix: TOPSOIL (480-86456-2). 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.

#### Organic Prep

Method(s) 3550C: The following samples required a Florisil clean-up, via EPA Method 3620C, to reduce matrix interferences: COMMON FILL (480-86456-1), TOPSOIL (480-86456-2), TYPE II (480-86456-3), (480-86456-E-3 MS) and (480-86456-E-3 MSD).

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

# Detection Summary

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

## Client Sample ID: COMMON FILL

## Lab Sample ID: 480-86456-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.7		2.0		mg/Kg	1	☼	6010C	Total/NA
Barium	77.7		0.49		mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.26		0.20		mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.23		0.20		mg/Kg	1	☼	6010C	Total/NA
Copper	13.8		0.98		mg/Kg	1	☼	6010C	Total/NA
Lead	6.2		0.98		mg/Kg	1	☼	6010C	Total/NA
Manganese	394		0.20		mg/Kg	1	☼	6010C	Total/NA
Nickel	11.0		4.9		mg/Kg	1	☼	6010C	Total/NA
Zinc	37.1		2.0		mg/Kg	1	☼	6010C	Total/NA
Cr (III)	8.0		1.5		mg/Kg	1		SM 3500 CR D	Total/NA

## Client Sample ID: TOPSOIL

## Lab Sample ID: 480-86456-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.3		2.5		mg/Kg	1	☼	6010C	Total/NA
Barium	75.0		0.63		mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.66		0.25		mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.59		0.25		mg/Kg	1	☼	6010C	Total/NA
Copper	17.8		1.3		mg/Kg	1	☼	6010C	Total/NA
Lead	36.1		1.3		mg/Kg	1	☼	6010C	Total/NA
Manganese	403		0.25		mg/Kg	1	☼	6010C	Total/NA
Nickel	16.0		6.3		mg/Kg	1	☼	6010C	Total/NA
Zinc	139		2.5		mg/Kg	1	☼	6010C	Total/NA
Mercury	0.083		0.026		mg/Kg	1	☼	7471B	Total/NA
Cr (III)	16.9		1.5		mg/Kg	1		SM 3500 CR D	Total/NA

## Client Sample ID: TYPE II

## Lab Sample ID: 480-86456-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.2		2.1		mg/Kg	1	☼	6010C	Total/NA
Barium	37.7		0.52		mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.39		0.21		mg/Kg	1	☼	6010C	Total/NA
Lead	83.3		1.0		mg/Kg	1	☼	6010C	Total/NA
Manganese	439		0.21		mg/Kg	1	☼	6010C	Total/NA
Nickel	5.7		5.2		mg/Kg	1	☼	6010C	Total/NA
Zinc	98.1		2.1		mg/Kg	1	☼	6010C	Total/NA
Cr (III)	4.9		1.5		mg/Kg	1		SM 3500 CR D	Total/NA

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

**Client Sample ID: COMMON FILL**

**Lab Sample ID: 480-86456-1**

**Date Collected: 09/01/15 15:00**

**Matrix: Solid**

**Date Received: 09/01/15 17:02**

**Percent Solids: 96.7**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.8		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
1,1-Dichloroethane	ND		3.8		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
1,1-Dichloroethene	ND		3.8		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
1,2,4-Trimethylbenzene	ND		3.8		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
1,2-Dichlorobenzene	ND		3.8		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
1,2-Dichloroethane	ND		3.8		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
1,3,5-Trimethylbenzene	ND		3.8		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
1,3-Dichlorobenzene	ND		3.8		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
1,4-Dichlorobenzene	ND		3.8		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
1,4-Dioxane	ND		76		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
2-Butanone (MEK)	ND		19		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
Acetone	ND		19		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
Benzene	ND		3.8		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
Carbon tetrachloride	ND		3.8		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
Chlorobenzene	ND		3.8		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
Chloroform	ND		3.8		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
cis-1,2-Dichloroethene	ND		3.8		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
Ethylbenzene	ND		3.8		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
Methyl tert-butyl ether	ND		3.8		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
Methylene Chloride	ND		3.8		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
n-Butylbenzene	ND		3.8		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
N-Propylbenzene	ND		3.8		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
sec-Butylbenzene	ND		3.8		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
tert-Butylbenzene	ND		3.8		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
Tetrachloroethene	ND		3.8		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
Toluene	ND		3.8		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
trans-1,2-Dichloroethene	ND		3.8		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
Trichloroethene	ND		3.8		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
Vinyl chloride	ND		3.8		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1
Xylenes, Total	ND		7.6		ug/Kg	☼	09/02/15 11:45	09/02/15 14:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		64 - 126	09/02/15 11:45	09/02/15 14:19	1
4-Bromofluorobenzene (Surr)	99		72 - 126	09/02/15 11:45	09/02/15 14:19	1
Toluene-d8 (Surr)	99		71 - 125	09/02/15 11:45	09/02/15 14:19	1
Dibromofluoromethane (Surr)	104		60 - 140	09/02/15 11:45	09/02/15 14:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 02:44	1
3-Methylphenol	ND		340		ug/Kg	☼	09/03/15 07:49	09/05/15 02:44	1
4-Methylphenol	ND		340		ug/Kg	☼	09/03/15 07:49	09/05/15 02:44	1
Acenaphthene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 02:44	1
Acenaphthylene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 02:44	1
Anthracene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 02:44	1
Benzo[a]anthracene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 02:44	1
Benzo[a]pyrene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 02:44	1
Benzo[b]fluoranthene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 02:44	1
Benzo[g,h,i]perylene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 02:44	1
Benzo[k]fluoranthene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 02:44	1

TestAmerica Buffalo

# Client Sample Results

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

**Client Sample ID: COMMON FILL**

**Lab Sample ID: 480-86456-1**

**Date Collected: 09/01/15 15:00**

**Matrix: Solid**

**Date Received: 09/01/15 17:02**

**Percent Solids: 96.7**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 02:44	1
Dibenz(a,h)anthracene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 02:44	1
Dibenzofuran	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 02:44	1
Fluoranthene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 02:44	1
Fluorene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 02:44	1
Hexachlorobenzene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 02:44	1
Indeno[1,2,3-cd]pyrene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 02:44	1
Naphthalene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 02:44	1
Pentachlorophenol	ND		340		ug/Kg	☼	09/03/15 07:49	09/05/15 02:44	1
Phenanthrene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 02:44	1
Phenol	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 02:44	1
Pyrene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 02:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	77		39 - 146	09/03/15 07:49	09/05/15 02:44	1
2-Fluorobiphenyl	74		37 - 120	09/03/15 07:49	09/05/15 02:44	1
2-Fluorophenol (Surr)	71		18 - 120	09/03/15 07:49	09/05/15 02:44	1
Nitrobenzene-d5 (Surr)	71		34 - 132	09/03/15 07:49	09/05/15 02:44	1
Phenol-d5 (Surr)	76		11 - 120	09/03/15 07:49	09/05/15 02:44	1
p-Terphenyl-d14 (Surr)	85		65 - 153	09/03/15 07:49	09/05/15 02:44	1

## Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:19	1
4,4'-DDE	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:19	1
4,4'-DDT	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:19	1
Aldrin	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:19	1
alpha-BHC	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:19	1
alpha-Chlordane	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:19	1
beta-BHC	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:19	1
delta-BHC	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:19	1
Dieldrin	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:19	1
Endosulfan I	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:19	1
Endosulfan II	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:19	1
Endosulfan sulfate	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:19	1
Endrin	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:19	1
gamma-BHC (Lindane)	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:19	1
Heptachlor	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	64		32 - 136	09/03/15 07:54	09/04/15 15:19	1
Tetrachloro-m-xylene	73		30 - 124	09/03/15 07:54	09/04/15 15:19	1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.19		mg/Kg	☼	09/02/15 09:48	09/03/15 23:41	1
PCB-1221	ND		0.19		mg/Kg	☼	09/02/15 09:48	09/03/15 23:41	1
PCB-1232	ND		0.19		mg/Kg	☼	09/02/15 09:48	09/03/15 23:41	1
PCB-1242	ND		0.19		mg/Kg	☼	09/02/15 09:48	09/03/15 23:41	1
PCB-1248	ND		0.19		mg/Kg	☼	09/02/15 09:48	09/03/15 23:41	1

TestAmerica Buffalo

# Client Sample Results

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

**Client Sample ID: COMMON FILL**

**Lab Sample ID: 480-86456-1**

**Date Collected: 09/01/15 15:00**

**Matrix: Solid**

**Date Received: 09/01/15 17:02**

**Percent Solids: 96.7**

**Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1254	ND		0.19		mg/Kg	☼	09/02/15 09:48	09/03/15 23:41	1
PCB-1260	ND		0.19		mg/Kg	☼	09/02/15 09:48	09/03/15 23:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	105		60 - 154				09/02/15 09:48	09/03/15 23:41	1
DCB Decachlorobiphenyl	104		65 - 174				09/02/15 09:48	09/03/15 23:41	1

**Method: 8151A - Herbicides (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	ND		17		ug/Kg	☼	09/02/15 09:51	09/08/15 13:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	73		28 - 129				09/02/15 09:51	09/08/15 13:10	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.7		2.0		mg/Kg	☼	09/02/15 12:27	09/03/15 11:08	1
Barium	77.7		0.49		mg/Kg	☼	09/02/15 12:27	09/03/15 11:08	1
Beryllium	0.26		0.20		mg/Kg	☼	09/02/15 12:27	09/03/15 11:08	1
Cadmium	0.23		0.20		mg/Kg	☼	09/02/15 12:27	09/03/15 11:08	1
Copper	13.8		0.98		mg/Kg	☼	09/02/15 12:27	09/03/15 11:08	1
Lead	6.2		0.98		mg/Kg	☼	09/02/15 12:27	09/03/15 11:08	1
Manganese	394		0.20		mg/Kg	☼	09/02/15 12:27	09/03/15 11:08	1
Nickel	11.0		4.9		mg/Kg	☼	09/02/15 12:27	09/03/15 11:08	1
Selenium	ND		3.9		mg/Kg	☼	09/02/15 12:27	09/03/15 11:08	1
Silver	ND		0.59		mg/Kg	☼	09/02/15 12:27	09/03/15 11:08	1
Zinc	37.1		2.0		mg/Kg	☼	09/02/15 12:27	09/03/15 11:08	1

**Method: 7471B - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.021		mg/Kg	☼	09/03/15 09:20	09/03/15 11:56	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.83		mg/Kg	☼	09/04/15 08:38	09/08/15 13:49	1
Cyanide, Total	ND	*	1.0		mg/Kg	☼	09/02/15 12:00	09/03/15 08:55	1
Cr (III)	8.0		1.5		mg/Kg			09/09/15 08:55	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	3.3		0.10		%			09/01/15 22:52	1
Percent Solids	97		0.10		%			09/01/15 22:52	1



# Client Sample Results

Client: Clean Harbors Environmental Services Inc  
 Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

**Client Sample ID: TOPSOIL**

**Lab Sample ID: 480-86456-2**

**Date Collected: 09/01/15 14:45**

**Matrix: Solid**

**Date Received: 09/01/15 17:02**

**Percent Solids: 78.1**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.3		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
1,1-Dichloroethane	ND		5.3		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
1,1-Dichloroethene	ND		5.3		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
1,2,4-Trimethylbenzene	ND		5.3		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
1,2-Dichlorobenzene	ND		5.3		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
1,2-Dichloroethane	ND		5.3		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
1,3,5-Trimethylbenzene	ND		5.3		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
1,3-Dichlorobenzene	ND		5.3		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
1,4-Dichlorobenzene	ND		5.3		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
1,4-Dioxane	ND		110		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
2-Butanone (MEK)	ND		26		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
Acetone	ND		26		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
Benzene	ND		5.3		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
Carbon tetrachloride	ND		5.3		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
Chlorobenzene	ND		5.3		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
Chloroform	ND		5.3		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
cis-1,2-Dichloroethene	ND		5.3		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
Ethylbenzene	ND		5.3		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
Methyl tert-butyl ether	ND		5.3		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
Methylene Chloride	ND		5.3		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
n-Butylbenzene	ND		5.3		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
N-Propylbenzene	ND		5.3		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
sec-Butylbenzene	ND		5.3		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
tert-Butylbenzene	ND		5.3		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
Tetrachloroethene	ND		5.3		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
Toluene	ND		5.3		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
trans-1,2-Dichloroethene	ND		5.3		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
Trichloroethene	ND		5.3		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
Vinyl chloride	ND		5.3		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1
Xylenes, Total	ND		11		ug/Kg	☼	09/02/15 11:45	09/02/15 14:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		64 - 126	09/02/15 11:45	09/02/15 14:47	1
4-Bromofluorobenzene (Surr)	91		72 - 126	09/02/15 11:45	09/02/15 14:47	1
Toluene-d8 (Surr)	113		71 - 125	09/02/15 11:45	09/02/15 14:47	1
Dibromofluoromethane (Surr)	108		60 - 140	09/02/15 11:45	09/02/15 14:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	ND		210		ug/Kg	☼	09/03/15 07:49	09/05/15 03:10	1
3-Methylphenol	ND		410		ug/Kg	☼	09/03/15 07:49	09/05/15 03:10	1
4-Methylphenol	ND		410		ug/Kg	☼	09/03/15 07:49	09/05/15 03:10	1
Acenaphthene	ND		210		ug/Kg	☼	09/03/15 07:49	09/05/15 03:10	1
Acenaphthylene	ND		210		ug/Kg	☼	09/03/15 07:49	09/05/15 03:10	1
Anthracene	ND		210		ug/Kg	☼	09/03/15 07:49	09/05/15 03:10	1
Benzo[a]anthracene	ND		210		ug/Kg	☼	09/03/15 07:49	09/05/15 03:10	1
Benzo[a]pyrene	ND		210		ug/Kg	☼	09/03/15 07:49	09/05/15 03:10	1
Benzo[b]fluoranthene	ND		210		ug/Kg	☼	09/03/15 07:49	09/05/15 03:10	1
Benzo[g,h,i]perylene	ND		210		ug/Kg	☼	09/03/15 07:49	09/05/15 03:10	1
Benzo[k]fluoranthene	ND		210		ug/Kg	☼	09/03/15 07:49	09/05/15 03:10	1

TestAmerica Buffalo

# Client Sample Results

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

**Client Sample ID: TOPSOIL**

**Lab Sample ID: 480-86456-2**

Date Collected: 09/01/15 14:45

Matrix: Solid

Date Received: 09/01/15 17:02

Percent Solids: 78.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		210		ug/Kg	☼	09/03/15 07:49	09/05/15 03:10	1
Dibenz(a,h)anthracene	ND		210		ug/Kg	☼	09/03/15 07:49	09/05/15 03:10	1
Dibenzofuran	ND		210		ug/Kg	☼	09/03/15 07:49	09/05/15 03:10	1
Fluoranthene	ND		210		ug/Kg	☼	09/03/15 07:49	09/05/15 03:10	1
Fluorene	ND		210		ug/Kg	☼	09/03/15 07:49	09/05/15 03:10	1
Hexachlorobenzene	ND		210		ug/Kg	☼	09/03/15 07:49	09/05/15 03:10	1
Indeno[1,2,3-cd]pyrene	ND		210		ug/Kg	☼	09/03/15 07:49	09/05/15 03:10	1
Naphthalene	ND		210		ug/Kg	☼	09/03/15 07:49	09/05/15 03:10	1
Pentachlorophenol	ND		410		ug/Kg	☼	09/03/15 07:49	09/05/15 03:10	1
Phenanthrene	ND		210		ug/Kg	☼	09/03/15 07:49	09/05/15 03:10	1
Phenol	ND		210		ug/Kg	☼	09/03/15 07:49	09/05/15 03:10	1
Pyrene	ND		210		ug/Kg	☼	09/03/15 07:49	09/05/15 03:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	89		39 - 146	09/03/15 07:49	09/05/15 03:10	1
2-Fluorobiphenyl	71		37 - 120	09/03/15 07:49	09/05/15 03:10	1
2-Fluorophenol (Surr)	67		18 - 120	09/03/15 07:49	09/05/15 03:10	1
Nitrobenzene-d5 (Surr)	67		34 - 132	09/03/15 07:49	09/05/15 03:10	1
Phenol-d5 (Surr)	70		11 - 120	09/03/15 07:49	09/05/15 03:10	1
p-Terphenyl-d14 (Surr)	83		65 - 153	09/03/15 07:49	09/05/15 03:10	1

## Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.1		ug/Kg	☼	09/03/15 07:54	09/04/15 15:36	1
4,4'-DDE	ND		2.1		ug/Kg	☼	09/03/15 07:54	09/04/15 15:36	1
4,4'-DDT	ND		2.1		ug/Kg	☼	09/03/15 07:54	09/04/15 15:36	1
Aldrin	ND		2.1		ug/Kg	☼	09/03/15 07:54	09/04/15 15:36	1
alpha-BHC	ND		2.1		ug/Kg	☼	09/03/15 07:54	09/04/15 15:36	1
alpha-Chlordane	ND		2.1		ug/Kg	☼	09/03/15 07:54	09/04/15 15:36	1
beta-BHC	ND		2.1		ug/Kg	☼	09/03/15 07:54	09/04/15 15:36	1
delta-BHC	ND		2.1		ug/Kg	☼	09/03/15 07:54	09/04/15 15:36	1
Dieldrin	ND		2.1		ug/Kg	☼	09/03/15 07:54	09/04/15 15:36	1
Endosulfan I	ND		2.1		ug/Kg	☼	09/03/15 07:54	09/04/15 15:36	1
Endosulfan II	ND		2.1		ug/Kg	☼	09/03/15 07:54	09/04/15 15:36	1
Endosulfan sulfate	ND		2.1		ug/Kg	☼	09/03/15 07:54	09/04/15 15:36	1
Endrin	ND		2.1		ug/Kg	☼	09/03/15 07:54	09/04/15 15:36	1
gamma-BHC (Lindane)	ND		2.1		ug/Kg	☼	09/03/15 07:54	09/04/15 15:36	1
Heptachlor	ND		2.1		ug/Kg	☼	09/03/15 07:54	09/04/15 15:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	67		32 - 136	09/03/15 07:54	09/04/15 15:36	1
Tetrachloro-m-xylene	78		30 - 124	09/03/15 07:54	09/04/15 15:36	1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.22		mg/Kg	☼	09/02/15 09:48	09/03/15 23:56	1
PCB-1221	ND		0.22		mg/Kg	☼	09/02/15 09:48	09/03/15 23:56	1
PCB-1232	ND		0.22		mg/Kg	☼	09/02/15 09:48	09/03/15 23:56	1
PCB-1242	ND		0.22		mg/Kg	☼	09/02/15 09:48	09/03/15 23:56	1
PCB-1248	ND		0.22		mg/Kg	☼	09/02/15 09:48	09/03/15 23:56	1

TestAmerica Buffalo

# Client Sample Results

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

**Client Sample ID: TOPSOIL**

**Lab Sample ID: 480-86456-2**

**Date Collected: 09/01/15 14:45**

**Matrix: Solid**

**Date Received: 09/01/15 17:02**

**Percent Solids: 78.1**

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1254	ND		0.22		mg/Kg	☼	09/02/15 09:48	09/03/15 23:56	1
PCB-1260	ND		0.22		mg/Kg	☼	09/02/15 09:48	09/03/15 23:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	91		60 - 154				09/02/15 09:48	09/03/15 23:56	1
DCB Decachlorobiphenyl	78		65 - 174				09/02/15 09:48	09/03/15 23:56	1

## Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	ND		21		ug/Kg	☼	09/02/15 09:51	09/08/15 13:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	71		28 - 129				09/02/15 09:51	09/08/15 13:40	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.3		2.5		mg/Kg	☼	09/02/15 12:27	09/03/15 11:11	1
Barium	75.0		0.63		mg/Kg	☼	09/02/15 12:27	09/03/15 11:11	1
Beryllium	0.66		0.25		mg/Kg	☼	09/02/15 12:27	09/03/15 11:11	1
Cadmium	0.59		0.25		mg/Kg	☼	09/02/15 12:27	09/03/15 11:11	1
Copper	17.8		1.3		mg/Kg	☼	09/02/15 12:27	09/03/15 11:11	1
Lead	36.1		1.3		mg/Kg	☼	09/02/15 12:27	09/03/15 11:11	1
Manganese	403		0.25		mg/Kg	☼	09/02/15 12:27	09/03/15 11:11	1
Nickel	16.0		6.3		mg/Kg	☼	09/02/15 12:27	09/03/15 11:11	1
Selenium	ND		5.0		mg/Kg	☼	09/02/15 12:27	09/03/15 11:11	1
Silver	ND		0.75		mg/Kg	☼	09/02/15 12:27	09/03/15 11:11	1
Zinc	139		2.5		mg/Kg	☼	09/02/15 12:27	09/03/15 11:11	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.083		0.026		mg/Kg	☼	09/03/15 09:20	09/03/15 11:58	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		10.2		mg/Kg	☼	09/04/15 08:38	09/08/15 14:12	10
Cyanide, Total	ND	*	1.3		mg/Kg	☼	09/02/15 12:00	09/03/15 08:58	1
Cr (III)	16.9		1.5		mg/Kg			09/09/15 08:55	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22		0.10		%			09/01/15 22:52	1
Percent Solids	78		0.10		%			09/01/15 22:52	1

TestAmerica Buffalo

# Client Sample Results

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

**Client Sample ID: TYPE II**

**Date Collected: 09/01/15 14:30**

**Date Received: 09/01/15 17:02**

**Lab Sample ID: 480-86456-3**

**Matrix: Solid**

**Percent Solids: 97.1**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
1,1-Dichloroethane	ND		4.0		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
1,1-Dichloroethene	ND		4.0		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
1,2,4-Trimethylbenzene	ND		4.0		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
1,2-Dichlorobenzene	ND		4.0		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
1,2-Dichloroethane	ND		4.0		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
1,3,5-Trimethylbenzene	ND		4.0		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
1,3-Dichlorobenzene	ND		4.0		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
1,4-Dichlorobenzene	ND		4.0		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
1,4-Dioxane	ND		81		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
2-Butanone (MEK)	ND		20		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
Acetone	ND		20		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
Benzene	ND		4.0		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
Carbon tetrachloride	ND		4.0		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
Chlorobenzene	ND		4.0		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
Chloroform	ND		4.0		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
cis-1,2-Dichloroethene	ND		4.0		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
Ethylbenzene	ND		4.0		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
Methyl tert-butyl ether	ND		4.0		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
Methylene Chloride	ND		4.0		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
n-Butylbenzene	ND		4.0		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
N-Propylbenzene	ND		4.0		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
sec-Butylbenzene	ND		4.0		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
tert-Butylbenzene	ND		4.0		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
Tetrachloroethene	ND		4.0		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
Toluene	ND		4.0		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
trans-1,2-Dichloroethene	ND		4.0		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
Trichloroethene	ND		4.0		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
Vinyl chloride	ND		4.0		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1
Xylenes, Total	ND		8.1		ug/Kg	☼	09/02/15 11:45	09/02/15 15:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		64 - 126	09/02/15 11:45	09/02/15 15:14	1
4-Bromofluorobenzene (Surr)	102		72 - 126	09/02/15 11:45	09/02/15 15:14	1
Toluene-d8 (Surr)	106		71 - 125	09/02/15 11:45	09/02/15 15:14	1
Dibromofluoromethane (Surr)	108		60 - 140	09/02/15 11:45	09/02/15 15:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 03:36	1
3-Methylphenol	ND		330		ug/Kg	☼	09/03/15 07:49	09/05/15 03:36	1
4-Methylphenol	ND		330		ug/Kg	☼	09/03/15 07:49	09/05/15 03:36	1
Acenaphthene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 03:36	1
Acenaphthylene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 03:36	1
Anthracene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 03:36	1
Benzo[a]anthracene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 03:36	1
Benzo[a]pyrene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 03:36	1
Benzo[b]fluoranthene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 03:36	1
Benzo[g,h,i]perylene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 03:36	1
Benzo[k]fluoranthene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 03:36	1

TestAmerica Buffalo

# Client Sample Results

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

**Client Sample ID: TYPE II**

**Lab Sample ID: 480-86456-3**

**Date Collected: 09/01/15 14:30**

**Matrix: Solid**

**Date Received: 09/01/15 17:02**

**Percent Solids: 97.1**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 03:36	1
Dibenz(a,h)anthracene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 03:36	1
Dibenzofuran	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 03:36	1
Fluoranthene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 03:36	1
Fluorene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 03:36	1
Hexachlorobenzene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 03:36	1
Indeno[1,2,3-cd]pyrene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 03:36	1
Naphthalene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 03:36	1
Pentachlorophenol	ND		330		ug/Kg	☼	09/03/15 07:49	09/05/15 03:36	1
Phenanthrene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 03:36	1
Phenol	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 03:36	1
Pyrene	ND		170		ug/Kg	☼	09/03/15 07:49	09/05/15 03:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	81		39 - 146	09/03/15 07:49	09/05/15 03:36	1
2-Fluorobiphenyl	78		37 - 120	09/03/15 07:49	09/05/15 03:36	1
2-Fluorophenol (Surr)	71		18 - 120	09/03/15 07:49	09/05/15 03:36	1
Nitrobenzene-d5 (Surr)	73		34 - 132	09/03/15 07:49	09/05/15 03:36	1
Phenol-d5 (Surr)	75		11 - 120	09/03/15 07:49	09/05/15 03:36	1
p-Terphenyl-d14 (Surr)	90		65 - 153	09/03/15 07:49	09/05/15 03:36	1

## Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:54	1
4,4'-DDE	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:54	1
4,4'-DDT	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:54	1
Aldrin	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:54	1
alpha-BHC	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:54	1
alpha-Chlordane	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:54	1
beta-BHC	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:54	1
delta-BHC	ND	F2	1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:54	1
Dieldrin	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:54	1
Endosulfan I	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:54	1
Endosulfan II	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:54	1
Endosulfan sulfate	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:54	1
Endrin	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:54	1
gamma-BHC (Lindane)	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:54	1
Heptachlor	ND		1.7		ug/Kg	☼	09/03/15 07:54	09/04/15 15:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	70		32 - 136	09/03/15 07:54	09/04/15 15:54	1
Tetrachloro-m-xylene	70		30 - 124	09/03/15 07:54	09/04/15 15:54	1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.18		mg/Kg	☼	09/02/15 09:48	09/04/15 00:12	1
PCB-1221	ND		0.18		mg/Kg	☼	09/02/15 09:48	09/04/15 00:12	1
PCB-1232	ND		0.18		mg/Kg	☼	09/02/15 09:48	09/04/15 00:12	1
PCB-1242	ND		0.18		mg/Kg	☼	09/02/15 09:48	09/04/15 00:12	1
PCB-1248	ND		0.18		mg/Kg	☼	09/02/15 09:48	09/04/15 00:12	1

TestAmerica Buffalo

# Client Sample Results

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

## Client Sample ID: TYPE II

Date Collected: 09/01/15 14:30

Date Received: 09/01/15 17:02

## Lab Sample ID: 480-86456-3

Matrix: Solid

Percent Solids: 97.1

### Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1254	ND		0.18		mg/Kg	☼	09/02/15 09:48	09/04/15 00:12	1
PCB-1260	ND		0.18		mg/Kg	☼	09/02/15 09:48	09/04/15 00:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	101		60 - 154				09/02/15 09:48	09/04/15 00:12	1
DCB Decachlorobiphenyl	103		65 - 174				09/02/15 09:48	09/04/15 00:12	1

### Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	ND		17		ug/Kg	☼	09/02/15 09:51	09/08/15 14:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	74		28 - 129				09/02/15 09:51	09/08/15 14:10	1

### Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.2		2.1		mg/Kg	☼	09/02/15 12:27	09/03/15 11:14	1
Barium	37.7		0.52		mg/Kg	☼	09/02/15 12:27	09/03/15 11:14	1
Beryllium	ND		0.21		mg/Kg	☼	09/02/15 12:27	09/03/15 11:14	1
Cadmium	0.39		0.21		mg/Kg	☼	09/02/15 12:27	09/03/15 11:14	1
Copper	ND		5.2		mg/Kg	☼	09/02/15 12:27	09/03/15 11:47	5
Lead	83.3		1.0		mg/Kg	☼	09/02/15 12:27	09/03/15 11:14	1
Manganese	439		0.21		mg/Kg	☼	09/02/15 12:27	09/03/15 11:14	1
Nickel	5.7		5.2		mg/Kg	☼	09/02/15 12:27	09/03/15 11:14	1
Selenium	ND		4.2		mg/Kg	☼	09/02/15 12:27	09/03/15 11:14	1
Silver	ND		0.62		mg/Kg	☼	09/02/15 12:27	09/03/15 11:14	1
Zinc	98.1		2.1		mg/Kg	☼	09/02/15 12:27	09/03/15 11:14	1

### Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg	☼	09/03/15 09:20	09/03/15 11:59	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.82		mg/Kg	☼	09/04/15 08:38	09/08/15 13:52	1
Cyanide, Total	ND	*	1.0		mg/Kg	☼	09/02/15 12:00	09/03/15 08:59	1
Cr (III)	4.9		1.5		mg/Kg			09/09/15 08:55	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	2.9		0.10		%			09/01/15 22:52	1
Percent Solids	97		0.10		%			09/01/15 22:52	1

TestAmerica Buffalo

# Surrogate Summary

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (64-126)	BFB (72-126)	TOL (71-125)	DBFM (60-140)
480-86456-1	COMMON FILL	107	99	99	104
480-86456-2	TOPSOIL	110	91	113	108
480-86456-3	TYPE II	110	102	106	108
LCS 480-261631/1-A	Lab Control Sample	110	106	104	105
MB 480-261631/2-A	Method Blank	106	103	102	104

### Surrogate Legend

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

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (39-146)	FBP (37-120)	2FP (18-120)	NBZ (34-132)	PHL (11-120)	TPH (65-153)
480-86456-1	COMMON FILL	77	74	71	71	76	85
480-86456-2	TOPSOIL	89	71	67	67	70	83
480-86456-2 MS	TOPSOIL	89	79	70	76	75	91
480-86456-2 MSD	TOPSOIL	86	81	71	74	78	87
480-86456-3	TYPE II	81	78	71	73	75	90
LCS 480-261768/2-A	Lab Control Sample	87	82	75	78	79	89
MB 480-261768/1-A	Method Blank	76	81	70	77	76	87

### Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPH = p-Terphenyl-d14 (Surr)

## Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB1 (32-136)	TCX1 (30-124)
480-86456-1	COMMON FILL	64	73
480-86456-2	TOPSOIL	67	78
480-86456-3	TYPE II	70	70
480-86456-3 MS	TYPE II	68	67
480-86456-3 MSD	TYPE II	63	67
LCS 480-261769/2-A	Lab Control Sample	70	38
MB 480-261769/1-A	Method Blank	63	69

### Surrogate Legend

DCB = DCB Decachlorobiphenyl

TestAmerica Buffalo

# Surrogate Summary

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

TCX = Tetrachloro-m-xylene

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1 (60-154)	DCB1 (65-174)
480-86456-1	COMMON FILL	105	104
480-86456-2	TOPSOIL	91	78
480-86456-3	TYPE II	101	103
LCS 480-261572/2-A	Lab Control Sample	122	117
MB 480-261572/1-A	Method Blank	102	103

#### Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

## Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCPA1 (28-129)
480-86456-1	COMMON FILL	73
480-86456-1 MS	COMMON FILL	78
480-86456-1 MSD	COMMON FILL	70
480-86456-2	TOPSOIL	71
480-86456-3	TYPE II	74
LCS 480-261602/2-A	Lab Control Sample	76
MB 480-261602/1-A	Method Blank	72

#### Surrogate Legend

DCPA = 2,4-Dichlorophenylacetic acid



# QC Sample Results

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

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

**Lab Sample ID: MB 480-261631/2-A**

**Matrix: Solid**

**Analysis Batch: 261599**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 261631**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
1,1-Dichloroethane	ND		5.0		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
1,1-Dichloroethene	ND		5.0		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
1,2,4-Trimethylbenzene	ND		5.0		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
1,2-Dichlorobenzene	ND		5.0		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
1,2-Dichloroethane	ND		5.0		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
1,3,5-Trimethylbenzene	ND		5.0		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
1,3-Dichlorobenzene	ND		5.0		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
1,4-Dichlorobenzene	ND		5.0		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
1,4-Dioxane	ND		100		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
2-Butanone (MEK)	ND		25		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
Acetone	ND		25		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
Benzene	ND		5.0		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
Carbon tetrachloride	ND		5.0		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
Chlorobenzene	ND		5.0		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
Chloroform	ND		5.0		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
cis-1,2-Dichloroethene	ND		5.0		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
Ethylbenzene	ND		5.0		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
Methyl tert-butyl ether	ND		5.0		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
Methylene Chloride	ND		5.0		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
n-Butylbenzene	ND		5.0		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
N-Propylbenzene	ND		5.0		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
sec-Butylbenzene	ND		5.0		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
tert-Butylbenzene	ND		5.0		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
Tetrachloroethene	ND		5.0		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
Toluene	ND		5.0		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
trans-1,2-Dichloroethene	ND		5.0		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
Trichloroethene	ND		5.0		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
Vinyl chloride	ND		5.0		ug/Kg		09/02/15 11:45	09/02/15 13:34	1
Xylenes, Total	ND		10		ug/Kg		09/02/15 11:45	09/02/15 13:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		64 - 126	09/02/15 11:45	09/02/15 13:34	1
4-Bromofluorobenzene (Surr)	103		72 - 126	09/02/15 11:45	09/02/15 13:34	1
Toluene-d8 (Surr)	102		71 - 125	09/02/15 11:45	09/02/15 13:34	1
Dibromofluoromethane (Surr)	104		60 - 140	09/02/15 11:45	09/02/15 13:34	1

**Lab Sample ID: LCS 480-261631/1-A**

**Matrix: Solid**

**Analysis Batch: 261599**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 261631**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,1,1-Trichloroethane	48.8	48.5		ug/Kg		99	77 - 121
1,1-Dichloroethane	48.8	48.7		ug/Kg		100	73 - 126
1,1-Dichloroethene	48.8	45.9		ug/Kg		94	59 - 125
1,2,4-Trimethylbenzene	48.8	47.2		ug/Kg		97	74 - 120
1,2-Dichlorobenzene	48.8	47.7		ug/Kg		98	75 - 120
1,2-Dichloroethane	48.8	48.5		ug/Kg		99	77 - 122

TestAmerica Buffalo

# QC Sample Results

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

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

**Lab Sample ID: LCS 480-261631/1-A**  
**Matrix: Solid**  
**Analysis Batch: 261599**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 261631**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,3,5-Trimethylbenzene	48.8	47.7		ug/Kg		98	74 - 120
1,3-Dichlorobenzene	48.8	47.8		ug/Kg		98	74 - 120
1,4-Dichlorobenzene	48.8	48.0		ug/Kg		98	73 - 120
1,4-Dioxane	977	1100		ug/Kg		113	64 - 124
2-Butanone (MEK)	244	260		ug/Kg		106	70 - 134
Acetone	244	251		ug/Kg		103	61 - 137
Benzene	48.8	48.4		ug/Kg		99	79 - 127
Carbon tetrachloride	48.8	48.1		ug/Kg		98	75 - 135
Chlorobenzene	48.8	47.9		ug/Kg		98	76 - 124
Chloroform	48.8	47.1		ug/Kg		96	80 - 118
cis-1,2-Dichloroethene	48.8	48.8		ug/Kg		100	81 - 117
Ethylbenzene	48.8	48.0		ug/Kg		98	80 - 120
Methyl tert-butyl ether	48.8	52.7		ug/Kg		108	63 - 125
Methylene Chloride	48.8	47.2		ug/Kg		97	61 - 127
n-Butylbenzene	48.8	46.7		ug/Kg		96	70 - 120
N-Propylbenzene	48.8	48.4		ug/Kg		99	70 - 130
sec-Butylbenzene	48.8	45.8		ug/Kg		94	74 - 120
tert-Butylbenzene	48.8	46.6		ug/Kg		95	73 - 120
Tetrachloroethene	48.8	47.1		ug/Kg		96	74 - 122
Toluene	48.8	47.0		ug/Kg		96	74 - 128
trans-1,2-Dichloroethene	48.8	48.3		ug/Kg		99	78 - 126
Trichloroethene	48.8	48.0		ug/Kg		98	77 - 129
Vinyl chloride	48.8	44.6		ug/Kg		91	61 - 133
Xylenes, Total	97.7	94.5		ug/Kg		97	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	110		64 - 126
4-Bromofluorobenzene (Surr)	106		72 - 126
Toluene-d8 (Surr)	104		71 - 125
Dibromofluoromethane (Surr)	105		60 - 140

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

**Lab Sample ID: MB 480-261768/1-A**  
**Matrix: Solid**  
**Analysis Batch: 262126**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 261768**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	ND		170		ug/Kg		09/03/15 07:49	09/05/15 00:59	1
3-Methylphenol	ND		330		ug/Kg		09/03/15 07:49	09/05/15 00:59	1
4-Methylphenol	ND		330		ug/Kg		09/03/15 07:49	09/05/15 00:59	1
Acenaphthene	ND		170		ug/Kg		09/03/15 07:49	09/05/15 00:59	1
Acenaphthylene	ND		170		ug/Kg		09/03/15 07:49	09/05/15 00:59	1
Anthracene	ND		170		ug/Kg		09/03/15 07:49	09/05/15 00:59	1
Benzo[a]anthracene	ND		170		ug/Kg		09/03/15 07:49	09/05/15 00:59	1
Benzo[a]pyrene	ND		170		ug/Kg		09/03/15 07:49	09/05/15 00:59	1
Benzo[b]fluoranthene	ND		170		ug/Kg		09/03/15 07:49	09/05/15 00:59	1
Benzo[g,h,i]perylene	ND		170		ug/Kg		09/03/15 07:49	09/05/15 00:59	1

TestAmerica Buffalo

# QC Sample Results

Client: Clean Harbors Environmental Services Inc  
 Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

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

**Lab Sample ID: MB 480-261768/1-A**  
**Matrix: Solid**  
**Analysis Batch: 262126**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 261768**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	ND		170		ug/Kg		09/03/15 07:49	09/05/15 00:59	1
Chrysene	ND		170		ug/Kg		09/03/15 07:49	09/05/15 00:59	1
Dibenz(a,h)anthracene	ND		170		ug/Kg		09/03/15 07:49	09/05/15 00:59	1
Dibenzofuran	ND		170		ug/Kg		09/03/15 07:49	09/05/15 00:59	1
Fluoranthene	ND		170		ug/Kg		09/03/15 07:49	09/05/15 00:59	1
Fluorene	ND		170		ug/Kg		09/03/15 07:49	09/05/15 00:59	1
Hexachlorobenzene	ND		170		ug/Kg		09/03/15 07:49	09/05/15 00:59	1
Indeno[1,2,3-cd]pyrene	ND		170		ug/Kg		09/03/15 07:49	09/05/15 00:59	1
Naphthalene	ND		170		ug/Kg		09/03/15 07:49	09/05/15 00:59	1
Pentachlorophenol	ND		330		ug/Kg		09/03/15 07:49	09/05/15 00:59	1
Phenanthrene	ND		170		ug/Kg		09/03/15 07:49	09/05/15 00:59	1
Phenol	ND		170		ug/Kg		09/03/15 07:49	09/05/15 00:59	1
Pyrene	ND		170		ug/Kg		09/03/15 07:49	09/05/15 00:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	76		39 - 146	09/03/15 07:49	09/05/15 00:59	1
2-Fluorobiphenyl	81		37 - 120	09/03/15 07:49	09/05/15 00:59	1
2-Fluorophenol (Surr)	70		18 - 120	09/03/15 07:49	09/05/15 00:59	1
Nitrobenzene-d5 (Surr)	77		34 - 132	09/03/15 07:49	09/05/15 00:59	1
Phenol-d5 (Surr)	76		11 - 120	09/03/15 07:49	09/05/15 00:59	1
p-Terphenyl-d14 (Surr)	87		65 - 153	09/03/15 07:49	09/05/15 00:59	1

**Lab Sample ID: LCS 480-261768/2-A**  
**Matrix: Solid**  
**Analysis Batch: 262126**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 261768**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
2-Methylphenol	1630	1310		ug/Kg		80	48 - 120
3-Methylphenol	1630	1340		ug/Kg		82	50 - 119
4-Methylphenol	1630	1340		ug/Kg		82	50 - 119
Acenaphthene	1630	1380		ug/Kg		85	53 - 120
Acenaphthylene	1630	1380		ug/Kg		84	58 - 121
Anthracene	1630	1380		ug/Kg		85	62 - 129
Benzo[a]anthracene	1630	1440		ug/Kg		88	65 - 133
Benzo[a]pyrene	1630	1430		ug/Kg		88	64 - 127
Benzo[b]fluoranthene	1630	1500		ug/Kg		92	64 - 135
Benzo[g,h,i]perylene	1630	1620		ug/Kg		99	50 - 152
Benzo[k]fluoranthene	1630	1470		ug/Kg		90	58 - 138
Chrysene	1630	1450		ug/Kg		89	64 - 131
Dibenz(a,h)anthracene	1630	1490		ug/Kg		91	54 - 148
Dibenzofuran	1630	1360		ug/Kg		84	56 - 120
Fluoranthene	1630	1490		ug/Kg		92	62 - 131
Fluorene	1630	1420		ug/Kg		87	63 - 126
Hexachlorobenzene	1630	1420		ug/Kg		87	60 - 132
Indeno[1,2,3-cd]pyrene	1630	1490		ug/Kg		91	56 - 149
Naphthalene	1630	1240		ug/Kg		76	46 - 120
Pentachlorophenol	3260	2900		ug/Kg		89	33 - 136
Phenanthrene	1630	1460		ug/Kg		90	60 - 130

TestAmerica Buffalo

# QC Sample Results

Client: Clean Harbors Environmental Services Inc  
 Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

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

**Lab Sample ID: LCS 480-261768/2-A**  
**Matrix: Solid**  
**Analysis Batch: 262126**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 261768**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Phenol	1630	1260		ug/Kg		78	36 - 120
Pyrene	1630	1430		ug/Kg		88	51 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	87		39 - 146
2-Fluorobiphenyl	82		37 - 120
2-Fluorophenol (Surr)	75		18 - 120
Nitrobenzene-d5 (Surr)	78		34 - 132
Phenol-d5 (Surr)	79		11 - 120
p-Terphenyl-d14 (Surr)	89		65 - 153

**Lab Sample ID: 480-86456-2 MS**  
**Matrix: Solid**  
**Analysis Batch: 262126**

**Client Sample ID: TOPSOIL**  
**Prep Type: Total/NA**  
**Prep Batch: 261768**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
2-Methylphenol	ND		2100	1720		ug/Kg	*	82	48 - 120
3-Methylphenol	ND		2100	1770		ug/Kg	*	84	50 - 119
4-Methylphenol	ND		2100	1770		ug/Kg	*	84	50 - 119
Acenaphthene	ND		2100	1720		ug/Kg	*	82	53 - 120
Acenaphthylene	ND		2100	1700		ug/Kg	*	81	58 - 121
Anthracene	ND		2100	1800		ug/Kg	*	86	62 - 129
Benzo[a]anthracene	ND		2100	2020		ug/Kg	*	95	65 - 133
Benzo[a]pyrene	ND		2100	1930		ug/Kg	*	92	64 - 127
Benzo[b]fluoranthene	ND		2100	1870		ug/Kg	*	87	64 - 135
Benzo[g,h,i]perylene	ND		2100	2160		ug/Kg	*	103	50 - 152
Benzo[k]fluoranthene	ND		2100	1970		ug/Kg	*	94	58 - 138
Chrysene	ND		2100	2050		ug/Kg	*	97	64 - 131
Dibenz(a,h)anthracene	ND		2100	1980		ug/Kg	*	95	54 - 148
Dibenzofuran	ND		2100	1770		ug/Kg	*	84	56 - 120
Fluoranthene	ND		2100	1970		ug/Kg	*	91	62 - 131
Fluorene	ND		2100	1870		ug/Kg	*	89	63 - 126
Hexachlorobenzene	ND		2100	1900		ug/Kg	*	91	60 - 132
Indeno[1,2,3-cd]pyrene	ND		2100	1980		ug/Kg	*	94	56 - 149
Naphthalene	ND		2100	1580		ug/Kg	*	75	46 - 120
Pentachlorophenol	ND		4200	3720		ug/Kg	*	89	33 - 136
Phenanthrene	ND		2100	1900		ug/Kg	*	89	60 - 130
Phenol	ND		2100	1630		ug/Kg	*	78	36 - 120
Pyrene	ND		2100	1960		ug/Kg	*	91	51 - 133

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	89		39 - 146
2-Fluorobiphenyl	79		37 - 120
2-Fluorophenol (Surr)	70		18 - 120
Nitrobenzene-d5 (Surr)	76		34 - 132
Phenol-d5 (Surr)	75		11 - 120
p-Terphenyl-d14 (Surr)	91		65 - 153

TestAmerica Buffalo

# QC Sample Results

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

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

**Lab Sample ID: 480-86456-2 MSD**

**Matrix: Solid**

**Analysis Batch: 262126**

**Client Sample ID: TOPSOIL**

**Prep Type: Total/NA**

**Prep Batch: 261768**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	Limits	RPD	Limit
				Result	Qualifier						
2-Methylphenol	ND		2070	1600		ug/Kg	☼	78	48 - 120	7	27
3-Methylphenol	ND		2070	1660		ug/Kg	☼	80	50 - 119	6	24
4-Methylphenol	ND		2070	1660		ug/Kg	☼	80	50 - 119	6	24
Acenaphthene	ND		2070	1660		ug/Kg	☼	80	53 - 120	4	35
Acenaphthylene	ND		2070	1710		ug/Kg	☼	83	58 - 121	1	18
Anthracene	ND		2070	1790		ug/Kg	☼	87	62 - 129	1	15
Benzo[a]anthracene	ND		2070	1820		ug/Kg	☼	87	65 - 133	11	15
Benzo[a]pyrene	ND		2070	1930		ug/Kg	☼	94	64 - 127	0	15
Benzo[b]fluoranthene	ND		2070	1920		ug/Kg	☼	91	64 - 135	2	15
Benzo[g,h,i]perylene	ND		2070	2150		ug/Kg	☼	104	50 - 152	0	15
Benzo[k]fluoranthene	ND		2070	1800		ug/Kg	☼	87	58 - 138	9	22
Chrysene	ND		2070	1750		ug/Kg	☼	85	64 - 131	15	15
Dibenz(a,h)anthracene	ND		2070	1900		ug/Kg	☼	92	54 - 148	5	15
Dibenzofuran	ND		2070	1700		ug/Kg	☼	82	56 - 120	4	15
Fluoranthene	ND		2070	1910		ug/Kg	☼	90	62 - 131	3	15
Fluorene	ND		2070	1790		ug/Kg	☼	87	63 - 126	4	15
Hexachlorobenzene	ND		2070	1850		ug/Kg	☼	90	60 - 132	3	15
Indeno[1,2,3-cd]pyrene	ND		2070	1950		ug/Kg	☼	94	56 - 149	1	15
Naphthalene	ND		2070	1500		ug/Kg	☼	73	46 - 120	5	29
Pentachlorophenol	ND		4130	3680		ug/Kg	☼	89	33 - 136	1	35
Phenanthrene	ND		2070	1900		ug/Kg	☼	90	60 - 130	0	15
Phenol	ND		2070	1580		ug/Kg	☼	77	36 - 120	3	35
Pyrene	ND		2070	1910		ug/Kg	☼	90	51 - 133	3	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	86		39 - 146
2-Fluorobiphenyl	81		37 - 120
2-Fluorophenol (Surr)	71		18 - 120
Nitrobenzene-d5 (Surr)	74		34 - 132
Phenol-d5 (Surr)	78		11 - 120
p-Terphenyl-d14 (Surr)	87		65 - 153

## Method: 8081B - Organochlorine Pesticides (GC)

**Lab Sample ID: MB 480-261769/1-A**

**Matrix: Solid**

**Analysis Batch: 262035**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 261769**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
4,4'-DDD	ND		1.6		ug/Kg		09/03/15 07:54	09/04/15 16:29	1
4,4'-DDE	ND		1.6		ug/Kg		09/03/15 07:54	09/04/15 16:29	1
4,4'-DDT	ND		1.6		ug/Kg		09/03/15 07:54	09/04/15 16:29	1
Aldrin	ND		1.6		ug/Kg		09/03/15 07:54	09/04/15 16:29	1
alpha-BHC	ND		1.6		ug/Kg		09/03/15 07:54	09/04/15 16:29	1
alpha-Chlordane	ND		1.6		ug/Kg		09/03/15 07:54	09/04/15 16:29	1
beta-BHC	ND		1.6		ug/Kg		09/03/15 07:54	09/04/15 16:29	1
delta-BHC	ND		1.6		ug/Kg		09/03/15 07:54	09/04/15 16:29	1

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# QC Sample Results

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

**Lab Sample ID: MB 480-261769/1-A**  
**Matrix: Solid**  
**Analysis Batch: 262035**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 261769**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dieldrin	ND		1.6		ug/Kg		09/03/15 07:54	09/04/15 16:29	1
Endosulfan I	ND		1.6		ug/Kg		09/03/15 07:54	09/04/15 16:29	1
Endosulfan II	ND		1.6		ug/Kg		09/03/15 07:54	09/04/15 16:29	1
Endosulfan sulfate	ND		1.6		ug/Kg		09/03/15 07:54	09/04/15 16:29	1
Endrin	ND		1.6		ug/Kg		09/03/15 07:54	09/04/15 16:29	1
gamma-BHC (Lindane)	ND		1.6		ug/Kg		09/03/15 07:54	09/04/15 16:29	1
Heptachlor	ND		1.6		ug/Kg		09/03/15 07:54	09/04/15 16:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	63		32 - 136				09/03/15 07:54	09/04/15 16:29	1
Tetrachloro-m-xylene	69		30 - 124				09/03/15 07:54	09/04/15 16:29	1

**Lab Sample ID: LCS 480-261769/2-A**  
**Matrix: Solid**  
**Analysis Batch: 262035**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 261769**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec.
4,4'-DDE	16.5	12.1		ug/Kg		73	52 - 131	
4,4'-DDT	16.5	14.2		ug/Kg		86	50 - 131	
Aldrin	16.5	10.2		ug/Kg		62	35 - 120	
alpha-BHC	16.5	9.80		ug/Kg		60	49 - 120	
alpha-Chlordane	16.5	12.1		ug/Kg		74	40 - 133	
beta-BHC	16.5	8.78		ug/Kg		53	52 - 127	
delta-BHC	16.5	8.79		ug/Kg		53	45 - 123	
Dieldrin	16.5	13.7		ug/Kg		83	50 - 131	
Endosulfan I	16.5	11.9		ug/Kg		72	43 - 121	
Endosulfan II	16.5	12.9		ug/Kg		79	48 - 134	
Endosulfan sulfate	16.5	11.9		ug/Kg		72	46 - 144	
Endrin	16.5	13.9		ug/Kg		84	46 - 134	
gamma-BHC (Lindane)	16.5	9.44		ug/Kg		57	50 - 120	
Heptachlor	16.5	11.1		ug/Kg		67	51 - 121	
Surrogate	%Recovery	Qualifier	Limits					
DCB Decachlorobiphenyl	70		32 - 136					
Tetrachloro-m-xylene	38		30 - 124					

**Lab Sample ID: 480-86456-3 MS**  
**Matrix: Solid**  
**Analysis Batch: 262035**

**Client Sample ID: TYPE II**  
**Prep Type: Total/NA**  
**Prep Batch: 261769**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
4,4'-DDE	ND		17.1	12.1		ug/Kg	☼	71	34 - 138
4,4'-DDT	ND		17.1	14.0		ug/Kg	☼	74	43 - 131
Aldrin	ND		17.1	10.2		ug/Kg	☼	60	37 - 125
alpha-BHC	ND		17.1	11.4		ug/Kg	☼	66	39 - 117
alpha-Chlordane	ND		17.1	11.7		ug/Kg	☼	68	29 - 141

TestAmerica Buffalo

# QC Sample Results

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

**Lab Sample ID: 480-86456-3 MS**

**Matrix: Solid**

**Analysis Batch: 262035**

**Client Sample ID: TYPE II**

**Prep Type: Total/NA**

**Prep Batch: 261769**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
beta-BHC	ND		17.1	9.45		ug/Kg	☼	55	36 - 139
delta-BHC	ND	F2	17.1	8.72		ug/Kg	☼	51	23 - 132
Dieldrin	ND		17.1	12.9		ug/Kg	☼	75	38 - 135
Endosulfan I	ND		17.1	11.7		ug/Kg	☼	68	39 - 128
Endosulfan II	ND		17.1	12.5		ug/Kg	☼	73	24 - 134
Endosulfan sulfate	ND		17.1	11.7		ug/Kg	☼	68	19 - 137
Endrin	ND		17.1	13.4		ug/Kg	☼	78	41 - 147
gamma-BHC (Lindane)	ND		17.1	12.3		ug/Kg	☼	66	50 - 120
Heptachlor	ND		17.1	11.1		ug/Kg	☼	65	42 - 128
<b>MS MS</b>									
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
DCB Decachlorobiphenyl	68		32 - 136						
Tetrachloro-m-xylene	67		30 - 124						

**Lab Sample ID: 480-86456-3 MSD**

**Matrix: Solid**

**Analysis Batch: 262035**

**Client Sample ID: TYPE II**

**Prep Type: Total/NA**

**Prep Batch: 261769**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
4,4'-DDD	ND		16.6	11.8		ug/Kg	☼	71	26 - 162	5	21
4,4'-DDE	ND		16.6	11.2		ug/Kg	☼	67	34 - 138	8	18
4,4'-DDT	ND		16.6	13.3		ug/Kg	☼	72	43 - 131	5	25
Aldrin	ND		16.6	9.63		ug/Kg	☼	58	37 - 125	6	12
alpha-BHC	ND		16.6	10.4		ug/Kg	☼	62	39 - 117	9	15
alpha-Chlordane	ND		16.6	11.1		ug/Kg	☼	67	29 - 141	5	23
beta-BHC	ND		16.6	9.52		ug/Kg	☼	57	36 - 139	1	19
delta-BHC	ND	F2	16.6	10.4	F2	ug/Kg	☼	63	23 - 132	18	14
Dieldrin	ND		16.6	12.3		ug/Kg	☼	74	38 - 135	5	12
Endosulfan I	ND		16.6	11.5		ug/Kg	☼	69	39 - 128	2	18
Endosulfan II	ND		16.6	11.7		ug/Kg	☼	71	24 - 134	6	26
Endosulfan sulfate	ND		16.6	10.9		ug/Kg	☼	66	19 - 137	7	35
Endrin	ND		16.6	12.7		ug/Kg	☼	76	41 - 147	5	20
gamma-BHC (Lindane)	ND		16.6	11.2		ug/Kg	☼	62	50 - 120	9	12
Heptachlor	ND		16.6	10.4		ug/Kg	☼	63	42 - 128	6	22
<b>MSD MSD</b>											
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>								
DCB Decachlorobiphenyl	63		32 - 136								
Tetrachloro-m-xylene	67		30 - 124								

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

**Lab Sample ID: MB 480-261572/1-A**

**Matrix: Solid**

**Analysis Batch: 261712**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 261572**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	ND		0.18		mg/Kg		09/02/15 08:22	09/03/15 20:14	1

TestAmerica Buffalo

# QC Sample Results

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

**Lab Sample ID: MB 480-261572/1-A**  
**Matrix: Solid**  
**Analysis Batch: 261712**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 261572**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	ND		0.18		mg/Kg		09/02/15 08:22	09/03/15 20:14	1
PCB-1232	ND		0.18		mg/Kg		09/02/15 08:22	09/03/15 20:14	1
PCB-1242	ND		0.18		mg/Kg		09/02/15 08:22	09/03/15 20:14	1
PCB-1248	ND		0.18		mg/Kg		09/02/15 08:22	09/03/15 20:14	1
PCB-1254	ND		0.18		mg/Kg		09/02/15 08:22	09/03/15 20:14	1
PCB-1260	ND		0.18		mg/Kg		09/02/15 08:22	09/03/15 20:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	102		60 - 154	09/02/15 08:22	09/03/15 20:14	1
DCB Decachlorobiphenyl	103		65 - 174	09/02/15 08:22	09/03/15 20:14	1

**Lab Sample ID: LCS 480-261572/2-A**  
**Matrix: Solid**  
**Analysis Batch: 261712**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 261572**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	1.80	2.13		mg/Kg		119	51 - 185
PCB-1260	1.80	2.35		mg/Kg		131	61 - 184

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	122		60 - 154
DCB Decachlorobiphenyl	117		65 - 174

## Method: 8151A - Herbicides (GC)

**Lab Sample ID: MB 480-261602/1-A**  
**Matrix: Solid**  
**Analysis Batch: 262369**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 261602**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	ND		16		ug/Kg		09/02/15 09:51	09/08/15 11:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	72		28 - 129	09/02/15 09:51	09/08/15 11:11	1

**Lab Sample ID: LCS 480-261602/2-A**  
**Matrix: Solid**  
**Analysis Batch: 262369**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 261602**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silvex (2,4,5-TP)	66.4	49.8		ug/Kg		75	26 - 168

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid	76		28 - 129

TestAmerica Buffalo



# QC Sample Results

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

## Method: 8151A - Herbicides (GC) (Continued)

**Lab Sample ID: 480-86456-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 262369**

**Client Sample ID: COMMON FILL**  
**Prep Type: Total/NA**  
**Prep Batch: 261602**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Silvex (2,4,5-TP)	ND		67.0	56.5		ug/Kg	☼	84	22 - 140
<b>Surrogate</b>	<b>%Recovery</b>	<b>MS Qualifier</b>	<b>Limits</b>						
2,4-Dichlorophenylacetic acid	78		28 - 129						

**Lab Sample ID: 480-86456-1 MSD**  
**Matrix: Solid**  
**Analysis Batch: 262369**

**Client Sample ID: COMMON FILL**  
**Prep Type: Total/NA**  
**Prep Batch: 261602**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Silvex (2,4,5-TP)	ND		67.6	47.8		ug/Kg	☼	71	22 - 140	17	50
<b>Surrogate</b>	<b>%Recovery</b>	<b>MSD Qualifier</b>	<b>Limits</b>								
2,4-Dichlorophenylacetic acid	70		28 - 129								

## Method: 6010C - Metals (ICP)

**Lab Sample ID: MB 480-261636/1-A**  
**Matrix: Solid**  
**Analysis Batch: 262014**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 261636**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0		mg/Kg		09/02/15 12:27	09/03/15 10:30	1
Barium	ND		0.49		mg/Kg		09/02/15 12:27	09/03/15 10:30	1
Beryllium	ND		0.20		mg/Kg		09/02/15 12:27	09/03/15 10:30	1
Cadmium	ND		0.20		mg/Kg		09/02/15 12:27	09/03/15 10:30	1
Copper	ND		0.99		mg/Kg		09/02/15 12:27	09/03/15 10:30	1
Lead	ND		0.99		mg/Kg		09/02/15 12:27	09/03/15 10:30	1
Manganese	ND		0.20		mg/Kg		09/02/15 12:27	09/03/15 10:30	1
Nickel	ND		4.9		mg/Kg		09/02/15 12:27	09/03/15 10:30	1
Selenium	ND		3.9		mg/Kg		09/02/15 12:27	09/03/15 10:30	1
Silver	ND		0.59		mg/Kg		09/02/15 12:27	09/03/15 10:30	1
Zinc	ND		2.0		mg/Kg		09/02/15 12:27	09/03/15 10:30	1

**Lab Sample ID: LCSSRM 480-261636/2-A**  
**Matrix: Solid**  
**Analysis Batch: 262014**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 261636**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	Limits
Arsenic	113	97.41		mg/Kg		86.2	69.7 - 142.5
Barium	155	136.5		mg/Kg		88.1	72.9 - 127.1
Beryllium	109	95.94		mg/Kg		88.0	74.7 - 124.8
Cadmium	67.5	57.36		mg/Kg		85.0	73.2 - 126.8
Copper	100	112.9		mg/Kg		112.9	96.2 - 161.0

TestAmerica Buffalo

# QC Sample Results

Client: Clean Harbors Environmental Services Inc  
 Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

## Method: 6010C - Metals (ICP) (Continued)

**Lab Sample ID: LCSSRM 480-261636/2-A**  
**Matrix: Solid**  
**Analysis Batch: 262014**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 261636**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	90.1	89.69		mg/Kg		99.5	70.1 - 129.9
Manganese	363	339.7		mg/Kg		93.6	75.8 - 124.5
Nickel	89.3	90.53		mg/Kg		101.4	72.0 - 127.7
Selenium	156	132.8		mg/Kg		85.2	67.3 - 132.1
Silver	52.6	45.33		mg/Kg		86.2	66.7 - 133.5
Zinc	168	145.3		mg/Kg		86.5	69.0 - 131.5

## Method: 7471B - Mercury (CVAA)

**Lab Sample ID: MB 480-261797/1-A**  
**Matrix: Solid**  
**Analysis Batch: 261886**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 261797**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.019		mg/Kg		09/03/15 09:20	09/03/15 11:52	1

**Lab Sample ID: LCSSRM 480-261797/2-A**  
**Matrix: Solid**  
**Analysis Batch: 261886**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 261797**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	8.37	9.11		mg/Kg		108.8	51.3 - 148.1

**Lab Sample ID: 480-86456-3 MS**  
**Matrix: Solid**  
**Analysis Batch: 261886**

**Client Sample ID: TYPE II**  
**Prep Type: Total/NA**  
**Prep Batch: 261797**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.324	0.325		mg/Kg	☼	100	80 - 120

**Lab Sample ID: 480-86456-3 MSD**  
**Matrix: Solid**  
**Analysis Batch: 261886**

**Client Sample ID: TYPE II**  
**Prep Type: Total/NA**  
**Prep Batch: 261797**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.333	0.328		mg/Kg	☼	98	80 - 120	1	20

TestAmerica Buffalo

# QC Sample Results

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

## Method: 7196A - Chromium, Hexavalent

**Lab Sample ID: MB 240-196304/9-A**  
**Matrix: Solid**  
**Analysis Batch: 196650**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 196304**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.80		mg/Kg		09/04/15 08:38	09/08/15 00:00	1

**Lab Sample ID: LCS 240-196304/11-A**  
**Matrix: Solid**  
**Analysis Batch: 196650**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 196304**

Analyte	Spike Added	LCSI Result	LCSI Qualifier	Unit	D	%Rec	Limits
Cr (VI)	643	662.3		mg/Kg		103	75 - 125

**Lab Sample ID: LCSS 240-196304/10-A**  
**Matrix: Solid**  
**Analysis Batch: 196650**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 196304**

Analyte	Spike Added	LCSS Result	LCSS Qualifier	Unit	D	%Rec	Limits
Cr (VI)	20.0	20.32		mg/Kg		102	90 - 110

## Method: 9012B - Cyanide, Total and/or Amenable

**Lab Sample ID: MB 480-261663/1-A**  
**Matrix: Solid**  
**Analysis Batch: 261814**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 261663**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.99		mg/Kg		09/02/15 12:00	09/03/15 08:49	1

**Lab Sample ID: LCS 480-261663/2-A ^5**  
**Matrix: Solid**  
**Analysis Batch: 261814**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 261663**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cyanide, Total	101	137.7	*	mg/Kg		136	29 - 122

**Lab Sample ID: 480-86456-1 DU**  
**Matrix: Solid**  
**Analysis Batch: 261814**

**Client Sample ID: COMMON FILL**  
**Prep Type: Total/NA**  
**Prep Batch: 261663**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Cyanide, Total	ND	*	ND	*	mg/Kg	⊛	NC	15

# QC Association Summary

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

## GC/MS VOA

### Analysis Batch: 261599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-86456-1	COMMON FILL	Total/NA	Solid	8260C	261631
480-86456-2	TOPSOIL	Total/NA	Solid	8260C	261631
480-86456-3	TYPE II	Total/NA	Solid	8260C	261631
LCS 480-261631/1-A	Lab Control Sample	Total/NA	Solid	8260C	261631
MB 480-261631/2-A	Method Blank	Total/NA	Solid	8260C	261631

### Prep Batch: 261631

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-86456-1	COMMON FILL	Total/NA	Solid	5035A	
480-86456-2	TOPSOIL	Total/NA	Solid	5035A	
480-86456-3	TYPE II	Total/NA	Solid	5035A	
LCS 480-261631/1-A	Lab Control Sample	Total/NA	Solid	5035A	
MB 480-261631/2-A	Method Blank	Total/NA	Solid	5035A	

## GC/MS Semi VOA

### Prep Batch: 261768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-86456-1	COMMON FILL	Total/NA	Solid	3550C	
480-86456-2	TOPSOIL	Total/NA	Solid	3550C	
480-86456-2 MS	TOPSOIL	Total/NA	Solid	3550C	
480-86456-2 MSD	TOPSOIL	Total/NA	Solid	3550C	
480-86456-3	TYPE II	Total/NA	Solid	3550C	
LCS 480-261768/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 480-261768/1-A	Method Blank	Total/NA	Solid	3550C	

### Analysis Batch: 262126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-86456-1	COMMON FILL	Total/NA	Solid	8270D	261768
480-86456-2	TOPSOIL	Total/NA	Solid	8270D	261768
480-86456-2 MS	TOPSOIL	Total/NA	Solid	8270D	261768
480-86456-2 MSD	TOPSOIL	Total/NA	Solid	8270D	261768
480-86456-3	TYPE II	Total/NA	Solid	8270D	261768
LCS 480-261768/2-A	Lab Control Sample	Total/NA	Solid	8270D	261768
MB 480-261768/1-A	Method Blank	Total/NA	Solid	8270D	261768

## GC Semi VOA

### Prep Batch: 261572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-86456-1	COMMON FILL	Total/NA	Solid	3550C	
480-86456-2	TOPSOIL	Total/NA	Solid	3550C	
480-86456-3	TYPE II	Total/NA	Solid	3550C	
LCS 480-261572/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 480-261572/1-A	Method Blank	Total/NA	Solid	3550C	

### Prep Batch: 261602

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-86456-1	COMMON FILL	Total/NA	Solid	8151A	
480-86456-1 MS	COMMON FILL	Total/NA	Solid	8151A	

TestAmerica Buffalo

# QC Association Summary

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

## GC Semi VOA (Continued)

### Prep Batch: 261602 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-86456-1 MSD	COMMON FILL	Total/NA	Solid	8151A	
480-86456-2	TOPSOIL	Total/NA	Solid	8151A	
480-86456-3	TYPE II	Total/NA	Solid	8151A	
LCS 480-261602/2-A	Lab Control Sample	Total/NA	Solid	8151A	
MB 480-261602/1-A	Method Blank	Total/NA	Solid	8151A	

### Analysis Batch: 261712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-86456-1	COMMON FILL	Total/NA	Solid	8082A	261572
480-86456-2	TOPSOIL	Total/NA	Solid	8082A	261572
480-86456-3	TYPE II	Total/NA	Solid	8082A	261572
LCS 480-261572/2-A	Lab Control Sample	Total/NA	Solid	8082A	261572
MB 480-261572/1-A	Method Blank	Total/NA	Solid	8082A	261572

### Prep Batch: 261769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-86456-1	COMMON FILL	Total/NA	Solid	3550C	
480-86456-2	TOPSOIL	Total/NA	Solid	3550C	
480-86456-3	TYPE II	Total/NA	Solid	3550C	
480-86456-3 MS	TYPE II	Total/NA	Solid	3550C	
480-86456-3 MSD	TYPE II	Total/NA	Solid	3550C	
LCS 480-261769/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 480-261769/1-A	Method Blank	Total/NA	Solid	3550C	

### Analysis Batch: 262035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-86456-1	COMMON FILL	Total/NA	Solid	8081B	261769
480-86456-2	TOPSOIL	Total/NA	Solid	8081B	261769
480-86456-3	TYPE II	Total/NA	Solid	8081B	261769
480-86456-3 MS	TYPE II	Total/NA	Solid	8081B	261769
480-86456-3 MSD	TYPE II	Total/NA	Solid	8081B	261769
LCS 480-261769/2-A	Lab Control Sample	Total/NA	Solid	8081B	261769
MB 480-261769/1-A	Method Blank	Total/NA	Solid	8081B	261769

### Analysis Batch: 262369

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-86456-1	COMMON FILL	Total/NA	Solid	8151A	261602
480-86456-1 MS	COMMON FILL	Total/NA	Solid	8151A	261602
480-86456-1 MSD	COMMON FILL	Total/NA	Solid	8151A	261602
480-86456-2	TOPSOIL	Total/NA	Solid	8151A	261602
480-86456-3	TYPE II	Total/NA	Solid	8151A	261602
LCS 480-261602/2-A	Lab Control Sample	Total/NA	Solid	8151A	261602
MB 480-261602/1-A	Method Blank	Total/NA	Solid	8151A	261602

## Metals

### Prep Batch: 261636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-86456-1	COMMON FILL	Total/NA	Solid	3050B	
480-86456-2	TOPSOIL	Total/NA	Solid	3050B	

TestAmerica Buffalo

# QC Association Summary

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

## Metals (Continued)

### Prep Batch: 261636 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-86456-3	TYPE II	Total/NA	Solid	3050B	
LCSSRM 480-261636/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 480-261636/1-A	Method Blank	Total/NA	Solid	3050B	

### Prep Batch: 261797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-86456-1	COMMON FILL	Total/NA	Solid	7471B	
480-86456-2	TOPSOIL	Total/NA	Solid	7471B	
480-86456-3	TYPE II	Total/NA	Solid	7471B	
480-86456-3 MS	TYPE II	Total/NA	Solid	7471B	
480-86456-3 MSD	TYPE II	Total/NA	Solid	7471B	
LCSSRM 480-261797/2-A	Lab Control Sample	Total/NA	Solid	7471B	
MB 480-261797/1-A	Method Blank	Total/NA	Solid	7471B	

### Analysis Batch: 261886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-86456-1	COMMON FILL	Total/NA	Solid	7471B	261797
480-86456-2	TOPSOIL	Total/NA	Solid	7471B	261797
480-86456-3	TYPE II	Total/NA	Solid	7471B	261797
480-86456-3 MS	TYPE II	Total/NA	Solid	7471B	261797
480-86456-3 MSD	TYPE II	Total/NA	Solid	7471B	261797
LCSSRM 480-261797/2-A	Lab Control Sample	Total/NA	Solid	7471B	261797
MB 480-261797/1-A	Method Blank	Total/NA	Solid	7471B	261797

### Analysis Batch: 262014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-86456-1	COMMON FILL	Total/NA	Solid	6010C	261636
480-86456-2	TOPSOIL	Total/NA	Solid	6010C	261636
480-86456-3	TYPE II	Total/NA	Solid	6010C	261636
480-86456-3	TYPE II	Total/NA	Solid	6010C	261636
LCSSRM 480-261636/2-A	Lab Control Sample	Total/NA	Solid	6010C	261636
MB 480-261636/1-A	Method Blank	Total/NA	Solid	6010C	261636

## General Chemistry

### Prep Batch: 196304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-86456-1	COMMON FILL	Total/NA	Solid	3060A	
480-86456-2	TOPSOIL	Total/NA	Solid	3060A	
480-86456-3	TYPE II	Total/NA	Solid	3060A	
LCSI 240-196304/11-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSS 240-196304/10-A	Lab Control Sample	Total/NA	Solid	3060A	
MB 240-196304/9-A	Method Blank	Total/NA	Solid	3060A	

### Analysis Batch: 196650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-86456-1	COMMON FILL	Total/NA	Solid	7196A	196304
480-86456-2	TOPSOIL	Total/NA	Solid	7196A	196304
480-86456-3	TYPE II	Total/NA	Solid	7196A	196304
LCSI 240-196304/11-A	Lab Control Sample	Total/NA	Solid	7196A	196304

TestAmerica Buffalo

# QC Association Summary

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

## General Chemistry (Continued)

### Analysis Batch: 196650 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSS 240-196304/10-A	Lab Control Sample	Total/NA	Solid	7196A	196304
MB 240-196304/9-A	Method Blank	Total/NA	Solid	7196A	196304

### Analysis Batch: 261529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-86456-1	COMMON FILL	Total/NA	Solid	Moisture	
480-86456-2	TOPSOIL	Total/NA	Solid	Moisture	
480-86456-3	TYPE II	Total/NA	Solid	Moisture	

### Prep Batch: 261663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-86456-1	COMMON FILL	Total/NA	Solid	9012B	
480-86456-1 DU	COMMON FILL	Total/NA	Solid	9012B	
480-86456-2	TOPSOIL	Total/NA	Solid	9012B	
480-86456-3	TYPE II	Total/NA	Solid	9012B	
LCS 480-261663/2-A ^5	Lab Control Sample	Total/NA	Solid	9012B	
MB 480-261663/1-A	Method Blank	Total/NA	Solid	9012B	

### Analysis Batch: 261814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-86456-1	COMMON FILL	Total/NA	Solid	9012B	261663
480-86456-1 DU	COMMON FILL	Total/NA	Solid	9012B	261663
480-86456-2	TOPSOIL	Total/NA	Solid	9012B	261663
480-86456-3	TYPE II	Total/NA	Solid	9012B	261663
LCS 480-261663/2-A ^5	Lab Control Sample	Total/NA	Solid	9012B	261663
MB 480-261663/1-A	Method Blank	Total/NA	Solid	9012B	261663

### Analysis Batch: 262568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-86456-1	COMMON FILL	Total/NA	Solid	SM 3500 CR D	
480-86456-2	TOPSOIL	Total/NA	Solid	SM 3500 CR D	
480-86456-3	TYPE II	Total/NA	Solid	SM 3500 CR D	

# Lab Chronicle

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

**Client Sample ID: COMMON FILL**

**Date Collected: 09/01/15 15:00**

**Date Received: 09/01/15 17:02**

**Lab Sample ID: 480-86456-1**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	261529	09/01/15 22:52	CMK	TAL BUF

**Client Sample ID: COMMON FILL**

**Date Collected: 09/01/15 15:00**

**Date Received: 09/01/15 17:02**

**Lab Sample ID: 480-86456-1**

**Matrix: Solid**

**Percent Solids: 96.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			261631	09/02/15 11:45	NQN	TAL BUF
Total/NA	Analysis	8260C		1	261599	09/02/15 14:19	NQN	TAL BUF
Total/NA	Prep	3550C			261768	09/03/15 07:49	TRG	TAL BUF
Total/NA	Analysis	8270D		1	262126	09/05/15 02:44	DMR	TAL BUF
Total/NA	Prep	3550C			261769	09/03/15 07:54	TRG	TAL BUF
Total/NA	Analysis	8081B		1	262035	09/04/15 15:19	MAN	TAL BUF
Total/NA	Prep	3550C			261572	09/02/15 09:48	CAM	TAL BUF
Total/NA	Analysis	8082A		1	261712	09/03/15 23:41	KS	TAL BUF
Total/NA	Prep	8151A			261602	09/02/15 09:51	TRG	TAL BUF
Total/NA	Analysis	8151A		1	262369	09/08/15 13:10	JRL	TAL BUF
Total/NA	Prep	3050B			261636	09/02/15 12:27	CMM	TAL BUF
Total/NA	Analysis	6010C		1	262014	09/03/15 11:08	AMH	TAL BUF
Total/NA	Prep	7471B			261797	09/03/15 09:20	TAS	TAL BUF
Total/NA	Analysis	7471B		1	261886	09/03/15 11:56	TAS	TAL BUF
Total/NA	Prep	3060A			196304	09/04/15 08:38	GNR	TAL CAN
Total/NA	Analysis	7196A		1	196650	09/08/15 13:49	GNR	TAL CAN
Total/NA	Prep	9012B			261663	09/02/15 12:00	NDB	TAL BUF
Total/NA	Analysis	9012B		1	261814	09/03/15 08:55	EGS	TAL BUF
Total/NA	Analysis	SM 3500 CR D		1	262568	09/09/15 08:55	TRB	TAL BUF

**Client Sample ID: TOPSOIL**

**Date Collected: 09/01/15 14:45**

**Date Received: 09/01/15 17:02**

**Lab Sample ID: 480-86456-2**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	261529	09/01/15 22:52	CMK	TAL BUF

**Client Sample ID: TOPSOIL**

**Date Collected: 09/01/15 14:45**

**Date Received: 09/01/15 17:02**

**Lab Sample ID: 480-86456-2**

**Matrix: Solid**

**Percent Solids: 78.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			261631	09/02/15 11:45	NQN	TAL BUF
Total/NA	Analysis	8260C		1	261599	09/02/15 14:47	NQN	TAL BUF
Total/NA	Prep	3550C			261768	09/03/15 07:49	TRG	TAL BUF
Total/NA	Analysis	8270D		1	262126	09/05/15 03:10	DMR	TAL BUF

TestAmerica Buffalo



# Lab Chronicle

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

**Client Sample ID: TOPSOIL**

**Lab Sample ID: 480-86456-2**

**Date Collected: 09/01/15 14:45**

**Matrix: Solid**

**Date Received: 09/01/15 17:02**

**Percent Solids: 78.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			261769	09/03/15 07:54	TRG	TAL BUF
Total/NA	Analysis	8081B		1	262035	09/04/15 15:36	MAN	TAL BUF
Total/NA	Prep	3550C			261572	09/02/15 09:48	CAM	TAL BUF
Total/NA	Analysis	8082A		1	261712	09/03/15 23:56	KS	TAL BUF
Total/NA	Prep	8151A			261602	09/02/15 09:51	TRG	TAL BUF
Total/NA	Analysis	8151A		1	262369	09/08/15 13:40	JRL	TAL BUF
Total/NA	Prep	3050B			261636	09/02/15 12:27	CMM	TAL BUF
Total/NA	Analysis	6010C		1	262014	09/03/15 11:11	AMH	TAL BUF
Total/NA	Prep	7471B			261797	09/03/15 09:20	TAS	TAL BUF
Total/NA	Analysis	7471B		1	261886	09/03/15 11:58	TAS	TAL BUF
Total/NA	Prep	3060A			196304	09/04/15 08:38	GNR	TAL CAN
Total/NA	Analysis	7196A		10	196650	09/08/15 14:12	GNR	TAL CAN
Total/NA	Prep	9012B			261663	09/02/15 12:00	NDB	TAL BUF
Total/NA	Analysis	9012B		1	261814	09/03/15 08:58	EGS	TAL BUF
Total/NA	Analysis	SM 3500 CR D		1	262568	09/09/15 08:55	TRB	TAL BUF

**Client Sample ID: TYPE II**

**Lab Sample ID: 480-86456-3**

**Date Collected: 09/01/15 14:30**

**Matrix: Solid**

**Date Received: 09/01/15 17:02**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	261529	09/01/15 22:52	CMK	TAL BUF

**Client Sample ID: TYPE II**

**Lab Sample ID: 480-86456-3**

**Date Collected: 09/01/15 14:30**

**Matrix: Solid**

**Date Received: 09/01/15 17:02**

**Percent Solids: 97.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			261631	09/02/15 11:45	NQN	TAL BUF
Total/NA	Analysis	8260C		1	261599	09/02/15 15:14	NQN	TAL BUF
Total/NA	Prep	3550C			261768	09/03/15 07:49	TRG	TAL BUF
Total/NA	Analysis	8270D		1	262126	09/05/15 03:36	DMR	TAL BUF
Total/NA	Prep	3550C			261769	09/03/15 07:54	TRG	TAL BUF
Total/NA	Analysis	8081B		1	262035	09/04/15 15:54	MAN	TAL BUF
Total/NA	Prep	3550C			261572	09/02/15 09:48	CAM	TAL BUF
Total/NA	Analysis	8082A		1	261712	09/04/15 00:12	KS	TAL BUF
Total/NA	Prep	8151A			261602	09/02/15 09:51	TRG	TAL BUF
Total/NA	Analysis	8151A		1	262369	09/08/15 14:10	JRL	TAL BUF
Total/NA	Prep	3050B			261636	09/02/15 12:27	CMM	TAL BUF
Total/NA	Analysis	6010C		1	262014	09/03/15 11:14	AMH	TAL BUF
Total/NA	Prep	3050B			261636	09/02/15 12:27	CMM	TAL BUF
Total/NA	Analysis	6010C		5	262014	09/03/15 11:47	AMH	TAL BUF
Total/NA	Prep	7471B			261797	09/03/15 09:20	TAS	TAL BUF

TestAmerica Buffalo

# Lab Chronicle

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

**Client Sample ID: TYPE II**

**Date Collected: 09/01/15 14:30**

**Date Received: 09/01/15 17:02**

**Lab Sample ID: 480-86456-3**

**Matrix: Solid**

**Percent Solids: 97.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7471B		1	261886	09/03/15 11:59	TAS	TAL BUF
Total/NA	Prep	3060A			196304	09/04/15 08:38	GNR	TAL CAN
Total/NA	Analysis	7196A		1	196650	09/08/15 13:52	GNR	TAL CAN
Total/NA	Prep	9012B			261663	09/02/15 12:00	NDB	TAL BUF
Total/NA	Analysis	9012B		1	261814	09/03/15 08:59	EGS	TAL BUF
Total/NA	Analysis	SM 3500 CR D		1	262568	09/09/15 08:55	TRB	TAL BUF

### Laboratory References:

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

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

# Certification Summary

Client: Clean Harbors Environmental Services Inc  
 Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

## Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-16

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

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids
SM 3500 CR D		Solid	Cr (III)

## Laboratory: TestAmerica Canton

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

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14 *
California	State Program	9	2927	04-30-17
Connecticut	State Program	1	PH-0590	12-31-15
Illinois	NELAP	5	200004	07-31-16
Kansas	NELAP	7	E-10336	01-31-16 *
Kentucky (UST)	State Program	4	58	02-26-16
Kentucky (WW)	State Program	4	98016	12-31-15
L-A-B	DoD ELAP		L2315	07-18-16
Minnesota	NELAP	5	039-999-348	12-31-15
Nevada	State Program	9	OH-000482008A	07-31-16
New Jersey	NELAP	2	OH001	09-30-15 *
New York	NELAP	2	10975	03-31-16 *
Ohio VAP	State Program	5	CL0024	10-31-15 *
Oregon	NELAP	10	4062	02-23-16
Pennsylvania	NELAP	3	68-00340	08-31-16
Texas	NELAP	6	T104704517-15-5	08-31-16
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-15 *
Washington	State Program	10	C971	01-12-16
West Virginia DEP	State Program	3	210	12-31-15
Wisconsin	State Program	5	999518190	08-31-15 *

\* Certification renewal pending - certification considered valid.

# Method Summary

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8081B	Organochlorine Pesticides (GC)	SW846	TAL BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
8151A	Herbicides (GC)	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7471B	Mercury (CVAA)	SW846	TAL BUF
7196A	Chromium, Hexavalent	SW846	TAL CAN
9012B	Cyanide, Total and/or Amenable	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF
SM 3500 CR D	Chromium, Trivalent	SM	TAL BUF

#### Protocol References:

EPA = US Environmental Protection Agency

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

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

#### Laboratory References:

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

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

# Sample Summary

Client: Clean Harbors Environmental Services Inc  
Project/Site: GE Tonawanda

TestAmerica Job ID: 480-86456-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-86456-1	COMMON FILL	Solid	09/01/15 15:00	09/01/15 17:02
480-86456-2	TOPSOIL	Solid	09/01/15 14:45	09/01/15 17:02
480-86456-3	TYPE II	Solid	09/01/15 14:30	09/01/15 17:02

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**Chain of Custody Record**

<b>Client Information</b> Client Contact: Chris Nelson Phone: 781-561-6653 Lab PM: Schove, John R E-Mail: john.schove@testamericainc.com Camer Tracking No(s): COC No: 480-71425-18153.1 Page: Page 1 of 1 Job #: 15024551341		Due Date Requested: TAT Requested (days): 5 day PO #: Advance Payment Required WO #: Project #: 48011848 SSOW#: SE Tonawanda		Project Name: Clean Harbors - Norwell, MA Site:		Email: Nelson.ChristopherB@cleanhARBORS.com Project #: 48011848 Site:		Address: Clean Harbors Environmental Services Inc 42 Longwater Drive City: Norwell State, Zip: MA, 02061 Phone:		Analysis Requested 8260C - DER-10 VOCs (LL) 9012B - Cyanide, Total 3500 CR3.D, 6010C, 7471B 8081B, 8082A, 8151A, 8270D 7195A - Cr (VI) Field Filtered Sample (Yes or No) Field Form MS/MSD (Yes or No)		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2SO3 S - H2SO4 G - Anchor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:		Special Instructions/Note: 5 day T.A.1		Total Number of Containers:		Barcode: 480-86456 Chain of Custody	
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Soil, Gas, Tissue, Air)	Field Filtered Sample (Yes or No)	Field Form MS/MSD (Yes or No)	8260C - DER-10 VOCs (LL)	9012B - Cyanide, Total	3500 CR3.D, 6010C, 7471B	8081B, 8082A, 8151A, 8270D	Analysis Requested	Special Instructions/Note							
Common Fill	9-1-15	3:00pm	G	Solid	N	N	N	N	N	N									
Topsoil	9-1-15	2:45pm	G	Solid	N	N	N	N	N	N									
Type II	9-1-15	2:30pm	G	Solid	N	N	N	N	N	N									
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)																			
Empty Kit Relinquished by:																			
Relinquished by: Chris Nelson Date/Time: 9-1-15 16:30 Company: Clean Harbors Tonawanda																			
Relinquished by: Tom Nelson Date/Time: 9/1/15 17:02 Company: AECOM																			
Relinquished by:																			
Custody Seal No.: Δ Yes Δ No																			
Cooler Temperature(s) °C and Other Remarks: 5.0°F																			
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																			
Special Instructions/QC Requirements:																			
Method of Shipment: Drop off Date/Time: 9/1/15 16:30 Company: AECOM																			
Date/Time: 9/1/15 17:02 Company: AECOM																			
Date/Time:																			



0.8/cu.s

**Chain of Custody Record**



Client Information (Sub Contract Lab)		Lab P.M.		Carrier Tracking No(s)		COC No:		
Shipping/Receiving		Schove, John R		480-25601-1		480-25601-1		
Company:		E-Mail: john.schove@testamericainc.com		Page:		Page 1 of 1		
Address:		Due Date Requested:		Job #:		480-86456-1		
4101 Shuffel Street NW,		9/14/2015		Analysis Requested		Preservation Codes:		
City: North Canton		TAT Requested (days):		Analysis Requested		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2OAS E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:		
State, Zip: OH, 44720		PO #:		Analysis Requested		M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecylhydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)		
Phone: 330-497-9396(Tel) 330-497-0772(Fax)		WO #:		Analysis Requested		Total Number of Containers		
Email:		Project #:		Analysis Requested		Special Instructions/Note:		
Project Name: Clean Harbors - Norwell, MA		48011848		Analysis Requested		C39		
Site:		SSOW#:		Analysis Requested		Special Instructions/Note:		
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, B=BT (Soils, Asst))	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	7196A/3060A DER-10 Lat Hexavalent Chromium
COMMON FILL (480-86456-1)	9/1/15	15:00 Eastern	Solid			X	X	
TOPSOIL (480-86456-2)	9/1/15	14:45 Eastern	Solid			X	X	
TYPE 2 (480-86456-3)	9/1/15	14:30 Eastern	Solid			X	X	
<b>Possible Hazard Identification</b> Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify)								
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months								
Special Instructions/QC Requirements:								
Empty Kit Relinquished by:			Date:			Time:		
Relinquished by: <i>C. Walden</i>			9/2/15			1700		
Relinquished by:			Date/Time:			Company: <i>HA</i>		
Relinquished by:			Date/Time:			Company:		
Custody Seals Intact:			Date/Time:			Company:		
Custody Seal No.:			Cooler Temperature(s) °C and Other Remarks:					



Client Buffalo Site Name \_\_\_\_\_ Cooler unpacked by: \_\_\_\_\_

Cooler Received on 9-3-15 Opened on 9-3-15

FedEx: 1<sup>st</sup> Grd  UPS FAS Stetson Client Drop Off TestAmerica Courier Other \_\_\_\_\_

Receipt After-hours: Drop-off Date/Time \_\_\_\_\_ Storage Location \_\_\_\_\_

TestAmerica Cooler # \_\_\_\_\_ Foam Box  Client Cooler Box Other \_\_\_\_\_

Packing material used: Bubble Wrap Foam Plastic Bag None Other \_\_\_\_\_

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt  
IR GUN# A (CF +1.0 °C) Observed Cooler Temp. 0.8 °C Corrected Cooler Temp. 1.8 °C  
IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C  
IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C  
IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 1  Yes  No  
-Were custody seals on the outside of the cooler(s) signed & dated?  Yes  No  NA  
-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?  Yes  No
3. Shippers' packing slip attached to the cooler(s)?  Yes  No
4. Did custody papers accompany the sample(s)?  Yes  No
5. Were the custody papers relinquished & signed in the appropriate place?  Yes  No
6. Was/were the person(s) who collected the samples clearly identified on the COC?  Yes  No
7. Did all bottles arrive in good condition (Unbroken)?  Yes  No
8. Could all bottle labels be reconciled with the COC?  Yes  No
9. Were correct bottle(s) used for the test(s) indicated?  Yes  No
10. Sufficient quantity received to perform indicated analyses?  Yes  No
11. Were sample(s) at the correct pH upon receipt?  Yes  No  NA pH Strip Lot# HC554612
12. Were VOAs on the COC?  Yes  No
13. Were air bubbles >6 mm in any VOA vials?  Yes  No  NA
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # \_\_\_\_\_  Yes  No

See Multiple Cooler Form

Contacted PM \_\_\_\_\_ Date \_\_\_\_\_ by \_\_\_\_\_ via Verbal Voice Mail Other \_\_\_\_\_  
Concerning \_\_\_\_\_

**14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES** Samples processed by: \_\_\_\_\_

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**15. SAMPLE CONDITION**  
Sample(s) \_\_\_\_\_ were received after the recommended holding time had expired.  
Sample(s) \_\_\_\_\_ were received in a broken container.  
Sample(s) \_\_\_\_\_ were received with bubble >6 mm in diameter. (Notify PM)

**16. SAMPLE PRESERVATION**  
Sample(s) \_\_\_\_\_ were further preserved in the laboratory.  
Time preserved: \_\_\_\_\_ Preservative(s) added/Lot number(s): \_\_\_\_\_



## Login Sample Receipt Checklist

Client: Clean Harbors Environmental Services Inc

Job Number: 480-86456-1

**Login Number: 86456**  
**List Number: 1**  
**Creator: Kolb, Chris M**

**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.	True	TERRA CORE VIALS PLACED INTO FROZEN STORAGE ON 09/01/15 @ 2000
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AECOM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	





Christopher Tobin  
400 Hinman Rd.  
Lockport, NY 14094  
716-289-7970

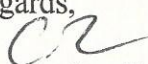
8-20-15

To Whom It May Concern:

This letter is to confirm that the material being provided, from our Lockport plant in Lockport, NY, is from a natural, virgin, clean and contaminant free source of aggregates that is annually monitored by the New York State Department of Transportation and The New York State Department of Environmental Conservation.

Please feel free to contact me at the number above with any questions and I would be happy to assist in any way possible. Thank you.

Regards,

  
Christopher Tobin  
Quality Control Technician