

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Edison 777 New Durham Road Edison, NJ 08817 Tel: (732)549-3900

TestAmerica Job ID: 460-58553-1 Client Project/Site: Liberty Oil #38

Revision: 1

For:

Center Point Tank Service 536 E Benjamin Franklin Douglassville, Pennsylvania 19518

Attn: Rachel Burkart

O. Burgoe

Authorized for release by: 7/18/2013 1:43:16 PM

Ozzy Burgos, Project Manager I ozzy.burgos@testamericainc.com

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

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

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

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-58553-1

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Sample Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

TestAmerica Job ID: 460-58553-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-58553-1	MW-1	Water	06/25/13 12:24	06/26/13 13:20
460-58553-2	MW-2	Water	06/25/13 12:41	06/26/13 13:20
460-58553-3	MW-4	Water	06/25/13 14:25	06/26/13 13:20
460-58553-4	MW-5	Water	06/25/13 13:00	06/26/13 13:20
460-58553-5	MW-6	Water	06/25/13 13:15	06/26/13 13:20
460-58553-6	MW-9	Water	06/25/13 13:38	06/26/13 13:20
460-58553-7	MW-10	Water	06/25/13 13:58	06/26/13 13:20

Definitions/Glossary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-58553-1

Qualifiers

GC/MS VOA

Qualifier Qualifier Description

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

Glossary

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

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

%R Percent Recovery
CNF Contains no Free Liquid

DER Duplicate error ratio (normalized absolute difference)

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)

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TestAmerica Edison

Case Narrative

TestAmerica Job ID: 460-58553-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Job ID: 460-58553-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative 460-58553-1

Comments

No additional comments.

Revised to the MDL.

Receipt

The samples were received on 6/26/2013 1:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.7° C.

Method(s) 8260B: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-10 (460-58553-7). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of Benzene and the MSD recovery of 1,2,4-Trimethylbenzene for batch 168486 were outside control limits due to the high concentrations present in the parent sample relative to the spike amounts. The associated laboratory control sample (LCS) recoveries met acceptance criteria.

No other analytical or quality issues were noted.

Metals

No analytical or quality issues were noted.

Field Service / Mobile Lab

No analytical or quality issues were noted.

VOA Prep

No analytical or quality issues were noted.

TestAmerica Edison 7/18/2013

TestAmerica Job ID: 460-58553-1

06/28/13 13:28

06/28/13 13:28

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-1 Lab Sample ID: 460-58553-1

Date Collected: 06/25/13 12:24 Matrix: Water

Date Received: 06/26/13 13:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND	19	0.020		ug/L			07/01/13 17:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	121	ī	67 - 144			2		07/01/13 17:44	1
1,2-Dichloroethane-d4 (Surr)	88		58 - 144					07/01/13 17:44	1
Method: 8260B - Volatile Orga	nic Compounds (GC/MS)							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND	4	1.0	0.14	ug/L	——————————————————————————————————————		06/28/13 13:28	1
Benzene	ND		1.0	0.080	ug/L			06/28/13 13:28	1
Ethylbenzene	ND		1.0	0.10	ug/L			06/28/13 13:28	1
Toluene	ND		1.0	0.15	ug/L			06/28/13 13:28	1
Xylenes, Total	ND		3.0	0.13	ug/L			06/28/13 13:28	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			06/28/13 13:28	1
Naphthalene	ND		1.0	0.29	ug/L			06/28/13 13:28	1
1,2,4-Trimethylbenzene	ND		1.0	0.13	ug/L			06/28/13 13:28	1
1,3,5-Trimethylbenzene	ND		1.0	0.15	ug/L			06/28/13 13:28	1
Isopropylbenzene	ND		1.0	0.080	ug/L			06/28/13 13:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88	9	70 - 130			-	***	06/28/13 13:28	1
Bromofluorobenzene	97		70 - 130					06/28/13 13:28	1

Method: 200.8 - Metals (ICP/MS) - E	Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		07/03/13 12:02	07/03/13 13:32	5

70 - 130

70 - 130

100

95

Client Sample ID: MW-2 Lab Sample ID: 460-58553-2 Date Collected: 06/25/13 12:41 Matrix: Water

Date Received: 06/26/13 13:20

Toluene-d8 (Surr)

Dibromofluoromethane (Surr)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.020		ug/L			07/01/13 18:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	122	1.	67 - 144			=		07/01/13 18:06	1
1,2-Dichloroethane-d4 (Surr)	88		58 - 144					07/01/13 18:06	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		1.0	0.14	ug/L			06/28/13 13:50	1
Benzene	ND		1.0	0.080	ug/L			06/28/13 13:50	1
Ethylbenzene	ND		1.0	0.10	ug/L			06/28/13 13:50	1
Toluene	ND		1.0	0.15	ug/L			06/28/13 13:50	1
Xylenes, Total	ND		3.0	0.13	ug/L			06/28/13 13:50	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			06/28/13 13:50	1
Naphthalene	ND		1.0	0.29	ug/L			06/28/13 13:50	1
1,2,4-Trimethylbenzene	ND		1.0	0.13	ug/L			06/28/13 13:50	1

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TestAmerica Job ID: 460-58553-1

Client: Center Point Tank Service

Project/Site: Liberty Oil #38

Client Sample ID: MW-2 Lab Sample ID: 460-58553-2 Date Collected: 06/25/13 12:41

Matrix: Water

Date Received: 06/26/13 13:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		1.0	0.15	ug/L			06/28/13 13:50	1
Isopropylbenzene	ND		1.0	0.080	ug/L			06/28/13 13:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88	2	70 - 130				<u></u>	06/28/13 13:50	1
Bromofluorobenzene	96		70 - 130					06/28/13 13:50	1
Toluene-d8 (Surr)	98		70 - 130					06/28/13 13:50	1
Dibromofluoromethane (Surr)	94		70 - 130					06/28/13 13:50	1
Method: 200.8 - Metals (ICP/M	S) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		07/03/13 12:02	07/03/13 13:40	- 5

Client Sample ID: MW-4 Lab Sample ID: 460-58553-3

Date Collected: 06/25/13 14:25 Matrix: Water

Date Received: 06/26/13 13:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND	9	0.020	3	ug/L		it 	07/01/13 18:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	109	*	67 - 144					07/01/13 18:29	1
1,2-Dichloroethane-d4 (Surr)	71		58 - 144					07/01/13 18:29	1
Method: 8260B - Volatile Orga	nic Compounds ((GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	80		1.0	0.14	ug/L			06/28/13 14:12	1
Benzene	300		1.0	0.080	ug/L			06/28/13 14:12	1
Ethylbenzene	220		1.0	0.10	ug/L			06/28/13 14:12	1
Toluene	19		1.0	0.15	ug/L			06/28/13 14:12	1
Xylenes, Total	52		3.0	0.13	ug/L			06/28/13 14:12	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			06/28/13 14:12	1
Naphthalene	7.0		1.0	0.29	ug/L			06/28/13 14:12	1
1,2,4-Trimethylbenzene	110		1.0	0.13	ug/L			06/28/13 14:12	1
1,3,5-Trimethylbenzene	3.7		1.0	0.15	ug/L			06/28/13 14:12	1
Isopropylbenzene	18		1.0	0.080	ug/L			06/28/13 14:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88	E.	70 - 130				2. E	06/28/13 14:12	1
Bromofluorobenzene	100		70 - 130					06/28/13 14:12	1
Toluene-d8 (Surr)	101		70 - 130					06/28/13 14:12	1
Dibromofluoromethane (Surr)	91		70 - 130					06/28/13 14:12	1
Method: 200.8 - Metals (ICP/M	S) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	-	1.5		ug/L		07/03/13 12:02	07/03/13 13:44	5

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TestAmerica Job ID: 460-58553-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-5

Lab Sample ID: 460-58553-4

06/28/13 14:34

06/28/13 14:34

06/28/13 14:34

06/28/13 14:34

Matrix: Water

Date Collected: 06/25/13 13:00 Date Received: 06/26/13 13:20

Xylenes, Total 1,2-Dichloroethane

Naphthalene

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND	-	0.020	=======================================	ug/L			07/01/13 18:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	120	1	67 - 144			-		07/01/13 18:52	1
1,2-Dichloroethane-d4 (Surr)	81		58 - 144					07/01/13 18:52	1
Method: 8260B - Volatile Orga	anic Compounds ((GC/MS)							
- Method: 8260B - Volatile Orga Analyte		GC/MS) Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
annoning and the research of t			RL		Unit ug/L	D	Prepared	Analyzed 06/28/13 14:34	Dil Fac
Analyte	Result				ug/L	D	Prepared		Dil Fac
Analyte Methyl tert-butyl ether	Result ND		1.0	0.14	ug/L	<u>D</u>	Prepared	06/28/13 14:34	Dil Fac

1,2,4-Trimethylbenzene	ND	1.0	0.13	ug/L		06/28/13 14:34	1
1,3,5-Trimethylbenzene	ND	1.0	0.15	ug/L		06/28/13 14:34	1
Isopropylbenzene	ND	1.0	0.080	ug/L		06/28/13 14:34	1
Surrogate	%Recovery Qualifier	Limits			Prepared	Analyzed	Dil Fac
Surrogate 1,2-Dichloroethane-d4 (Surr)	%Recovery Qualifier 92	70 ₋ 130			Prepared	Analyzed 06/28/13 14:34	Dil Fac
					Prepared		Dil Fac 1

3.0

1.0

1.0

0.13 ug/L

0.19 ug/L

0.29 ug/L

ND

ND

ND

Method: 200.8 - Metals (ICP/MS) - Di	issolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		07/03/13 12:02	07/03/13 13:50	5

70 - 130

Client Sample ID: MW-6

Date Collected: 06/25/13 13:15

Lab Sample ID: 460-58553-5

Matrix: Water

Date Collected: 06/25/13 13:15 Date Received: 06/26/13 13:20

Dibromofluoromethane (Surr)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND	=	0.020		ug/L			07/01/13 19:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	124	-	67 - 144					07/01/13 19:14	1
1,2-Dichloroethane-d4 (Surr)	85		58 - 144					07/01/13 19:14	1

Method: 8260B - Volatile Orga Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		1.0		ug/L	— 5 - 5 - 5		06/28/13 14:56	1
Benzene	ND		1.0	0.080	ug/L			06/28/13 14:56	1
Ethylbenzene	ND		1.0	0.10	ug/L			06/28/13 14:56	1
Toluene	ND		1.0	0.15	ug/L			06/28/13 14:56	1
Xylenes, Total	ND		3.0	0.13	ug/L			06/28/13 14:56	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			06/28/13 14:56	1
Naphthalene	ND		1.0	0.29	ug/L			06/28/13 14:56	1
1,2,4-Trimethylbenzene	ND		1.0	0.13	ug/L			06/28/13 14:56	1

TestAmerica Edison

TestAmerica Job ID: 460-58553-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-6

Lab Sample ID: 460-58553-5

Matrix: Water

Date Collected: 06/25/13 13:15 Date Received: 06/26/13 13:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		1.0	0.15	ug/L			06/28/13 14:56	1
Isopropylbenzene	ND		1.0	0.080	ug/L			06/28/13 14:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88	2	70 - 130			=		06/28/13 14:56	1
Bromofluorobenzene	97		70 - 130					06/28/13 14:56	1
Toluene-d8 (Surr)	97		70 _ 130					06/28/13 14:56	1
Dibromofluoromethane (Surr)	93		70 - 130					06/28/13 14:56	1

Method: 200.8 - Metals (ICP/MS) - Dissolved Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac 1.5 07/03/13 12:02 07/03/13 13:53 ug/L Lead 27

Client Sample ID: MW-9 Lab Sample ID: 460-58553-6 Date Collected: 06/25/13 13:38

Matrix: Water

Date Received: 06/26/13 13:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND	9	0.020	-	ug/L	<u> </u>	1	07/01/13 19:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94	3	67 - 144				2 - 2	07/01/13 19:37	1
1,2-Dichloroethane-d4 (Surr)	76		58 - 144					07/01/13 19:37	1
Method: 8260B - Volatile Orgai	nic Compounds (GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	17		1.0	0.14	ug/L			06/28/13 16:51	1
Benzene	170		1.0	0.080	ug/L			06/28/13 16:51	1
Ethylbenzene	17		1.0	0.10	ug/L			06/28/13 16:51	1
Toluene	1.4		1.0	0.15	ug/L			06/28/13 16:51	1
Xylenes, Total	1.9	J	3.0	0.13	ug/L			06/28/13 16:51	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			06/28/13 16:51	1
Naphthalene	0.67	J	1.0	0.29	ug/L			06/28/13 16:51	1
1,2,4-Trimethylbenzene	0.66	J	1.0	0.13	ug/L			06/28/13 16:51	1
1,3,5-Trimethylbenzene	ND		1.0	0.15	ug/L			06/28/13 16:51	1
Isopropylbenzene	19		1.0	0.080	ug/L			06/28/13 16:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 130				<u> </u>	06/28/13 16:51	1
Bromofluorobenzene	97		70 _ 130					06/28/13 16:51	1
Toluene-d8 (Surr)	99		70 _ 130					06/28/13 16:51	1
Dibromofluoromethane (Surr)	93		70 - 130			# H * H * A * H		06/28/13 16:51	1
Method: 200.8 - Metals (ICP/MS	S) - Dissolved								
Analyte	7	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND.	17	1.5		ug/L		07/03/13 12:02	07/03/13 14:04	5

Client Sample Results

Client: Center Point Tank Service Project/Site: Liberty Oil #38

TestAmerica Job ID: 460-58553-1

Client Sample ID: MW-10 Date Collected: 06/25/13 13:58

Date Received: 06/26/13 13:20

Lab Sample ID: 460-58553-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND	-	0.020		ug/L			07/01/13 20:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103	1	67 - 144			_		07/01/13 20:00	1
1,2-Dichloroethane-d4 (Surr)	84		58 _ 144					07/01/13 20:00	1

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	160	10	1.4	ug/L			07/01/13 19:43	10
Benzene	2800	10	0.80	ug/L			07/01/13 19:43	10
Ethylbenzene	840	10	1.0	ug/L			07/01/13 19:43	10
Toluene	34	10	1.5	ug/L			07/01/13 19:43	10
Xylenes, Total	630	30	1.3	ug/L			07/01/13 19:43	10
1,2-Dichloroethane	ND	10	1.9	ug/L			07/01/13 19:43	10
Naphthalene	210	10	2.9	ug/L			07/01/13 19:43	10
1,2,4-Trimethylbenzene	990	10	1.3	ug/L			07/01/13 19:43	10
1,3,5-Trimethylbenzene	150	10	1.5	ug/L			07/01/13 19:43	10
Isopropylbenzene	90	10	0.80	ug/L			07/01/13 19:43	10
Surrogate	%Recovery Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89	70 - 130			=	50	07/01/13 19:43	10
Bromofluorobenzene	105	70 - 130					07/01/13 19:43	10
Toluene-d8 (Surr)	104	70 _ 130					07/01/13 19:43	10
Dibromofluoromethane (Surr)	92	70 _ 130			111111111		07/01/13 19:43	10

Method: 200.8 - Metals (ICP/MS) - E	Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		07/03/13 12:02	07/03/13 14:08	5

Certification Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-58553-1

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Laboratory: TestAmerica	Edisor	١
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All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0200	09-30-13
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A	04-30-14
New Jersey	NELAP	2	12028	06-30-14
New York	NELAP	2	11452	04-01-14
Pennsylvania	NELAP	3	68-00522	02-28-14
Rhode Island	State Program	1	LAO00132	12-30-13
USDA	Federal		NJCA-003-08	03-11-14

Method Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-58553-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL EDI
8260B SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL EDI
200.8	Metals (ICP/MS)	EPA	TAL EDI

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

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TestAmerica Edison

THE LEADER IN ENVIRONMENTAL TESTING

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TAL-4124-450 (0509)

1008 W. Ninth Avenue King of Prussia, PA 19406 (610) 337-9992 FAX (610) 337-9939

Login Sample Receipt Checklist

Job Number: 460-58553-1

Login Number: 58553

List Source: TestAmerica Edison

List Number: 1

Creator: Visconti, Caitlyn A

Client: Center Point Tank Service

Creator. Visconti, Cattlyin A		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.7 IR#5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Edison 777 New Durham Road Edison, NJ 08817 Tel: (732)549-3900

TestAmerica Job ID: 460-63026-1 Client Project/Site: Liberty Oil #38

For:

Center Point Tank Service 536 E Benjamin Franklin Douglassville, Pennsylvania 19518

Attn: Rachel Burkart

Authorized for release by: 9/23/2013 1:34:00 PM

Ozzy Burgos, Project Manager I ozzy.burgos@testamericainc.com

·····LINKS ······

Review your project results through

Total Access

Have a Question?



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

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

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

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-63026-1

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Sample Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

TestAmerica Job ID: 460-63026-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-63026-1	MW-1	Water	09/13/13 11:56	09/16/13 10:30
460-63026-2	MW-2	Water	09/13/13 11:32	09/16/13 10:30
460-63026-3	MW-4	Water	09/13/13 13:11	09/16/13 10:30
460-63026-4	MW-5	Water	09/13/13 11:08	09/16/13 10:30
460-63026-5	MW-6	Water	09/13/13 10:50	09/16/13 10:30
460-63026-6	MW-9	Water	09/13/13 12:22	09/16/13 10:30
460-63026-7	MW-10	Water	09/13/13 12:41	09/16/13 10:30

Definitions/Glossary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-63026-1

Glossary

NC

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

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)

Not Calculated

TestAmerica Edison

Case Narrative

TestAmerica Job ID: 460-63026-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Job ID: 460-63026-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative 460-63026-1

Comments

No additional comments.

The samples were received on 9/16/2013 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.0° C.

GC/MS VOA

Method(s) 8260B: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: MW2-02-17 (460-62990-10). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 182118 were outside control limits for multiple compounds. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) 8260B: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: MW-16 (460-63026-7), MW-4 (460-63026-3). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

Metals

No analytical or quality issues were noted.

Field Service / Mobile Lab

No analytical or quality issues were noted.

VOA Prep

No analytical or quality issues were noted.

TestAmerica Job ID: 460-63026-1

Client: Center Point Tank Service

Project/Site: Liberty Oil #38

Client Sample ID: MW-1 Lab Sample ID: 460-63026-1

Date Collected: 09/13/13 11:56 Matrix: Water

Date Received: 09/16/13 10:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.020		ug/L			09/19/13 11:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	87	7	67 - 144			2		09/19/13 11:13	1
1,2-Dichloroethane-d4 (Surr)	114		58 - 144					09/19/13 11:13	1
Method: 8260B - Volatile Orga	nic Compounds (GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	.	1.0	=======================================	ug/L	——————————————————————————————————————		09/19/13 18:42	1
1,2-Dichloroethane	ND		1.0		ug/L			09/19/13 18:42	1
Ethylbenzene	ND		1.0		ug/L			09/19/13 18:42	1
Isopropylbenzene	ND		1.0		ug/L			09/19/13 18:42	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/19/13 18:42	1
Naphthalene	ND		1.0		ug/L			09/19/13 18:42	1
Toluene	ND		1.0		ug/L			09/19/13 18:42	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/19/13 18:42	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/19/13 18:42	1
Xylenes, Total	ND		3.0		ug/L			09/19/13 18:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 130			-		09/19/13 18:42	1
Bromofluorobenzene	93		70 - 130					09/19/13 18:42	1
Toluene-d8 (Surr)	98		70 - 130					09/19/13 18:42	1
Dibromofluoromethane (Surr)	103		70 - 130					09/19/13 18:42	1

Client Sample ID: MW-2 Lab Sample ID: 460-63026-2 Date Collected: 09/13/13 11:32

RL

1.5

MDL Unit

ug/L

Prepared

09/18/13 16:19 09/18/13 22:07

Result Qualifier

ND

Date Received: 09/16/13 10:30

Analyte

Lead

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.020		ug/L			09/19/13 11:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	83	1.	67 - 144			=		09/19/13 11:38	1
1.2-Dichloroethane-d4 (Surr)	110		58 - 144					09/19/13 11:38	1

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	1.0	-	ug/L			09/19/13 19:06	1
1,2-Dichloroethane	ND	1.0		ug/L			09/19/13 19:06	1
Ethylbenzene	ND	1.0		ug/L			09/19/13 19:06	1
Isopropylbenzene	ND	1.0		ug/L			09/19/13 19:06	1
Methyl tert-butyl ether	ND	1.0		ug/L			09/19/13 19:06	1
Naphthalene	ND	1.0		ug/L			09/19/13 19:06	1
Toluene	ND	1.0		ug/L			09/19/13 19:06	1
1,2,4-Trimethylbenzene	ND	1.0		ug/L			09/19/13 19:06	1

TestAmerica Edison

Page 6 of 15

Dil Fac

Matrix: Water

Analyzed

9/23/2013

2

TestAmerica Job ID: 460-63026-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-2 Date Collected: 09/13/13 11:32

Date Received: 09/16/13 10:30

Lab Sample ID: 460-63026-2

Prepared

09/18/13 16:19

. Matrix: Water

Analyzed

09/18/13 22:11

Dil Fac

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND	-	1.0	-	ug/L			09/19/13 19:06	1
Xylenes, Total	ND		3.0		ug/L			09/19/13 19:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102	2	70 - 130			=		09/19/13 19:06	1
Bromofluorobenzene	92		70 - 130					09/19/13 19:06	1
Toluene-d8 (Surr)	98		70 - 130					09/19/13 19:06	1
Dibromofluoromethane (Surr)	102		70 - 130					09/19/13 19:06	1

Client Sample ID: MW-4

Date Collected: 09/13/13 13:11

Lab Sample ID: 460-63026-3

Matrix: Water

RL

1.5

MDL Unit

ug/L

Result Qualifier

ND

Date Received: 09/16/13 10:30

Analyte

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND	5	0.020	=======================================	ug/L	——a —a =	[6]	09/19/13 12:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	105	3	67 - 144			-		09/19/13 12:04	1
1.2-Dichloroethane-d4 (Surr)	93		58 - 144					09/19/13 12:04	- 2

Analyte	Result G	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	230		2.0		ug/L			09/20/13 00:36	2
1,2-Dichloroethane	ND		2.0		ug/L			09/20/13 00:36	2
Ethylbenzene	230		2.0		ug/L			09/20/13 00:36	2
Isopropylbenzene	18		2.0		ug/L			09/20/13 00:36	2
Methyl tert-butyl ether	51		2.0		ug/L			09/20/13 00:36	2
Naphthalene	47		2.0		ug/L			09/20/13 00:36	2
Toluene	170		2.0		ug/L			09/20/13 00:36	2
1,2,4-Trimethylbenzene	350		2.0		ug/L			09/20/13 00:36	2
1,3,5-Trimethylbenzene	84		2.0		ug/L			09/20/13 00:36	2
Xylenes, Total	720		6.0		ug/L			09/20/13 00:36	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105	=======================================	70 - 130	8	09/20/13 00:36	2
Bromofluorobenzene	97		70 - 130		09/20/13 00:36	2
Toluene-d8 (Surr)	96		70 - 130		09/20/13 00:36	2
Dibromofluoromethane (Surr)	95		70 - 130	BEADMAND FRANKLISH SERBEAR FRANKLISH	09/20/13 00:36	2

Method: 200.8 - Metals (ICP/MS) - D	issolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	-	1.5		ug/L		09/18/13 16:19	09/18/13 22:16	5

TestAmerica Edison

Client: Center Point Tank Service

TestAmerica Job ID: 460-63026-1

Project/Site: Liberty Oil #38

Client Sample ID: MW-5

Lab Sample ID: 460-63026-4 Date Collected: 09/13/13 11:08

Matrix: Water

Date Received: 09/16/13 10:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND	<u></u>	0.020		ug/L			09/19/13 12:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	92	1	67 - 144			2		09/19/13 12:29	1
1,2-Dichloroethane-d4 (Surr)	112		58 - 144					09/19/13 12:29	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	-	1.0	=====	ug/L			09/19/13 23:49	1
1,2-Dichloroethane	ND		1.0		ug/L			09/19/13 23:49	1
Ethylbenzene	ND		1.0		ug/L			09/19/13 23:49	1
Isopropylbenzene	ND		1.0		ug/L			09/19/13 23:49	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/19/13 23:49	1
Naphthalene	ND		1.0		ug/L			09/19/13 23:49	1
Toluene	ND		1.0		ug/L			09/19/13 23:49	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/19/13 23:49	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/19/13 23:49	1
Xylenes, Total	ND		3.0		ug/L			09/19/13 23:49	1

Surrogate	%Recovery	Qualifier Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	120	70 - 130	e - "	09/19/13 23:49	1
Bromofluorobenzene	99	70 - 130		09/19/13 23:49	1
Toluene-d8 (Surr)	107	70 - 130		09/19/13 23:49	1
Dibromofluoromethane (Surr)	115	70 _ 130	18 / Etvie 15 a 18 / Etvoxovie 18 / Etvie 18 / 18 / Etvie	09/19/13 23:49	1

Ì	Method: 200.8 - Metals (ICP/MS) - E	issolved								
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Lead	ND		1.5		ug/L		09/18/13 16:19	09/18/13 23:51	5

Client Sample ID: MW-6 Lab Sample ID: 460-63026-5 Date Collected: 09/13/13 10:50 Matrix: Water

Date Received: 09/16/13 10:30

Method: 8260B SIM - Volatile Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND	Section Constitution Co.	0.020		ug/L			09/19/13 12:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	88	í <u></u>	67 - 144			<u>=</u>		09/19/13 12:55	
1,2-Dichloroethane-d4 (Surr)	132		58 - 144					09/19/13 12:55	1

Method: 8260B - Volatile Orga	nic Compounds (GC/MS)						
Analyte	AND THE RESERVE OF THE PARTY OF		L MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	1	0	ug/L		143	09/20/13 00:12	1
1,2-Dichloroethane	ND	1	0	ug/L			09/20/13 00:12	1
Ethylbenzene	ND	1	0	ug/L			09/20/13 00:12	1
Isopropylbenzene	ND	1	0	ug/L			09/20/13 00:12	
Methyl tert-butyl ether	ND	1	0	ug/L			09/20/13 00:12	1
Naphthalene	ND	1	0	ug/L			09/20/13 00:12	1
Toluene	ND	1	0	ug/L			09/20/13 00:12	1
1,2,4-Trimethylbenzene	ND	1	0	ug/L			09/20/13 00:12	1

TestAmerica Edison

TestAmerica Job ID: 460-63026-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-6 Date Collected: 09/13/13 10:50

Date Received: 09/16/13 10:30

Lab Sample ID: 460-63026-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/20/13 00:12	1
Xylenes, Total	ND		3.0		ug/L			09/20/13 00:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		70 - 130			7		09/20/13 00:12	1
Bromofluorobenzene	94		70 - 130					09/20/13 00:12	1
Diditionadiabettzerie									
Toluene-d8 (Surr)	98		70 - 130					09/20/13 00:12	1

Method: 200.8 - Metals (ICP/MS) - Dissolved Result Qualifier Analyte RL MDL Unit Prepared Analyzed Dil Fac 1.5 09/18/13 16:19 09/18/13 23:55 Lead

Client Sample ID: MW-9 Lab Sample ID: 460-63026-6 Date Collected: 09/13/13 12:22

Matrix: Water

Method: 8260B SIM - Volatile Analyte	STREET, STREET	nds (GC/MS Qualifier	RL	MDI	Unit	D	Prepared	Analyzed	Dil Fa
Ethylene Dibromide	ND ND	Quanner	0.020	MDL	ug/L		riepaieu	09/19/13 13:20	DII Fa
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	117	\$ 	67 - 144			-		09/19/13 13:20	
1,2-Dichloroethane-d4 (Surr)	75		58 - 144					09/19/13 13:20	1
Method: 8260B - Volatile Orga	nic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	18	1	1.0		ug/L			09/20/13 01:23	1
1,2-Dichloroethane	ND		1.0		ug/L			09/20/13 01:23	1

Analyte	Result Qua	illiler RL	MDL	Unit	ט	Prepared	Analyzed	Direc
Benzene	18	1.0		ug/L			09/20/13 01:23	1
1,2-Dichloroethane	ND	1.0		ug/L			09/20/13 01:23	1
Ethylbenzene	ND	1.0		ug/L			09/20/13 01:23	1
Isopropylbenzene	8.1	1.0		ug/L			09/20/13 01:23	1
Methyl tert-butyl ether	5.1	1.0		ug/L			09/20/13 01:23	1
Naphthalene	1.0	1.0		ug/L			09/20/13 01:23	1
Toluene	ND	1.0		ug/L			09/20/13 01:23	1
1,2,4-Trimethylbenzene	ND	1.0		ug/L			09/20/13 01:23	1
1,3,5-Trimethylbenzene	ND	1.0		ug/L			09/20/13 01:23	1
Xylenes, Total	ND	3.0		ug/L			09/20/13 01:23	1
Surrogate	%Recovery Qua	lifier Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 130	s	09/20/13 01:23	1
Bromofluorobenzene	92		70 - 130		09/20/13 01:23	1
Toluene-d8 (Surr)	96		70 _ 130		09/20/13 01:23	1
Dibromofluoromethane (Surr)	98		70 - 130	*************************	09/20/13 01:23	1

Method: 200.8 - Metals (ICP/MS) - D	Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	N-	1.5		ug/L		09/18/13 16:19	09/18/13 23:34	5

Client Sample Results

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-10

TestAmerica Job ID: 460-63026-1

Matrix: Water

ab Sample	ID:	460-63026-7
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Date Collected: 09/13/13 12:41 Date Received: 09/16/13 10:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.020		ug/L			09/19/13 10:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	115	14	67 - 144			-		09/19/13 10:47	1
1,2-Dichloroethane-d4 (Surr)	83		58 - 144					09/19/13 10:47	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2900	9	10		ug/L			09/20/13 00:59	10
1,2-Dichloroethane	ND		10		ug/L			09/20/13 00:59	10
Ethylbenzene	770		10		ug/L			09/20/13 00:59	10
Isopropylbenzene	68		10		ug/L			09/20/13 00:59	10
Methyl tert-butyl ether	160		10		ug/L			09/20/13 00:59	10
Naphthalene	180		10		ug/L			09/20/13 00:59	10
Toluene	48		10		ug/L			09/20/13 00:59	10
1,2,4-Trimethylbenzene	780		10		ug/L			09/20/13 00:59	10
1,3,5-Trimethylbenzene	170		10		ug/L			09/20/13 00:59	10
Xylenes, Total	750		30		ug/L			09/20/13 00:59	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98	9-11-11-11-11-11-11-11-11-11-11-11-11-11	70 - 130			=	***	09/20/13 00:59	10
Bromofluorobenzene	93		70 - 130					09/20/13 00:59	10
Toluene-d8 (Surr)	96		70 - 130					09/20/13 00:59	10
Dibromofluoromethane (Surr)	93		70 - 130			1 X 4 E 4 V E 1		09/20/13 00:59	10

ı	Method: 200.8 - Metals (ICP/MS) - Dissolved									
ı	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Lead	ND		1.5		ug/L		09/18/13 16:19	09/18/13 23:39	5

Certification Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-63026-1

Laboratory: TestAmerica Edison

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0200	09-30-13
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A	04-30-14
New Jersey	NELAP	2	12028	06-30-14
New York	NELAP	2	11452	04-01-14
Pennsylvania	NELAP	3	68-00522	02-28-14
Rhode Island	State Program	1	LAO00132	12-30-13
USDA	Federal		NJCA-003-08	03-11-14

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Method Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-63026-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL EDI
8260B SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL EDI
200.8	Metals (ICP/MS)	EPA	TAL EDI

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Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

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FAX (610) 337-9939	(610) 337-9992	King of Prussia, PA 19406	1008 W. Ninth Avenue	

Page 14 of 15

EDS-WI-038, Rev 3, 10/8/12

Initiale: JG

nata 9-16-13

Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-63026-1

Login Number: 63026 List Source: TestAmerica Edison

List Number: 1

Creator: Gilmore, Julie L

Groutor. Gillioto, Guillo E		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Edison 777 New Durham Road Edison, NJ 08817 Tel: (732)549-3900

TestAmerica Job ID: 460-68242-1 Client Project/Site: Liberty Oil #38

For:

Center Point Tank Service 536 E Benjamin Franklin Douglassville, Pennsylvania 19518

Attn: Rachel Burkart

O. Burgoe

Authorized for release by: 12/20/2013 3:37:49 PM

Ozzy Burgos, Project Manager II (610)337-9992 ozzy.burgos@testamericainc.com

----- LINKS -----

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Have a Ouestion?



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

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

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

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-68242-1

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Sample Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-68242-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-68242-1	MW-1	Water	12/11/13 11:34	12/13/13 09:55
460-68242-2	MW-2	Water	12/11/13 11:50	12/13/13 09:55
460-68242-3	MW-4	Water	12/11/13 13:28	12/13/13 09:55
460-68242-4	MW-5	Water	12/11/13 12:04	12/13/13 09:55
460-68242-5	MW-6	Water	12/11/13 12:18	12/13/13 09:55
460-68242-6	MW-9	Water	12/11/13 12:44	12/13/13 09:55
460-68242-7	MW-10	Water	12/11/13 13:00	12/13/13 09:55

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Definitions/Glossary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-68242-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
*	ISTD response or retention time outside acceptable limits
X	Surrogate is outside control limits

Glossary

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

Case Marrative

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-68242-1

Job ID: 460-68242-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative 460-68242-1

Comments

No additional comments.

Receipt

The samples were received on 12/13/2013 9:55 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.0° C.

GC/MS VOA

Method(s) 8260B: The laboratory control sample (LCS) for batch 198684 recovered outside control limits for the following analyte: 1,2-Dichloroethane. The data have been flagged and reported.

Method(s) 8260B: The matrix spike(MS) recoveries for batch <<198684>> were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits, except for 1,2-Dichloroethane.

Method(s) 8260B: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-10 (460-68242-7), MW-4 (460-68242-3). Elevated reporting limits (RLs) are provided.

Method(s) 8260B SIM: Internal standard (ISTD) response and surrogate recovery for the following sample was outside control limits: MW-4 (460-68242-3). The sample was re-analyzed with concurring results in batch 198424.

Method(s) 8260B SIM: Surrogate recovery for the following sample was outside control limits: MW-9 (460-68242-6). Evidence of matrix interference is present; the sample was confirmed in batch 198866.

No other analytical or quality issues were noted.

Metals

No analytical or quality issues were noted.

Field Service / Mobile Lab

No analytical or quality issues were noted.

VOA Prep

No analytical or quality issues were noted.

TestAmerica Edison 12/20/2013

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TestAmerica Job ID: 460-68242-1

12/19/13 10:40

12/19/13 10:40

Client: Center Point Tank Service

Project/Site: Liberty Oil #38

Client Sample ID: MW-1 Lab Sample ID: 460-68242-1

Date Collected: 12/11/13 11:34 Matrix: Water

Date Received: 12/13/13 09:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND	17	0.020		ug/L			12/18/13 16:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	72	1	67 - 144			-		12/18/13 16:10	1
1,2-Dichloroethane-d4 (Surr)	108		58 - 144					12/18/13 16:10	1
Method: 8260B - Volatile Orga	nic Compounds	(GC/MS)							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	9	1.0	=====	ug/L	——0 =0 €		12/19/13 10:40	1
1,2-Dichloroethane	ND	*	1.0		ug/L			12/19/13 10:40	1
Ethylbenzene	ND		1.0		ug/L			12/19/13 10:40	1
Isopropylbenzene	ND		1.0		ug/L			12/19/13 10:40	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/19/13 10:40	1
Naphthalene	ND		1.0		ug/L			12/19/13 10:40	1
Toluene	ND		1.0		ug/L			12/19/13 10:40	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			12/19/13 10:40	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			12/19/13 10:40	1
Xylenes, Total	ND		3.0		ug/L			12/19/13 10:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	76	S 	70 - 130			-	10	12/19/13 10:40	1
Bromofluorobenzene	97		70 - 130					12/19/13 10:40	1

Method: 200.8 - Metals (ICP/MS) - E	Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		12/18/13 19:55	12/18/13 23:50	5

70 - 130

70 - 130

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103

Client Sample ID: MW-2 Lab Sample ID: 460-68242-2 Date Collected: 12/11/13 11:50 Matrix: Water

Date Received: 12/13/13 09:55

Toluene-d8 (Surr)

Dibromofluoromethane (Surr)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.020		ug/L			12/18/13 16:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103	1.	67 - 144			=		12/18/13 16:36	1
1,2-Dichloroethane-d4 (Surr)	93		58 - 144					12/18/13 16:36	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	1 	1.0		ug/L			12/19/13 11:05	1
1,2-Dichloroethane	ND	*	1.0		ug/L			12/19/13 11:05	1
Ethylbenzene	ND		1.0		ug/L			12/19/13 11:05	1
Isopropylbenzene	ND		1.0		ug/L			12/19/13 11:05	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/19/13 11:05	1
Naphthalene	ND		1.0		ug/L			12/19/13 11:05	1
Toluene	ND		1.0		ug/L			12/19/13 11:05	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			12/19/13 11:05	1

TestAmerica Edison

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12/20/2013

TestAmerica Job ID: 460-68242-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-2 Date Collected: 12/11/13 11:50

Lab Sample ID: 460-68242-2

Matrix: Water

Date Received: 12/13/13 09:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND	=	1.0		ug/L			12/19/13 11:05	1
Xylenes, Total	ND		3.0		ug/L			12/19/13 11:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	75	2	70 - 130					12/19/13 11:05	1
Bromofluorobenzene	97		70 - 130					12/19/13 11:05	1
Toluene-d8 (Surr)	96		70 - 130					12/19/13 11:05	1
Dibromofluoromethane (Surr)	103		70 - 130					12/19/13 11:05	1
Method: 200.8 - Metals (ICP/M	S) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	9	1.5		ug/L		12/18/13 19:55	12/18/13 23:58	5

Client Sample ID: MW-4 Lab Sample ID: 460-68242-3 Date Collected: 12/11/13 13:28

Matrix: Water

Date Received: 12/13/13 09:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND	*	0.020		ug/L	——: —: :		12/18/13 22:23	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene	36	*X	67 - 144			-		12/18/13 22:23	
1,2-Dichloroethane-d4 (Surr)	79		58 - 144					12/18/13 22:23	
Method: 8260B - Volatile Orga	anic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	260	1	2.0		ug/L			12/19/13 13:13	8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	260		2.0		ug/L			12/19/13 13:13	2
1,2-Dichloroethane	ND	*	2.0		ug/L			12/19/13 13:13	2
Ethylbenzene	160		2.0		ug/L			12/19/13 13:13	2
Isopropylbenzene	13		2.0		ug/L			12/19/13 13:13	2
Methyl tert-butyl ether	49		2.0		ug/L			12/19/13 13:13	2
Naphthalene	29		2.0		ug/L			12/19/13 13:13	2
Toluene	240		2.0		ug/L			12/19/13 13:13	2
1,2,4-Trimethylbenzene	220		2.0		ug/L			12/19/13 13:13	2
1,3,5-Trimethylbenzene	50		2.0		ug/L			12/19/13 13:13	2
Xylenes, Total	420		6.0		ug/L			12/19/13 13:13	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery Qu	ualifier Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	75	70 - 130		12/19/13 13:13	2
Bromofluorobenzene	100	70 - 130		12/19/13 13:13	2
Toluene-d8 (Surr)	95	70 - 130		12/19/13 13:13	2
Dibromofluoromethane (Surr)	102	70 - 130		12/19/13 13:13	2

Method: 200.8 - Metals (ICP/MS) - D	ssolved								
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	-	1.5		ug/L		12/18/13 19:55	12/19/13 00:10	5

2

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-68242-1

Client Sample ID: MW-5

Lab Sample ID: 460-68242-4

Matrix: Water

Date Collected: 12/11/13 12:04 Date Received: 12/13/13 09:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.020		ug/L			12/18/13 17:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Bromofluorobenzene	77	,	67 - 144			_		12/18/13 17:26	1
1,2-Dichloroethane-d4 (Surr)	101		58 - 144					12/18/13 17:26	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	34	1.0	====	ug/L			12/19/13 11:31	1
1,2-Dichloroethane	ND	*	1.0		ug/L			12/19/13 11:31	1
Ethylbenzene	ND		1.0		ug/L			12/19/13 11:31	1
Isopropylbenzene	ND		1.0		ug/L			12/19/13 11:31	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/19/13 11:31	1
Naphthalene	ND		1.0		ug/L			12/19/13 11:31	1
Toluene	ND		1.0		ug/L			12/19/13 11:31	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			12/19/13 11:31	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			12/19/13 11:31	1
Xylenes, Total	ND		3.0		ug/L			12/19/13 11:31	1

Surrogate	%Recovery Qualifie	r Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	76	70 _ 130		12/19/13 11:31	1
Bromofluorobenzene	96	70 _ 130		12/19/13 11:31	1
Toluene-d8 (Surr)	95	70 _ 130		12/19/13 11:31	1
Dibromofluoromethane (Surr)	104	70 - 130		12/19/13 11:31	1
Account of					

Method: 200.8 - Metals (ICP/MS) -	Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	=	1.5		ug/L	 8 8	12/18/13 19:55	12/19/13 00:18	5

Client Sample ID: MW-6

Date Collected: 12/11/13 12:18

Lab Sample ID: 460-68242-5

Matrix: Water

Date Received: 12/13/13 09:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND	9	0.020		ug/L			12/18/13 17:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94	1	67 - 144			<u>=</u>		12/18/13 17:51	1
1,2-Dichloroethane-d4 (Surr)	100		58 - 144					12/18/13 17:51	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	8	1.0	-	ug/L			12/19/13 11:57	1
1,2-Dichloroethane	ND	(%)	1.0		ug/L			12/19/13 11:57	1
Ethylbenzene	ND		1.0		ug/L			12/19/13 11:57	1
Isopropylbenzene	ND		1.0		ug/L			12/19/13 11:57	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/19/13 11:57	1
Naphthalene	ND		1.0		ug/L			12/19/13 11:57	1
Toluene	ND		1.0		ug/L			12/19/13 11:57	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			12/19/13 11:57	1

TestAmerica Job ID: 460-68242-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-6

Lab Sample ID: 460-68242-5

12/18/13 19:55

Matrix: Water

Date Collected: 12/11/13 12:18 Date Received: 12/13/13 09:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND	3	1.0		ug/L			12/19/13 11:57	1
Xylenes, Total	ND		3.0		ug/L			12/19/13 11:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	76		70 - 130			7		12/19/13 11:57	1
Bromofluorobenzene	97		70 - 130					12/19/13 11:57	1
Toluene-d8 (Surr)	96		70 - 130					12/19/13 11:57	1
Dibromofluoromethane (Surr)	105		70 - 130				. 22 7 21 7 2 7 2 7 2 7 2 7 2 7 2 7 2 7 2	12/19/13 11:57	1
Method: 200.8 - Metals (ICP/M	S) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: MW-9 Lab Sample ID: 460-68242-6 Date Collected: 12/11/13 12:44

1.5

Matrix: Water

12/19/13 00:27

Date Received: 12/13/13 09:55

Lead

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND	9	0.020	=======================================	ug/L	=======================================	1 	12/19/13 05:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	58	X	67 - 144				8	12/19/13 05:33	1
1,2-Dichloroethane-d4 (Surr)	61		58 - 144					12/19/13 05:33	1
Method: 8260B - Volatile Organic	: Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	11		1.0		ug/L			12/19/13 12:22	1
1,2-Dichloroethane	ND	*	1.0		ug/L			12/19/13 12:22	1
Ethylbenzene	ND		1.0		ug/L			12/19/13 12:22	1
Isopropylbenzene	7.9		1.0		ug/L			12/19/13 12:22	1
Methyl tert-butyl ether	2.5		1.0		ug/L			12/19/13 12:22	1
Naphthalene	ND		1.0		ug/L			12/19/13 12:22	1
Toluene	ND		1.0		ug/L			12/19/13 12:22	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			12/19/13 12:22	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			12/19/13 12:22	1
Xylenes, Total	ND		3.0		ug/L			12/19/13 12:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	75	8	70 - 130				3.	12/19/13 12:22	1
Bromofluorobenzene	97		70 - 130					12/19/13 12:22	1
Toluene-d8 (Surr)	95		70 - 130					12/19/13 12:22	1
Dibromofluoromethane (Surr)	103		70 - 130			#3*E*/*E		12/19/13 12:22	1
Method: 200.8 - Metals (ICP/MS)	- Dissolved								
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample Results

Client: Center Point Tank Service Project/Site: Liberty Oil #38

TestAmerica Job ID: 460-68242-1

Client Sample ID: MW-10 Date Collected: 12/11/13 13:00

Date Received: 12/13/13 09:55

Toluene-d8 (Surr)

Dibromofluoromethane (Surr)

Lab Sample ID: 460-68242-7

12/19/13 13:39

12/19/13 13:39

10

10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND	5	0.020		ug/L			12/19/13 05:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	117	1.	67 - 144			_		12/19/13 05:58	1
1,2-Dichloroethane-d4 (Surr)	62		58 - 144					12/19/13 05:58	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2900	S-	10	=======================================	ug/L			12/19/13 13:39	10
1,2-Dichloroethane	ND	*	10		ug/L			12/19/13 13:39	10
Ethylbenzene	850		10		ug/L			12/19/13 13:39	10
Isopropylbenzene	70		10		ug/L			12/19/13 13:39	10
Methyl tert-butyl ether	130		10		ug/L			12/19/13 13:39	10
Naphthalene	210		10		ug/L			12/19/13 13:39	10
Toluene	24		10		ug/L			12/19/13 13:39	10
1,2,4-Trimethylbenzene	630		10		ug/L			12/19/13 13:39	10
1,3,5-Trimethylbenzene	20		10		ug/L			12/19/13 13:39	10
Xylenes, Total	370		30		ug/L			12/19/13 13:39	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	75	9	70 - 130			=		12/19/13 13:39	10
Bromofluorobenzene	98		70 - 130					12/19/13 13:39	10

Method: 200.8 - Metals (ICP/MS) - Di	issolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	-	1.5		ug/L		12/18/13 19:55	12/19/13 00:39	5

70 - 130

70 - 130

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Certification Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-68242-1

Laboratory: TestAmerica Edison

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0200	09-30-14
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A	04-30-14
New Jersey	NELAP	2	12028	06-30-14
New York	NELAP	2	11452	04-01-14
Pennsylvania	NELAP	3	68-00522	02-28-14
Rhode Island	State Program	1	LAO00132	12-30-13 *
USDA	Federal		NJCA-003-08	03-11-14

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^{*} Expired certification is currently pending renewal and is considered valid.

Method Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-68242-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL EDI
8260B SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL EDI
200.8	Metals (ICP/MS)	EPA	TAL EDI

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

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THE LEADER IN ENVIRONMENTAL TESTING TestAmerica

CHAIN OF CUSTODY REPORT

THE LEADER IN ENVIRONMENTAL TESTING	CHAR	CHAIN OF CUSTODY REPORT	REPORT		1008 V King of (610) 3 FAX (6	1008 W. Ninth Avenue King of Prussia, PA 19406 (610) 337-9992 FAX (610) 337-9939	2/20/2013
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#38	\	# of Bottles	Ses / 12/18/12/12/	/	SAMPLE /		
Project #/PO#: O8-12 -4 292	TEN	\ 	SOT SONO	ANYAL	1 / 1		
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COMMENTS:

TestAmerica Edison Receipt Temperature and

pH Log

Number of Coolers: Temp. Cooler #1 (Deg C) (ReTemp. Cooler #2 (Deg C) (ReTemp. Cooler #3 (Deg C) (Deg C) (Retemp. Cooler #3 (Deg C) (Deg	Job Number:
w/Corrected)	168242
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If pH adjus													(pH<2) (pH<2)	Ammonia
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re require													(pH<2)	Nitrate Nitrite
If pH adjustments are required record the information below:													(pH<2)	*Wetals
e informat													(pH 5-9)	Pest
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Ì		AUUR G. W.						ASSATS A SHAME IN				ait teiji is taata	(pH>9)	Phenols Sulfide
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			3-5450										(pH>12)	Total Cyanide
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			THE THE PROPERTY OF THE PROPER					WALL STREET, THE S	устания					Other
£						132.70	. 65 145.						l.	

Sample No(s). adjusted:

Preservative Name/Conc.

Lot # of Preservative:

EDS-WI-038, Rev 3, 10/8/12

Initials:

Project Manager and the Department Manager should be notified about the samples which were pH adjusted.

* Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Expiration Date:

Volume of Preservative used (ml);

Date:

of

Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-68242-1

Login Number: 68242 List Source: TestAmerica Edison

List Number: 1

Creator: Gilmore, Julie L

Answer	Comment
N/A	
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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Edison 777 New Durham Road Edison, NJ 08817 Tel: (732)549-3900

TestAmerica Job ID: 460-72983-1 Client Project/Site: Liberty Oil #38

For:

Center Point Tank Service 536 E Benjamin Franklin Douglassville, Pennsylvania 19518

Attn: Rachel Burkart



Authorized for release by: 3/28/2014 5:25:28 PM Margarita Medina, Project Management Assistant I margarita.medina@testamericainc.com

Designee for

Ozzy Burgos, Project Manager II (610)337-9992 ozzy.burgos@testamericainc.com



..... Links

Review your project results through
Total Access

Have a Question?



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

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

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

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-72983-1

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Sample Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

TestAmerica Job ID: 460-72983-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-72983-1	MW-1	Water	03/20/14 11:01	03/21/14 15:20
460-72983-2	MW-2	Water	03/20/14 11:20	03/21/14 15:20
460-72983-3	MW-4	Water	03/20/14 14:03	03/21/14 15:20
460-72983-4	MW-5	Water	03/20/14 11:39	03/21/14 15:20
460-72983-5	MW-6	Water	03/20/14 11:52	03/21/14 15:20
460-72983-6	MW-9	Water	03/20/14 13:10	03/21/14 15:20
460-72983-7	MW-10	Water	03/20/14 13:32	03/21/14 15:20
460-72983-8	Bridge US	Water	03/20/14 12:20	03/21/14 15:20
460-72983-9	Bridge DS	Water	03/20/14 12:35	03/21/14 15:20

Definitions/Glossary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-72983-1

Glossary

NC

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

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)

Not Calculated

Case Narrative

TestAmerica Job ID: 460-72983-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Job ID: 460-72983-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative 460-72983-1

Comments

No additional comments.

Receipt

The samples were received on 3/21/2014 3:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice.

The temperature of the cooler at receipt was 1.2° C.

GC/MS VOA

Method(s) 8260B: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-10 (460-72983-7). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

GC VOA

Method(s) 8011: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 100502.

No other analytical or quality issues were noted.

Metals

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

Field Service / Mobile Lab

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

VOA Prep

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

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TestAmerica Job ID: 460-72983-1

Client: Center Point Tank Service

Project/Site: Liberty Oil #38

Client Sample ID: MW-1 Lab Sample ID: 460-72983-1

Date Collected: 03/20/14 11:01 Matrix: Water

Date Received: 03/21/14 15:20

Method: 8260B - Volatile Orga	nic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	1 1	1.0		ug/L			03/26/14 02:16	1
1,2-Dichloroethane	ND		1.0		ug/L			03/26/14 02:16	1
Ethylbenzene	ND		1.0		ug/L			03/26/14 02:16	1
Isopropylbenzene	ND		1.0		ug/L			03/26/14 02:16	1
Methyl tert-butyl ether	ND		1.0		ug/L			03/26/14 02:16	1
Naphthalene	ND		1.0		ug/L			03/26/14 02:16	1
Toluene	ND		1.0		ug/L	FERENCES		03/26/14 02:16	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			03/26/14 02:16	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			03/26/14 02:16	1
Xylenes, Total	ND		2.0		ug/L			03/26/14 02:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	114	-	70 - 130			_		03/26/14 02:16	1
Dibromofluoromethane (Surr)	104		70 - 130					03/26/14 02:16	1
1,2-Dichloroethane-d4 (Surr)	88		70 - 130					03/26/14 02:16	1
Toluene-d8 (Surr)	92		70 - 130					03/26/14 02:16	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND	5 4	0.020		ug/L		03/25/14 07:59	03/25/14 19:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	90	N=	60 - 140				03/25/14 07:59	03/25/14 19:41	1

Method: 200.8 - Metals (ICP/MS) - I	Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		03/25/14 11:52	03/25/14 13:37	5

Client Sample ID: MW-2 Lab Sample ID: 460-72983-2 Date Collected: 03/20/14 11:20 Matrix: Water

Date Received: 03/21/14 15:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	=	1.0		ug/L			03/26/14 02:40	1
1,2-Dichloroethane	ND		1.0		ug/L			03/26/14 02:40	1
Ethylbenzene	ND		1.0		ug/L			03/26/14 02:40	1
Isopropylbenzene	ND		1.0		ug/L			03/26/14 02:40	1
Methyl tert-butyl ether	ND		1.0		ug/L			03/26/14 02:40	1
Naphthalene	ND		1.0		ug/L			03/26/14 02:40	1
Toluene	ND		1.0		ug/L	E 5 3 E 5 3 E 5		03/26/14 02:40	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			03/26/14 02:40	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			03/26/14 02:40	1
Xylenes, Total	ND		2.0		ug/L			03/26/14 02:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	115	9	70 - 130			-		03/26/14 02:40	
Dibromofluoromethane (Surr)	105		70 - 130					03/26/14 02:40	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 130					03/26/14 02:40	1
Toluene-d8 (Surr)	95		70 - 130					03/26/14 02:40	1

Client: Center Point Tank Service

Project/Site: Liberty Oil #38

Client Sample ID: MW-2 Lab Sample ID: 460-72983-2 Date Collected: 03/20/14 11:20

Matrix: Water

Date Received: 03/21/14 15:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND	=	0.020		ug/L		03/25/14 07:59	03/25/14 20:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	89		60 - 140				03/25/14 07:59	03/25/14 20:12	1
		Qualifier	74				2	50	2
MS) - Dissolved									
	Decult	Qualifier	RL	MDI	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	Result	Qualifici	IX.	MIDE	- Cinc	-	repared	ruidiyada	Dil I do

Client Sample ID: MW-4 Lab Sample ID: 460-72983-3

Date Received: 03/21/14 15:20

Date Received: 03/21/14 15:20

Date Collected: 03/20/14 14:03 Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	160	Ł.	1.0		ug/L		<u>.</u>	03/26/14 20:28	1
1,2-Dichloroethane	ND		1.0		ug/L			03/26/14 20:28	1
Ethylbenzene	160		1.0		ug/L			03/26/14 20:28	1
Isopropylbenzene	11		1.0		ug/L			03/26/14 20:28	1
Methyl tert-butyl ether	40		1.0		ug/L			03/26/14 20:28	1
Naphthalene	17		1.0		ug/L			03/26/14 20:28	1
Toluene	170		1.0		ug/L			03/26/14 20:28	1
1,2,4-Trimethylbenzene	110		1.0		ug/L			03/26/14 20:28	1
1,3,5-Trimethylbenzene	25		1.0		ug/L			03/26/14 20:28	1
Xylenes, Total	350		2.0		ug/L			03/26/14 20:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	111	5	70 - 130				2	03/26/14 20:28	1
Dibromofluoromethane (Surr)	95		70 - 130					03/26/14 20:28	1
1,2-Dichloroethane-d4 (Surr)	84		70 - 130					03/26/14 20:28	1
Toluene-d8 (Surr)	88		70 - 130					03/26/14 20:28	1
Method: 8011 - EDB, DBCP, a	nd 1.2.3-TCP (GC	ì							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND	-	0.020		ug/L		03/25/14 07:59	03/25/14 20:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	88	7	60 - 140				03/25/14 07:59	03/25/14 20:42	1
Method: 200.8 - Metals (ICP/N	IS) - Dissolved								
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	8	1.5		ug/L		03/25/14 11:52	03/25/14 13:47	5

Client Sample ID: MW-5 Lab Sample ID: 460-72983-4 Date Collected: 03/20/14 11:39 Matrix: Water

Method: 8260B - Volatile Organic (Compounds	GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			03/26/14 03:04	1
1,2-Dichloroethane	ND		1.0		ug/L			03/26/14 03:04	1

2

TestAmerica Job ID: 460-72983-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-5

Lab Sample ID: 460-72983-4

Matrix: Water

Date Collected: 03/20/14 11:39 Date Received: 03/21/14 15:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND	-	1.0		ug/L			03/26/14 03:04	1
Isopropylbenzene	ND		1.0		ug/L			03/26/14 03:04	1
Methyl tert-butyl ether	ND		1.0		ug/L			03/26/14 03:04	1
Naphthalene	ND		1.0		ug/L			03/26/14 03:04	1
Toluene	ND		1.0		ug/L			03/26/14 03:04	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			03/26/14 03:04	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			03/26/14 03:04	1
Xylenes, Total	ND		2.0		ug/L			03/26/14 03:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	116	-	70 - 130			-		03/26/14 03:04	1
Dibromofluoromethane (Surr)	103		70 _ 130					03/26/14 03:04	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 130					03/26/14 03:04	1
Toluene-d8 (Surr)	93		70 - 130					03/26/14 03:04	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND	8	0.020		ug/L		03/25/14 07:59	03/25/14 21:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1.1.1.2-Tetrachloroethane	97	94	60 _ 140				03/25/14 07:59	03/25/14 21:12	

	Method: 200.8 - Metals (ICP/MS) - D	issolved								
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1	Lead	ND		1.5		ug/L		03/25/14 11:52	03/25/14 13:51	5

Client Sample ID: MW-6

Date Collected: 03/20/14 11:52

Lab Sample ID: 460-72983-5

Matrix: Water

Date Received: 03/21/14 15:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	Se	1.0	====	ug/L			03/26/14 03:28	1
1,2-Dichloroethane	ND		1.0		ug/L			03/26/14 03:28	1
Ethylbenzene	ND		1.0		ug/L			03/26/14 03:28	1
Isopropylbenzene	ND		1.0		ug/L			03/26/14 03:28	1
Methyl tert-butyl ether	ND		1.0		ug/L			03/26/14 03:28	1
Naphthalene	ND		1.0		ug/L			03/26/14 03:28	1
Toluene	ND		1.0		ug/L			03/26/14 03:28	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			03/26/14 03:28	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			03/26/14 03:28	1
Xylenes, Total	ND		2.0		ug/L			03/26/14 03:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	116	54	70 _ 130			-		03/26/14 03:28	1
Dibromofluoromethane (Surr)	104		70 - 130					03/26/14 03:28	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 130					03/26/14 03:28	1
Toluene-d8 (Surr)	95		70 _ 130					03/26/14 03:28	1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-6

Lab Sample ID: 460-72983-5

Matrix: Water

Date Collected: 03/20/14 11:52 Date Received: 03/21/14 15:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND	=	0.020		ug/L		03/25/14 08:03	03/25/14 21:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	94		60 - 140				03/25/14 08:03	03/25/14 21:42	1
Method: 200.8 - Metals (ICP/MS) - D	issolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	18	9	1.5	- 5	ug/L		03/25/14 11:52	03/25/14 13:56	5

Client Sample ID: MW-9 Lab Sample ID: 460-72983-6

Date Collected: 03/20/14 13:10

Date Received: 03/21/14 15:20

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	47	C.	1.0		ug/L		e e	03/26/14 03:52	
1,2-Dichloroethane	ND		1.0		ug/L			03/26/14 03:52	
Ethylbenzene	2.2		1.0		ug/L			03/26/14 03:52	
Isopropylbenzene	8.5		1.0		ug/L			03/26/14 03:52	
Methyl tert-butyl ether	7.4		1.0		ug/L			03/26/14 03:52	1
Naphthalene	ND		1.0		ug/L			03/26/14 03:52	
Toluene	ND		1.0		ug/L			03/26/14 03:52	
1,2,4-Trimethylbenzene	ND		1.0		ug/L			03/26/14 03:52	
1,3,5-Trimethylbenzene	ND		1.0		ug/L			03/26/14 03:52	
Xylenes, Total	ND		2.0		ug/L			03/26/14 03:52	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Bromofluorobenzene	112		70 - 130					03/26/14 03:52	
Dibromofluoromethane (Surr)	96		70 - 130					03/26/14 03:52	
1,2-Dichloroethane-d4 (Surr)	85		70 - 130					03/26/14 03:52	1
Toluene-d8 (Surr)	88		70 - 130			CONTRACTOR EN		03/26/14 03:52	
Method: 8011 - EDB, DBCP, ar	nd 1,2,3-TCP (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND	=	0.020		ug/L		03/25/14 08:03	03/25/14 22:12	-
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	92	1	60 - 140				03/25/14 08:03	03/25/14 22:12	
Method: 200.8 - Metals (ICP/M	S) - Dissolved								

03/25/14 11:52 03/25/14 14:01 Lead

Client Sample ID: MW-10 Lab Sample ID: 460-72983-7 Date Collected: 03/20/14 13:32 Matrix: Water

Date Received: 03/21/14 15:20

Method: 8260B - Volatile Or	ganic Compounds (GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2000		10		ug/L			03/26/14 05:29	10
1,2-Dichloroethane	ND		10		ug/L			03/26/14 05:29	10

2

TestAmerica Job ID: 460-72983-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-10

Lab Sample ID: 460-72983-7

Matrix: Water

Date Collected: 03/20/14 13:32 Date Received: 03/21/14 15:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	610	3	10		ug/L			03/26/14 05:29	10
Isopropylbenzene	52		10		ug/L			03/26/14 05:29	10
Methyl tert-butyl ether	130		10		ug/L			03/26/14 05:29	10
Naphthalene	120		10		ug/L			03/26/14 05:29	10
Toluene	110		10		ug/L			03/26/14 05:29	10
1,2,4-Trimethylbenzene	440		10		ug/L			03/26/14 05:29	10
1,3,5-Trimethylbenzene	41		10		ug/L			03/26/14 05:29	10
Xylenes, Total	490		20		ug/L			03/26/14 05:29	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	118	-	70 _ 130				8	03/26/14 05:29	10
Dibromofluoromethane (Surr)	98		70 _ 130					03/26/14 05:29	10
1,2-Dichloroethane-d4 (Surr)	89		70 - 130					03/26/14 05:29	10
Toluene-d8 (Surr)	91		70 - 130					03/26/14 05:29	10
Method: 8011 - EDB, DBCP, an	d 1,2,3-TCP (GC))							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	CONTRACTOR OF STREET, There was a	EAC 20060	RL 0.020	MDL	Unit ug/L	<u>D</u>	Prepared 03/25/14 08:03		4 22:42

	Method: 200.8 - Metals (ICP/MS)	- Dissolved								
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1	Lead	ND		1.5		ug/L		03/25/14 11:52	03/25/14 14:06	5

Limits

60 - 140

%Recovery Qualifier

88

Client Sample ID: Bridge US Date Collected: 03/20/14 12:20 Lab Sample ID: 460-72983-8 Matrix: Water

Analyzed

Dil Fac

Prepared

03/25/14 08:03 03/25/14 22:42

Date Received: 03/21/14 15:20

Surrogate

1,1,1,2-Tetrachloroethane

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	9	1.0		ug/L			03/26/14 04:16	1
1,2-Dichloroethane	ND		1.0		ug/L			03/26/14 04:16	1
Ethylbenzene	ND		1.0		ug/L			03/26/14 04:16	1
Isopropylbenzene	ND		1.0		ug/L			03/26/14 04:16	1
Methyl tert-butyl ether	ND		1.0		ug/L			03/26/14 04:16	1
Naphthalene	ND		1.0		ug/L			03/26/14 04:16	1
Toluene	ND		1.0		ug/L			03/26/14 04:16	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			03/26/14 04:16	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			03/26/14 04:16	1
Xylenes, Total	ND		2.0		ug/L			03/26/14 04:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85	9	70 - 130			-		03/26/14 04:16	1
Bromofluorobenzene	108		70 - 130					03/26/14 04:16	1
Toluene-d8 (Surr)	86		70 - 130					03/26/14 04:16	1
Dibromofluoromethane (Surr)	98		70 _ 130					03/26/14 04:16	1

Client: Center Point Tank Service

Project/Site: Liberty Oil #38

Client Sample ID: Bridge US

Date Collected: 03/20/14 12:20 Date Received: 03/21/14 15:20 Lab Sample ID: 460-72983-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND	3	0.020		ug/L		03/25/14 08:03	03/26/14 23:12	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	90		60 - 140				03/25/14 08:03	03/26/14 23:12	1
Method: 200.8 - Metals (ICP/	MS) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	(9	1.5		ua/L	70	03/25/14 11:52	03/25/14 14:20	E

Lab Sample ID: 460-72983-9 Client Sample ID: Bridge DS

Date Collected: 03/20/14 12:35

Date Received: 03/21/14 15:20

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	ě.	1.0	-	ug/L		8 <u>"</u>	03/26/14 04:41	1
1,2-Dichloroethane	ND		1.0		ug/L			03/26/14 04:41	1
Ethylbenzene	ND		1.0		ug/L			03/26/14 04:41	1
Isopropylbenzene	pylbenzene ND 1.0 ug/L							03/26/14 04:41	1
Methyl tert-butyl ether	ND		1.0		ug/L			03/26/14 04:41	1
Naphthalene	ND		1.0		ug/L			03/26/14 04:41	1
Toluene	ND		1.0		ug/L			03/26/14 04:41	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			03/26/14 04:41	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			03/26/14 04:41	1
Xylenes, Total	ND		2.0		ug/L			03/26/14 04:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85	5	70 - 130				2 2	03/26/14 04:41	1
Bromofluorobenzene	108		70 - 130					03/26/14 04:41	1
Toluene-d8 (Surr)	86		70 - 130					03/26/14 04:41	1
Dibromofluoromethane (Surr)	96		70 - 130			FERENCE		03/26/14 04:41	1
Method: 8011 - EDB, DBCP, ar	nd 1,2,3-TCP (GC)) <mark>(</mark>							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND	-	0.020		ug/L		03/25/14 08:03	03/26/14 23:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	93		60 - 140				03/25/14 08:03	03/26/14 23:42	1
Method: 200.8 - Metals (ICP/M	S) - Dissolved								
Analyte	The state of the s	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Certification Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-72983-1

Laboratory: TestAmerica Edison

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Pennsylvania	NELAP	3	68-00522	02-28-15

Laboratory: TestAmerica Pittsburgh

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Pennsylvania	NELAP	3	02-00416	04-30-14 *

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^{*} Expired certification is currently pending renewal and is considered valid.

Method Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-72983-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL EDI
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	TAL PIT
200.8	Metals (ICP/MS)	EPA	TAL EDI

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Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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THE LEADER IN ENVIRONMENTAL TESTING [estAmerica

CHAIN OF CUSTOR



1008 W. Ninth Avenue King of Prussia, PA 19406 (610) 337-9992 FAX (610) 337-9939

RELINQUISHED DATES/21/18 RECEIVED RELINQUISHED DATES/21/18 CEIVED RELINQUISHED DATES/21/18 CEIVED COMMENTS: X Case ab fi-140 b fi-14	Project Name: Librity 0:1 #38 Project Name: Librity 0:1 #38 Project Name: Librity 0:1 #38 Sample: Rochyl 64 Royt Sample: Rochyl 64 Royt Sample: Rochyl 64 Royt PID: Shelly 1101 61 PID: Shelly 1100 61 PID: Shelly 1100 61 PID: Shelly 1101 61 PID: Shelly 1100 61 PID: Shell	Client: Couter Point Tonk Sources Address: 536 B. Dungamin Franklin Huy Bouglassuille ! A 19518 Report to Rochel Boxkart Phone #: (610) 385 4977 E-maillackle Control Mark a Fax #:
DATES/21/ABLINOUISHED TO DATES/21/ABLINOUISHED TO TIME/9/1/ SO WOLSHED TO TIME/9/1/ SO WOLSHED TO TIME/9/1/ SO SO WOLSHED TO TIME/9/1/ SO WOLSHED TO T	GW AMPIK ANATOR OF BOttles SAMPLK NATOR OF BOTTLES SAMPLK NEON DEPOSITION OF BOTTLES SAMPLK NATOR OF BOTTLES SAMPLK NEON DEPOSITION OF BOTTLES SAMPLK NEON DEPOSITION OF BOTTLES SAMPLK NEON DEPOSITION OF SAMPLES REGISTED AND SAMPLK NEON DEPOSITION OF SAMPLES REGISTED SAMPLK NEON DEPOSITION OF SAMPLES REGISTED AND SAMPLK NEON DEPOSITION OF SAMPLES REGISTED SAMPLK NEON DEPOSITION OF SAMPLES REGISTED AND SAMPLES REGISTED AND SAMPLK NEON DEPOSITION OF SAMPLES REGISTED AND SAMPLES REGISTED AND SAMPLK NEON DEPOSITION OF SAMPLES REGISTED AND SAMPLES REGISTED AND SAMPLK NEON DEPOSITION OF SAMPLES REGISTED AND SAMPL	Bill To: Show Address: State & Phone #: (Program: //HUST Phone #: (
DATE RECEIVED DATES 2/14 TIME DATE 3/2: TIME LOS PAGE OF	ALYSIS ALYSIS LABORATORY ID NUMBER Page 14 of 17	S(D) S(DA) 4 DAY 3 DAY 2 DAY 1 DAY 24 HRS. Received: ice DATE RESULTS NEEDED:

TAL-4124-450 (0509)

TestAmerica Edison Receipt Temperature and

Number of Coolers Temp Coolers #2 (Deg	Job Number:
O(RawCorrected) O(RawCorrected) O(RawCorrected)	72983
(R Gun#) (Colon #4 (DegC) (RawCorrected) (Colon #5 (DegC) (RawCorrected)	pH Log
Tempi Cooler#7(Deg(C))(RawCorrected) Tempi Cooler#8(Deg(C))(RawCorrected) Tempi Cooler#9 (Deg(C))(RawCorrected)	

The second secon				(+)	0	-5	2	 - 2		Sample No.		Number of Coolers Temp:Cooler#!(Deg C) (Raw/Corrected) Temp:Cooler#z((Deg C) (Faw/Corrected)) Temp:Cooler#3 (Deg C) (Raw/Corrected)
If pH adju										(pH<2)	Ammonia	
stments										(pH<2)	000	
If pH adjustments are required record the information below:										(pH<2)	Nitrate Nitrite	Tamp Cooler#3(Deg(C))(Raw/Corrected) Temp Cooler#5(Deg(C))(Raw/Corrected)
d record th		-							42	(pH<2)	*Metals	emp Cooler#6 (Deg(C))
e informat										(pH 5-9)	Pest	O Rawic Co
ion below										(pH<2)	PHC	Corrected)
::										(pH<2)	Phenois	
										(pH>9)	Sulfide	
										(pH<2)	TKN	Temple Co
										(pH<2)	Toc	e e # 7 D C C C C C C C C C C C C C C C C C C
										(pH>12)	Total Cyanide	C C C C C C C C C C C C C C C C C C C
										(pH<2)	Total Phos	Temp Cooler #9 (Deg C) (RawCorrected) Temp Cooler #9 (Deg C) (RawCorrected)
S. T. Deller, and C. Carlos and a Constanting of the Constanting of th											Other	Temp (Cooler #7 (Deg'C) (Raw/Corrected) Temp (Cooler #8 (Deg'C) (Raw/Corrected) Temp (Cooler #9 (Deg'C) (Raw/Corrected)

Sample No(s), adjusted:

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Lot # of Preservative:

EDS-WI-038, Rev 3, 10/8/12

Initials:

Project Manager and the Department Manager should be notified about the samples which were pH adjusted.
* Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Expiration Date:

Volume of Preservative used (ml):

Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-72983-1

Login Number: 72983 List Source: TestAmerica Edison

List Number: 1

Creator: Gilmore, Julie L

Answer	Comment
N/A	
N/A	
N/A	
True	
True	
True	IR KOP#1 1.2
True	
N/A	
	N/A N/A N/A True True True True True True True True

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Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-72983-1

List Source: TestAmerica Pittsburgh
List Number: 1
List Creation: 03/22/14 11:09 AM

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or ampered with.	True	
amples were received on ice.	True	
ooler 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	
the Field Sampler's name present on COC?	True	
here are no discrepancies between the containers received and the COC.	True	
samples are received within Holding Time.	True	
ample containers have legible labels.	True	
ontainers are not broken or leaking.	True	
ample collection date/times are provided.	True	
appropriate sample containers are used.	True	
ample bottles are completely filled.	True	
Sample Preservation Verified.	True	
here is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
containers requiring zero headspace have no headspace or bubble is 6mm (1/4").	True	
fultiphasic samples are not present.	True	
amples do not require splitting or compositing.	True	
esidual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Edison 777 New Durham Road Edison, NJ 08817 Tel: (732)549-3900

TestAmerica Job ID: 460-76787-1 Client Project/Site: Liberty Oil #38

For:

Center Point Tank Service 536 E Benjamin Franklin Douglassville, Pennsylvania 19518

Attn: Rachel Burkart

Lie Miller

Authorized for release by: 6/4/2014 12:14:50 PM

Jill Miller, Project Manager II (610)337-9992 jill.miller@testamericainc.com

----- LINKS -----

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Have a Question?



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

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

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

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-76787-1

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Sample Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-76787-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-76787-1	MW-1	Water	05/27/14 11:05	05/28/14 13:00
460-76787-2	MW-2	Water	05/27/14 11:23	05/28/14 13:00
460-76787-3	MW-4	Water	05/27/14 13:52	05/28/14 13:00
460-76787-4	MW-5	Water	05/27/14 11:37	05/28/14 13:00
460-76787-5	MW-6	Water	05/27/14 11:55	05/28/14 13:00
460-76787-6	MW-9	Water	05/27/14 12:26	05/28/14 13:00
460-76787-7	MW-10	Water	05/27/14 12:45	05/28/14 13:00
460-76787-8	Bridge US	Water	05/27/14 13:30	05/28/14 13:00
460-76787-9	Bridge DS	Water	05/27/14 13:00	05/28/14 13:00

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Definitions/Glossary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

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

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

Reporting Limit or Requested Limit (Radiochemistry)

Practical Quantitation Limit

Toxicity Equivalent Factor (Dioxin)
Toxicity Equivalent Quotient (Dioxin)

Quality Control

Relative error ratio

TestAmerica Job ID: 460-76787-1

Glossary

ND

PQL

QC

RER

RPD

TEF

TEQ

RL

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

Case Narrative

TestAmerica Job ID: 460-76787-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Job ID: 460-76787-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative 460-76787-1

Comments

No additional comments.

The samples were received on 5/28/2014 1:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.3° C.

GC/MS VOA

Method(s) 8260B: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: MW-10 (460-76787-7). Elevated reporting limits (RLs) are provided.

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

GC VOA

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

Metals

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

Field Service / Mobile Lab

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

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

TestAmerica Edison 6/4/2014

TestAmerica Job ID: 460-76787-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-1 Lab Sample ID: 460-76787-1

Date Collected: 05/27/14 11:05 Matrix: Water

Date Received: 05/28/14 13:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		1.0		ug/L			05/30/14 02:09	1
Benzene	ND		1.0		ug/L			05/30/14 02:09	1
Ethylbenzene	ND		1.0		ug/L			05/30/14 02:09	1
Toluene	ND		1.0		ug/L			05/30/14 02:09	1
Xylenes, Total	ND		2.0		ug/L			05/30/14 02:09	1
1,2-Dichloroethane	ND		1.0		ug/L			05/30/14 02:09	1
Naphthalene	ND		1.0		ug/L	FETETRES		05/30/14 02:09	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			05/30/14 02:09	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			05/30/14 02:09	1
Isopropylbenzene	ND		1.0		ug/L			05/30/14 02:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		70 - 130			-		05/30/14 02:09	1
Bromofluorobenzene	99		64 - 135					05/30/14 02:09	1
Toluene-d8 (Surr)	86		70 - 130					05/30/14 02:09	1
Dibromofluoromethane (Surr)	83		72 - 137					05/30/14 02:09	1

Method: 8011 - EDB, DBCP, and	1,2,3-TCP (GC))							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND	5 4	0.020		ug/L		06/03/14 06:22	06/03/14 11:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	93	-	60 - 140				06/03/14 06:22	06/03/14 11:04	1

Method: 200.8 - Metals (ICP/MS) - D	issolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	· 	1.5		ug/L		05/29/14 18:38	05/29/14 22:14	5

Client Sample ID: MW-2 Lab Sample ID: 460-76787-2 Date Collected: 05/27/14 11:23 Matrix: Water

Date Received: 05/28/14 13:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		1.0		ug/L			05/30/14 02:33	1
Benzene	ND		1.0		ug/L			05/30/14 02:33	1
Ethylbenzene	ND		1.0		ug/L			05/30/14 02:33	1
Toluene	ND		1.0		ug/L			05/30/14 02:33	1
Xylenes, Total	ND		2.0		ug/L			05/30/14 02:33	1
1,2-Dichloroethane	ND		1.0		ug/L			05/30/14 02:33	1
Naphthalene	ND		1.0		ug/L			05/30/14 02:33	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			05/30/14 02:33	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			05/30/14 02:33	1
Isopropylbenzene	ND		1.0		ug/L			05/30/14 02:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79	-	70 - 130			-		05/30/14 02:33	1
Bromofluorobenzene	99		64 - 135					05/30/14 02:33	1
Toluene-d8 (Surr)	87		70 - 130					05/30/14 02:33	1
Dibromofluoromethane (Surr)	85		72 - 137					05/30/14 02:33	1

TestAmerica Edison

6/4/2014

TestAmerica Job ID: 460-76787-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-2

Lab Sample ID: 460-76787-2

Matrix: Water

Date Collected: 05/27/14 11:23 Date Received: 05/28/14 13:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
I,2-Dibromoethane	ND	-	0.020		ug/L		06/03/14 06:22	06/03/14 11:33	į
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	89		60 - 140				06/03/14 06:22	06/03/14 11:33	
1,1,1,2-Tetrachioroethane Method: 200.8 - Metals (ICP/			60 - 140				06/03/14 06:22	06/03/14 11:33	
	Pesult	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dill
Analyte	Result	accommo.							

Client Sample ID: MW-4 Lab Sample ID: 460-76787-3 Date Collected: 05/27/14 13:52

Matrix: Water

Date Received: 05/28/14 13:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	29		1.0	-	ug/L		B	05/30/14 02:58	1
Benzene	240		1.0		ug/L			05/30/14 02:58	1
Ethylbenzene	110		1.0		ug/L			05/30/14 02:58	1
Toluene	3.0		1.0		ug/L			05/30/14 02:58	1
Xylenes, Total	46		2.0		ug/L			05/30/14 02:58	1
1,2-Dichloroethane	ND		1.0		ug/L			05/30/14 02:58	1
Naphthalene	7.6		1.0		ug/L			05/30/14 02:58	1
1,2,4-Trimethylbenzene	90		1.0		ug/L			05/30/14 02:58	1
1,3,5-Trimethylbenzene	4.7		1.0		ug/L			05/30/14 02:58	1
Isopropylbenzene	10		1.0		ug/L			05/30/14 02:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	80		70 - 130				2 2	05/30/14 02:58	1
Bromofluorobenzene	99		64 - 135					05/30/14 02:58	1
Toluene-d8 (Surr)	86		70 - 130					05/30/14 02:58	1
Dibromofluoromethane (Surr)	84		72 - 137			#ETEKTE		05/30/14 02:58	1
Method: 8011 - EDB, DBCP, a	nd 1,2,3-TCP (GC))							
Analyte	2.3	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND	9	0.020		ug/L		06/03/14 06:22	06/03/14 12:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	85		60 - 140				06/03/14 06:22	06/03/14 12:03	1
Method: 200.8 - Metals (ICP/M	S) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	8	1.5		ug/L		05/29/14 18:38	05/29/14 22:39	- 5

Client Sample ID: MW-5 Lab Sample ID: 460-76787-4

Date Collected: 05/27/14 11:37 Date Received: 05/28/14 13:00 Matrix: Water

Method: 8260B - Volatile Org	janic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		1.0		ug/L			05/30/14 03:22	1
Benzene	ND		1.0		ug/L			05/30/14 03:22	1

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TestAmerica Job ID: 460-76787-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-5

Lab Sample ID: 460-76787-4

Matrix: Water

Date Collected: 05/27/14 11:37 Date Received: 05/28/14 13:00

	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ND	-	1.0		ug/L			05/30/14 03:22	1
ND		1.0		ug/L			05/30/14 03:22	1
ND		2.0		ug/L			05/30/14 03:22	1
ND		1.0		ug/L			05/30/14 03:22	1
ND		1.0		ug/L			05/30/14 03:22	1
ND		1.0		ug/L			05/30/14 03:22	1
ND		1.0		ug/L			05/30/14 03:22	1
ND		1.0		ug/L			05/30/14 03:22	1
%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
94	-	70 - 130			-		05/30/14 03:22	1
120		64 - 135					05/30/14 03:22	1
103		70 - 130					05/30/14 03:22	1
100		72 - 137					05/30/14 03:22	1
	ND ND ND ND ND ND %Recovery 94 120 103	ND ND ND ND ND ND ND 100 ND 120 103	ND 1.0 ND 2.0 ND 1.0 ND 1.0 **Recovery Qualifier Limits 70 - 130 120 64 - 135 103 70 - 130	ND 1.0 ND 2.0 ND 1.0 ND 1.0 **Recovery Qualifier Limits 70 - 130 120 64 - 135 103 70 - 130	ND 1.0 ug/L ND 2.0 ug/L ND 1.0 ug/L	ND 1.0 ug/L ND 2.0 ug/L ND 1.0 ug/L 1.0 ug/L ND 1.0 ug/L 1.0 ug/L	ND 1.0 ug/L ND 2.0 ug/L ND 1.0 ug/L	ND 1.0 ug/L 05/30/14 03:22 ND 2.0 ug/L 05/30/14 03:22 ND 1.0 ug/L 05/30/14 03:22 **Recovery Qualifier Limits **Prepared Analyzed* 4**Analyzed* 94 70 - 130 05/30/14 03:22 120 64 - 135 05/30/14 03:22 103 70 - 130 05/30/14 03:22

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND	8	0.020		ug/L		06/03/14 06:22	06/03/14 12:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	98	94	60 - 140				06/03/14 06:22	06/03/14 12:32	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		05/29/14 18:38	05/29/14 22:44	5

Client Sample ID: MW-6 Date Collected: 05/27/14 11:55 Lab Sample ID: 460-76787-5 Matrix: Water

Date Received: 05/28/14 13:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND	Se	1.0	====	ug/L			05/30/14 17:27	1
Benzene	ND		1.0		ug/L			05/30/14 17:27	1
Ethylbenzene	ND		1.0		ug/L			05/30/14 17:27	1
Toluene	ND		1.0		ug/L			05/30/14 17:27	1
Xylenes, Total	ND		2.0		ug/L			05/30/14 17:27	1
1,2-Dichloroethane	ND		1.0		ug/L			05/30/14 17:27	1
Naphthalene	ND		1.0		ug/L			05/30/14 17:27	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			05/30/14 17:27	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			05/30/14 17:27	1
Isopropylbenzene	ND		1.0		ug/L			05/30/14 17:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113	9	70 - 130			-		05/30/14 17:27	1
Bromofluorobenzene	111		64 - 135					05/30/14 17:27	1
Toluene-d8 (Surr)	110		70 - 130					05/30/14 17:27	1
Dibromofluoromethane (Surr)	113		72 - 137					05/30/14 17:27	1

TestAmerica Job ID: 460-76787-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-6

Lab Sample ID: 460-76787-5

Matrix: Water

Date Collected: 05/27/14 11:55 Date Received: 05/28/14 13:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND	=	0.020		ug/L		06/03/14 06:22	06/03/14 13:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	89		60 - 140				06/03/14 06:22	06/03/14 13:01	1
Method: 200.8 - Metals (ICP/MS) -	Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte									

Client Sample ID: MW-9 Lab Sample ID: 460-76787-6 Date Collected: 05/27/14 12:26 Matrix: Water

Date Received: 05/28/14 13:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	8.6		1.0	-	ug/L	20 - 20 2		05/30/14 04:12	1
Benzene	65		1.0		ug/L			05/30/14 04:12	1
Ethylbenzene	5.3		1.0		ug/L			05/30/14 04:12	1
Toluene	ND		1.0		ug/L			05/30/14 04:12	1
Xylenes, Total	ND		2.0		ug/L			05/30/14 04:12	1
1,2-Dichloroethane	ND		1.0		ug/L			05/30/14 04:12	1
Naphthalene	ND		1.0		ug/L			05/30/14 04:12	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			05/30/14 04:12	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			05/30/14 04:12	1
Isopropylbenzene	11		1.0		ug/L			05/30/14 04:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77	=======================================	70 - 130			=		05/30/14 04:12	1
D 0 1			04 405					05/00// 4 0 4 4 0	32

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77	70 - 130	.	05/30/14 04:12	1
Bromofluorobenzene	97	64 - 135		05/30/14 04:12	1
Toluene-d8 (Surr)	86	70 _ 130		05/30/14 04:12	1
Dibromofluoromethane (Surr)	80	72 - 137		05/30/14 04:12	1

Analyte	Result Q	ualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND -	CO THE INVENTOR	0.020		ug/L		06/03/14 06:22	06/03/14 13:31	-

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	93	60 - 140	06/03/14 06:22	06/03/14 13:31	1

Method: 200.8 - Metals (ICP/MS) - D	Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	-	1.5		ug/L		05/29/14 18:38	05/29/14 22:55	- 5

Client Sample ID: MW-10 Lab Sample ID: 460-76787-7 Date Collected: 05/27/14 12:45 Matrix: Water

Date Received: 05/28/14 13:00

Method: 8260B - Volatile Organ	nic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	74		5.0		ug/L			05/30/14 17:51	5
Benzene	1300		5.0		ug/L			05/30/14 17:51	5

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TestAmerica Job ID: 460-76787-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-10

Lab Sample ID: 460-76787-7

Matrix: Water

Date Collected: 05/27/14 12:45 Date Received: 05/28/14 13:00

Method: 8260B - Volatile Orga Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	400		5.0		ug/L	<u>=</u>		05/30/14 17:51	5
Toluene	83		5.0		ug/L			05/30/14 17:51	5
Xylenes, Total	550		10		ug/L			05/30/14 17:51	5
1,2-Dichloroethane	ND		5.0		ug/L			05/30/14 17:51	5
Naphthalene	120		5.0		ug/L			05/30/14 17:51	5
1,2,4-Trimethylbenzene	390		5.0		ug/L			05/30/14 17:51	5
1,3,5-Trimethylbenzene	70		5.0		ug/L			05/30/14 17:51	5
Isopropylbenzene	37		5.0		ug/L	CATEVAL		05/30/14 17:51	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99	\$ 	70 - 130					05/30/14 17:51	5
Bromofluorobenzene	93		64 _ 135					05/30/14 17:51	5
Toluene-d8 (Surr)	99		70 - 130					05/30/14 17:51	5
Dibromofluoromethane (Surr)	99		72 - 137					05/30/14 17:51	5
Method: 8011 - EDB, DBCP, a	nd 1,2,3-TCP (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND	8	0.020		ug/L		06/03/14 06:22	06/03/14 14:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	83	S .	60 _ 140				06/03/14 06:22	06/03/14 14:00	1
1,1,1,2-Tetrachloroethane	83		60 - 140				06/03/14 06:22	06/03/14 14:29	1
Method: 200.8 - Metals (ICP/N	IS) - Dissolved								
Method: 200.8 - Metals (ICP/N Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: Bridge US

Date Collected: 05/27/14 13:30

Date Received: 05/28/14 13:00

Lab Sample ID: 460-76787-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		1.0		ug/L			05/30/14 04:37	1
Benzene	ND		1.0		ug/L			05/30/14 04:37	1
Ethylbenzene	ND		1.0		ug/L			05/30/14 04:37	1
Toluene	ND		1.0		ug/L			05/30/14 04:37	1
Xylenes, Total	ND		2.0		ug/L			05/30/14 04:37	1
1,2-Dichloroethane	ND		1.0		ug/L			05/30/14 04:37	1
Naphthalene	ND		1.0		ug/L			05/30/14 04:37	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			05/30/14 04:37	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			05/30/14 04:37	1
Isopropylbenzene	ND		1.0		ug/L	FERENCES		05/30/14 04:37	1
0	0/8	_	I toolay					*	D# E

Surrogate	%Recovery	Quaimer	LIMITS	Prepared	Analyzea	DII Fac	
1,2-Dichloroethane-d4 (Surr)	80		70 - 130	## !	05/30/14 04:37	1	
Bromofluorobenzene	100		64 - 135		05/30/14 04:37	1	
Toluene-d8 (Surr)	87		70 - 130		05/30/14 04:37	1	
Dibromofluoromethane (Surr)	84		72 - 137		05/30/14 04:37	1	

TestAmerica Edison

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06/03/14 08:06 06/03/14 18:41

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: Bridge US

Lab Sample ID: 460-76787-8 Date Collected: 05/27/14 13:30

Matrix: Water

Date Received: 05/28/14 13:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND	3	0.020		ug/L		06/03/14 06:22	06/03/14 14:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	94		60 - 140				06/03/14 06:22	06/03/14 14:29	1
Method: 200.8 - Metals (ICP/I	MS) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	מ	Prepared	Analyzed	Dil Fac

Client Sample ID: Bridge DS Lab Sample ID: 460-76787-9

1.5

ug/L

ND

Date Collected: 05/27/14 13:00 Matrix: Water

Lead

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND	Ų.	1.0		ug/L		2	05/30/14 05:01	1
Benzene	ND		1.0		ug/L			05/30/14 05:01	
Ethylbenzene	ND		1.0		ug/L			05/30/14 05:01	
Toluene	ND		1.0		ug/L			05/30/14 05:01	1
Xylenes, Total	ND		2.0		ug/L			05/30/14 05:01	1
1,2-Dichloroethane	ND		1.0		ug/L			05/30/14 05:01	1
Naphthalene	ND		1.0		ug/L			05/30/14 05:01	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			05/30/14 05:01	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			05/30/14 05:01	1
Isopropylbenzene	ND		1.0		ug/L			05/30/14 05:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		70 - 130				2	05/30/14 05:01	
Bromofluorobenzene	102		64 - 135					05/30/14 05:01	1
Toluene-d8 (Surr)	88		70 - 130					05/30/14 05:01	1
Dibromofluoromethane (Surr)	86		72 - 137			FERENCE.		05/30/14 05:01	
Method: 8011 - EDB, DBCP, ar	nd 1,2,3-TCP (GC))							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND	3	0.020		ug/L		06/03/14 06:22	06/03/14 14:59	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	91		60 - 140				06/03/14 06:22	06/03/14 14:59	
Method: 200.8 - Metals (ICP/M	S) - Dissolved								
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa

Certification Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-76787-1

Laboratory: TestAmerica Edison

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Pennsylvania	NELAP	3	68-00522	02-28-15

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-14
California	NELAP	9	4224CA	03-31-14 *
Connecticut	State Program	1	PH-0688	09-30-14
Florida	NELAP	4	E871008	06-30-14
Illinois	NELAP	5	002602	06-30-14
Kansas	NELAP	7	E-10350	01-31-15
Louisiana	NELAP	6	04041	06-30-14
New Hampshire	NELAP	1	203011	04-04-15
New Jersey	NELAP	2	PA005	06-30-14
New York	NELAP	2	11182	03-31-15
North Carolina DENR	State Program	4	434	12-31-14
Pennsylvania	NELAP	3	02-00416	04-30-15
South Carolina	State Program	4	89014	04-30-14 *
Texas	NELAP	6	T104704528	03-31-15
US Fish & Wildlife	Federal		LE94312A-1	11-30-14
USDA	Federal		P330-10-00139	05-23-16
Utah	NELAP	8	STLP	04-30-14 *
√irginia	NELAP	3	460189	09-14-14
West Virginia DEP	State Program	3	142	01-31-15
Wisconsin	State Program	5	998027800	08-31-14

TestAmerica Edison

^{*} Certification renewal pending - certification considered valid.

Method Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-76787-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL EDI
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	TAL PIT
200.8	Metals (ICP/MS)	EPA	TAL EDI

1

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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777 New Durham Road Edison, New Jersey 08817 Phone: (732) 549-3900 Fax: (732) 549-3679

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Page L of L				NMENTAL TESTING
7 . 0,3	S S S S S S S S S S S S S S S S S S S		CHA	
7 000-		460-76787 Chain of Custody		

D. Frank MUSTO MW-S Address 36 MINUTE Phone Name (for report and invoice) mw-9 Special Instructions Please lab 6-181 Preservation Used: 1 = ICE, 2 = HCl, 3 = H₂SO₄, 4 = HNO₈, 5 = NaOH 4-05 3 610 385 4977 Company Relinguished by THE LEADER IN ENVIRO Relinduished by かにはみ Doglassilly · owter quished by S Sample Identification N but Tall Sovices Dujoun Frankin 6 = Other Fax Company Company Company せら 7 = Other SJ27/14 1102 Date 6 Samplers Name (Printed) 13:00 3h2 1175 Analysis Turnaround Time Standard 330 9221 155 ころ Rush Chrages Authorized For: 1352 Time 1 Week 2 Week Other b2h-21-80 3 F-86-5 Matrix 128/14 11:00 m 128/142000 4 and " bridge DS" Date / Time Date / Time Cont. No. of Water: 5 5 67 Soil: 1830|8732 1830|87328| Unleaded gosolive valued 3 4 8 Received by ľ Received by Received by ANALYSIS REQUESTED (ENTER "X BELOW TO INDICATE REQUEST) gasoline leaded gasoline メ X Regulatory Program: Site/Project identification State (Location of site): Ø 0:1 #38 PAUSI 2 Water Metals Filtered (Yes/No)? NO - Bridy Samples Company Company Company Company 5-Day RUSH 128 Other: 9 LAB USE ONLY Project No: Numbers Sample 53 2000 15,0

Page 14 of 17

_aboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

TAL - 0016 (0408)

Page_ of

TestAmerica Edison Receipt Temperature and

Job Number:	方の方	凹	8		бот ца	ĐO		•!			L. Chair Chairman		Licensia de la company
Number of Coolers		Ö		Reun	erent S							10-52	
Tomb Cooled #1 (Dagic) (Caw Connected)			Tamp Coo	Temp Colerna (DeglC) Revice (Tests)	D D	6 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6			Temp Cooler #9 (Degro) (ReviCotrected)	er#8 (Deg	ReWO	e cod	
Tempo:Cooler#3(Deg G)(RaW/Corrected)			Temp/ Goo	(Degic) (Raw/Oorrented)	C)/(Raw//Ooi	rected):	AF-IS A KIND		The state of the s		MANAGE AND THE	ni da de la companya	Contest of the state of the sta
WHITE A STATE SHARE SHAR		COD	Nitrate Nitrite	*Metals	Pest	PHC	Phenois	Sulfide	NXI.	Toc	. Total Cyanide	Total Phos	Other
Sample No.	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH 5-9)	(pH<2)	(pH<2)	(pH>9)	(pH<2)	(pH<2)	(pH>12)	(pH<2)	
			8					-					
			38 .										
			W +0 10										
		SCALIA TA	•8										
			•								-		
			,					Tarr					
	If pH adjus	tments a	re require	If pH adjustments are required record the information below:	ne informat	ion below							

Initials:

Project Manager and the Department Manager should be notified about the samples which were pH adjusted.
* Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Expiration Date:

Volume of Preservative used (ml):

Lot# of Preservative:_

Preservative Name/Conc.; Sample No(s), adjusted:

Client: Center Point Tank Service Job Number: 460-76787-1

Login Number: 76787 List Source: TestAmerica Edison

List Number: 1

Creator: Gilmore, Julie L

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	IR KOP#1 0.3
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Client: Center Point Tank Service Job Number: 460-76787-1

List Source: TestAmerica Pittsburgh
List Number: 2
List Creation: 05/29/14 07:19 PM

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Edison 777 New Durham Road Edison, NJ 08817 Tel: (732)549-3900

TestAmerica Job ID: 460-83186-1 Client Project/Site: Liberty Oil 38

Revision: 1

For:

Center Point Tank Service 536 E Benjamin Franklin Douglassville, Pennsylvania 19518

Attn: Rachel Burkart



Authorized for release by: 10/14/2014 3:03:32 PM

Jill Miller, Project Manager II (732)549-3900 jill.miller@testamericainc.com

·····LINKS ······

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Have a Question?



Visit us at: www.testamericainc.com

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

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

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

TestAmerica Job ID: 460-83186-1

Table of Contents

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Sample Summary

Client: Center Point Tank Service Project/Site: Liberty Oil 38 TestAmerica Job ID: 460-83186-1

3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-83186-1	MW-1	Water	09/19/14 10:53	09/22/14 14:15
460-83186-2	MW-2	Water	09/19/14 11:16	09/22/14 14:15
460-83186-3	MW-4	Water	09/19/14 13:52	09/22/14 14:15
460-83186-4	MW-6	Water	09/19/14 12:00	09/22/14 14:15
460-83186-5	MW-9	Water	09/19/14 12:44	09/22/14 14:15
460-83186-6	MW-10	Water	09/19/14 13:03	09/22/14 14:15
460-83186-7	MW-5	Water	09/19/14 11:34	09/22/14 14:15
460-83186-8	Bridge US	Water	09/19/14 12:23	09/22/14 14:15
460-83186-9	Bridge DS	Water	09/19/14 13:15	09/22/14 14:15

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Definitions/Glossary

Client: Center Point Tank Service Project/Site: Liberty Oil 38

Not Calculated

Quality Control

Relative error ratio

Practical Quantitation Limit

Toxicity Equivalent Factor (Dioxin)
Toxicity Equivalent Quotient (Dioxin)

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

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

Reporting Limit or Requested Limit (Radiochemistry)

TestAmerica Job ID: 460-83186-1

Glossary

NC ND

PQL

QC

RER

RPD

TEF

TEQ

RL

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

W.

Case Narrative

TestAmerica Job ID: 460-83186-1

Client: Center Point Tank Service Project/Site: Liberty Oil 38

Job ID: 460-83186-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative 460-83186-1

Comments

No additional comments.

Receipt

The samples were received on 9/22/2014 2:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.0° C.

Revision(1)

The volumes in the preparation batch were entered incorrectly for Method 200.8 Field Filtration. As a result, there was an extra 5x factor on these samples, making the RL 5x higher than it should be.

GC/MS VOA

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

GC VOA

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

Metals

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

Field Service / Mobile Lab

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

VOA Prep

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

w

TestAmerica Job ID: 460-83186-1

Client: Center Point Tank Service

Project/Site: Liberty Oil 38

Client Sample ID: MW-1 Lab Sample ID: 460-83186-1

Date Collected: 09/19/14 10:53 Matrix: Water

Date Received: 09/22/14 14:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			09/23/14 05:24	1
1,2-Dichloroethane	ND		1.0		ug/L			09/23/14 05:24	1
Ethylbenzene	ND		1.0		ug/L			09/23/14 05:24	1
Isopropylbenzene	ND		1.0		ug/L			09/23/14 05:24	1
Naphthalene	ND		1.0		ug/L			09/23/14 05:24	1
Toluene	ND		1.0		ug/L			09/23/14 05:24	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/23/14 05:24	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/23/14 05:24	1
Xylenes, Total	ND		2.0		ug/L			09/23/14 05:24	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/23/14 05:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	102		64 - 135			-		09/23/14 05:24	1
Dibromofluoromethane (Surr)	93		72 - 137					09/23/14 05:24	1
1,2-Dichloroethane-d4 (Surr)	86		70 - 130					09/23/14 05:24	1
Toluene-d8 (Surr)	95		70 - 130					09/23/14 05:24	1

Method: 8011 - EDB, DBCP, and	1,2,3-TCP (GC))							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND	ş a	0.020	-	ug/L		09/26/14 07:30	09/26/14 09:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	87	-	60 _ 140				09/26/14 07:30	09/26/14 09:38	1

Method: 200.8 - Metals (ICP/MS) - D	issolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	· 	1.5		ug/L		09/25/14 23:34	09/26/14 07:21	5

Client Sample ID: MW-2 Lab Sample ID: 460-83186-2 Date Collected: 09/19/14 11:16 Matrix: Water

Date Received: 09/22/14 14:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	÷	1.0		ug/L		-	09/23/14 05:47	1
1,2-Dichloroethane	ND		1.0		ug/L			09/23/14 05:47	1
Ethylbenzene	ND		1.0		ug/L			09/23/14 05:47	1
Isopropylbenzene	ND		1.0		ug/L			09/23/14 05:47	1
Naphthalene	ND		1.0		ug/L			09/23/14 05:47	1
Toluene	ND		1.0		ug/L			09/23/14 05:47	1
1,2,4-Trimethylbenzene	ND	1,5521,5243,63	1.0		ug/L	E-5-4, E-5-4	. ***********	09/23/14 05:47	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/23/14 05:47	1
Xylenes, Total	ND		2.0		ug/L			09/23/14 05:47	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/23/14 05:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	103	(1	64 - 135			_		09/23/14 05:47	1
Dibromofluoromethane (Surr)	93		72 - 137					09/23/14 05:47	1
1,2-Dichloroethane-d4 (Surr)	89		70 - 130					09/23/14 05:47	1
Toluene-d8 (Surr)	94		70 - 130					09/23/14 05:47	1

TestAmerica Edison

10/14/2014

TestAmerica Job ID: 460-83186-1

Client: Center Point Tank Service Project/Site: Liberty Oil 38

Client Sample ID: MW-2

Lab Sample ID: 460-83186-2

Matrix: Water

Date Collected: 09/19/14 11:16 Date Received: 09/22/14 14:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND	-	0.020		ug/L		09/26/14 07:30	09/26/14 10:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	92		60 - 140				09/26/14 07:30	09/26/14 10:07	1
Method: 200.8 - Metals (ICP/	MS) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Allalyte									

Client Sample ID: MW-4 Lab Sample ID: 460-83186-3

Date Collected: 09/19/14 13	3:52							Matrix	c: Water
Date Received: 09/22/14 14	l:15								
Method: 8260C - Volatile	Organic Compounds I	by GC/MS							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	54		1.0	3	ug/L			09/23/14 06:12	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	54	-	1.0	3	ug/L			09/23/14 06:12	1
1,2-Dichloroethane	ND		1.0		ug/L			09/23/14 06:12	1
Ethylbenzene	89		1.0		ug/L			09/23/14 06:12	1
Isopropylbenzene	12		1.0		ug/L			09/23/14 06:12	1
Naphthalene	16		1.0		ug/L			09/23/14 06:12	1
Toluene	28		1.0		ug/L			09/23/14 06:12	1
1,2,4-Trimethylbenzene	130		1.0		ug/L			09/23/14 06:12	1
1,3,5-Trimethylbenzene	28		1.0		ug/L			09/23/14 06:12	1
Xylenes, Total	130		2.0		ug/L			09/23/14 06:12	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/23/14 06:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Bromofluorobenzene	103	£	64 - 135	8	09/23/14 06:12	1
Dibromofluoromethane (Surr)	93		72 - 137		09/23/14 06:12	1
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		09/23/14 06:12	1
Toluene-d8 (Surr)	93		70 - 130	BEAMARE PRESIDENTE PRESIDENT	09/23/14 06:12	1

Method: 8011 - EDB, DBCP, a			-	MDI	11-24	_		A	D:/ E
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND	-	0.020		ug/L		09/26/14 07:30	09/26/14 10:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1 1 1 2-Tetrachloroethane	91	ii————————————————————————————————————	60 - 140				09/26/14 07:30	09/26/14 10:37	1

Method: 200.8 - Metals (ICP/MS) - E	issolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	8	1.5		ug/L		09/25/14 23:34	09/26/14 07:32	5

Client Sample ID: MW-6 Lab Sample ID: 460-83186-4 Date Collected: 09/19/14 12:00 Matrix: Water

Date Received: 09/22/14 14:15

Method: 8260C - Volatile Or	ganic Compounds I	by GC/MS							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	-	1.0		ug/L	00 2		09/23/14 06:35	1
1,2-Dichloroethane	ND		1.0		ug/L			09/23/14 06:35	1

TestAmerica Edison

2

TestAmerica Job ID: 460-83186-1

Client: Center Point Tank Service Project/Site: Liberty Oil 38

Client Sample ID: MW-6

Lab Sample ID: 460-83186-4

Matrix: Water

Date Collected: 09/19/14 12:00 Date Received: 09/22/14 14:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND	-	1.0		ug/L			09/23/14 06:35	1
Isopropylbenzene	ND		1.0		ug/L			09/23/14 06:35	1
Naphthalene	ND		1.0		ug/L			09/23/14 06:35	1
Toluene	ND		1.0		ug/L			09/23/14 06:35	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/23/14 06:35	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/23/14 06:35	1
Xylenes, Total	ND		2.0		ug/L			09/23/14 06:35	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/23/14 06:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	102	1	64 - 135			-		09/23/14 06:35	1
Dibromofluoromethane (Surr)	92		72 - 137					09/23/14 06:35	1
1,2-Dichloroethane-d4 (Surr)	90		70 - 130					09/23/14 06:35	1
Toluene-d8 (Surr)	96		70 - 130					09/23/14 06:35	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020	9	ug/L		09/26/14 07:30	09/26/14 11:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	100	\$ 	60 - 140				09/26/14 07:30	09/26/14 11:06	1
Method: 200.8 - Metals (ICP/I	MS) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Lead 13 1.5 ug/L 09/26/14 12:11 09/26/14 20:07 5

Client Sample ID: MW-9

Lab Sample ID: 460-83186-5

Date Collected: 09/19/14 12:44 Date Received: 09/22/14 14:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.9	S-	1.0	====	ug/L			09/23/14 06:59	1
1,2-Dichloroethane	ND		1.0		ug/L			09/23/14 06:59	1
Ethylbenzene	ND		1.0		ug/L			09/23/14 06:59	1
Isopropylbenzene	5.1		1.0		ug/L			09/23/14 06:59	1
Naphthalene	ND		1.0		ug/L			09/23/14 06:59	1
Toluene	ND		1.0		ug/L			09/23/14 06:59	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/23/14 06:59	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/23/14 06:59	1
Xylenes, Total	ND		2.0		ug/L			09/23/14 06:59	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/23/14 06:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	102		64 - 135			-		09/23/14 06:59	1
Dibromofluoromethane (Surr)	92		72 - 137					09/23/14 06:59	1
1,2-Dichloroethane-d4 (Surr)	90		70 - 130					09/23/14 06:59	1
Toluene-d8 (Surr)	94		70 - 130					09/23/14 06:59	1

TestAmerica Edison

Matrix: Water

Client Sample ID: MW-9

Lab Sample ID: 460-83186-5

Date Collected: 09/19/14 12:44 Date Received: 09/22/14 14:15

in Sailibi	. וטו	400-03	100-5	
		Matrix:	Water	

ND		0.020	ug/L	 09/26/14 07:30	09/26/14 11:37	
			ug/L	09/26/14 07:30	09/26/14 11:37	1
%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
98		60 - 140		09/26/14 07:30	09/26/14 11:37	1
		%Recovery Qualifier 98				

Client Sample ID: MW-10

Date Collected: 09/19/14 13:03

Lab Sample ID: 460-83186-6

Matrix: Water

Date Received: 09/22/14 14:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2900		10	-	ug/L		8 <u></u>	09/24/14 03:22	10
1,2-Dichloroethane	ND		10		ug/L			09/24/14 03:22	10
Ethylbenzene	950		10		ug/L			09/24/14 03:22	10
Isopropylbenzene	98		10		ug/L			09/24/14 03:22	10
Naphthalene	220		10		ug/L			09/24/14 03:22	10
Toluene	94		10		ug/L			09/24/14 03:22	10
1,2,4-Trimethylbenzene	640		10		ug/L			09/24/14 03:22	10
1,3,5-Trimethylbenzene	110		10		ug/L			09/24/14 03:22	10
Xylenes, Total	1000		20		ug/L			09/24/14 03:22	10
Methyl tert-butyl ether	140		10		ug/L			09/24/14 03:22	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	104		64 - 135				***************************************	09/24/14 03:22	10
Dibromofluoromethane (Surr)	92		72 - 137					09/24/14 03:22	10
1,2-Dichloroethane-d4 (Surr)	89		70 - 130					09/24/14 03:22	10
Toluene-d8 (Surr)	95		70 - 130			#ETEVTE		09/24/14 03:22	10
Method: 8011 - EDB, DBCP, ar	nd 1,2,3-TCP (GC)								
Analyte	2.3	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND	<u> </u>	0.020		ug/L		09/26/14 07:30	09/26/14 12:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1.1.1.2-Tetrachloroethane	87	1	60 - 140				09/26/14 07:30	09/26/14 12:07	

Method: 200.8 - Metals (ICP/MS) - D	issolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		09/25/14 23:34	09/26/14 08:38	5

Client Sample ID: MW-5

Date Collected: 09/19/14 11:34

Date Received: 09/22/14 14:15

Lab Sample ID: 460-83186-7

Matrix: Water

Method: 8260C - Volatile Org	ganic Compounds I	by GC/MS							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			09/23/14 15:10	1
1,2-Dichloroethane	ND		1.0		ug/L			09/23/14 15:10	1

TestAmerica Edison

Client Sample ID: MW-5 Date Collected: 09/19/14 11:34

Date Received: 09/22/14 14:15

Lab Sample ID: 460-83186-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0		ug/L			09/23/14 15:10	1
Isopropylbenzene	ND		1.0		ug/L			09/23/14 15:10	1
Naphthalene	ND		1.0		ug/L			09/23/14 15:10	1
Toluene	ND		1.0		ug/L			09/23/14 15:10	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/23/14 15:10	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/23/14 15:10	1
Xylenes, Total	ND		2.0		ug/L			09/23/14 15:10	1
Methyl tert-butyl ether	ND		1.0		ug/L	FERENCES		09/23/14 15:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	103	-	64 - 135			-		09/23/14 15:10	1
Dibromofluoromethane (Surr)	93		72 _ 137					09/23/14 15:10	1
1,2-Dichloroethane-d4 (Surr)	87		70 - 130					09/23/14 15:10	1
Toluene-d8 (Surr)	94		70 - 130					09/23/14 15:10	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND	8	0.020		ug/L		09/26/14 07:30	09/26/14 12:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1.1.1.2-Tetrachloroethane	96	9 1	60 - 140				09/26/14 07:30	09/26/14 12:37	

Method: 200.8 - Metals (ICP/MS) - D	issolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		09/25/14 23:37	09/26/14 08:44	5

Client Sample ID: Bridge US Lab Sample ID: 460-83186-8 Date Collected: 09/19/14 12:23 Matrix: Water

Date Received: 09/22/14 14:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	:	1.0	====	ug/L			09/23/14 14:46	1
1,2-Dichloroethane	ND		1.0		ug/L			09/23/14 14:46	1
Ethylbenzene	ND		1.0		ug/L			09/23/14 14:46	1
Isopropylbenzene	ND		1.0		ug/L			09/23/14 14:46	1
Naphthalene	ND		1.0		ug/L			09/23/14 14:46	1
Toluene	ND		1.0		ug/L			09/23/14 14:46	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/23/14 14:46	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/23/14 14:46	1
Xylenes, Total	ND		2.0		ug/L			09/23/14 14:46	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/23/14 14:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	103	-	64 - 135			-		09/23/14 14:46	1
Dibromofluoromethane (Surr)	92		72 - 137					09/23/14 14:46	1
1,2-Dichloroethane-d4 (Surr)	86		70 - 130					09/23/14 14:46	1
Toluene-d8 (Surr)	94		70 - 130					09/23/14 14:46	1

TestAmerica Edison

Client Sample ID: Bridge US Lab Sample ID: 460-83186-8 Date Collected: 09/19/14 12:23

Matrix: Water

Date Received: 09/22/14 14:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		09/26/14 07:30	09/26/14 13:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	92		60 - 140				09/26/14 07:30	09/26/14 13:07	1
Method: 200.8 - Metals (ICP/I	MS) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: Bridge DS Lab Sample ID: 460-83186-9

Date Collected: 09/19/14 13:15 Matrix: Water

Date Received: 09/22/14 14:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	Į.	1.0	3	ug/L		2	09/23/14 14:22	1
1,2-Dichloroethane	ND		1.0		ug/L			09/23/14 14:22	1
Ethylbenzene	ND		1.0		ug/L			09/23/14 14:22	1
Isopropylbenzene	ND		1.0		ug/L			09/23/14 14:22	1
Naphthalene	ND		1.0		ug/L			09/23/14 14:22	1
Toluene	ND		1.0		ug/L			09/23/14 14:22	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/23/14 14:22	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/23/14 14:22	1
Xylenes, Total	ND		2.0		ug/L			09/23/14 14:22	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/23/14 14:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	103	2	64 - 135				*	09/23/14 14:22	1
Dibromofluoromethane (Surr)	95		72 - 137					09/23/14 14:22	1
1,2-Dichloroethane-d4 (Surr)	88		70 - 130					09/23/14 14:22	1
Toluene-d8 (Surr)	94		70 - 130			FERENCE		09/23/14 14:22	1
Method: 8011 - EDB, DBCP, ar	nd 1,2,3-TCP (GC))							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND	3	0.020	=======================================	ug/L		09/26/14 07:30	09/26/14 13:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	92	-	60 - 140				09/26/14 07:30	09/26/14 13:37	1
Method: 200.8 - Metals (ICP/M	S) - Dissolved								
Analyte	The state of the s	Qualifier	RL	MDI	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	Result	addinio		*****	Oille	_	, iopaioa	rinaryzou	DIII I UC

TestAmerica Job ID: 460-83186-1

Client: Center Point Tank Service Project/Site: Liberty Oil 38

Laboratory: TestAmerica Edison

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0200	09-30-14 *
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A	12-31-14
New Jersey	NELAP	2	12028	06-30-15
New York	NELAP	2	11452	03-31-15
Pennsylvania	NELAP	3	68-00522	02-28-15
Rhode Island	State Program	1	LAO00132	12-30-14
USDA	Federal		NJCA-003-08	04-04-17

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-15
California	State Program	9	2891	03-31-15
Connecticut	State Program	1	PH-0688	09-30-14 *
Florida	NELAP	4	E871008	06-30-15
Illinois	NELAP	5	002602	06-30-15
Kansas	NELAP	7	E-10350	01-31-15
Louisiana	NELAP	6	04041	06-30-15
New Hampshire	NELAP	1	203011	04-04-15
New Jersey	NELAP	2	PA005	06-30-15
New York	NELAP	2	11182	03-31-15
North Carolina (WW/SW)	State Program	4	434	12-31-14
Pennsylvania	NELAP	3	02-00416	04-30-15
South Carolina	State Program	4	89014	04-30-15
Texas	NELAP	6	T104704528	03-31-15
US Fish & Wildlife	Federal		LE94312A-1	11-30-14
USDA	Federal		P330-10-00139	05-23-16
Utah	NELAP	8	STLP	05-31-15
Virginia	NELAP	3	460189	09-14-15
West Virginia DEP	State Program	3	142	01-31-15

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TestAmerica Edison

^{*} Certification renewal pending - certification considered valid.

Method Summary

Client: Center Point Tank Service Project/Site: Liberty Oil 38 TestAmerica Job ID: 460-83186-1

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Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	TAL PIT
200.8	Metals (ICP/MS)	EPA	TAL EDI

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

460-83186 Chain of Custody

777 New Durham Road Edison, New Jersey 08817 Phone: (732) 549-3900 Fax: (732) 549-3679

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invoice)	VIRONMENTAL TESTING CHAI
amplers Name (Printed)	
Site/Project Identification	QUEST 2214, LQ1
A COLUMN TO SERVICE AND ADDRESS OF THE PARTY	Page 1 of 1

THE LEADER IN ENVIRONMENTAL TESTING				K	Page 1 of 1
Name (for report and invoice)	Ø	Samplers Name (Printed)	4.6	Site/Project Identification	
B-1 Tark	ס	-12-	792	State (Location of site): NJ:	NY: Other: PA
Address	A	Analysis Turnaround Timo		ANALYSIS REQUESTED (BYTER Y, RELOW TO INDIQUE REQUEST)	LAR USE ONLY
536 E. Brigomin Franklin Hu	2	Standard 💢			Project No:
	7	Rush Chragos Authorized For. 2 Week	1		Job No:
Phone Fax		1 Week	soliv		83786
010 313 11 11	1	No. of	ga		Sample
Sample Identification	Date	Time Matrix Cont.	Leo		Numbers
mw-1 9	1/18/18	153 GW 5	X		
Mv:-2	-	1116 1 5	メメ		
M C C	1	1352 5	メイ		
Mrs-6			X		
P-UM		1244 / 5	X		
MM-10	-	1.303 5	X		
MW-5-	-	1134 5	×		
Bridge US	1	1223 5	XX		
DS	4	315 V 5	×		
					and the same of th
6 = Other 7 = Other		Water	1/2/4 1/2		
Small material Arts 1 & h Bit 6	Bridgeus	Souls N	Wind X		IN'N CHANGE
The state of the s		ate	- H	7	Townson Comment
Justifica of Contract	S. F.	Fred 22/16	191	1	Company
2) Live J. M. More Company	50	9/2/H1/S	Received by	>	Company
Refinquished by Company		9/2/14 1	1700 3) July	Staffrite 7	Company
after by Anth Company		Date/Tin	1945 Received by	`	Company
Laboratory Certifications: New Jersey (12028),		New York (11452), Pennsyl	Pennsylvania (68-522), (Connecticut (PH-0200), Rhode Island (132).	Island (132). TAL - 0016 (0408)

Page 14 of 18

TestAmerica Edison Receipt Temperature and pH Log

Treat Cooler 15. Initials: IR Gungt COOLER T Emperatifies COOLER T COOLER T COOLER TO	Job Number:
Cooler#8. Cooler	53186
Cooler#8. Cooler	
Cooler #9. **C Cooler #0. **C	2.
TOC (pH-2)	
Community (pH>12) (pH<2) (pH>12) (pH<2) (pH>36 (pH>12) (pH<2) (pH>2)	
(pH<2) Other Other Adjusted.	

Page ____ of ____

Client: Center Point Tank Service Job Number: 460-83186-1

Login Number: 83186 List Source: TestAmerica Edison

List Number: 1

Creator: Gilmore, Julie L

Question	Answer	Comment
		Comment
Radioactivity wasn't checked or is = background as measured by a survey<br neter.	N/A	
he cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or ampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	IR KOP#1 2.0
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
here are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
here is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is 6mm (1/4").	True	
fultiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Job Number: 460-83186-1

Client: Center Point Tank Service

Login Number: 83186 List Source: TestAmerica Pittsburgh List Creation: 09/23/14 01:08 PM List Number: 2

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or ampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <pre><6mm (1/4").</pre>	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Client: Center Point Tank Service Job Number: 460-83186-1

List Source: TestAmerica Pittsburgh
List Number: 3
List Creation: 09/23/14 01:14 PM

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey neter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or ampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is :6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Edison 777 New Durham Road Edison, NJ 08817 Tel: (732)549-3900

TestAmerica Job ID: 460-88413-1 Client Project/Site: Liberty Oil #38

For:

Center Point Tank Service 536 E Benjamin Franklin Douglassville, Pennsylvania 19518

Attn: Rachel Burkart



Authorized for release by: 1/6/2015 9:58:19 AM Maegen Pane, Project Management Assistant I (732)549-3900 maegen.pane@testamericainc.com

Designee for

Jill Miller, Project Manager II (732)549-3900 jill.miller@testamericainc.com



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Have a Question?



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

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

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

TestAmerica Job ID: 460-88413-1

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Sample Summary

Matrix

Water

Water

Water

Water

Water

Water

Water

Water

Water

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID

MW-1

MW-2

MW-4

MW-5

MW-6

MW-9

MW-10

Bridge US

Bridge DS

Lab Sample ID

460-88413-1

460-88413-2

460-88413-3

460-88413-4

460-88413-5

460-88413-6

460-88413-7

460-88413-8

460-88413-9

TestAmerica Job ID: 460-88413-1

		3
Collected	Received	_
12/26/14 10:48	12/29/14 13:40	
12/26/14 11:04	12/29/14 13:40	Mad
12/26/14 12:58	12/29/14 13:40	No.
12/26/14 11:19	12/29/14 13:40	0
12/26/14 11:32	12/29/14 13:40	
12/26/14 11:54	12/29/14 13:40	0

12/26/14 12:17

12/26/14 13:07

12/26/14 12:40

7

12/29/14 13:40

12/29/14 13:40

12/29/14 13:40

8

9

Definitions/Glossary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-88413-1

Glossary

RPD

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
0	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)

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

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

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Case Narrative

TestAmerica Job ID: 460-88413-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Job ID: 460-88413-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative 460-88413-1

Comments

No additional comments.

Receipt

The samples were received on 12/29/2014 1:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.0° C.

GC/MS VOA

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-10 (460-88413-7). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: Internal standard (ISTD) response for 1,4-Dioxane-d8 for the following matrix spike (MS) was outside acceptance criteria: MW-13 (460-88337-4 MS). This ISTD does not correspond to any of the requested target compounds; therefore, the data have been reported.

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

GC VOA

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

Metals

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

Field Service / Mobile Lab

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

VOA Prep

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

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TestAmerica Job ID: 460-88413-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-1

Lab Sample ID: 460-88413-1

Date Collected: 12/26/14 10:48 Matrix: Water Date Received: 12/29/14 13:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			01/03/15 03:53	1
1,2-Dichloroethane	ND		1.0		ug/L			01/03/15 03:53	1
Ethylbenzene	ND		1.0		ug/L			01/03/15 03:53	1
Isopropylbenzene	ND		1.0		ug/L			01/03/15 03:53	1
Naphthalene	ND		1.0		ug/L			01/03/15 03:53	1
Toluene	ND		1.0		ug/L			01/03/15 03:53	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			01/03/15 03:53	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			01/03/15 03:53	1
Xylenes, Total	ND		2.0		ug/L			01/03/15 03:53	1
Methyl tert-butyl ether	ND		1.0		ug/L			01/03/15 03:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	95		64 - 135					01/03/15 03:53	1
Dibromofluoromethane (Surr)	105		72 - 137					01/03/15 03:53	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 130					01/03/15 03:53	1
Toluene-d8 (Surr)	91		70 - 130					01/03/15 03:53	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,2-Dibromoethane	ND		0.020		ug/L		01/03/15 13:04	01/03/15 16:55	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	DII Fa
1,1,1,2-Tetrachioroethane	92		60 - 140				01/03/15 13:04	01/03/15 16:55	
1,1,1,2-Tetrachloroethane	95		60 - 140				01/03/15 13:04	01/03/15 16:55	
Method: 200.8 - Metals (ICP/I	MS) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DII Fa
Lead	ND		1.5	77	ug/L	120.77	01/04/15 16:07	01/04/15 20:31	

Client Sample ID: MW-2 Lab Sample ID: 460-88413-2 Date Collected: 12/26/14 11:04 Matrix: Water

Date Received: 12/29/14 13:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			01/03/15 04:17	1
1,2-Dichloroethane	ND		1.0		ug/L			01/03/15 04:17	1
Ethylbenzene	ND		1.0		ug/L			01/03/15 04:17	1
Isopropylbenzene	ND		1.0		ug/L			01/03/15 04:17	1
Naphthalene	ND		1.0		ug/L			01/03/15 04:17	1
Toluene	ND		1.0		ug/L			01/03/15 04:17	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			01/03/15 04:17	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			01/03/15 04:17	1
Xylenes, Total	ND		2.0		ug/L			01/03/15 04:17	1
Methyl tert-butyl ether	ND		1.0		ug/L			01/03/15 04:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	97		64 - 135					01/03/15 04:17	1
Dibromofluoromethane (Surr)	106		72 - 137					01/03/15 04:17	1
1,2-Dichloroethane-d4 (Surr)	108		70 - 130					01/03/15 04:17	1
Toluene-d8 (Surr)	97		70 - 130					01/03/15 04:17	1

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Client Sample ID: MW-2

Date Collected: 12/26/14 11:04 Date Received: 12/29/14 13:40 Lab Sample ID: 460-88413-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		01/03/15 13:04	01/03/15 17:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	93		60 - 140				01/03/15 13:04	01/03/15 17:25	1
1,1,1,2-Tetrachloroethane	95		60 - 140				01/03/15 13:04	01/03/15 17:25	1

Method: 200.8 - Metals (ICP/MS) - Dissolved Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac Lead ND 1.5 ug/L 01/04/15 16:07 01/04/15 20:42

Client Sample ID: MW-4 Lab Sample ID: 460-88413-3

Date Collected: 12/26/14 12:58 Matrix: Water

Date Received: 12/29/14 13:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	160		1.0		ug/L			01/03/15 04:41	1
1,2-Dichloroethane	ND		1.0		ug/L			01/03/15 04:41	1
Ethylbenzene	100		1.0		ug/L			01/03/15 04:41	1
Isopropylbenzene	9.9		1.0		ug/L			01/03/15 04:41	1
Naphthalene	7.6		1.0		ug/L			01/03/15 04:41	-1
Toluene	100		1.0		ug/L			01/03/15 04:41	1
1,2,4-Trimethylbenzene	83		1.0		ug/L			01/03/15 04:41	1
1,3,5-Trimethylbenzene	18		1.0		ug/L			01/03/15 04:41	1
Xylenes, Total	170		2.0		ug/L			01/03/15 04:41	1
Methyl tert-butyl ether	28		1.0		ug/L			01/03/15 04:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	86		64 - 135					01/03/15 04:41	1
Dibromofluoromethane (Surr)	87		72 - 137					01/03/15 04:41	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 130					01/03/15 04:41	1
Toluene-d8 (Surr)	89		70 - 130					01/03/15 04:41	1
Method: 8011 - EDB, DBCP, ar	nd 1,2,3-TCP (GC))							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		01/03/15 13:04	01/03/15 17:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	90		60 - 140				01/03/15 13:04	01/03/15 17:54	1
1,1,1,2-Tetrachloroethane	89		60 - 140				01/03/15 13:04	01/03/15 17:54	1
Method: 200.8 - Metals (ICP/M	S) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DII Fac
Lead	ND		1.5		ug/L		01/04/15 16:07	01/04/15 20:47	5

Client Sample ID: MW-5 Lab Sample ID: 460-88413-4 Date Collected: 12/26/14 11:19

Matrix: Water

Date Received: 12/29/14 13:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			01/05/15 09:44	1
1,2-Dichloroethane	ND		1.0		ug/L			01/05/15 09:44	1
Ethylbenzene	ND		1.0		ug/L			01/05/15 09:44	1
Isopropylbenzene	ND		1.0		ug/L			01/05/15 09:44	1
Naphthalene	ND		1.0		ug/L			01/05/15 09:44	1
Toluene	ND		1.0		ug/L			01/05/15 09:44	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			01/05/15 09:44	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			01/05/15 09:44	:1
Xylenes, Total	ND		2.0		ug/L			01/05/15 09:44	1
Methyl tert-butyl ether	ND		1.0		ug/L			01/05/15 09:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	100		64 - 135					01/05/15 09:44	1
Dibromofluoromethane (Surr)	108		72 - 137					01/05/15 09:44	1
1,2-Dichloroethane-d4 (Surr)	108		70 - 130					01/05/15 09:44	1
Toluene-d8 (Surr)	95		70 - 130					01/05/15 09:44	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L	79450	01/03/15 13:04	01/03/15 18:24	- 1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	97		60 - 140				01/03/15 13:04	01/03/15 18:24	1
1,1,1,2-Tetrachloroethane	101		60 - 140				01/03/15 13:04	01/03/15 18:24	1
Method: 200.8 - Metals (ICP/N	NS) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		01/04/15 16:07	01/04/15 20:53	5

Client Sample ID: MW-6 Lab Sample ID: 460-88413-5 Date Collected: 12/26/14 11:32 Matrix: Water

Date Received: 12/29/14 13:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			01/05/15 09:20	1
1,2-Dichloroethane	ND		1.0		ug/L			01/05/15 09:20	1
Ethylbenzene	ND		1.0		ug/L			01/05/15 09:20	1
Isopropylbenzene	ND		1.0		ug/L			01/05/15 09:20	1
Naphthalene	ND		1.0		ug/L			01/05/15 09:20	1
Toluene	ND		1.0		ug/L			01/05/15 09:20	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			01/05/15 09:20	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			01/05/15 09:20	1
Xylenes, Total	ND		2.0		ug/L			01/05/15 09:20	. 1
Methyl tert-butyl ether	ND		1.0		ug/L			01/05/15 09:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	98		64 - 135					01/05/15 09:20	1
Dibromofluoromethane (Surr)	114		72 - 137					01/05/15 09:20	1
1,2-Dichloroethane-d4 (Surr)	112		70 - 130					01/05/15 09:20	1
Toluene-d8 (Surr)	95		70 - 130					01/05/15 09:20	1

TestAmerica Edison

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TestAmerica Job ID: 460-88413-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-6

Lab Sample ID: 460-88413-5

Matrix: Water

Date Collected: 12/26/14 11:32

Date Received: 12/29/14 13:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		01/03/15 13:04	01/03/15 18:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	95		60 - 140				01/03/15 13:04	01/03/15 18:53	1
1,1,1,2-Tetrachloroethane	97		60 - 140				01/03/15 13:04	01/03/15 18:53	1

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac

Lead 11 1.5 ug/L 01/04/15 16:07 01/04/15 18:52 5

Client Sample ID: MW-9

Lab Sample ID: 460-88413-6

Date Collected: 12/26/14 11:54 Matrix: Water

Date Received: 12/29/14 13:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	5.5		1.0		ug/L			01/05/15 10:07	1
1,2-Dichloroethane	ND		1.0		ug/L			01/05/15 10:07	1
Ethylbenzene	ND		1.0		ug/L			01/05/15 10:07	1
Isopropylbenzene	5.0		1.0		ug/L			01/05/15 10:07	1
Naphthalene	ND		1.0		ug/L			01/05/15 10:07	-1
Toluene	ND		1.0		ug/L			01/05/15 10:07	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			01/05/15 10:07	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			01/05/15 10:07	1
Xylenes, Total	ND		2.0		ug/L			01/05/15 10:07	1
Methyl tert-butyl ether	3.8		1.0		ug/L			01/05/15 10:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	99		64 - 135					01/05/15 10:07	1
Dibromofluoromethane (Surr)	109		72 - 137					01/05/15 10:07	1
1,2-Dichloroethane-d4 (Surr)	111		70 - 130					01/05/15 10:07	1
Toluene-d8 (Surr)	100		70 - 130					01/05/15 10:07	1
Method: 8011 - EDB, DBCP, and 1,		Charles Control of Control of							
Analyte	1,0,000	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		01/03/15 13:04	01/03/15 19:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	DII Fac
1,1,1,2-Tetrachloroethane	95		60 - 140				01/03/15 13:04	01/03/15 19:22	1
1,1,1,2-Tetrachloroethane	98		60 - 140				01/03/15 13:04	01/03/15 19:22	1
Method: 200.8 - Metals (ICP/MS) - I	Dissolved								
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DII Fac
Lead	ND		1.5		ug/L	-	01/04/15 16:07	01/04/15 18:58	5

Client Sample ID: MW-10

Lab Sample ID: 460-88413-7

Matrix: Water

Date Collected: 12/26/14 12:17 Date Received: 12/29/14 13:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1700		5.0		ug/L			01/05/15 11:17	5
1,2-Dichloroethane	ND		5.0		ug/L			01/05/15 11:17	5
Ethylbenzene	660		5.0		ug/L			01/05/15 11:17	5
Isopropylbenzene	71		5.0		ug/L			01/05/15 11:17	5
Naphthalene	84		5.0		ug/L			01/05/15 11:17	5
Toluene	9.6		5.0		ug/L			01/05/15 11:17	5
1,2,4-Trimethylbenzene	350		5.0		ug/L			01/05/15 11:17	5
1,3,5-Trimethylbenzene	11		5.0		ug/L			01/05/15 11:17	5
Xylenes, Total	140		10		ug/L			01/05/15 11:17	5
Methyl tert-butyl ether	89		5.0		ug/L			01/05/15 11:17	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	100		64 - 135					01/05/15 11:17	5
Dibromofluoromethane (Surr)	101		72 - 137					01/05/15 11:17	5
1,2-Dichloroethane-d4 (Surr)	113		70 - 130					01/05/15 11:17	5
Toluene-d8 (Surr)	105		70 - 130					01/05/15 11:17	5

Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,2-Dibromoethane	ND		0.020		ug/L		01/03/15 13:04	01/03/15 19:52	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	DII Fa
1,1,1,2-Tetrachloroethane	95		60 - 140				01/03/15 13:04	01/03/15 19:52	
1,1,1,2-Tetrachloroethane	98		60 - 140				01/03/15 13:04	01/03/15 19:52	
Method: 200.8 - Metals (ICP/	MS) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		01/04/15 16:07	01/04/15 19:03	

Client Sample ID: Bridge US Lab Sample ID: 460-88413-8 Date Collected: 12/26/14 13:07 Matrix: Water Date Received: 12/29/14 13:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			01/05/15 10:54	1
1,2-Dichloroethane	ND		1.0		ug/L			01/05/15 10:54	1
Ethylbenzene	ND		1.0		ug/L			01/05/15 10:54	1
Isopropylbenzene	ND		1.0		ug/L			01/05/15 10:54	1
Naphthalene	ND		1.0		ug/L			01/05/15 10:54	1
Toluene	ND		1.0		ug/L			01/05/15 10:54	. 1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			01/05/15 10:54	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			01/05/15 10:54	1
Xylenes, Total	ND		2.0		ug/L			01/05/15 10:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	DII Fac
Bromofluorobenzene	102		64 - 135					01/05/15 10:54	1
Dibromofluoromethane (Surr)	104		72 - 137					01/05/15 10:54	1
1,2-Dichloroethane-d4 (Surr)	110		70 - 130					01/05/15 10:54	1
Toluene-d8 (Surr)	100		70 - 130					01/05/15 10:54	1

TestAmerica Edison

Client Sample ID: Bridge US

Date Collected: 12/26/14 13:07 Date Received: 12/29/14 13:40 Lab Sample ID: 460-88413-8

Prepared

Matrix: Water

Analyzed

01/05/15 10:31 01/05/15 10:31 01/05/15 10:31 01/05/15 10:31 01/05/15 10:31

01/05/15 10:31

01/05/15 10:31

Dil Fac

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		01/03/15 13:04	01/03/15 20:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	DII Fac
1,1,1,2-Tetrachloroethane	99		60 - 140				01/03/15 13:04	01/03/15 20:21	1
1,1,1,2-Tetrachloroethane	101		60 - 140				01/03/15 13:04	01/03/15 20:21	1

Method: 200.8 - Metals (ICP/MS) - I	Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		01/04/15 15:49	01/04/15 19:42	5

Client Sample ID: Bridge DS Lab Sample ID: 460-88413-9 Date Collected: 12/26/14 12:40 Matrix: Water

Date Received: 12/29/14 13:40

Toluene

1,2,4-Trimethylbenzene

Analyte	Result	Qualifier	RL	MDL	Unit	D
Benzene	ND		1.0		ug/L	
1,2-Dichloroethane	ND		1.0		ug/L	
Ethylbenzene	ND		1.0		ug/L	
Isopropylbenzene	ND		1.0		ug/L	
Naphthalene	ND		1.0		ua/L	

ND

ND

1,3,5-Trimethylbenzene	ND		1.0	ug/L		01/05/15 10:31	1
Xylenes, Total	ND		2.0	ug/L		01/05/15 10:31	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Bromofluorobenzene	102		64 - 135			01/05/15 10:31	1
Dibromofluoromethane (Surr)	112		72 - 137			01/05/15 10:31	1
1,2-Dichloroethane-d4 (Surr)	110		70 - 130			01/05/15 10:31	1
Toluene-d8 (Surr)	100		70 - 130			01/05/15 10:31	1

1.0

1.0

ug/L

ug/L

Method: 8011 - EDB, DBCP				*****	I I m ld		Description	Anahouse	DU F
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		01/03/15 13:04	01/03/15 20:51	1
S	t/Personal	0	Limite				Dranamad	Annhouse	DII Fee

	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	DII Fac
	1,1,1,2-Tetrachloroethane	96		60 - 140	01/03/15 13:04	01/03/15 20:51	1
ļ	1,1,1,2-Tetrachloroethane	98		60 - 140	01/03/15 13:04	01/03/15 20:51	1

	Method: 200.8 - Metals (ICI	P/MS) - Dissolved								
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1	Lead	ND		1.5		ug/L		01/04/15 15:49	01/04/15 19:53	5

TestAmerica Job ID: 460-88413-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Laboratory: TestAmerica Edison

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0200	09-30-16
New Jersey	NELAP	2	12028	06-30-15
New York	NELAP	2	11452	03-31-15
Pennsylvania	NELAP	3	68-00522	02-28-15
Rhode Island	State Program	1	LAO00132	12-30-14 *
USDA	Federal		NJCA-003-08	04-04-17

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-15
California	State Program	9	2891	03-31-15
Connecticut	State Program	1	PH-0688	09-30-16
Florida	NELAP	4	E871008	06-30-15
Illinois	NELAP	5	002602	06-30-15
Kansas	NELAP	7	E-10350	01-31-15
Louisiana	NELAP	6	04041	06-30-15
New Hampshire	NELAP	1	203011	04-04-15
New Jersey	NELAP	2	PA005	06-30-15
New York	NELAP	2	11182	03-31-15
North Carolina (WW/SW)	State Program	4	434	12-31-15
Pennsylvania	NELAP	3	02-00416	04-30-15
South Carolina	State Program	4	89014	04-30-15
Texas	NELAP	6	T104704528	03-31-15
US Fish & Wildlife	Federal		LE94312A-1	11-30-15
USDA	Federal		P330-10-00139	05-23-16
Utah	NELAP	8	STLP	05-31-15
Virginia	NELAP	3	460189	09-14-15
West Virginia DEP	State Program	3	142	01-31-15

TestAmerica Edison

1/6/2015

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^{*} Certification renewal pending - certification considered valid.

Method Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-88413-1

TAL PIT

TAL EDI

	Protocol	Laboratory
--	----------	------------

SW846

EPA

Protocol References:

Method

8260C

8011

200.8

EPA = US Environmental Protection Agency

Metals (ICP/MS)

Method Description

Volatile Organic Compounds by GC/MS

EDB, DBCP, and 1,2,3-TCP (GC)

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

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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B.

777 New Durham Road Edison, New Jersey 08817 Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica	CHA	IN OF CUS	TODY /	ANA	LYSIS	CHAIN OF CUSTODY / ANALYSIS REQUEST 0.0 (0,0)	Phone: (732) 549-3900 Fax: (732) 549-36
Name (for report and invoice)		Samplers Name (Printed)	Printed)			Site/Project Identification	
Kaelvel Brikart		Rachal 6	Birkart	+		SE#1.3 4 MODE	
Company		P.O.#				State (Location of site): NJ: NY:	Other: PA
Contextant Tank Services		08-12-4292	1252			Regulatory Program: PAUST	
		Analysis Turnaround Time	Timo		WALYSIS RE	AMALYSIS REQUESTED (ENTER "X SELOW TO INDICATE REQUEST)	LAB USE ONLY
536 E. Benjamin Franklin Hun	S.	Standard X	_		_		Project No:
Docciossille PA State	,	Rush Chrages Authorized For 2 Week	od For	e	line	he) deb No:
Phone	0.02		4.	6 liv	ja so	seli	58415
11.11 180010		Other	01	a.	de	7	
Sample Identification	Date	Time Matrix	Cont. DV	g	lead		Sample
HWM	12/24/4	MB 8401	5	1	*		
MW-2		Hoy	9	1	۸		
MN-4		1258	5	1	×		-
		1119	9	×	X		
MW-6 5-Day		1132	5	*	×		
MUSH RUSH		1154	5	*	ガ		
MW-10		ואו	5		ブ	480-88413 Chain of Cusway	lody
Bridge US		1327	4		*		
Bridge DS	4	N 342	5		ナ		

Special Instructions とそのな

Relinquished b

Company

lab filter samples

Relinquished by

Massachusetts (M-NJ312), North Carolina (No. 578)

Laborgfory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

1900

14/42/21

1900

4

Received by

14/42/2

1645

3) 2.

Relinquished by

Company

12/20/14/15/15

2

Time

Received by

Date / Time

Received by

12/29/14 1340

=

Date / Time

Received by

Water Metals Filtered (Yes/No)?

Company

Company

Company

Company

Relinquished by

Preservation Used: 1 = ICE, 2 = HCl, 3 = H2SO4, 4 = HNO3, 5 = NaOH

6 = Other

7 = Other

Soil:

123112

0071	284/2	
,	Receipt Temperature and pH Log	TestAmerica Edison
		Page of

Preservative Name/Conc.:	Sample No(s), adjusted:									TALS Sample Number		Cooling#	Number of Coolers:	Job Number:
ame/Conc.:). adjusted:	If pH adju			T	T	Ī		T	(pH<2)	Ammonta	2000		88413
		If pH adjustments are required record the information below:								(pH<2)	COD	o o		100
		re requir								(pH<2)	Nitrate Nitrite	1000	•	
		ed record								(pH<2)	Metals	0 0 6	IR Guin #	
		the infor								(pH<2)	Hardness	obler #4 coler #5:	C	Receip
Volum		mation bo								(pH 5-9)	Pest	0	- C	Receipt Temperature and pH Log
Volume of Preservative used (ml):		low:								(pH<2)	EPH or	676 6	P/ emperature	rature a
ervative u										(pH<2)	PhenoIs		tures	nd pH L
sed (ml):										(pH>9)	Sulfide	0 0	4	.og
										(pH<2)	TKN	Goler #7 ooler #8	\$. 4	
										(pH<2)	ТОС	o d		
										(pH>12)	Total Cyanide	6 6 6	4: 19	
										(pH<2)	Total Phos			
			1		1						Other		į · :	
											Other	CALL TO A		

EDS-WI-038, Rev 4, 06/09/14

Initials:

Lot # of Preservative(s):

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

Samples for Metal analysis which are cut of compliance must be acidified at least 24 hours prior to analysis.

Login Sample Receipt Checklist

Job Number: 460-88413-1

Client: Center Point Tank Service

Login Number: 88413 List Source: TestAmerica Edison

List Number: 1

Creator: Gilmore, Julie L

orditor. Omnoro, vano E		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	IR KOP#1 0.0
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-88413-1

List Source: TestAmerica Pittsburgh
List Number: 2
List Creation: 12/31/14 10:43 AM

Creator: Watson, Debbie

Question	Answer Comment	
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Edison 777 New Durham Road Edison, NJ 08817 Tel: (732)549-3900

TestAmerica Job ID: 460-91724-1 Client Project/Site: Liberty Oil 38

For:

Center Point Tank Service 536 E Benjamin Franklin Douglassville, Pennsylvania 19518

Attn: Rachel Burkart

Sje miller

Authorized for release by: 3/23/2015 1:42:25 PM

Jill Miller, Project Manager II (732)549-3900 jill.miller@testamericainc.com

.....LINKS

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Have a Question?



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

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

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

TestAmerica Job ID: 460-91724-1

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Receipt Checklists	

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Sample Summary

Client: Center Point Tank Service Project/Site: Liberty Oil 38

TestAmerica Job ID: 460-91724-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-91724-1	MW-2	Water	03/13/15 11:52	03/16/15 12:51
460-91724-2	MW-4	Water	03/13/15 14:22	03/16/15 12:51
460-91724-3	MW-6	Water	03/13/15 12:10	03/16/15 12:51
460-91724-4	MW-9	Water	03/13/15 13:02	03/16/15 12:51
460-91724-5	MW-10	Water	03/13/15 13:27	03/16/15 12:51
460-91724-6	Bridge US	Water	03/13/15 14:35	03/16/15 12:51
460-91724-7	Bridge DS	Water	03/13/15 13:56	03/16/15 12:51

Definitions/Glossary

Client: Center Point Tank Service Project/Site: Liberty Oil 38

Reporting Limit or Requested Limit (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

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

TestAmerica Job ID: 460-91724-1

Glossary

RL

RPD

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
0	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
ac	Quality Control
RER	Relative error ratio

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Case Narrative

TestAmerica Job ID: 460-91724-1

Client: Center Point Tank Service Project/Site: Liberty Oil 38

Job ID: 460-91724-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative 460-91724-1

Comments

No additional comments.

Receipt

The samples were received on 3/16/2015 12:51 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.7° C.

GC/MS VOA

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-10 (460-91724-5). Elevated reporting limits (RLs) are provided.

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

GC Semi VOA

Method(s) 8011: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate(MS/MSD) associated with batch 135920.

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

Metals

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

Field Service / Mobile Lab

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

VOA Prep

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

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TestAmerica Job ID: 460-91724-1

Client: Center Point Tank Service Project/Site: Liberty Oil 38

Client Sample ID: MW-2

Lab Sample ID: 460-91724-1

Matrix: Water

Date Collected: 03/13/15 11:52 Date Received: 03/16/15 12:51

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			03/17/15 23:20	1
1,2-Dichloroethane	ND		1.0		ug/L			03/17/15 23:20	1
Ethylbenzene	ND		1.0		ug/L			03/17/15 23:20	1
Isopropylbenzene	ND		1.0		ug/L			03/17/15 23:20	1
Naphthalene	ND		1.0		ug/L			03/17/15 23:20	1
Toluene	ND		1.0		ug/L			03/17/15 23:20	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			03/17/15 23:20	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			03/17/15 23:20	1
Xylenes, Total	ND		2.0		ug/L			03/17/15 23:20	1
Methyl tert-butyl ether	ND		1.0		ug/L			03/17/15 23:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	117		64 - 135					03/17/15 23:20	1
Dibromofluoromethane (Surr)	100		72 - 137					03/17/15 23:20	1
1,2-Dichloroethane-d4 (Surr)	82		70 - 130					03/17/15 23:20	1
Toluene-d8 (Surr)	85		70 - 130					03/17/15 23:20	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,2-Dibromoethane	ND		0.020		ug/L		03/19/15 11:11	03/20/15 15:10	3
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	DII Fa
1,1,1,2-Tetrachioroethane	87		60 - 140				03/19/15 11:11	03/20/15 15:10	
1,1,1,2-Tetrachloroethane	88		60 - 140				03/19/15 11:11	03/20/15 15:10	
Method: 200.8 - Metals (ICP/I	MS) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Lead	ND		1.5	77	ug/L		03/19/15 22:51	03/20/15 04:35	-

Client Sample ID: MW-4

Date Collected: 03/13/15 14:22

Lab Sample ID: 460-91724-2

Matrix: Water

Date Received: 03/16/15 12:51

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	160		1.0		ug/L			03/17/15 23:45	1
1,2-Dichloroethane	ND		1.0		ug/L			03/17/15 23:45	1
Ethylbenzene	160		1.0		ug/L			03/17/15 23:45	1
Isopropylbenzene	13		1.0		ug/L			03/17/15 23:45	1
Naphthalene	13		1.0		ug/L			03/17/15 23:45	1
Toluene	160		1.0		ug/L			03/17/15 23:45	1
1,2,4-Trimethylbenzene	100		1.0		ug/L			03/17/15 23:45	1
1,3,5-Trimethylbenzene	27		1.0		ug/L			03/17/15 23:45	1
Xylenes, Total	230		2.0		ug/L			03/17/15 23:45	1
Methyl tert-butyl ether	32		1.0		ug/L			03/17/15 23:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	116		64 - 135					03/17/15 23:45	1
Dibromofluoromethane (Surr)	95		72 - 137					03/17/15 23:45	1
1,2-Dichloroethane-d4 (Surr)	83		70 - 130					03/17/15 23:45	1
Toluene-d8 (Surr)	86		70 - 130					03/17/15 23:45	1

TestAmerica Edison

Client Sample ID: MW-4

Date Collected: 03/13/15 14:22 Date Received: 03/16/15 12:51

Lab Sample ID: 460-91724-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		03/19/15 11:11	03/20/15 15:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	81	-	60 - 140				03/19/15 11:11	03/20/15 15:40	1
1,1,1,2-Tetrachloroethane	70		60 - 140				03/19/15 11:11	03/20/15 15:40	1

Method: 200.8 - Metals (ICP/MS) - Dissolved Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac 03/20/15 04:46 Lead ND 1.5 ug/L 03/19/15 22:51

Client Sample ID: MW-6 Lab Sample ID: 460-91724-3

Date Collected: 03/13/15 12:10 Matrix: Water

Date Received: 03/16/15 12:51

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			03/19/15 00:10	1
1,2-Dichloroethane	ND		1.0		ug/L			03/19/15 00:10	1
Ethylbenzene	ND		1.0		ug/L			03/19/15 00:10	1
Isopropylbenzene	ND		1.0		ug/L			03/19/15 00:10	1
Naphthalene	ND		1.0		ug/L			03/19/15 00:10	:1
Toluene	ND		1.0		ug/L			03/19/15 00:10	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			03/19/15 00:10	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			03/19/15 00:10	1
Xylenes, Total	ND		2.0		ug/L			03/19/15 00:10	1
Methyl tert-butyl ether	ND		1.0		ug/L			03/19/15 00:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	121		64 - 135					03/19/15 00:10	1
Dibromofluoromethane (Surr)	102		72 - 137					03/19/15 00:10	1
1,2-Dichloroethane-d4 (Surr)	82		70 - 130					03/19/15 00:10	1
Toluene-d8 (Surr)	84		70 - 130					03/19/15 00:10	1
Method: 8011 - EDB, DBCP, a	nd 1,2,3-TCP (GC)							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		03/19/15 11:11	03/20/15 16:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	92		60 - 140				03/19/15 11:11	03/20/15 16:10	1
1,1,1,2-Tetrachloroethane	90		60 - 140				03/19/15 11:11	03/20/15 16:10	1
Method: 200.8 - Metals (ICP/M	S) - Dissolved								
		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DII Fac
Analyte	Result	Qualifier	RL	MIDL	OTHE		Prepared	Analyzeu	DII Pac

Client Sample ID: MW-9

Lab Sample ID: 460-91724-4

Matrix: Water

Date Collected: 03/13/15 13:02 Date Received: 03/16/15 12:51

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	15		1.0		ug/L			03/18/15 00:35	1
1,2-Dichloroethane	ND		1.0		ug/L			03/18/15 00:35	1
Ethylbenzene	ND		1.0		ug/L			03/18/15 00:35	1
Isopropylbenzene	6.4		1.0		ug/L			03/18/15 00:35	1
Naphthalene	ND		1.0		ug/L			03/18/15 00:35	1
Toluene	ND		1.0		ug/L			03/18/15 00:35	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			03/18/15 00:35	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			03/18/15 00:35	:1
Xylenes, Total	ND		2.0		ug/L			03/18/15 00:35	1
Methyl tert-butyl ether	3.8		1.0		ug/L			03/18/15 00:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	98		64 - 135					03/18/15 00:35	1
Dibromofluoromethane (Surr)	83		72 - 137					03/18/15 00:35	1
1,2-Dichloroethane-d4 (Surr)	71		70 - 130					03/18/15 00:35	1
Toluene-d8 (Surr)	74		70 - 130					03/18/15 00:35	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,2-Dibromoethane	ND		0.020		ug/L		03/19/15 11:11	03/20/15 16:41	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	DII Fa
1,1,1,2-Tetrachloroethane	85		60 - 140				03/19/15 11:11	03/20/15 16:41	
1,1,1,2-Tetrachloroethane	80		60 - 140				03/19/15 11:11	03/20/15 16:41	
Method: 200.8 - Metals (ICP/I	MS) - Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Lead	ND		1.5		ug/L		03/19/15 22:51	03/20/15 05:08	

Client Sample ID: MW-10

Date Collected: 03/13/15 13:27

Lab Sample ID: 460-91724-5

Matrix: Water

Date Received: 03/16/15 12:51

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	630		2.0		ug/L			03/20/15 11:42	2
1,2-Dichloroethane	ND		2.0		ug/L			03/20/15 11:42	2
Ethylbenzene	260		2.0		ug/L			03/20/15 11:42	2
Isopropylbenzene	29		2.0		ug/L			03/20/15 11:42	2
Naphthalene	56		2.0		ug/L			03/20/15 11:42	2
Toluene	25		2.0		ug/L			03/20/15 11:42	2
1,2,4-Trimethylbenzene	170		2.0		ug/L			03/20/15 11:42	2
1,3,5-Trimethylbenzene	20		2.0		ug/L			03/20/15 11:42	2
Xylenes, Total	120		4.0		ug/L			03/20/15 11:42	2
Methyl tert-butyl ether	43		2.0		ug/L			03/20/15 11:42	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	89		64 - 135					03/20/15 11:42	2
Dibromofluoromethane (Surr)	98		72 - 137					03/20/15 11:42	2
1,2-Dichloroethane-d4 (Surr)	95		70 - 130					03/20/15 11:42	2
Toluene-d8 (Surr)	91		70 - 130					03/20/15 11:42	2

TestAmerica Edison

Client Sample ID: MW-10 Lab Sample ID: 460-91724-5 Date Collected: 03/13/15 13:27

Matrix: Water

03/18/15 01:01

03/18/15 01:01

Date Received: 03/16/15 12:51

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		03/19/15 11:11	03/20/15 17:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	84		60 - 140				03/19/15 11:11	03/20/15 17:11	1
1,1,1,2-Tetrachloroethane	82		60 - 140				03/19/15 11:11	03/20/15 17:11	1

Method: 200.8 - Metals (ICP/MS) - Dissolved Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac ND Lead 1.5 ug/L 03/19/15 22:51 03/20/15 05:14

Client Sample ID: Bridge US Lab Sample ID: 460-91724-6 Matrix: Water

Date Collected: 03/13/15 14:35

Date Received: 03/16/15 12:51

Xylenes, Total

Methyl tert-butyl ether

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			03/18/15 01:01	1
1,2-Dichloroethane	ND		1.0		ug/L			03/18/15 01:01	1
Ethylbenzene	ND		1.0		ug/L			03/18/15 01:01	1
Isopropylbenzene	ND		1.0		ug/L			03/18/15 01:01	1
Naphthalene	ND		1.0		ug/L			03/18/15 01:01	-1
Toluene	ND		1.0		ug/L			03/18/15 01:01	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			03/18/15 01:01	1
1.3.5-Trimethylbenzene	ND		1.0		ug/L			03/18/15 01:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Bromofluorobenzene	117		64 - 135		03/18/15 01:01	1
Dibromofluoromethane (Surr)	98		72 - 137		03/18/15 01:01	1
1,2-Dichloroethane-d4 (Surr)	85		70 - 130		03/18/15 01:01	1
Toluene-d8 (Surr)	86		70 - 130		03/18/15 01:01	1

2.0

1.0

ug/L

ug/L

ND

ND

Method: 8011 - EDB, DBCP, Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		03/19/15 11:11	03/20/15 17:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	87		60 - 140				03/19/15 11:11	03/20/15 17:41	1
1,1,1,2-Tetrachloroethane	87		60 - 140				03/19/15 11:11	03/20/15 17:41	1

Method: 200.8 - Metals (ICP/MS) -	Dissolved								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DII Fac
Lead	ND		1.5		ug/L		03/19/15 22:51	03/20/15 05:19	5

Client Sample Results

Client: Center Point Tank Service Project/Site: Liberty Oil 38 TestAmerica Job ID: 460-91724-1

Client Sample ID: Bridge DS

Date Collected: 03/13/15 13:56 Date Received: 03/16/15 12:51

1,1,1,2-Tetrachloroethane

Lab Sample ID: 460-91724-7

03/19/15 11:11 03/20/15 18:12

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			03/18/15 01:26	1
1,2-Dichloroethane	ND		1.0		ug/L			03/18/15 01:26	1
Ethylbenzene	ND		1.0		ug/L			03/18/15 01:26	1
Isopropylbenzene	ND		1.0		ug/L			03/18/15 01:26	1
Naphthalene	ND		1.0		ug/L			03/18/15 01:26	1
Toluene	ND		1.0		ug/L			03/18/15 01:26	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			03/18/15 01:26	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			03/18/15 01:26	:1
Xylenes, Total	ND		2.0		ug/L			03/18/15 01:26	1
Methyl tert-butyl ether	ND		1.0		ug/L			03/18/15 01:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	117		64 - 135					03/18/15 01:26	1
Dibromofluoromethane (Surr)	101		72 - 137					03/18/15 01:26	1
1,2-Dichloroethane-d4 (Surr)	84		70 - 130					03/18/15 01:26	1
Toluene-d8 (Surr)	86		70 - 130					03/18/15 01:26	1
Method: 8011 - EDB, DBCP, ar	nd 1 2 3-TCP (GC								
Analyte			RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		03/19/15 11:11	03/20/15 18:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	89		60 - 140				03/19/15 11:11	03/20/15 18:12	1

1	Method: 200.8 - Metals (ICP/MS)	- Dissolved								
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Lead	ND		1.5		ug/L		03/19/15 22:51	03/20/15 05:25	5

60 - 140

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TestAmerica Job ID: 460-91724-1

Client: Center Point Tank Service Project/Site: Liberty Oil 38

Laboratory: TestAmerica Edison

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0200	09-30-16
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A	12-31-15
New Jersey	NELAP	2	12028	06-30-15
New York	NELAP	2	11452	03-31-15
Pennsylvania	NELAP	3	68-00522	02-28-16
Rhode Island	State Program	1	LAO00132	12-30-14 *
USDA	Federal		NJCA-003-08	04-04-17

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-15
California	State Program	9	2891	03-31-15 *
Connecticut	State Program	1	PH-0688	09-30-16
Florida	NELAP	4	E871008	06-30-15
Illinois	NELAP	5	002602	06-30-15
Kansas	NELAP	7	E-10350	03-31-15 *
Louisiana	NELAP	6	04041	06-30-15
New Hampshire	NELAP	1	203011	04-04-15 *
New Jersey	NELAP	2	PA005	06-30-15
New York	NELAP	2	11182	03-31-15 *
North Carolina (WW/SW)	State Program	4	434	12-31-15
Pennsylvania	NELAP	3	02-00416	04-30-15 *
South Carolina	State Program	4	89014	04-30-15
Texas	NELAP	6	T104704528	03-31-15 *
US Fish & Wildlife	Federal		LE94312A-1	11-30-15
USDA	Federal		P330-10-00139	05-23-16
Utah	NELAP	8	STLP	05-31-15
Virginia	NELAP	3	460189	09-14-15
West Virginia DEP	State Program	3	142	01-31-16
Wisconsin	State Program	5	998027800	08-31-15

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^{*} Certification renewal pending - certification considered valid.

Method Summary

Client: Center Point Tank Service Project/Site: Liberty Oil 38 TestAmerica Job ID: 460-91724-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	TAL PIT
200.8	Metals (ICP/MS)	EPA	TAL EDI

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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777 New Durham Road 732) 549-3679

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		-	1/4	Water: 1/2	1	-		, 7 = Other	6 = Other	
		-		Soil:	S	5 = NaOH	= HNO ₃ , 5 =	3 = H2SO4, 4 = HNO9	1 = ICE, 2 = HCI,	Preservation Used:
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Massachusetts (M-NJ312), North Carolina (No. 578)

Job Number: Preservative Name/Conc.: Sample No(s). adjusted: If pH adjustments are required record the information below: (pH<2) (pH<2) COD (pH<2) Nihrato Motels (pH<2) Receipt Temperature and pH Log (pH<2) TestAmerica Edison (pH6-9) Pest Volume of Preservative used (ml): (pH<2) (pH<2) Phonois Sulfido (pH>9) (pH<2) TKN (pH<2) 307 Total
- Cyarride Total Phos Other (pH>12) (pH<2) Other

EDS-W1-038, Rev 4, 06/09/14

Continue Co

Lot# of Preservative(s):

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

*Samples for Metal analysis which are out of compliance must be additied at least 24 hours prior to analysis.

Expiration Date:

Date: 3/16/15

Login Sample Receipt Checklist

Job Number: 460-91724-1

Client: Center Point Tank Service

Login Number: 91724 List Source: TestAmerica Edison

List Number: 1

Creator: Gilmore, Julie L

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey<br meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or ampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	IR KOP#1 0.7
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is 6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Job Number: 460-91724-1

Client: Center Point Tank Service

List Source: TestAmerica Pittsburgh

List Creation: 03/17/15 12:19 PM

Creator: Watson, Debbie

Login Number: 91724

List Number: 2

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Edison 777 New Durham Road Edison, NJ 08817 Tel: (732)549-3900

TestAmerica Job ID: 460-97169-1 Client Project/Site: Liberty Oil #38

For:

Center Point Tank Service 536 E Benjamin Franklin Douglassville, Pennsylvania 19518

Attn: Rachel Burkart



Authorized for release by: 7/8/2015 10:11:27 AM

Jill Miller, Project Manager II (732)549-3900 jill.miller@testamericainc.com

.....LINKS

Review your project results through
Total Access

Have a Question?



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

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

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

TestAmerica Job ID: 460-97169-1

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Sample Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-97169-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-97169-1	MW-1	Water	06/29/15 10:46	06/30/15 12:40
460-97169-2	MW-2	Water	06/29/15 11:09	06/30/15 12:40
460-97169-3	MW-4	Water	06/29/15 12:51	06/30/15 12:40
460-97169-4	MW-5	Water	06/29/15 11:25	06/30/15 12:40
460-97169-5	MW-6	Water	06/29/15 11:37	06/30/15 12:40
460-97169-6	MW-9	Water	06/29/15 12:05	06/30/15 12:40
460-97169-7	MW-10	Water	06/29/15 12:24	06/30/15 12:40

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Definitions/Glossary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Practical Quantitation Limit

Toxicity Equivalent Factor (Dioxin)
Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

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

Quality Control

Relative error ratio

TestAmerica Job ID: 460-97169-1

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Glossary

PQL

QC

RER

RPD

TEF

TEQ

RL

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

TestAmerica Edison

Case Narrative

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-97169-1

Job ID: 460-97169-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative 460-97169-1

Comments

No additional comments.

Receipt

The samples were received on 6/30/2015 12:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.2° C.

GC/MS VOA

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-10 (460-97169-7). Elevated reporting limits (RLs) are provided.

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

GC Semi VOA

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

Metals

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

Field Service / Mobile Lab

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

VOA Prep

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

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TestAmerica Job ID: 460-97169-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-1

Lab Sample ID: 460-97169-1

Matrix: Water

Date Collected: 06/29/15 10:46 Date Received: 06/30/15 12:40

Date Received: 06/30/15 12:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			07/02/15 18:25	1
1,2-Dichloroethane	ND		1.0		ug/L			07/02/15 18:25	1
Ethylbenzene	ND		1.0		ug/L			07/02/15 18:25	1
Isopropylbenzene	ND		1.0		ug/L			07/02/15 18:25	1
Naphthalene	ND		1.0		ug/L			07/02/15 18:25	1
Toluene	ND		1.0		ug/L			07/02/15 18:25	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/02/15 18:25	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/02/15 18:25	1
Xylenes, Total	ND		2.0		ug/L			07/02/15 18:25	1
Methyl tert-butyl ether	ND		1.0		ug/L			07/02/15 18:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	DII Fac
Bromofluorobenzene	87		64 - 135					07/02/15 18:25	1
Dibromofluoromethane (Surr)	95		72 - 137					07/02/15 18:25	1
1,2-Dichloroethane-d4 (Surr)	119		70 - 130					07/02/15 18:25	1
Toluene-d8 (Surr)	111		70 - 130					07/02/15 18:25	1
Method: 8011 - EDB, DBCF	e. and 1.2.3-TC	P (GC)							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		07/02/15 11:23	07/03/15 02:09	1
Surrogate	%Pecovery	Qualifier	Limite				Prepared	Analyzad	Dil Fac

		0.020	-9-		01,001,000	
Surrogate	%Recovery Qualifier	Limits		Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	90	60 - 140		07/02/15 11:23	07/03/15 02:09	1
1,1,1,2-Tetrachloroethane	88	60 - 140		07/02/15 11:23	07/03/15 02:09	1

Analyte	Result Qualifier	RL	MDL I	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	1.5	i	ug/L	170,700	07/01/15 00:32	07/01/15 06:27	5

Client Sample ID: MW-2 Lab Sample ID: 460-97169-2 Date Collected: 06/29/15 11:09 Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			07/02/15 18:48	1
1,2-Dichloroethane	ND		1.0		ug/L			07/02/15 18:48	1
Ethylbenzene	ND		1.0		ug/L			07/02/15 18:48	1
Isopropylbenzene	ND		1.0		ug/L			07/02/15 18:48	1
Naphthalene	ND		1.0		ug/L			07/02/15 18:48	1
Toluene	ND		1.0		ug/L			07/02/15 18:48	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/02/15 18:48	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/02/15 18:48	1
Xylenes, Total	ND		2.0		ug/L			07/02/15 18:48	1
Methyl tert-butyl ether	ND		1.0		ug/L			07/02/15 18:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	DII Fac
Bromofluorobenzene	87		64 - 135					07/02/15 18:48	1
Dibromofluoromethane (Surr)	96		72 - 137					07/02/15 18:48	1
1,2-Dichloroethane-d4 (Surr)	115		70 - 130					07/02/15 18:48	1
Toluene-d8 (Surr)	111		70 - 130					07/02/15 18:48	1

TestAmerica Edison

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Client: Center Point Tank Service

TestAmerica Job ID: 460-97169-1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		07/02/15 11:23	07/03/15 02:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	93		60 - 140				07/02/15 11:23	07/03/15 02:40	1
1,1,1,2-Tetrachloroethane	95		60 - 140				07/02/15 11:23	07/03/15 02:40	1
Method: 200.8 - Metals (IC	CP/MS) - Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		07/01/15 00:32	07/01/15 07:12	5

Client Sample ID: MW-4

Project/Site: Liberty Oil #38

Lab Sample ID: 460-97169-3 Date Collected: 06/29/15 12:51 Matrix: Water Date Received: 06/30/15 12:40

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	120	1.0		ug/L			07/02/15 19:12	1
1,2-Dichloroethane	ND	1.0		ug/L			07/02/15 19:12	1
Ethylbenzene	130	1.0		ug/L			07/02/15 19:12	1
Isopropylbenzene	12	1.0		ug/L			07/02/15 19:12	1
Naphthalene	6.2	1.0		ug/L			07/02/15 19:12	1
Toluene	17	1.0		ug/L			07/02/15 19:12	1
1,2,4-Trimethylbenzene	34	1.0		ug/L			07/02/15 19:12	1
1,3,5-Trimethylbenzene	1.3	1.0		ug/L			07/02/15 19:12	1
Xylenes, Total	57	2.0		ug/L			07/02/15 19:12	1
Methyl tert-butyl ether	22	1.0		ug/L			07/02/15 19:12	1
								D

Surrogate	%Recovery	Qualifier	Limits	Prepared Analyzed	Dil Fac
Bromofluorobenzene	88		64 - 135	07/02/15 19:	12
Dibromofluoromethane (Surr)	92		72 - 137	07/02/15 19:	12
1,2-Dichloroethane-d4 (Surr)	111		70 - 130	07/02/15 19:	12
Toluene-d8 (Surr)	108		70 - 130	07/02/15 19:	12

Method: 8011 - EDB, DBC	P, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		07/02/15 11:23	07/03/15 03:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	91		60 - 140				07/02/15 11:23	07/03/15 03:11	1
1,1,1,2-Tetrachloroethane	87		60 - 140				07/02/15 11:23	07/03/15 03:11	1

Method: 200.8 - Metals (ICP/MS) - Dissolv	red							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		07/01/15 00:32	07/01/15 07:18	5

Client Sample ID: MW-5 Lab Sample ID: 460-97169-4 Date Collected: 06/29/15 11:25 Matrix: Water

Date Received: 06/30/15 12:40

Analyte	Result	Qualifier	MS RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			07/02/15 19:36	1
1,2-Dichloroethane	ND		1.0		ug/L			07/02/15 19:36	1
Ethylbenzene	ND		1.0		ug/L			07/02/15 19:36	1
Isopropylbenzene	ND		1.0		ug/L			07/02/15 19:36	1

TestAmerica Edison

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TestAmerica Job ID: 460-97169-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-5

Lab Sample ID: 460-97169-4

Matrix: Water

Date Collected: 06/29/15 11:25 Date Received: 06/30/15 12:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0		ug/L			07/02/15 19:36	1
Toluene	ND		1.0		ug/L			07/02/15 19:36	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/02/15 19:36	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/02/15 19:36	1
Xylenes, Total	ND		2.0		ug/L			07/02/15 19:36	1
Methyl tert-butyl ether	ND		1.0		ug/L			07/02/15 19:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	90		64 - 135			1		07/02/15 19:36	1
Dibromofluoromethane (Surr)	99		72 - 137					07/02/15 19:36	1
1,2-Dichloroethane-d4 (Surr)	116		70 - 130					07/02/15 19:36	1
Toluene-d8 (Surr)	113		70 - 130					07/02/15 19:36	1

Analyte		Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		07/02/15 11:23	07/03/15 03:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	96		60 - 140				07/02/15 11:23	07/03/15 03:42	1
1,1,1,2-Tetrachloroethane	96		60 - 140				07/02/15 11:23	07/03/15 03:42	1
Method: 200.8 - Metals (IC	CP/MS) - Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	-	1.5		ug/L		07/04/45 00:32	07/01/15 07:24	- 5

Client Sample ID: MW-6
Date Collected: 06/29/15 11:37
Lab Sample ID: 460-97169-5
Matrix: Water

Date Received: 06/30/15 12:40

1,2-Dibromoethane

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			07/02/15 20:00	1
1,2-Dichloroethane	ND		1.0		ug/L			07/02/15 20:00	1
Ethylbenzene	ND		1.0		ug/L			07/02/15 20:00	1
Isopropylbenzene	ND		1.0		ug/L			07/02/15 20:00	1
Naphthalene	ND		1.0		ug/L			07/02/15 20:00	1
Toluene	ND		1.0		ug/L			07/02/15 20:00	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/02/15 20:00	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/02/15 20:00	1
Xylenes, Total	ND		2.0		ug/L			07/02/15 20:00	1
Methyl tert-butyl ether	ND		1.0		ug/L			07/02/15 20:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	89		64 - 135			2		07/02/15 20:00	1
Dibromofluoromethane (Surr)	98		72 - 137					07/02/15 20:00	1
1,2-Dichloroethane-d4 (Surr)	112		70 - 130					07/02/15 20:00	1
Toluene-d8 (Surr)	110		70 - 130					07/02/15 20:00	1
Method: 8011 - EDB, DBCP	, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

TestAmerica Edison

07/02/15 11:23 07/03/15 04:13

0.020

ug/L

Client Sample ID: MW-6

Lab Sample ID: 460-97169-5

Matrix: Water

Date Collected: 06/29/15 11:37 Date Received: 06/30/15 12:40

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	93		60 - 140				07/02/15 11:23	07/03/15 04:13	
1,1,1,2-Tetrachloroethane	95		60 - 140				07/02/15 11:23	07/03/15 04:13	
Method: 200.8 - Metals (IC	CP/MS) - Dissolv	ed							
Analyte	The state of the s	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Lead	38		1.5		ug/L		07/01/15 00:32	07/01/15 07:29	- 1

Client Sample ID: MW-9 Lab Sample ID: 460-97169-6

Date Collected: 06/29/15 12:05 Matrix: Water

Date Received: 06/30/15 12:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	17		1.0		ug/L			07/02/15 20:24	1
1,2-Dichloroethane	ND		1.0		ug/L			07/02/15 20:24	1
Ethylbenzene	ND		1.0		ug/L			07/02/15 20:24	1
Isopropylbenzene	8.9		1.0		ug/L			07/02/15 20:24	1
Naphthalene	ND		1.0		ug/L			07/02/15 20:24	1
Toluene	ND		1.0		ug/L			07/02/15 20:24	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/02/15 20:24	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/02/15 20:24	1
Xylenes, Total	ND		2.0		ug/L			07/02/15 20:24	1
Methyl tert-butyl ether	8.8		1.0		ug/L			07/02/15 20:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	DII Fac
Bromofluorobenzene	88		64 - 135					07/02/15 20:24	1
Dibromofluoromethane (Surr)	97		72 - 137					07/02/15 20:24	1
1,2-Dichloroethane-d4 (Surr)	121		70 - 130					07/02/15 20:24	1
Toluene-d8 (Surr)	107		70 - 130					07/02/15 20:24	1

Method: 8011 - EDB, DBC	P, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		07/02/15 11:23	07/03/15 04:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	90		60 - 140				07/02/15 11:23	07/03/15 04:44	1
1,1,1,2-Tetrachloroethane	89		60 - 140				07/02/15 11:23	07/03/15 04:44	1

Method: 200.8 - Metals (ICP/MS)	- Dissolv	red							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		07/01/15 00:32	07/01/15 07:35	5

Client Sample ID: MW-10

Date Collected: 06/29/15 12:24

Lab Sample ID: 460-97169-7

Matrix: Water

Date Collected: 06/29/15 12:24 Date Received: 06/30/15 12:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2200		10		ug/L			07/02/15 20:48	10
1,2-Dichloroethane	ND		10		ug/L			07/02/15 20:48	10
Ethylbenzene	670		10		ug/L			07/02/15 20:48	10
Isopropylbenzene	60		10		ug/L			07/02/15 20:48	10

TestAmerica Edison

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7/8/2015

Client Sample Results

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-10 Date Collected: 06/29/15 12:24 Date Received: 06/30/15 12:40

TestAmerica Job ID: 460-97169-1

Lab Sample ID: 460-97169-7

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-			Ph 11 PF

				Unit		Bronared	Applyand	Dil Fac
37.550.75007	Qualifier		MDL			Prepared		
83		10		ug/L			07/02/15 20:48	10
18		10		ug/L			07/02/15 20:48	10
460		10		ug/L			07/02/15 20:48	10
ND		10		ug/L			07/02/15 20:48	10
340		20		ug/L			07/02/15 20:48	10
110		10		ug/L			07/02/15 20:48	10
%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
87		64 - 135			1		07/02/15 20:48	10
92		72 - 137					07/02/15 20:48	10
112		70 - 130					07/02/15 20:48	10
111		70 - 130					07/02/15 20:48	10
	Result 83 18 460 ND 340 110 %Recovery 87 92 112	Result Qualifier 83 18 460 ND 340 110 %Recovery Qualifier 87 92 112	Result Qualifier RL 83 10 18 10 460 10 ND 10 340 20 110 10 %Recovery Qualifier Limits 87 64 - 135 92 72 - 137 112 70 - 130	83 10 18 10 460 10 ND 10 340 20 110 10 %Recovery Qualifier Limits 87 64 - 135 92 72 - 137 112 70 - 130	Result Qualifier RL MDL Unit Ug/L	Result Qualifier RL MDL Unit D Ug/L	Result 83 Qualifier RL MDL Unit ug/L ug/L D Prepared 18 10 ug/L ug/L 460 10 ug/L ND 10 ug/L 340 20 ug/L 110 10 ug/L %Recovery Qualifier Limits Prepared 87 64 - 135 92 72 - 137 112 70 - 130	Result Qualifier RL MDL Unit D Prepared Analyzed 83 10 ug/L 07/02/15 20:48 18 10 ug/L 07/02/15 20:48 460 10 ug/L 07/02/15 20:48 ND 10 ug/L 07/02/15 20:48 340 20 ug/L 07/02/15 20:48 110 10 ug/L 07/02/15 20:48 %Recovery Qualifier Limits Prepared Analyzed 87 64 - 135 07/02/15 20:48 92 72 - 137 07/02/15 20:48 112 70 - 130 07/02/15 20:48

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		07/02/15 11:23	07/03/15 05:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	77		60 - 140				07/02/15 11:23	07/03/15 05:15	1
1.1.1.2-Tetrachloroethane	87		60 - 140				07/02/15 11:23	07/03/15 05:15	1

1	Method: 200.8 - Metals (ICP/I	MS) - Dissolv	ed							
1	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Lead	ND	200	1.5		ug/L		07/01/15 00:32	07/01/15 07:41	5

TestAmerica Job ID: 460-97169-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Laboratory: TestAmerica Edison

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0200	09-30-16
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A	12-31-15
New Jersey	NELAP	2	12028	06-30-15 *
New York	NELAP	2	11452	03-31-16
Pennsylvania	NELAP	3	68-00522	02-28-16
Rhode Island	State Program	1	LAO00132	12-30-15
USDA	Federal		NJCA-003-08	04-04-17

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-15 *
California	State Program	9	2891	03-31-16
Connecticut	State Program	1	PH-0688	09-30-16
Florida	NELAP	4	E871008	06-30-16
Illinois	NELAP	5	002602	06-30-16
Kansas	NELAP	7	E-10350	07-31-15
Louisiana	NELAP	6	04041	06-30-16
New Hampshire	NELAP	1	203011	04-04-16
New Jersey	NELAP	2	PA005	09-30-15
New York	NELAP	2	11182	03-31-16
North Carolina (WW/SW)	State Program	4	434	12-31-15
Pennsylvania	NELAP	3	02-00416	04-30-16
South Carolina	State Program	4	89014	06-30-15 *
Texas	NELAP	6	T104704528	03-31-16
US Fish & Wildlife	Federal		LE94312A-1	11-30-15
USDA	Federal		P-Soil-01	05-23-16
Utah	NELAP	8	STLP	05-31-16
Virginia	NELAP	3	460189	09-14-15
West Virginia DEP	State Program	3	142	01-31-16
Wisconsin	State Program	5	998027800	08-31-15

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^{*} Certification renewal pending - certification considered valid.

Method Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-97169-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	TAL PIT
200.8	Metals (ICP/MS)	EPA	TAL EDI

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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CHAIN OF CUSTODY REPORT

THE LEADER IN ENVIRONMENTAL TESTING

1008 W. Ninth Avenue King of Prussia, PA 19406 (610) 337-9992 FAX (610) 337-9939

E-mail rachel bankrowkhak Fax #: Project Name: Librit 571 \$738 Project Name: Librit 572 Sampler: Rachel Bull 1000ATION Project Name: Librit 573 Project Name: Librit 573	1237 109 GW SAMPLE PROGRAM	# of B # of B Preserval 3 3 3	TOMES TO THE SUPPLIES THE SUPPL	ANALYSIS ANALYSIS TYPE ASSOCIATION ASSOCIATION ASSOCIATION THAT ASSOCIATION THAT	ALYSIS WPE ALYSIS WPE RECEIVED DATE RECEIVED RECEIVED
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TestAmerica Edison

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Lot# of Preservative(s):	Preservative Name/Conc.		Sample No(s), adjusted:		1						7	6	5	4	w	2	-			00 00 mm	of Societies	-
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The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted. Security for Metal analysis which are out of compliance must be additied at least 24 hours prior to analysis.		,		if all adjustments are required record the information below:	+	-	_	_		_	2	22	12	12	-2.	12	42	(pH<2) (pH<2)	Metels Hardseas	Copper	R Guin #	
Department Ma	· ·	Volum		nformation bei	1													2) (pH 5-9)	Post	6 10	X op	
nager should b	9	Volume of Preservative used (m):		1	+		_			-	-	-	-	-	-	-	_	(pH<2) (pH<2)	QAM Phanols	0 10		
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Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-97169-1

Login Number: 97169 List Source: TestAmerica Edison

List Number: 1

Creator: Keehn, Jeffrey S

creator: Reenn, Jenrey S		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey neter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or ampered with.	True	
Samples were received on ice.	True	1.8/2.2c IR#KOP-1
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is 6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-97169-1

List Source: TestAmerica Pittsburgh
List Number: 2
List Creation: 07/01/15 02:28 PM

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey neter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or ampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is :6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Edison 777 New Durham Road Edison, NJ 08817 Tel: (732)549-3900

TestAmerica Job ID: 460-101443-1 Client Project/Site: Liberty Oil #38

For:

Center Point Tank Service 536 E Benjamin Franklin Douglassville, Pennsylvania 19518

Attn: Rachel Burkart



Authorized for release by: 9/26/2015 12:33:29 PM

Jill Miller, Project Manager II (732)549-3900 jill.miller@testamericainc.com

.....LINKS

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Have a Question?



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

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

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

TestAmerica Job ID: 460-101443-1

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Sample Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

TestAmerica Job ID: 460-101443-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-101443-1	MW-1	Water	09/18/15 11:56	09/21/15 10:42
460-101443-2	MW-2	Water	09/18/15 12:05	09/21/15 10:42
460-101443-3	MW-4	Water	09/18/15 12:46	09/21/15 10:42
460-101443-4	MW-5	Water	09/18/15 12:19	09/21/15 10:42
460-101443-5	MW-9	Water	09/18/15 13:19	09/21/15 10:42
460-101443-6	MW-10	Water	09/18/15 13:38	09/21/15 10:42

Definitions/Glossary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Practical Quantitation Limit

Toxicity Equivalent Factor (Dioxin)
Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

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

Quality Control

Relative error ratio

TestAmerica Job ID: 460-101443-1

Glossary

PQL

QC

RER

RPD

TEF

TEQ

RL

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

Case Narrative

Client: Center Point Tank Service Project/Site: Liberty Oil #38

TestAmerica Job ID: 460-101443-1

Job ID: 460-101443-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative 460-101443-1

Comments

No additional comments.

Receipt

The samples were received on 9/21/2015 10:42 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.0° C.

GC/MS VOA

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-10 (460-101443-6). Elevated reporting limits (RLs) are provided.

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

GC Semi VOA

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

Metals

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

Field Service / Mobile Lab

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

VOA Prep

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

Lab Sample ID: 460-101443-1

Prepared

09/24/15 14:16 09/25/15 07:01

Analyzed

Dil Fac

Matrix: Water

Client Sample ID: MW-1 Date Collected: 09/18/15 11:56 Date Received: 09/21/15 10:42

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			09/23/15 17:38	1
1,2-Dichloroethane	ND		1.0		ug/L			09/23/15 17:38	1
Ethylbenzene	ND		1.0		ug/L			09/23/15 17:38	1
Isopropylbenzene	ND		1.0		ug/L			09/23/15 17:38	1
Naphthalene	ND		1.0		ug/L			09/23/15 17:38	1
Toluene	ND		1.0		ug/L			09/23/15 17:38	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/23/15 17:38	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/23/15 17:38	1
Xylenes, Total	ND		2.0		ug/L			09/23/15 17:38	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/23/15 17:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	101		70 - 131					09/23/15 17:38	1
Dibromofluoromethane (Surr)	101		72 - 136					09/23/15 17:38	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 137					09/23/15 17:38	1
Toluene-d8 (Surr)	99		74 - 120					09/23/15 17:38	1
Method: 8011 - EDB, DBCP	, and 1,2,3-TC	P (GC)							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		09/24/15 14:16	09/25/15 07:01	1

Method: 200.8 - Metals (ICP/MS) - Dissolved Result Qualifier Analyte RL MDL Unit Prepared Analyzed Dil Fac Lead ND 1.5 ug/L 09/24/15 17:57 09/25/15 00:34

Limits

60 - 140

%Recovery Qualifier

94

Client Sample ID: MW-2 Lab Sample ID: 460-101443-2 Date Collected: 09/18/15 12:05 Matrix: Water

Date Received: 09/21/15 10:42

Surrogate

1,1,1,2-Tetrachloroethane

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			09/23/15 18:04	1
1,2-Dichloroethane	ND		1.0		ug/L			09/23/15 18:04	1
Ethylbenzene	ND		1.0		ug/L			09/23/15 18:04	1
Isopropylbenzene	1.8		1.0		ug/L			09/23/15 18:04	1
Naphthalene	ND		1.0		ug/L			09/23/15 18:04	1
Toluene	ND		1.0		ug/L			09/23/15 18:04	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/23/15 18:04	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/23/15 18:04	1
Xylenes, Total	ND		2.0		ug/L			09/23/15 18:04	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/23/15 18:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	103		70 - 131					09/23/15 18:04	1
Dibromofluoromethane (Surr)	101		72 - 136					09/23/15 18:04	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 137					09/23/15 18:04	1
Toluene-d8 (Surr)	102		74-120					09/23/15 18:04	1

TestAmerica Job ID: 460-101443-1

Client Sample ID: MW-2

Date Collected: 09/18/15 12:05 Date Received: 09/21/15 10:42

Lab Sample ID: 460-101443-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
,2-Dibromoethane	ND		0.020		ug/L		09/24/15 14:16	09/25/15 07:31	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	93		60 - 140				09/24/15 14:16	09/25/15 07:31	1
Method: 200.8 - Metals (Id	CP/MS) - Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: MW-4 Lab Sample ID: 460-101443-3 Date Collected: 09/18/15 12:46

Date Received: 09/21/15 10:42

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	42		1.0		ug/L			09/23/15 18:30	1
1,2-Dichloroethane	ND		1.0		ug/L			09/23/15 18:30	1
Ethylbenzene	44		1.0		ug/L			09/23/15 18:30	. 1
Isopropylbenzene	8.3		1.0		ug/L			09/23/15 18:30	1
Naphthalene	6.7		1.0		ug/L			09/23/15 18:30	1
Toluene	15		1.0		ug/L			09/23/15 18:30	1
1,2,4-Trimethylbenzene	52		1.0		ug/L			09/23/15 18:30	1
1,3,5-Trimethylbenzene	11		1.0		ug/L			09/23/15 18:30	1
Xylenes, Total	58		2.0		ug/L			09/23/15 18:30	1
Methyl tert-butyl ether	19		1.0		ug/L			09/23/15 18:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	DII Fac
Bromofluorobenzene	103		70 - 131					09/23/15 18:30	1
Dibromofluoromethane (Surr)	104		72 - 136					09/23/15 18:30	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 137					09/23/15 18:30	1
Toluene-d8 (Surr)	100		74 - 120					09/23/15 18:30	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		09/24/15 14:16	09/25/15 08:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1.1.1.2-Tetrachloroethane	101		60 - 140				09/24/15 14:16	09/25/15 08:02	1

Method: 200.8 - Metals (ICP/MS)	- Dissolv	red							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		09/24/15 17:57	09/25/15 00:51	5

Client Sample ID: MW-5 Lab Sample ID: 460-101443-4 Date Collected: 09/18/15 12:19 Matrix: Water

Date Received: 09/21/15 10:42

Method: 8260C - Volatile	Organic Compo	unds by GC/	MS						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			09/23/15 18:56	1
1,2-Dichloroethane	ND		1.0		ug/L			09/23/15 18:56	1

2

TestAmerica Job ID: 460-101443-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-5

Lab Sample ID: 460-101443-4

Matrix: Water

Date Collected: 09/18/15 12:19 Date Received: 09/21/15 10:42

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0		ug/L			09/23/15 18:56	1
Isopropylbenzene	ND		1.0		ug/L			09/23/15 18:56	1
Naphthalene	ND		1.0		ug/L			09/23/15 18:56	1
Toluene	ND		1.0		ug/L			09/23/15 18:56	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/23/15 18:56	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/23/15 18:56	1
Xylenes, Total	ND		2.0		ug/L			09/23/15 18:56	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/23/15 18:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	99		70 - 131					09/23/15 18:56	1
Dibromofluoromethane (Surr)	102		72 - 136					09/23/15 18:56	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 137					09/23/15 18:56	1
Toluene-d8 (Surr)	101		74 - 120					09/23/15 18:56	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		09/24/15 14:16	09/25/15 08:32	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	91		60 - 140				09/24/15 14:16	09/25/15 08:32	

Method: 200.8 - Metals (ICP/MS	S) - Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		09/24/15 17:57	09/25/15 00:57	5

Client Sample ID: MW-9

Date Collected: 09/18/15 13:19

Lab Sample ID: 460-101443-5

Matrix: Water

Date Received: 09/21/15 10:42

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.5		1.0		ug/L			09/23/15 19:21	1
1,2-Dichloroethane	ND		1.0		ug/L			09/23/15 19:21	1
Ethylbenzene	ND		1.0		ug/L			09/23/15 19:21	1
Isopropylbenzene	4.6		1.0		ug/L			09/23/15 19:21	1
Naphthalene	ND		1.0		ug/L			09/23/15 19:21	1
Toluene	ND		1.0		ug/L			09/23/15 19:21	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/23/15 19:21	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/23/15 19:21	1
Xylenes, Total	ND		2.0		ug/L			09/23/15 19:21	1
Methyl tert-butyl ether	2.5		1.0		ug/L			09/23/15 19:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	101		70 - 131					09/23/15 19:21	1
Dibromofluoromethane (Surr)	99		72 - 136					09/23/15 19:21	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 137					09/23/15 19:21	1
Toluene-d8 (Surr)	100		74-120					09/23/15 19:21	1

Client Sample ID: MW-9

Lab Sample ID: 460-101443-5

Matrix: Water

Date Collected: 09/18/15 13:19 Date Received: 09/21/15 10:42

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		09/24/15 14:16	09/25/15 09:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	95		60 - 140				09/24/15 14:16	09/25/15 09:03	1
Method: 200.8 - Metals (IC	CP/MS) - Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		09/24/15 17:57	09/24/15 23:43	5

Client Sample ID: MW-10 Lab Sample ID: 460-101443-6

Date Collected: 09/18/15 13:38

Matrix: Water

Date Received: 09/21/15 10:42

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2100		10		ug/L			09/23/15 19:47	10
1,2-Dichloroethane	ND		10		ug/L			09/23/15 19:47	10
Ethylbenzene	490		10		ug/L			09/23/15 19:47	10
Isopropylbenzene	64		10		ug/L			09/23/15 19:47	10
Naphthalene	120		10		ug/L			09/23/15 19:47	10
Toluene	51		10		ug/L			09/23/15 19:47	10
1,2,4-Trimethylbenzene	170		10		ug/L			09/23/15 19:47	10
1,3,5-Trimethylbenzene	45		10		ug/L			09/23/15 19:47	10
Xylenes, Total	220		20		ug/L			09/23/15 19:47	10
Methyl tert-butyl ether	100		10		ug/L			09/23/15 19:47	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	103		70 - 131					09/23/15 19:47	10
Dibromofluoromethane (Surr)	99		72 - 136					09/23/15 19:47	10
1,2-Dichloroethane-d4 (Surr)	101		70 - 137					09/23/15 19:47	10
Toluene-d8 (Surr)	101		74 - 120					09/23/15 19:47	10
Method: 8011 - EDB, DBCF	e, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		09/24/15 14:16	09/25/15 09:34	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	90		60 - 140				09/24/15 14:16	09/25/15 09:34	1
Method: 200.8 - Metals (ICI	P/MS) - Dissolv	ed							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		09/24/15 17:57	09/24/15 23:49	

TestAmerica Job ID: 460-101443-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Laboratory: TestAmerica Edison

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0200	09-30-16
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A	12-31-15
New Jersey	NELAP	2	12028	06-30-15 *
New York	NELAP	2	11452	03-31-16
Pennsylvania	NELAP	3	68-00522	02-28-16
Rhode Island	State Program	1	LAO00132	12-30-15
USDA	Federal		NJCA-003-08	04-04-17

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-16
California	State Program	9	2891	03-31-16
Connecticut	State Program	1	PH-0688	09-30-16
Florida	NELAP	4	E871008	06-30-16
Illinois	NELAP	5	200005	06-30-16
Kansas	NELAP	7	E-10350	09-30-15
Louisiana	NELAP	6	04041	06-30-16
New Hampshire	NELAP	1	2030	04-04-16
New Jersey	NELAP	2	PA005	09-30-15
New York	NELAP	2	11182	03-31-16
North Carolina (WW/SW)	State Program	4	434	12-31-15
Pennsylvania	NELAP	3	02-00416	04-30-16
South Carolina	State Program	4	89014	04-30-16
Texas	NELAP	6	T104704528-15-2	03-31-16
US Fish & Wildlife	Federal		LE94312A-1	11-30-15
USDA	Federal		P-Soil-01	05-23-16
Utah	NELAP	8	PA001462015-4	05-31-16
Virginia	NELAP	3	460189	09-14-16
West Virginia DEP	State Program	3	142	01-31-16
Wisconsin	State Program	5	998027800	08-31-16

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^{*} Certification renewal pending - certification considered valid.

Method Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-101443-1

TAL EDI

	Laboratory
SW846	TAL EDI

EPA

Protocol References:

Method

8260C

8011

200.8

EPA = US Environmental Protection Agency

Metals (ICP/MS)

Method Description

Volatile Organic Compounds by GC/MS

EDB, DBCP, and 1,2,3-TCP (GC)

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

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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777 New Durham Road Edison, New Jersey 08817 Phone: (732) 549-3900 Fax: (732) 549-3679

h-mw mw-2 1- MM. Preservation Used: 1 = ICE, 2 = HC., OI-MW きとしい Name (for report and invoice) mw-9 Address Company THE LEADER IN ENVIRONMENTAL TESTING 4663884977 enterpoint Tout Services Douglassy, Ile C.Benjamin Franklin Huy Sample Identification Bur Kart 6 = Other MEDA Fax . 12504, 4 = HNO3, 5 = NaOH 7 = Other 118/15 Date CHAIN OF CUSTODY / ANALYSIS REQUEST 0.6.* 1219 1246 P. O. # Rachel Burkart 319 1705 1338 ISC Time Rush Chargo's Authorized For. Analysis Turnaround Time Standard V 1 Wook 2 Week Othor 08-12-4292 Matrix SW Water: 1/2 Cont Soil: unleaded gaschie 1/2/6 leaded gasoline ANALYSIS REQUESTED (CHEST 7:: BELOW TO INDICATE REQUEST) Regulatory Program: PAUST State (Location of site): Site/Project Identification H/29. 460-101443 Chain of Custody Z #38 1.0 : Kop-Page Other: 10 1 443 100 NO: LAB USE ONLY Project No: Numbers Sample 9

Page 12 of 16

Laboratory Certifications: New Jersey (12028), New York (11452),

Pennsylvania (68-529)/Connecticut (PH-0200), Rhode Island (132).

TAL - 0016 (0814)

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Date / Time

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Water Metals Filtered (Yes/No)?

Company

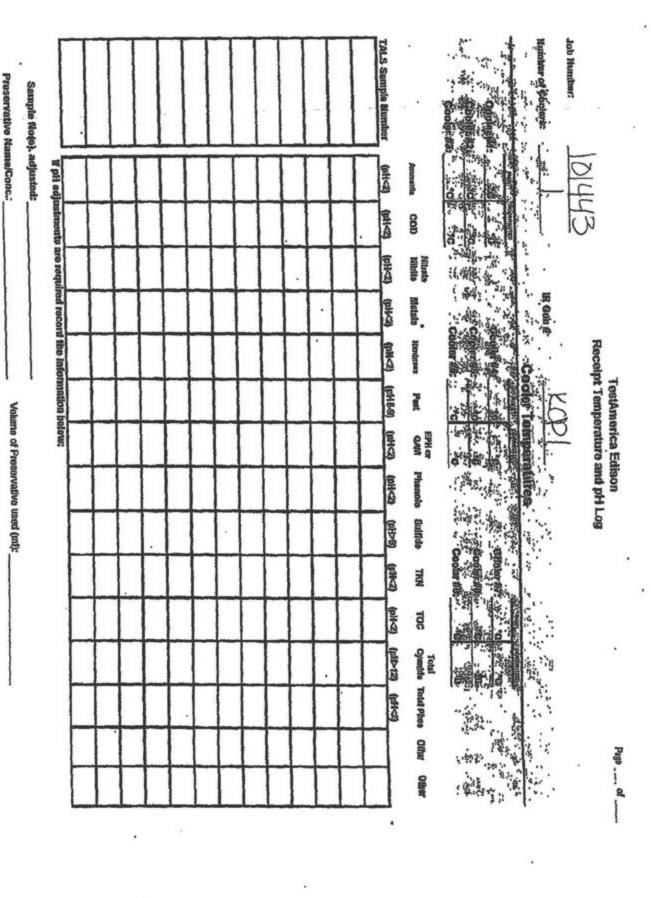
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Company

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Received by



EDS-WI-039, Ray 4, 09/09/4

The appropriete Project Menager and Department Manager should be notified about the samples which were pH adjusted.

Expiration Date:

Samples for Metal enalysis which are out of compliance must be ecidified at least 24 hours prior to enalysis. \cap

Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-101443-1

Login Number: 101443 List Source: TestAmerica Edison

List Number: 1

Creator: Gilmore, Julie L.

Greator. Gilliore, Julie L		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	IR KOP#1
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <pre><6mm (1/4").</pre>	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-101443-1

List Source: TestAmerica Pittsburgh
List Number: 2
List Creation: 09/22/15 12:39 PM

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or ampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is 6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Edison 777 New Durham Road Edison, NJ 08817 Tel: (732)549-3900

TestAmerica Job ID: 460-106279-1 Client Project/Site: Liberty Oil #38

For:

Center Point Tank Service 536 E Benjamin Franklin Douglassville, Pennsylvania 19518

Attn: Rachel Burkart

Sie miller

Authorized for release by: 12/21/2015 3:55:50 PM

Jill Miller, Project Manager II (732)549-3900 jill.miller@testamericainc.com

.....LINKS

Review your project results through

Total Access

Have a Question?



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

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

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

TestAmerica Job ID: 460-106279-1

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Sample Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

TestAmerica Job ID: 460-106279-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-106279-1	MW-1	Water	12/11/15 10:19	12/15/15 13:15
460-106279-2	MW-2	Water	12/11/15 10:41	12/15/15 13:15
460-106279-3	MW-4	Water	12/11/15 12:21	12/15/15 13:15
460-106279-4	MW-5	Water	12/11/15 10:56	12/15/15 13:15
460-106279-5	MW-6	Water	12/11/15 11:11	12/15/15 13:15
460-106279-6	MW-9	Water	12/11/15 11:34	12/15/15 13:15
460-106279-7	MW-10	Water	12/11/15 11:53	12/15/15 13:15

Definitions/Glossary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Practical Quantitation Limit

Toxicity Equivalent Factor (Dioxin)
Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

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

Quality Control

Relative error ratio

TestAmerica Job ID: 460-106279-1

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Glossary

PQL

QC

RER

RPD

TEF

TEQ

RL

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

Case Narrative

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-106279-1

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Job ID: 460-106279-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative 460-106279-1

Comments

No additional comments.

Receipt

The samples were received on 12/15/2015 1:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice.

GC/MS VOA

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-10 (460-106279-7). Elevated reporting limits (RLs) are provided.

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

GC Semi VOA

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

Metals

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

Field Service / Mobile Lab

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

VOA Prep

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

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TestAmerica Edison 12/21/2015

Client Sample ID: MW-1 Lab Sample ID: 460-106279-1 Date Collected: 12/11/15 10:19

Matrix: Water

Date Received: 12/15/15 13:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			12/18/15 16:17	1
1,2-Dichloroethane	ND		1.0		ug/L			12/18/15 16:17	1
Ethylbenzene	ND		1.0		ug/L			12/18/15 16:17	1
Isopropylbenzene	ND		1.0		ug/L			12/18/15 16:17	1
Naphthalene	ND		1.0		ug/L			12/18/15 16:17	1
Toluene	ND		1.0		ug/L			12/18/15 16:17	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			12/18/15 16:17	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			12/18/15 16:17	1
Xylenes, Total	ND		2.0		ug/L			12/18/15 16:17	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/18/15 16:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	93		70 - 131					12/18/15 16:17	1
Dibromofluoromethane (Surr)	98		72 - 136					12/18/15 16:17	1
1,2-Dichloroethane-d4 (Surr)	109		70 - 137					12/18/15 16:17	1
Toluene-d8 (Surr)	95		74 - 120					12/18/15 16:17	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		12/17/15 10:48	12/17/15 15:03	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	108		60 - 140				12/17/15 10:48	12/17/15 15:03	1
1,1,1,2-Tetrachloroethane	102		60 - 140				12/17/15 10:48	12/17/15 15:03	1
Method: 200.8 - Metals (IC	CP/MS) - Dissolv	red							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5	77	ug/L		12/18/15 02:06	12/18/15 07:49	5

Client Sample ID: MW-2 Lab Sample ID: 460-106279-2 Date Collected: 12/11/15 10:41 Matrix: Water

Date Received: 12/15/15 13:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DII Fac
Benzene	ND		1.0		ug/L			12/18/15 16:43	1
1,2-Dichloroethane	ND		1.0		ug/L			12/18/15 16:43	1
Ethylbenzene	ND		1.0		ug/L			12/18/15 16:43	1
Isopropylbenzene	ND		1.0		ug/L			12/18/15 16:43	1
Naphthalene	ND		1.0		ug/L			12/18/15 16:43	1
Toluene	ND		1.0		ug/L			12/18/15 16:43	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			12/18/15 16:43	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			12/18/15 16:43	1
Xylenes, Total	ND		2.0		ug/L			12/18/15 16:43	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/18/15 16:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	96		70 - 131					12/18/15 16:43	1
Dibromofluoromethane (Surr)	99		72 - 136					12/18/15 16:43	1
1,2-Dichloroethane-d4 (Surr)	111		70 - 137					12/18/15 16:43	1
Toluene-d8 (Surr)	96		74 - 120					12/18/15 16:43	1

TestAmerica Job ID: 460-106279-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		12/17/15 10:48	12/17/15 15:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	108		60 - 140				12/17/15 10:48	12/17/15 15:34	1
1,1,1,2-Tetrachloroethane	102		60 - 140				12/17/15 10:48	12/17/15 15:34	1

Method: 200.8 - Metals (ICP/MS) - Dissolved

Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac Lead ND 1.5 ug/L 12/18/15 02:06 12/18/15 08:00

Client Sample ID: MW-4 Lab Sample ID: 460-106279-3

Date Collected: 12/11/15 12:21 Matrix: Water Date Received: 12/15/15 13:15

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	270	1.0		ug/L			12/18/15 17:09	1
1,2-Dichloroethane	ND	1.0		ug/L			12/18/15 17:09	1
Ethylbenzene	140	1.0		ug/L			12/18/15 17:09	1
Isopropylbenzene	16	1.0		ug/L			12/18/15 17:09	1
Naphthalene	19	1.0		ug/L			12/18/15 17:09	1
Toluene	190	1.0		ug/L			12/18/15 17:09	1
1,2,4-Trimethylbenzene	80	1.0		ug/L			12/18/15 17:09	1
1,3,5-Trimethylbenzene	17	1.0		ug/L			12/18/15 17:09	1
Xylenes, Total	250	2.0		ug/L			12/18/15 17:09	1
Methyl tert-butyl ether	28	1.0		ug/L			12/18/15 17:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Bromofluorobenzene	94		70 - 131		12/18/15 17:09	1
Dibromofluoromethane (Surr)	99		72 - 136		12/18/15 17:09	1
1,2-Dichloroethane-d4 (Surr)	119		70 - 137		12/18/15 17:09	1
Toluene-d8 (Surr)	97		74 - 120		12/18/15 17:09	1

Method: 8011 - EDB, DB	3CP, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		12/17/15 10:48	12/17/15 16:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	106	60 - 140	12/17/15 10:48	12/17/15 16:04	1
1,1,1,2-Tetrachloroethane	93	60 - 140	12/17/15 10:48	12/17/15 16:04	1

Method: 200.8 - Metals	(ICP/MS) - Dissolve	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		12/18/15 02:06	12/18/15 08:06	5

Lab Sample ID: 460-106279-4 Client Sample ID: MW-5 Date Collected: 12/11/15 10:56 Matrix: Water

Date Received: 12/15/15 13:15

Method: 8260C - Volatile Analyte		unds by GC/ Qualifier	MS RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			12/19/15 08:51	1
1,2-Dichloroethane	ND		1.0		ug/L			12/19/15 08:51	1
Ethylbenzene	ND		1.0		ug/L			12/19/15 08:51	1
Isopropylbenzene	ND		1.0		ug/L			12/19/15 08:51	1

TestAmerica Edison

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12/21/2015

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TestAmerica Job ID: 460-106279-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-5

Lab Sample ID: 460-106279-4

Matrix: Water

Date Collected: 12/11/15 10:56 Date Received: 12/15/15 13:15

Method: 8260C - Volatile O Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	-	1.0		ug/L			12/19/15 08:51	1
Toluene	ND		1.0		ug/L			12/19/15 08:51	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			12/19/15 08:51	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			12/19/15 08:51	1
Xylenes, Total	ND		2.0		ug/L			12/19/15 08:51	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/19/15 08:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	95		70 - 131			1		12/19/15 08:51	1
Dibromofluoromethane (Surr)	99		72 - 136					12/19/15 08:51	1
1,2-Dichloroethane-d4 (Surr)	112		70 - 137					12/19/15 08:51	1
Toluene-d8 (Surr)	97		74 - 120					12/19/15 08:51	1

Analyte	7.000	Qualifier	RL	MDL			Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		12/17/15 10:48	12/17/15 16:34	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	107		60 - 140				12/17/15 10:48	12/17/15 16:34	
1,1,1,2-Tetrachloroethane	100		60 - 140				12/17/15 10:48	12/17/15 16:34	
Method: 200.8 - Metals (IC	P/MS) - Dissolv	ed							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ua/l		12/18/15 02:06	12/18/15 08:12	

Client Sample ID: MW-6

Date Collected: 12/11/15 11:11

Lab Sample ID: 460-106279-5

Matrix: Water

Date Received: 12/15/15 13:15

1,2-Dibromoethane

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			12/18/15 18:01	1
1,2-Dichloroethane	ND		1.0		ug/L			12/18/15 18:01	1
Ethylbenzene	ND		1.0		ug/L			12/18/15 18:01	1
Isopropylbenzene	ND		1.0		ug/L			12/18/15 18:01	1
Naphthalene	ND		1.0		ug/L			12/18/15 18:01	1
Toluene	ND		1.0		ug/L			12/18/15 18:01	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			12/18/15 18:01	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			12/18/15 18:01	1
Xylenes, Total	ND		2.0		ug/L			12/18/15 18:01	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/18/15 18:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	97		70 - 131			2		12/18/15 18:01	1
Dibromofluoromethane (Surr)	100		72 - 136					12/18/15 18:01	1
1,2-Dichloroethane-d4 (Surr)	112		70 - 137					12/18/15 18:01	1
Toluene-d8 (Surr)	96		74 - 120					12/18/15 18:01	1
Method: 8011 - EDB, DBCP Analyte		P (GC) Qualifier	RL	MDI	Unit	D	Prepared	Analyzed	Dil Fa

TestAmerica Edison

12/17/15 10:48 12/17/15 17:04

0.020

ug/L

Client Sample ID: MW-6

Lab Sample ID: 460-106279-5

Matrix: Water

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

Surrogate	%Recovery Quality	fier Limits	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	113	60 - 140	12/17/15 10:48	12/17/15 17:04	1
1,1,1,2-Tetrachloroethane	104	60 - 140	12/17/15 10:48	12/17/15 17:04	1

Method: 200.8 - Metals (ICP/MS)	- Dissolv	red							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	39		1.5		ug/L		12/18/15 02:06	12/18/15 08:28	5

Client Sample ID: MW-9 Lab Sample ID: 460-106279-6

Date Collected: 12/11/15 11:34

Matrix: Water

Date Received: 12/15/15 13:15

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.5	1.0		ug/L			12/18/15 18:27	1
1,2-Dichloroethane	ND	1.0		ug/L			12/18/15 18:27	1
Ethylbenzene	ND	1.0		ug/L			12/18/15 18:27	1
Isopropylbenzene	4.0	1.0		ug/L			12/18/15 18:27	1
Naphthalene	ND	1.0		ug/L			12/18/15 18:27	1
Toluene	ND	1.0		ug/L			12/18/15 18:27	1
1,2,4-Trimethylbenzene	ND	1.0		ug/L			12/18/15 18:27	1
1,3,5-Trimethylbenzene	ND	1.0		ug/L			12/18/15 18:27	1
Xylenes, Total	ND	2.0		ug/L			12/18/15 18:27	1
Methyl tert-butyl ether	2.2	1.0		ug/L			12/18/15 18:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Bromofluorobenzene	95		70 - 131		12/18/15 18:27	1
Dibromofluoromethane (Surr)	102		72 - 136		12/18/15 18:27	1
1,2-Dichloroethane-d4 (Surr)	117		70 - 137		12/18/15 18:27	1
Toluene-d8 (Surr)	96		74 - 120		12/18/15 18:27	1

Method: 8011 - EDB, DBC	P, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		12/17/15 10:48	12/17/15 17:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	111		60 - 140				12/17/15 10:48	12/17/15 17:35	1
1,1,1,2-Tetrachloroethane	106		60 - 140				12/17/15 10:48	12/17/15 17:35	1

Meth	od: 200.8 - Metals (ICP/MS) - Disso	lved							
Analyt	e Resu	It Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	N	D	1.5		ug/L		12/18/15 02:06	12/18/15 08:34	5

Client Sample ID: MW-10

Date Collected: 12/11/15 11:53

Lab Sample ID: 460-106279-7

Matrix: Water

Date Collected: 12/11/15 11:53 Date Received: 12/15/15 13:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1000		10		ug/L			12/18/15 18:54	10
1,2-Dichloroethane	ND		10		ug/L			12/18/15 18:54	10
Ethylbenzene	300		10		ug/L			12/18/15 18:54	10
Isopropylbenzene	43		10		ug/L			12/18/15 18:54	10

Client Sample Results

Client: Center Point Tank Service Project/Site: Liberty Oil #38

TestAmerica Job ID: 460-106279-1

12/18/15 02:06 12/18/15 08:40

Lab Sample ID: 460-106279-7

Matrix: Water

Clien	t Samp	le ID	: M	W-10
Data C	allantad	. 4014	AIAE	44.52

Date Collected: 12/11/15 11:53 Date Received: 12/15/15 13:15

Lead

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DII Fac
Naphthalene	39		10		ug/L			12/18/15 18:54	10
Toluene	ND		10		ug/L			12/18/15 18:54	10
1,2,4-Trimethylbenzene	69		10		ug/L			12/18/15 18:54	10
1,3,5-Trimethylbenzene	ND		10		ug/L			12/18/15 18:54	10
Xylenes, Total	37		20		ug/L			12/18/15 18:54	10
Methyl tert-butyl ether	54		10		ug/L			12/18/15 18:54	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	96		70 - 131					12/18/15 18:54	10
Dibromofluoromethane (Surr)	99		72 - 136					12/18/15 18:54	10
1,2-Dichloroethane-d4 (Surr)	114		70 - 137					12/18/15 18:54	10
Toluene-d8 (Surr)	98		74 - 120					12/18/15 18:54	10
Method: 8011 - EDB, DBCF								2002000	
Analyte	/2.000	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		12/17/15 10:48	12/17/15 18:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	107		60 - 140				12/17/15 10:48	12/17/15 18:05	1
1,1,1,2-Tetrachloroethane	103		60 - 140				12/17/15 10:48	12/17/15 18:05	1
Method: 200.8 - Metals (ICI	P/MS) - Dissolv	ed							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

ug/L

ND

TestAmerica Job ID: 460-106279-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Laboratory: TestAmerica Edison

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0200	09-30-16
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A	12-31-15
New Jersey	NELAP	2	12028	06-30-16
New York	NELAP	2	11452	03-31-16
Pennsylvania	NELAP	3	68-00522	02-28-16
Rhode Island	State Program	1	LAO00132	12-30-15
USDA	Federal		NJCA-003-08	04-04-17

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-16
California	State Program	9	2891	03-31-16
Connecticut	State Program	1	PH-0688	09-30-16
Florida	NELAP	4	E871008	06-30-16
Illinois	NELAP	5	200005	06-30-16
Kansas	NELAP	7	E-10350	01-31-16 *
Louisiana	NELAP	6	04041	06-30-16
New Hampshire	NELAP	1	2030	04-04-16
New Jersey	NELAP	2	PA005	06-30-16
New York	NELAP	2	11182	03-31-16
North Carolina (WW/SW)	State Program	4	434	12-31-15 *
Pennsylvania	NELAP	3	02-00416	04-30-16
South Carolina	State Program	4	89014	04-30-16
Texas	NELAP	6	T104704528-15-2	03-31-16
USDA	Federal		P-Soil-01	05-23-16
Utah	NELAP	8	PA001462015-4	05-31-16
Virginia	NELAP	3	460189	09-14-16
West Virginia DEP	State Program	3	142	01-31-16
Wisconsin	State Program	5	998027800	08-31-16

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^{*} Certification renewal pending - certification considered valid.

Method Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-106279-1

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rotocol	Laboratory	

Method Description	Protocol	Laboratory
Volatile Organic Compounds by GC/MS	SW846	TAL EDI
EDB, DBCP, and 1,2,3-TCP (GC)	SW846	TAL PIT
Metals (ICP/MS)	EPA	TAL EDI
	Volatile Organic Compounds by GC/MS EDB, DBCP, and 1,2,3-TCP (GC)	Volatile Organic Compounds by GC/MS SW846 EDB, DBCP, and 1,2,3-TCP (GC) SW846

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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NAIVSIS REQUEST 1.2. L.C. Kota	777 New Durham Road Edison, New Jersey 08817 Phone: (732) 549-3900 Fax: (732)
	7 ax: (732) 549-3679

THE LEADER IN ENVIRONMENTAL TESTING	CHA	N OF C	USTOD	Y/AN.	CHAIN OF CUSTODY / ANALYSIS REQUEST		1.7 11.6	70	Page of
Name (for report and invoice)		Samplers Na	Samplers Name (Printed)	7-	S	Site/Project Identification	#38		,
0		P.O.#	528-21-50	22	nlα	n of si	N.C.	NY:	Other: P/}-
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4. B. Senjamin Frank	hr.	Standard X			٤				Project No:
Douxlossille PA	,	Rush Charges Authorized For 2 Week	Authorized For:	. We	Jelm			_	Job No:
Phone, Eax		See See		SI .	d go			_	106279
	Date	Time M	Matrix Cont.	vinte	bead				Sample
	121115	-	6W 5		ガ				
MW-2		1691	S	1	*				
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2=HCI, 3=H2	4 = HNO ₃	5 = NaOH	Soil:	2	5				
Special Instructions							Water Metals Filtered (Yes/No)?	s Filtered ((Yes/No)?
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Laboratory Certifications: New Jersey (12028),	71	York (1145)	New York (11452), Pennsylvania (68-522),	/Ivania (6		Connecticut (RH-0200), Rhode Island (132).), Rhode Islan	d (132).	TAL - 0016 (0715)
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Massachusetts (M-NJ312), North Carolina (No. 578)

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pH Log	3

IR Gain # CODIE! Telegiple	Cooler #8 Total M Phenois Sustide TRN TOC Cyanida (pH-2) (pH-2) (pH-2) (pH-12) (pH-12) Preservative used (rnl): Expiration Date: Frould be notified about the samples which were ph	Cooler #0: 10 (pH-2) (p
Cooley Teimperatures Cooley Teimperatures Cooley 194 20 20 20 20 20 20 20 20 20 20 20 20 20	Cooler #8 Total M Phenois Sustide TRN TOC Cyanids (pH-2) (pH-2) (pH-2) (pH-12) Expiration Date: Expiration Date: Freservative used (mi):	Explaints Configuration Configuration Configuration Configuration Configuration Configuration Configuration Configuration Total Total Total Phose (pH-c2) (pH-c2) (pH-c2) (pH-c2) (pH-c2) (pH-c2) Expiration Date: Expiration Date: Expiration Date:
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	Phone:			E-Maž				Paget	
Shipping/Receiving				jill.miller@	jill.miller@testamericainc.com	ic.com		Page 1 of 1	
Company. TestAmerica Laboratories, Inc.						Analysis Requested	, pe	Job #. 460-106279-1	
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 12/21/2015	#		200	FOLO			중한 Preservation Codes	16
Chy. Pittsburgh	TAT Requested (days):	38			NAME OF TAXABLE PARTY.			1022	M - Hexane N - None O - AsNaO2
States, Zip: PA, 15238					Parms?				P - Na2O4S Q - Na2SO3
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO e.			- (0	p			G - Amchior H - Ascorbio Arid	S - H2SO4 T - TSP Dodecehodra
Email:	WOR				_			I - Ice J - Of Water	U - Acetone V - MCAA
Project Name: Liberty Oil #38	Project #: 46011357				-			K-EDTA L-EDA	W - ph 4-5 Z - other (specify)
State	SSOWE							Other	
Sample Identification - Client ID (Lab ID)	Sample Date	-	Sample (www.seed.) Type (www.seed.) (C=Comp., Ownerseed.) G=grab.) STYTERSON, A	Matrix (Seconds) (Seconds) (Community Community Communit	qe14_1108\1108			Tourinimbot Special Ins	Special Instructions/Note:
MW-1 (460-106279-1)	12/11/15	10:19	Water	Water	;		福の問題を行うない	×	PREDigue Control of the Control of t
MW-2 (460-106279-2)	12/11/15	10:41 Footom	W	Water	×				
MW-4 (460-106279-3)	12/11/15	12:21 Eastern	W	Water	×				
MW-5 (460-106279-4)	12/11/15	10:56 Eastern	W	Water	×			(A)	
MW-6 (460-106279-5)	12/11/15	11:11 Eastern	. w	Water	×			N. Carlotte	
MW-9 (460-106279-8)	12/11/15	11:34 Eastern	W	Water	×				
MW-10 (460-106279-7)	12/11/15	11:53 Eastern	W	Water	×			201	
			+	+					
				+					
				_				MARKET STATES	
Possible Hazard Identification Unconfirmed				S	Return To Client	ee may be	assessed if samples are ret	tained longer than 1 m	onth)
Deliverable Requested: I, II, III, IV, Other (specify)				S	secial Instruct	Requirem			
Empty Kit Relinquished by:	1	Date:		. Time:		ν	Method of Shipment.		
Control of Minore	Detections: Detections:	HDO	Company	ny rry	Racelved by:	plule	Date/Time.	5 1700	Sompany
kelinquished by:	Date/Time;		Company	J.	Received by:		Date/Time:		Company
Custody Seals Intact: Custody Seal No.:					Cooler Tempe	rature(s) ^a C and Other Remarks:			

Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-106279-1

Login Number: 106279 List Source: TestAmerica Edison

List Number: 1

Creator: Gilmore, Julie L

Overeties.		C	
Question	Answer	Comment	
Radioactivity wasn't checked or is = background as measured by a survey<br neter.	N/A		
The cooler's custody seal, if present, is intact.	N/A		
Sample custody seals, if present, are intact.	N/A		
The cooler or samples do not appear to have been compromised or ampered with.	True		
Samples were received on ice.	True		
Cooler Temperature is acceptable.	True	IR kOP#1	
Cooler Temperature is recorded.	True		
COC is present.	True		
COC is filled out in ink and legible.	True		
COC is filled out with all pertinent information.	True		
s the Field Sampler's name present on COC?	True		
There are no discrepancies between the containers received and the COC.	True		
Samples are received within Holding Time.	True		
Sample containers have legible labels.	True		
Containers are not broken or leaking.	True		
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
Sample Preservation Verified.	True		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
Containers requiring zero headspace have no headspace or bubble is 6mm (1/4").	True		
Multiphasic samples are not present.	True		
Samples do not require splitting or compositing.	True		
Residual Chlorine Checked.	N/A		

Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-106279-1

List Source: TestAmerica Pittsburgh
List Number: 2
List Creation: 12/16/15 04:57 PM

Creator: Walnoha, Tyler C

oreator. Walliona, Tyler o		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or ampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <pre><6mm (1/4").</pre>	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Edison 777 New Durham Road Edison, NJ 08817 Tel: (732)549-3900

TestAmerica Job ID: 460-111936-1 Client Project/Site: Liberty Oil #38

For:

Center Point Tank Service 536 E Benjamin Franklin Douglassville, Pennsylvania 19518

Attn: Rachel Burkart



Authorized for release by: 4/26/2016 3:46:07 PM

Jill Miller, Project Manager II (732)549-3900 jill.miller@testamericainc.com

----- LINKS

Review your project results through

Total Access

Have a Question?



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

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

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

TestAmerica Job ID: 460-111936-1

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Sample Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

TestAmerica Job ID: 460-111936-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-111936-1	MW-1	Water	04/08/16 10:56	04/11/16 12:26
460-111936-2	MW-2	Water	04/08/16 11:18	04/11/16 12:26
460-111936-3	MW-3	Water	04/08/16 14:05	04/11/16 12:26
460-111936-4	MW-4	Water	04/08/16 13:39	04/11/16 12:26
460-111936-5	MW-5	Water	04/08/16 11:34	04/11/16 12:26
460-111936-6	MW-6	Water	04/08/16 11:55	04/11/16 12:26
460-111936-7	MW-9	Water	04/08/16 12:49	04/11/16 12:26
460-111936-8	MW-10	Water	04/08/16 13:11	04/11/16 12:26
460-111936-9	MW-11	Water	04/08/16 12:12	04/11/16 12:26

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Definitions/Glossary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Practical Quantitation Limit

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

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

Quality Control

Relative error ratio

TestAmerica Job ID: 460-111936-1

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Glossary

PQL

QC RER

RL

RPD

TEF

TEQ

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

Case Narrative

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-111936-1

Job ID: 460-111936-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative 460-111936-1

Comments

No additional comments.

Receipt

The samples were received on 4/11/2016 12:26 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.4° C.

GC/MS VOA

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-10 (460-111936-8). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-4 (460-111936-4). Elevated reporting limits (RLs) are provided.

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

GC Semi VOA

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

Metals

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

Field Service / Mobile Lab

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

VOA Prep

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

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Client: Center Point Tank Service Project/Site: Liberty Oil #38

Lab Sample ID: 460-111936-1

Matrix: Water

Date	Collected:	04/08/16	10:56
Date	Received:	04/11/16	12:26

Client Sample ID: MW-1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			04/13/16 22:35	1
1,2-Dichloroethane	ND		1.0		ug/L			04/13/16 22:35	1
Ethylbenzene	ND		1.0		ug/L			04/13/16 22:35	1
Isopropylbenzene	ND		1.0		ug/L			04/13/16 22:35	1
Naphthalene	ND		1.0		ug/L			04/13/16 22:35	1
Toluene	ND		1.0		ug/L			04/13/16 22:35	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/13/16 22:35	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/13/16 22:35	1
Xylenes, Total	ND		2.0		ug/L			04/13/16 22:35	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/13/16 22:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	89		70 - 131					04/13/16 22:35	1
Dibromofluoromethane (Surr)	106		72 - 136					04/13/16 22:35	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 137					04/13/16 22:35	1
Toluene-d8 (Surr)	97		74 - 120					04/13/16 22:35	1
Method: 8011 - EDB, DBCP	, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		04/14/16 09:54	04/14/16 22:08	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		04/14/16 09:54	04/14/16 22:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	100		60 - 140				04/14/16 09:54	04/14/16 22:08	1
1.1.1.2-Tetrachloroethane	101		60 - 140				04/14/16 09:54	04/14/16 22:08	1

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	1.5		ug/L	100,000	04/23/16 17:01	04/26/16 01:04	5

Client Sample ID: MW-2 Lab Sample ID: 460-111936-2 Date Collected: 04/08/16 11:18 Matrix: Water Date Received: 04/11/16 12:26

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			04/13/16 22:58	1
1,2-Dichloroethane	ND		1.0		ug/L			04/13/16 22:58	1
Ethylbenzene	ND		1.0		ug/L			04/13/16 22:58	1
Isopropylbenzene	ND		1.0		ug/L			04/13/16 22:58	1
Naphthalene	ND		1.0		ug/L			04/13/16 22:58	1
Toluene	ND		1.0		ug/L			04/13/16 22:58	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/13/16 22:58	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/13/16 22:58	1
Xylenes, Total	ND		2.0		ug/L			04/13/16 22:58	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/13/16 22:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	92		70 - 131				//	04/13/16 22:58	1
Dibromofluoromethane (Surr)	111		72 - 136					04/13/16 22:58	1
1,2-Dichloroethane-d4 (Surr)	109		70 - 137					04/13/16 22:58	1
Toluene-d8 (Surr)	105		74 - 120					04/13/16 22:58	1

TestAmerica Job ID: 460-111936-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac 1.2-Dibromoethane ND 0.020 ug/L 04/14/16 09:54 04/14/16 22:34

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1,1,1,2-Tetrachloroethane 99 60 - 140 04/14/16 09:54 04/14/16 22:34 04/14/16 09:54 04/14/16 22:34 1,1,1,2-Tetrachloroethane 100 60 - 140

Method: 200.8 - Metals (ICP/MS) - Dissolved

Analyte Result Qualifier RL MDL Unit Prepared Lead ND 1.5 ug/L

Analyzed Dil Fac 04/23/16 17:01 04/26/16 01:16

Lab Sample ID: 460-111936-3 Client Sample ID: MW-3

Matrix: Water

Date Collected: 04/08/16 14:05 Date Received: 04/11/16 12:26

Date Received: 04/11/16 12:26

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	100	1.0		ug/L			04/13/16 23:22	1
1,2-Dichloroethane	ND	1.0		ug/L			04/13/16 23:22	1
Ethylbenzene	85	1.0		ug/L			04/13/16 23:22	1
Isopropylbenzene	21	1.0		ug/L			04/13/16 23:22	1
Naphthalene	11	1.0		ug/L			04/13/16 23:22	1
Toluene	8.4	1.0		ug/L			04/13/16 23:22	1
1,2,4-Trimethylbenzene	91	1.0		ug/L			04/13/16 23:22	1
1,3,5-Trimethylbenzene	6.1	1.0		ug/L			04/13/16 23:22	1
Xylenes, Total	29	2.0		ug/L			04/13/16 23:22	1
Methyl tert-butyl ether	13	1.0		ug/L			04/13/16 23:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared Analy	zed	Dil Fac
Bromofluorobenzene	100		70 - 131	04/13/10	5 23:22	1
Dibromofluoromethane (Surr)	106		72 - 136	04/13/10	5 23:22	1
1,2-Dichloroethane-d4 (Surr)	107		70 - 137	04/13/10	5 23:22	1
Toluene-d8 (Surr)	102		74 - 120	04/13/10	5 23:22	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		04/14/16 09:54	04/14/16 22:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	104		60 - 140				04/14/16 09:54	04/14/16 22:59	1
1.1.1.2-Tetrachloroethane	102		60 - 140				04/14/16 09:54	04/14/16 22:59	1

Method: 200.8 - Metals (ICP/MS)	 Dissolv 	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		04/23/16 17:01	04/26/16 01:39	5

Client Sample ID: MW-4 Lab Sample ID: 460-111936-4 Date Collected: 04/08/16 13:39 Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	260		2.0		ug/L			04/14/16 13:24	2
1,2-Dichloroethane	ND		2.0		ug/L			04/14/16 13:24	2
Ethylbenzene	190		2.0		ug/L			04/14/16 13:24	2
Isopropylbenzene	13		2.0		ug/L			04/14/16 13:24	2

2

TestAmerica Job ID: 460-111936-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-4

Lab Sample ID: 460-111936-4

04/23/16 17:01 04/26/16 01:45

Matrix: Water

Date Collected: 04/08/16 13:39 Date Received: 04/11/16 12:26

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	13		2.0		ug/L			04/14/16 13:24	2
Toluene	54		2.0		ug/L			04/14/16 13:24	2
1,2,4-Trimethylbenzene	31		2.0		ug/L			04/14/16 13:24	2
1,3,5-Trimethylbenzene	5.0		2.0		ug/L			04/14/16 13:24	2
Xylenes, Total	110		4.0		ug/L			04/14/16 13:24	2
Methyl tert-butyl ether	29		2.0		ug/L			04/14/16 13:24	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	106		70 - 131			1		04/14/16 13:24	2
Dibromofluoromethane (Surr)	113		72 - 136					04/14/16 13:24	2
1,2-Dichloroethane-d4 (Surr)	109		70 - 137					04/14/16 13:24	2
Toluene-d8 (Surr)	99		74 - 120					04/14/16 13:24	2

Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		04/14/16 09:54	04/14/16 23:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	110		60 - 140				04/14/16 09:54	04/14/16 23:25	1
1,1,1,2-Tetrachloroethane	106		60 - 140				04/14/16 09:54	04/14/16 23:25	1

Client Sample ID: MW-5

Date Collected: 04/08/16 11:34

Lab Sample ID: 460-111936-5

Matrix: Water

1.5

ug/L

ug/L

ND

ND

Date Received: 04/11/16 12:26

1,2-Dibromoethane

Lead

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			04/14/16 11:26	1
1,2-Dichloroethane	ND		1.0		ug/L			04/14/16 11:26	1
Ethylbenzene	ND		1.0		ug/L			04/14/16 11:26	1
Isopropylbenzene	ND		1.0		ug/L			04/14/16 11:26	1
Naphthalene	ND		1.0		ug/L			04/14/16 11:26	1
Toluene	ND		1.0		ug/L			04/14/16 11:26	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/14/16 11:26	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/14/16 11:26	1
Xylenes, Total	ND		2.0		ug/L			04/14/16 11:26	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/14/16 11:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	110		70 - 131			2		04/14/16 11:26	1
Dibromofluoromethane (Surr)	120		72 - 136					04/14/16 11:26	1
1,2-Dichloroethane-d4 (Surr)	118		70 - 137					04/14/16 11:26	1
Toluene-d8 (Surr)	110		74 - 120					04/14/16 11:26	1
Method: 8011 - EDB, DBCF	, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

TestAmerica Edison

04/14/16 09:54 04/14/16 23:50

0.020

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Lab Sample ID: 460-111936-5

Client Sample ID: MW-5 Date Collected: 04/08/16 11:34 Matrix: Water

Date Received: 04/11/16 12:26

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	102	60 - 140	04/14/16 09:54	04/14/16 23:50	1
1,1,1,2-Tetrachloroethane	101	60 - 140	04/14/16 09:54	04/14/16 23:50	1

Method: 200.8 - Metals	(ICP/MS) - Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		04/23/16 17:01	04/26/16 01:51	5

Client Sample ID: MW-6 Lab Sample ID: 460-111936-6 Matrix: Water

Date Collected: 04/08/16 11:55

Date Received: 04/11/16 12:26

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	1.0		ug/L			04/14/16 11:03	1
1,2-Dichloroethane	ND	1.0		ug/L			04/14/16 11:03	1
Ethylbenzene	ND	1.0		ug/L			04/14/16 11:03	1
Isopropylbenzene	ND	1.0		ug/L			04/14/16 11:03	1
Naphthalene	ND	1.0		ug/L			04/14/16 11:03	1
Toluene	ND	1.0		ug/L			04/14/16 11:03	1
1,2,4-Trimethylbenzene	ND	1.0		ug/L			04/14/16 11:03	1
1,3,5-Trimethylbenzene	ND	1.0		ug/L			04/14/16 11:03	1
Xylenes, Total	ND	2.0		ug/L			04/14/16 11:03	1
Methyl tert-butyl ether	ND	1.0		ug/L			04/14/16 11:03	1

Surrogate	%Recovery Qu	ualifier	Limits	Prepared Analyzed	Dil Fac
Bromofluorobenzene	107		70 - 131	04/14/16 11:0	3 1
Dibromofluoromethane (Surr)	119		72 - 136	04/14/16 11:0	3 1
1,2-Dichloroethane-d4 (Surr)	113		70 - 137	04/14/16 11:0	3 1
Toluene-d8 (Surr)	114		74 - 120	04/14/16 11:0	3 1

Method: 8011 - EDB, DBC	P, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		04/14/16 09:54	04/15/16 00:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	100		60 - 140				04/14/16 09:54	04/15/16 00:16	1
1,1,1,2-Tetrachloroethane	100		60 - 140				04/14/16 09:54	04/15/16 00:16	1

Method: 200.8 - Metals (ICP/MS) - Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	11		1.5		ug/L		04/23/16 17:01	04/26/16 01:56	5

Client Sample ID: MW-9 Lab Sample ID: 460-111936-7 Matrix: Water

Date Collected: 04/08/16 12:49 Date Received: 04/11/16 12:26

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	5.0		1.0		ug/L			04/14/16 00:55	1
1,2-Dichloroethane	ND		1.0		ug/L			04/14/16 00:55	1
Ethylbenzene	ND		1.0		ug/L			04/14/16 00:55	1
Isopropylbenzene	4.3		1.0		ug/L			04/14/16 00:55	1

TestAmerica Edison

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TestAmerica Job ID: 460-111936-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-9

Lab Sample ID: 460-111936-7

Matrix: Water

Date Collected: 04/08/16 12:49 Date Received: 04/11/16 12:26

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DII Fac
Naphthalene	ND		1.0		ug/L			04/14/16 00:55	1
Toluene	ND		1.0		ug/L			04/14/16 00:55	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/14/16 00:55	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/14/16 00:55	1
Xylenes, Total	ND		2.0		ug/L			04/14/16 00:55	1
Methyl tert-butyl ether	4.9		1.0		ug/L			04/14/16 00:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	101		70 - 131			1		04/14/16 00:55	1
Dibromofluoromethane (Surr)	114		72 - 136					04/14/16 00:55	1
1,2-Dichloroethane-d4 (Surr)	113		70 - 137					04/14/16 00:55	1
Toluene-d8 (Surr)	99		74 - 120					04/14/16 00:55	1

1,2-Dibromoethane Surrogate 1,1,1,2-Tetrachloroethane 1,1,1,2-Tetrachloroethane	%Recovery	Qualifier	0.020		ug/L		04/14/16 09:54 Prepared	04/15/16 00:42	1
1,1,1,2-Tetrachloroethane		_	Limits				Propored	Analigad	D# F-
(19.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	0.0						rrepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	90		60 - 140				04/14/16 09:54	04/15/16 00:42	1
	98		60 - 140				04/14/16 09:54	04/15/16 00:42	1
Method: 200.8 - Metals (ICP/N	AS) - Dissolv	red							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Lead ND 1.5 ug/L 04/23/16 17:01 04/26/16 02:02 5

Client Sample ID: MW-10 Lab Sample ID: 460-111936-8

Date Collected: 04/08/16 13:11 Date Received: 04/11/16 12:26

1,2-Dibromoethane

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1300		10		ug/L			04/14/16 04:26	10
1,2-Dichloroethane	ND		10		ug/L			04/14/16 04:26	10
Ethylbenzene	280		10		ug/L			04/14/16 04:26	10
Isopropylbenzene	30		10		ug/L			04/14/16 04:26	10
Naphthalene	30		10		ug/L			04/14/16 04:26	10
Toluene	38		10		ug/L			04/14/16 04:26	10
1,2,4-Trimethylbenzene	58		10		ug/L			04/14/16 04:26	10
1,3,5-Trimethylbenzene	13		10		ug/L			04/14/16 04:26	10
Xylenes, Total	150		20		ug/L			04/14/16 04:26	10
Methyl tert-butyl ether	77		10		ug/L			04/14/16 04:26	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	105		70 - 131			2		04/14/16 04:26	10
Dibromofluoromethane (Surr)	105		72 - 136					04/14/16 04:26	10
1,2-Dichloroethane-d4 (Surr)	104		70 - 137					04/14/16 04:26	10
Toluene-d8 (Surr)	105		74 - 120					04/14/16 04:26	10
Method: 8011 - EDB, DBCP, Analyte		P (GC) Qualifier	RL	MDL	1221221	D	Prepared	Analyzed	Dil Fac

TestAmerica Edison

04/14/16 09:54 04/15/16 01:08

0.020

ug/L

Matrix: Water

TestAmerica Job ID: 460-111936-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-10 Lab Sample ID: 460-111936-8

Matrix: Water

Date Collected: 04/08/16 13:11 Date Received: 04/11/16 12:26

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	104	60 - 140	04/14/16 09:54	04/15/16 01:08	1
1,1,1,2-Tetrachloroethane	105	60 - 140	04/14/16 09:54	04/15/16 01:08	1

Result Qualifier RL MDL Unit Prepared Analyzed Analyte ND 1.5 ug/L 04/23/16 17:01 04/26/16 02:08 Lead

Lab Sample ID: 460-111936-9 Client Sample ID: MW-11

Date Collected: 04/08/16 12:12 Matrix: Water

Date Received: 04/11/16 12:26

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			04/14/16 01:18	1
1,2-Dichloroethane	ND		1.0		ug/L			04/14/16 01:18	1
Ethylbenzene	ND		1.0		ug/L			04/14/16 01:18	1
Isopropylbenzene	ND		1.0		ug/L			04/14/16 01:18	1
Naphthalene	ND		1.0		ug/L			04/14/16 01:18	1
Toluene	ND		1.0		ug/L			04/14/16 01:18	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/14/16 01:18	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/14/16 01:18	1
Xylenes, Total	ND		2.0		ug/L			04/14/16 01:18	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/14/16 01:18	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofiuorobenzene	92		70 - 131					04/14/16 01:18	1
Dibromofluoromethane (Surr)	103		72 - 136					04/14/16 01:18	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 137					04/14/16 01:18	1
Toluene-d8 (Surr)	90		74 - 120					04/14/16 01:18	1
Method: 8011 - EDB, DBCF	P. and 1,2,3-TC	P (GC)							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		04/14/16 09:54	04/15/16 01:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachioroethane	105		60 - 140				04/14/16 09:54	04/15/16 01:33	1
1,1,1,E TOUGOINGIOCUIGIO									

Method: 200.8 - Metals (ICP/MS)	- Dissolv	red							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		04/23/16 17:03	04/26/16 02:14	5

TestAmerica Job ID: 460-111936-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Laboratory: TestAmerica Edison

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0200	09-30-16
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A	12-31-15 *
New Jersey	NELAP	2	12028	06-30-16
New York	NELAP	2	11452	03-31-17
Pennsylvania	NELAP	3	68-00522	02-28-17
Rhode Island	State Program	1	LAO00132	12-30-16 *
USDA	Federal		NJCA-003-08	04-04-17

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-16
California	State Program	9	2891	03-31-18
Connecticut	State Program	1	PH-0688	09-30-16
Florida	NELAP	4	E871008	06-30-16
Illinois	NELAP	5	200005	06-30-16
Kansas	NELAP	7	E-10350	05-31-16
Louisiana	NELAP	6	04041	06-30-16
New Hampshire	NELAP	1	2030	04-04-17
New Jersey	NELAP	2	PA005	06-30-16
New York	NELAP	2	11182	03-31-17
North Carolina (WW/SW)	State Program	4	434	12-31-16
Pennsylvania	NELAP	3	02-00416	04-30-16
South Carolina	State Program	4	89014	04-30-16 *
Texas	NELAP	6	T104704528-15-2	03-31-17
US Fish & Wildlife	Federal		LE94312A-1	10-31-16
USDA	Federal		P-Soil-01	05-23-16 *
Utah	NELAP	8	PA001462015-4	05-31-16
Virginia	NELAP	3	460189	09-14-16
West Virginia DEP	State Program	3	142	01-31-17
Wisconsin	State Program	5	998027800	08-31-16

^{*} Certification renewal pending - certification considered valid.

Method Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-111936-1

TAL EDI

Protocol	Laboratory
SW846	TAL EDI

EPA

Protocol References:

Method

8260C

8011

200.8

EPA = US Environmental Protection Agency

Metals (ICP/MS)

Method Description

Volatile Organic Compounds by GC/MS

EDB, DBCP, and 1,2,3-TCP (GC)

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

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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777 New Durham Road Edison, New Jersey 08817 Phone: (732) 549-3900 Fax: (732) 549-3679

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THE LEADER IN ENVIRONMENTAL TESTING		AIN OF	CUST	Ydo	/AN	ALYSIS	CHAIN OF CUSTODY / ANALYSIS REQUEST	KOP Page	of L
Name (for report and invoice)		Samplers N	~ a	Printed)	1		Site/Project Identification		
Company		P. O. #					State (Location of site): NJ:	NY: Other:	PA
Contr four I coule Services	2	80	2624-24-80	792			-		
		Analysis T	Analysis Turnaround Time	lmo		ANALYSIS REQ	AMALYSIS REQUESTED (ENTER 7): SELOW TO INDICATE REQUEST)		LAB USE ONLY
S36 E. Brigamin Franklin	Huy	Standard X	M			_			Project No:
Douglass willy PA	tate /	Rush Charg	Rush Charges Authorized For: 2 Week		i	ine			Job No:
Fax		1 Wook			solo	pso	1		1936
010 00- 11-	?			No. of.	n lea	eoo		Ψ)	Sample
LAW	4/8/16	1007	CE	6	×	۲			
MW-2		3111	-	6	X	×	,		
MW-3		HOS		6	2	K			
mw-4.		1339	-	6	×	X			
MW-2		1134		6	X	X			
mwh	-	1155		6	×	×			
MU-9		1249		6	×	X			
mw-10		1311	,	6	X	X			HE SHEET STATES
MW-II	<	1212	<	6	×	. ×	460-1	480-111936 Chain of Custody	
Preservation Used: 1 = ICE, 2 = HCl, 3 =	3 = H ₂ SO ₄ , 4 = HNO ₃ ,	, 5 = NaOH	오	Soil:	-				
6 = Other	, 7 = Other			Water:	112	Myh			
Special Instructions							×	Water Metals Filtered (Yes/No)?	No)?
Relinquished by Consultation of Consultation o	COMPANY		Stall Date	Date / Time	6	Received by		Company	. *
Relinquished by C	Company		1/11/16	- P/T	949	Recogned by	what with	Company	
Religquished by Amitte C	Company		Off Porting	Date / Time	Control of the	Received by	2 h	4	dison

Page 14 of 18

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

Relinquished by

Company

Date / Time

Received by

3

TAL-0016 (0715)

Receipt Temperature and pH Log TestAmerica Edison

		0	,
	١	200	

EDS-WI-038, Rev 4, 06/09/14

Initials:

76

Lot # of Preservative(s):

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted. Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Expiration Date:



Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-111936-1

Login Number: 111936 List Source: TestAmerica Edison

List Number: 1

Creator: Gilmore, Julie L

Creator: Gilmore, Julie L		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	IR KOP#1 4.4
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-111936-1

List Source: TestAmerica Pittsburgh
List Number: 2
List Creation: 04/12/16 12:07 PM

Creator: Butcher, Ryan M

oreator. Butcher, Ryan M		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or ampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is 66mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Edison 777 New Durham Road Edison, NJ 08817 Tel: (732)549-3900

TestAmerica Job ID: 460-115549-1 Client Project/Site: Liberty Oil #38

For:

Center Point Tank Service 536 E Benjamin Franklin Douglassville, Pennsylvania 19518

Attn: Rachel Burkart



Authorized for release by: 6/27/2016 8:21:37 PM

Jill Miller, Project Manager II (732)549-3900 jill.miller@testamericainc.com

.....LINKS

Review your project results through
Total Access

Have a Question?



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

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

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

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-115549-1

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Sample Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

TestAmerica Job ID: 460-115549-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-115549-1	MW-1	Water	06/15/16 10:39	06/17/16 11:11
460-115549-2	MW-2	Water	06/15/16 10:57	06/17/16 11:11
460-115549-3	MW-3	Water	06/15/16 13:27	06/17/16 11:11
460-115549-4	MW-4	Water	06/15/16 13:01	06/17/16 11:11
460-115549-5	MW-5	Water	06/15/16 11:30	06/17/16 11:11
460-115549-6	MW-9	Water	06/15/16 12:21	06/17/16 11:11
460-115549-7	MW-10	Water	06/15/16 12:38	06/17/16 11:11
460-115549-8	MW-11	Water	06/15/16 11:50	06/17/16 11:11

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Definitions/Glossary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Practical Quantitation Limit

Toxicity Equivalent Factor (Dioxin)
Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

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

Quality Control

Relative error ratio

TestAmerica Job ID: 460-115549-1

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Glossary

PQL

QC

RER

RPD

TEF

TEQ

RL

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

Case Narrative

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-115549-1

le:

Job ID: 460-115549-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative 460-115549-1

Comments

No additional comments.

Receipt

The samples were received on 6/17/2016 11:11 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.9° C.

GC/MS VOA

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-10 (460-115549-7). Elevated reporting limits (RLs) are provided.

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

GC Semi VOA

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

Metals

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

VOA Prep

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

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TestAmerica Edison 6/27/2016

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Lab Sample ID: 460-115549-1

Matrix: Water

Date Collected: 06/15/16 10:39 Date Received: 06/17/16 11:11

Client Sample ID: MW-1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			06/22/16 19:10	1
1,2-Dichloroethane	ND		1.0		ug/L			06/22/16 19:10	1
Ethylbenzene	ND		1.0		ug/L			06/22/16 19:10	1
Isopropylbenzene	ND		1.0		ug/L			06/22/16 19:10	1
Naphthalene	ND		1.0		ug/L			06/22/16 19:10	1
Toluene	ND		1.0		ug/L			06/22/16 19:10	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			06/22/16 19:10	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			06/22/16 19:10	1
Xylenes, Total	ND		2.0		ug/L			06/22/16 19:10	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/22/16 19:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	85		70 - 131					06/22/16 19:10	1
Dibromofluoromethane (Surr)	107		72 - 136					06/22/16 19:10	1
1,2-Dichloroethane-d4 (Surr)	115		70 - 137					06/22/16 19:10	1
Toluene-d8 (Surr)	97		74 - 120					06/22/16 19:10	1
Method: 8011 - EDB, DBCF	, and 1,2,3-TC	P (GC)							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		06/19/16 11:15	06/19/16 21:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1.1.1.2-Tetrachloroethane	92		60 - 140				06/19/16 11:15	06/19/16 21:45	1
1,1,1,2-Tetracriloroetriarie									

ug/L Client Sample ID: MW-2 Lab Sample ID: 460-115549-2

RL

1.5

MDL Unit

Prepared

06/21/16 14:23 06/26/16 10:15

Analyzed

Dil Fac

Matrix: Water

Result Qualifier

ND

Date Collected: 06/15/16 10:57 Date Received: 06/17/16 11:11

Analyte

Lead

Method: 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			06/22/16 19:36	1
1,2-Dichloroethane	ND		1.0		ug/L			06/22/16 19:36	1
Ethylbenzene	ND		1.0		ug/L			06/22/16 19:36	1
Isopropylbenzene	1.4		1.0		ug/L			06/22/16 19:36	1
Naphthalene	ND		1.0		ug/L			06/22/16 19:36	1
Toluene	ND		1.0		ug/L			06/22/16 19:36	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			06/22/16 19:36	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			06/22/16 19:36	1
Xylenes, Total	ND		2.0		ug/L			06/22/16 19:36	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/22/16 19:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	DII Fac
Bromofluorobenzene	92		70 - 131					06/22/16 19:36	1
Dibromofluoromethane (Surr)	100		72 - 136					06/22/16 19:36	1
1,2-Dichloroethane-d4 (Surr)	114		70 - 137					06/22/16 19:36	1
Toluene-d8 (Surr)	105		74 - 120					06/22/16 19:36	1

TestAmerica Job ID: 460-115549-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		06/19/16 11:15	06/19/16 22:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	92		60 - 140				06/19/16 11:15	06/19/16 22:11	1
1,1,1,2-Tetrachloroethane	95		60 - 140				06/19/16 11:15	06/19/16 22:11	1
Method: 200.8 - Metals (IC	CP/MS) - Dissolv	red							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		06/21/16 14:23	06/26/16 10:21	5

Client Sample ID: MW-3 Lab Sample ID: 460-115549-3

Date Collected: 06/15/16 13:27

Matrix: Water

Date Received: 06/17/16 11:11

Analyte	Result Qu	alifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	13	1.0		ug/L			06/22/16 20:02	1
1,2-Dichloroethane	ND	1.0		ug/L			06/22/16 20:02	1
Ethylbenzene	1.7	1.0		ug/L			06/22/16 20:02	1
Isopropylbenzene	1.3	1.0		ug/L			06/22/16 20:02	1
Naphthalene	ND	1.0		ug/L			06/22/16 20:02	1
Toluene	ND	1.0		ug/L			06/22/16 20:02	1
1,2,4-Trimethylbenzene	1.4	1.0		ug/L			06/22/16 20:02	1
1,3,5-Trimethylbenzene	ND	1.0		ug/L			06/22/16 20:02	1
Xylenes, Total	2.4	2.0		ug/L			06/22/16 20:02	1
Methyl tert-butyl ether	2.1	1.0		ug/L			06/22/16 20:02	1
Surrogate	%Recovery Qu	alifier Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery Qualifier	Limits	Prepared Analyzed	Dil Fac
Bromofluorobenzene	86	70 - 131	06/22/16 20:02	1
Dibromofluoromethane (Surr)	99	72 - 136	06/22/16 20:02	1
1,2-Dichloroethane-d4 (Surr)	116	70 - 137	06/22/16 20:02	1
Toluene-d8 (Surr)	104	74 - 120	06/22/16 20:02	1

Method: 8011 - EDB, DBC	P, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		06/19/16 11:15	06/19/16 22:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	92		60 - 140				06/19/16 11:15	06/19/16 22:36	1
1,1,1,2-Tetrachloroethane	93		60 - 140				06/19/16 11:15	06/19/16 22:36	1

Method: 200.8 - Metals (ICP/MS)	- Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		06/21/16 14:23	06/26/16 10:26	5

Client Sample ID: MW-4 Lab Sample ID: 460-115549-4 Date Collected: 06/15/16 13:01 Matrix: Water Date Received: 06/17/16 11:11

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	71	1.0		ug/L			06/23/16 08:04	1
1,2-Dichloroethane	ND	1.0		ug/L			06/23/16 08:04	1
Ethylbenzene	39	1.0		ug/L			06/23/16 08:04	1
Isopropylbenzene	6.9	1.0		ug/L			06/23/16 08:04	1

TestAmerica Job ID: 460-115549-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-4 Date Collected: 06/15/16 13:01

Date Received: 06/17/16 11:11

Lab Sample ID: 460-115549-4

06/21/16 14:23 06/26/16 10:32

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	2.9		1.0		ug/L			06/23/16 08:04	1
Toluene	10		1.0		ug/L			06/23/16 08:04	1
1,2,4-Trimethylbenzene	19		1.0		ug/L			06/23/16 08:04	1
1,3,5-Trimethylbenzene	2.9		1.0		ug/L			06/23/16 08:04	1
Xylenes, Total	45		2.0		ug/L			06/23/16 08:04	1
Methyl tert-butyl ether	34		1.0		ug/L			06/23/16 08:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	90		70 - 131					06/23/16 08:04	1
Dibromofluoromethane (Surr)	99		72 - 136					06/23/16 08:04	1
1,2-Dichloroethane-d4 (Surr)	121		70 - 137					06/23/16 08:04	1
Toluene-d8 (Surr)	104		74 - 120					06/23/16 08:04	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		06/19/16 11:15	06/19/16 23:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	93		60 - 140				06/19/16 11:15	06/19/16 23:02	1
1,1,1,2-Tetrachloroethane	93		60 - 140				06/19/16 11:15	06/19/16 23:02	1

Client Sample ID: MW-5 Lab Sample ID: 460-115549-5 Date Collected: 06/15/16 11:30 Matrix: Water

ND

ug/L

Date Received: 06/17/16 11:11

Lead

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			06/22/16 20:28	1
1,2-Dichloroethane	ND		1.0		ug/L			06/22/16 20:28	1
Ethylbenzene	ND		1.0		ug/L			06/22/16 20:28	1
Isopropylbenzene	ND		1.0		ug/L			06/22/16 20:28	1
Naphthalene	ND		1.0		ug/L			06/22/16 20:28	1
Toluene	ND		1.0		ug/L			06/22/16 20:28	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			06/22/16 20:28	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			06/22/16 20:28	1
Xylenes, Total	ND		2.0		ug/L			06/22/16 20:28	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/22/16 20:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	85		70 - 131					06/22/16 20:28	1
Dibromofluoromethane (Surr)	103		72 - 136					06/22/16 20:28	1
1,2-Dichloroethane-d4 (Surr)	122		70 - 137					06/22/16 20:28	1
Toluene-d8 (Surr)	101		74 - 120					06/22/16 20:28	1
Method: 8011 - EDB, DBCP	, and 1,2,3-TC	P (GC)							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		06/19/16 11:15	06/19/16 23:28	- 1

TestAmerica Edison

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-5 Lab Sample ID: 460-115549-5 Date Collected: 06/15/16 11:30

Matrix: Water

Date Received: 06/17/16 11:11

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	95	60 - 140	06/19/16 11:15	06/19/16 23:28	1
1,1,1,2-Tetrachloroethane	97	60 - 140	06/19/16 11:15	06/19/16 23:28	1

Analyte Result Qualifier RL MDL Unit Prepared Analyzed ND 1.5 06/21/16 14:23 06/26/16 10:38 Lead ug/L

Lab Sample ID: 460-115549-6 Client Sample ID: MW-9

Date Collected: 06/15/16 12:21 Matrix: Water

Date Received: 06/17/16 11:11

Analyte	Result C	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	6.0		1.0		ug/L			06/22/16 20:53	1
1,2-Dichloroethane	ND		1.0		ug/L			06/22/16 20:53	1
Ethylbenzene	ND		1.0		ug/L			06/22/16 20:53	1
Isopropylbenzene	6.6		1.0		ug/L			06/22/16 20:53	1
Naphthalene	ND		1.0		ug/L			06/22/16 20:53	1
Toluene	ND		1.0		ug/L			06/22/16 20:53	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			06/22/16 20:53	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			06/22/16 20:53	1
Xylenes, Total	ND		2.0		ug/L			06/22/16 20:53	1
Methyl tert-butyl ether	5.1		1.0		ug/L			06/22/16 20:53	1

Surrogate	%Recovery Qualifier	Limits	Prepared Analyzed	Dil Fac
Bromofluorobenzene	87	70 - 131	06/22/16 20:53	1
Dibromofluoromethane (Surr)	103	72 - 136	06/22/16 20:53	1
1,2-Dichloroethane-d4 (Surr)	127	70 - 137	06/22/16 20:53	1
Toluene-d8 (Surr)	104	74 - 120	06/22/16 20:53	1

Method: 8011 - EDB, DBC	P, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		06/19/16 11:15	06/19/16 23:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	93		60 - 140				06/19/16 11:15	06/19/16 23:54	1
1,1,1,2-Tetrachloroethane	97		60 - 140				06/19/16 11:15	06/19/16 23:54	1

Method: 200.8 - Metals (ICP/MS)	 Dissolv 	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		06/21/16 14:23	06/26/16 10:43	5

Client Sample ID: MW-10 Lab Sample ID: 460-115549-7 Matrix: Water

Date Collected: 06/15/16 12:38 Date Received: 06/17/16 11:11

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2200		10		ug/L			06/22/16 21:45	10
1,2-Dichloroethane	ND		10		ug/L			06/22/16 21:45	10
Ethylbenzene	530		10		ug/L			06/22/16 21:45	10
Isopropylbenzene	60		10		ug/L			06/22/16 21:45	10

TestAmerica Edison

Page 9 of 19

6/27/2016

2

TestAmerica Job ID: 460-115549-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-10
Date Collected: 06/15/16 12:38

Lab Sample ID: 460-115549-7

06/21/16 14:23 06/26/16 10:55

Matrix: Water

Date	Received:	06/17/16	11:11
Date	Conected.	00/13/10	12.30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	80		10		ug/L			06/22/16 21:45	10
Toluene	50		10		ug/L			06/22/16 21:45	10
1,2,4-Trimethylbenzene	170		10		ug/L			06/22/16 21:45	10
1,3,5-Trimethylbenzene	29		10		ug/L			06/22/16 21:45	10
Xylenes, Total	260		20		ug/L			06/22/16 21:45	10
Methyl tert-butyl ether	130		10		ug/L			06/22/16 21:45	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	91		70 - 131			1		06/22/16 21:45	10
Dibromofluoromethane (Surr)	100		72 - 136					06/22/16 21:45	10
1,2-Dichloroethane-d4 (Surr)	121		70 - 137					06/22/16 21:45	10
Toluene-d8 (Surr)	107		74 - 120					06/22/16 21:45	10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		06/19/16 11:15	06/20/16 00:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	90		60 - 140				06/19/16 11:15	06/20/16 00:20	1
1,1,1,2-Tetrachloroethane	93		60 - 140				06/19/16 11:15	06/20/16 00:20	1

Client Sample ID: MW-11

Date Collected: 06/15/16 11:50

Lab Sample ID: 460-115549-8

Matrix: Water

ND

ND

1.5

ug/L

ug/L

Date Received: 06/17/16 11:11

1,2-Dibromoethane

Lead

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			06/22/16 21:19	1
1,2-Dichloroethane	ND		1.0		ug/L			06/22/16 21:19	1
Ethylbenzene	ND		1.0		ug/L			06/22/16 21:19	1
Isopropylbenzene	ND		1.0		ug/L			06/22/16 21:19	1
Naphthalene	ND		1.0		ug/L			06/22/16 21:19	1
Toluene	ND		1.0		ug/L			06/22/16 21:19	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			06/22/16 21:19	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			06/22/16 21:19	1
Xylenes, Total	ND		2.0		ug/L			06/22/16 21:19	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/22/16 21:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	89		70 - 131			2		06/22/16 21:19	1
Dibromofluoromethane (Surr)	101		72 - 136					06/22/16 21:19	1
1,2-Dichloroethane-d4 (Surr)	112		70 - 137					06/22/16 21:19	1
Toluene-d8 (Surr)	103		74 - 120					06/22/16 21:19	1
Method: 8011 - EDB, DBCF	, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

TestAmerica Edison

06/19/16 11:15 06/20/16 00:46

0.020

Client Sample Results

Client: Center Point Tank Service Project/Site: Liberty Oil #38

TestAmerica Job ID: 460-115549-1

Client Sample ID: MW-11 Lab Sample ID: 460-115549-8 Date Collected: 06/15/16 11:50

Matrix: Water

Date Received: 06/17/16 11:11

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	91	60 - 140	06/19/16 11:15	06/20/16 00:46	1
1,1,1,2-Tetrachloroethane	94	60 - 140	06/19/16 11:15	06/20/16 00:46	1

Method: 200.8 - Metals (ICP/MS) - Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		06/21/16 14:23	06/22/16 03:29	5

6/27/2016

Certification Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

TestAmerica Job ID: 460-115549-1

Laboratory: TestAmerica Edison

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

Authority Certification ID **Expiration Date EPA Region** 68-00522 Pennsylvania NELAP 02-28-17 The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method Prep Method Matrix

8260C Water 1,3,5-Trimethylbenzene

Laboratory: TestAmerica Pittsburgh

The certifications listed below are applicable to this report.

Authority Program **EPA Region** Certification ID **Expiration Date** Pennsylvania NELAP 02-00416 04-30-17

Method Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

TestAmerica Job ID: 460-115549-1

Protocol Laboratory		
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Method **Method Description** 8260C Volatile Organic Compounds by GC/MS 8011 EDB, DBCP, and 1,2,3-TCP (GC) SW846 TAL PIT 200.8 Metals (ICP/MS) **EPA** TAL EDI

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

777 New Durham Road Edison, New Jersey 08817 Phone: (732) 549-3900 Fax: (732) 549-3679

lestAmerica			Phone: (732) 549-3900 Fax: (732) 549-3879
THE LEADER IN ENVIRONMENTAL TESTING CHA	CHAIN OF CUSTODY / ANALYSIS REQUEST	IALYSIS REQUEST	0.5 10.9 Page of
Name (for report and invoice)	Samplers Name (Printed)	Site/Project Identification	72
Point tail Co. S.		State (Location of site):	NY:
Address	2526-26-80		UNA
536 6 BANIGHMAN Franklin Hoy	Standard X	LYSIS REQUESTED (EXTER %: BEL	OW TO INDICATE REDUEST) Project No:
Divis lass will-c PA	2 Wook 2	esch	Job No:
Phone Fax 6/0 38:5 4/677	omer D		115549
Sample Identification Date	Time Matrix Cont.	+	Sample Numbers
MW-1 WISh	129 GLJ 6 8	*	
MW-Z	X 9 1 639	×	
WIW-3	X / 1 128	X	
h-min	7	Χ.	
MW-5	一 2 021	X	
Mu - 9	1 9 hu	X	
MW-16	12.38 6.4	λ	477
A II-MW	X 9 A ASM	X	
			To Thomas of State of
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ ,	5 = NaOH Soil:		
6 = Other 7 = Other	Water: 1/-Z	1/2	
Special Instructions of Par lab Silky for	wetally		Water Metals Filtered (Yes/No)?
Pat tollo Company	8/11/6/ ////	Received by	Company
2) All Your Company	(ω ω ω ω ω ω ω ω ω	Received by 2)	Company Company
3) Company Company	P S/M/W//ONO	a) Ann	Company
Assimplifying by Company	6\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	4) Km Kmin	Company
Labpratory Certifications: New Jersey (12028), New Y	New York (11452)\ Pennsylvania (68-522),	- 1	Connecticut (PH-0200), Rhode Island (132). TAL-0018 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578)

15579

Receipt Temperature and pH Log TestAmerica Edison

Job Number: Number of Coolers: IR Gun # Cooler Temperatures Cooler #8: ô

	TALS Sample Number								
Ammonia	(pH<2)			-					
COD	(pH<2)			-					
Nitrite	(pH<2)								
Metals	(pH<2)								
Hardness	(pH<2)								
Pest	(pH 5-9)								
QAM	(pH<2)								
Phenois	(pH<2)								
Phenois Sulfide	(pH>9)								
TKN	(pH<2)								
TOC	(pH<2)								
Cyanide	(pH>12)								
Cyanide Total Phos Other	(pH<2)						٠,		
Other									
Other									

EDS-WI-038, Rev 4, 06/09/14

Preservative Name/Conc.: Sample No(s). adjusted:

Lot # of Preservative(s):

Initials:

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

Expiration Date:

Volume of Preservative used (ml):

Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Page _



480-115549 Waybill



		Chain of Custody Record	of Cus	tody R	ecord	460-115540 Chair of Creshold		STA	STAMENCO
Client Information (Sub Contract Lab)	Sampler.			Mile	Lab PW: Miller, Jill K		(none)	3836.1	CKE
Client Contact. Shipping/Receiving	Phone:			E-Mail:	E-Mail: jill.miller@testamericainc.com	ainc.com		Page:	100
Compary: Test/America Laboratories, Inc.						Analysis Requested	sted	Job#:	
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 6/23/2016	ested:			200			tion Cod	u u
Gity:	TAT Requested	(days):				-		A-HCL B-NaOH	A - Hexime A - None
State, Zp: PA, 15238								o pp x	0 - Asnacz P - Na2O4S Q - Na2SO3
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	#6 #6							MeOH Amother and	R- Na2S203 - H2SO4
Ernall:	WO#				(0)			1 - loe J - Di Water	J - Acatons / - MCAA
Project Name: Liberty Oil #38	Project#. 46011357				PIONI)	_		K-EDTA L-EDA	V - ph 4-6 C - other (specify)
Sittee	SSOWR				wos			Officer	
Comple I describit control of the It of the It of		00	Sample Type (C=comp,	Matrix (W-water, Deposits, O-wateriors,	MigM mobe			Jedmy/sic	
Sample formication - Chert ID (Lab ID)	Sample Date	- (2)	G-grab)	STATISSIA, ArAir	вX	THE PART OF STREET		THE REAL PROPERTY.	Special Instructions/Note:
MW-1 (460-115549-1)	6/15/16	10:39 Fastern	100000000000000000000000000000000000000	Water	×			2	
MW-2 (460-115549-2)	8/15/16	10:57 Fastern		Water	×				
MW-3 (460-115549-3)	6/15/16	13:27 Eastern		Water	×			N	
MW-4 (460-115549-4)	8/15/16	13:01 Eastern		Water	×			- 12	
MW-5 (460-115549-5)	6/15/16	11:30 Eastern		Water	×				
MW-9 (460-115549-6)	6/15/16	12:21 Eastern		Water	×			0	
MW-10 (460-115549-7)	6/15/16	12:38 Eastern		Water	×				
MW-11 (460-115549-8)	8/15/18	11:50 Eastern		Water	×			Total .	
Possible Hazard Identification					Sample Disp	ee may be	ssed if samples are reta	ained longer than 1 mc	onth)
Deliverable Requested: I, II, III, IV, Other (specify)					Special Instru	Special Instructions/QC Requirements:	Disposal By Lab	Archive For	Months
Empty Kit Relinquished by:		Date:			Time:	1. 1.	Method of Shipment		(
Relinquished by Annual Control of the Control of th	Color Tipes	101 101	6	Company	Received b	NO Dinn	Date/Time	1x-16°	AN land
O A A Se pauserbusion	Caper ime.			Company	Received		Date/Time.	900	Ageduo
Reinquished by:	Date/Timo:			Company	Received by:	y.	Date/Time:	0 0 1	Company
Custody Seals Intact: Custody Seal No.:					Cooler Tem	Temperature(s) °C and Other Remarks			

Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-115549-1

Login Number: 115549 List Source: TestAmerica Edison

List Number: 1

Creator: Keehn, Jeffrey S

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>- Common</td>	N/A	- Common
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is 66mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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9

Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-115549-1

Login Number: 115549 List Number: 2

Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh List Creation: 06/18/16 10:16 AM

6/27/2016

oreator. Watson, Debbie		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or ampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is 66mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Edison 777 New Durham Road Edison, NJ 08817 Tel: (732)549-3900

TestAmerica Job ID: 460-120896-1 Client Project/Site: Liberty Oil #38

For:

Center Point Tank Service 536 E Benjamin Franklin Douglassville, Pennsylvania 19518

Attn: Rachel Burkart

Sigl Miller

Authorized for release by: 10/8/2016 6:43:33 PM

Jill Miller, Project Manager II (732)549-3900 jill.miller@testamericainc.com

.....LINKS

Review your project results through
Total Access

Have a Question?



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

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

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

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-120896-1

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Sample Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

TestAmerica Job ID: 460-120896-1

3		
3		
3		
3		
- 3		
- 3		
- 0		
100		

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-120896-1	MW-1	Water	09/22/16 10:37	09/27/16 10:46
460-120896-2	MW-2	Water	09/22/16 10:55	09/27/16 10:46
460-120896-3	MW-3	Water	09/22/16 13:44	09/27/16 10:46
460-120896-4	MW-7	Water	09/22/16 14:07	09/27/16 10:46
460-120896-5	MW-8	Water	09/22/16 14:33	09/27/16 10:46
460-120896-6	MW-9	Water	09/22/16 12:58	09/27/16 10:46
460-120896-7	MW-11	Water	09/22/16 12:06	09/27/16 10:46

Definitions/Glossary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Practical Quantitation Limit

Toxicity Equivalent Factor (Dioxin)
Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

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

Quality Control

Relative error ratio

TestAmerica Job ID: 460-120896-1

lic.

Glossary

PQL

QC

RER

RPD

TEF

TEQ

RL

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

TestAmerica Edison

Case Narrative

Client: Center Point Tank Service Project/Site: Liberty Oil #38

TestAmerica Job ID: 460-120896-1

Job ID: 460-120896-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative 460-120896-1

Comments

No additional comments.

Receipt

The samples were received on 9/27/2016 10:46 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.8° C.

GC/MS VOA

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-7 (460-120896-4) and MW-8 (460-120896-5). Elevated reporting limits (RLs) are provided.

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

GC Semi VOA

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

Metals

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

VOA Prep

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

TestAmerica Job ID: 460-120896-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-1 Lab Sample ID: 460-120896-1

Date Collected: 09/22/16 10:37 Date Received: 09/27/16 10:46

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			09/30/16 08:16	1
1,2-Dichloroethane	ND		1.0		ug/L			09/30/16 08:16	1
Ethylbenzene	ND		1.0		ug/L			09/30/16 08:16	1
Isopropylbenzene	ND		1.0		ug/L			09/30/16 08:16	1
Naphthalene	ND		1.0		ug/L			09/30/16 08:16	1
Toluene	ND		1.0		ug/L			09/30/16 08:16	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/30/16 08:16	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/30/16 08:16	1
Xylenes, Total	ND		2.0		ug/L			09/30/16 08:16	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/30/16 08:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	109		77 - 124					09/30/16 08:16	1
Dibromofluoromethane (Surr)	106		72 - 131					09/30/16 08:16	1
1,2-Dichloroethane-d4 (Surr)	112		74 - 132					09/30/16 08:16	1
Toluene-d8 (Surr)	114		80 - 120					09/30/16 08:16	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		10/01/16 12:35	10/02/16 04:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	98		60 - 140				10/01/16 12:35	10/02/16 04:44	1
1.1.1.2-Tetrachloroethane	96		60 - 140				10/01/16 12:35	10/02/16 04:44	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5	77	ug/L	10.77	10/07/16 21:06	10/08/16 06:18	5

Client Sample ID: MW-2 Lab Sample ID: 460-120896-2 Date Collected: 09/22/16 10:55 Matrix: Water Date Received: 09/27/16 10:46

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DII Fac
Benzene	ND		1.0		ug/L			09/30/16 08:39	1
1,2-Dichloroethane	ND		1.0		ug/L			09/30/16 08:39	1
Ethylbenzene	ND		1.0		ug/L			09/30/16 08:39	1
Isopropylbenzene	ND		1.0		ug/L			09/30/16 08:39	1
Naphthalene	ND		1.0		ug/L			09/30/16 08:39	1
Toluene	ND		1.0		ug/L			09/30/16 08:39	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/30/16 08:39	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/30/16 08:39	1
Xylenes, Total	ND		2.0		ug/L			09/30/16 08:39	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/30/16 08:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	110		77 - 124					09/30/16 08:39	1
Dibromofluoromethane (Surr)	101		72 - 131					09/30/16 08:39	1
1,2-Dichloroethane-d4 (Surr)	106		74 - 132					09/30/16 08:39	1
Toluene-d8 (Surr)	112		80 - 120					09/30/16 08:39	1

TestAmerica Edison

TestAmerica Job ID: 460-120896-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

1,1,1,2-Tetrachloroethane

1,1,1,2-Tetrachloroethane

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) Analyte Result Qualifier

96

94

Prepared Analyzed Dil Fac

RL MDL Unit 1.2-Dibromoethane 0.020 ug/L 10/01/16 12:35 10/02/16 05:10 Surrogate %Recovery Qualifier Limits

60 - 140

60 - 140

Prepared Analyzed Dil Fac 10/01/16 12:35 10/02/16 05:10 10/01/16 12:35 10/02/16 05:10

Method: 200.8 - Metals (ICP/MS) - Dissolved

Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac Lead ND 1.5 10/07/16 21:06 10/08/16 06:27 ug/L

Lab Sample ID: 460-120896-3

Client Sample ID: MW-3 Date Collected: 09/22/16 13:44 Matrix: Water

Date Received: 09/27/16 10:46

Dil Fac

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	1.0		ug/L			09/30/16 09:02	1
1,2-Dichloroethane	ND	1.0		ug/L			09/30/16 09:02	1
Ethylbenzene	ND	1.0		ug/L			09/30/16 09:02	1
Isopropylbenzene	ND	1.0		ug/L			09/30/16 09:02	1
Naphthalene	ND	1.0		ug/L			09/30/16 09:02	1
Toluene	ND	1.0		ug/L			09/30/16 09:02	1
1,2,4-Trimethylbenzene	ND	1.0		ug/L			09/30/16 09:02	1
1,3,5-Trimethylbenzene	ND	1.0		ug/L			09/30/16 09:02	1
Xylenes, Total	ND	2.0		ug/L			09/30/16 09:02	1
Methyl tert-butyl ether	ND	1.0		ug/L			09/30/16 09:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Bromofluorobenzene	112		77 - 124		09/30/16 09:02	1
Dibromofluoromethane (Surr)	107		72 - 131		09/30/16 09:02	1
1,2-Dichloroethane-d4 (Surr)	110		74-132		09/30/16 09:02	1
Toluene-d8 (Surr)	114		80 - 120		09/30/16 09:02	1

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) Analyte Result Qualifier RL MDL Unit Prepared Analyzed 1,2-Dibromoethane 0.020 10/01/16 12:35 10/02/16 05:36 ND ug/L

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 97 1,1,1,2-Tetrachloroethane 60 - 140 10/01/16 12:35 10/02/16 05:36 1,1,1,2-Tetrachloroethane 94 60 - 140 10/01/16 12:35 10/02/16 05:36

Method: 200.8 - Metals (ICP/MS) - Dissolved Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac Lead ND 1.5 ug/L 10/07/16 21:06 10/08/16 06:36

Client Sample ID: MW-7 Lab Sample ID: 460-120896-4 Date Collected: 09/22/16 14:07 Matrix: Water

Date Received: 09/27/16 10:46

Method: 8260C - Volatile Analyte		unds by GC/ Qualifier	MS RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	590		5.0		ug/L			10/01/16 10:26	5
1,2-Dichloroethane	ND		5.0		ug/L			10/01/16 10:26	5
Ethylbenzene	380		5.0		ug/L			10/01/16 10:26	5
Isopropylbenzene	33		5.0		ug/L			10/01/16 10:26	5

TestAmerica Edison

TestAmerica Job ID: 460-120896-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-7 Date Collected: 09/22/16 14:07

Date Received: 09/27/16 10:46

Lab Sample ID: 460-120896-4

Matrix: Water

rganic Compor Result		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
120		5.0		ug/L			10/01/16 10:26	5
140		5.0		ug/L			10/01/16 10:26	5
340		5.0		ug/L			10/01/16 10:26	5
82		5.0		ug/L			10/01/16 10:26	5
460		10		ug/L			10/01/16 10:26	5
50		5.0		ug/L			10/01/16 10:26	5
%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
95		77 - 124			1		10/01/16 10:26	5
86		72-131					10/01/16 10:26	5
89		74-132					10/01/16 10:26	5
92		80 - 120					10/01/16 10:26	5
	Result 120 140 340 82 460 50 %Recovery 95 86 89	Result Qualifier 120 140 340 82 460 50 **Recovery Qualifier 95 86 89	120 5.0 140 5.0 340 5.0 82 5.0 460 10 50 5.0 %Recovery Qualifier Limits 95 77-124 86 72-131 89 74-132	120 5.0 140 5.0 340 5.0 82 5.0 460 10 50 5.0 %Recovery Qualifier Limits 95 77-124 86 72-131 89 74-132	120 5.0 ug/L 140 5.0 ug/L 340 5.0 ug/L 82 5.0 ug/L 460 10 ug/L 50 5.0 ug/L %Recovery Qualifier Limits 95 77-124 86 72-131 89 74-132	120 5.0 ug/L 140 5.0 ug/L 340 5.0 ug/L 82 5.0 ug/L 460 10 ug/L 50 5.0 ug/L %Recovery Qualifier Limits 95 77-124 86 72-131 89 74-132	120 5.0 ug/L 140 5.0 ug/L 340 5.0 ug/L 82 5.0 ug/L 460 10 ug/L 50 5.0 ug/L %Recovery Qualifier Limits Prepared 95 77-124 86 72-131 89 74-132	120 5.0 ug/L 10/01/16 10:26 140 5.0 ug/L 10/01/16 10:26 340 5.0 ug/L 10/01/16 10:26 82 5.0 ug/L 10/01/16 10:26 460 10 ug/L 10/01/16 10:26 50 5.0 ug/L 10/01/16 10:26 %Recovery Qualifier Limits Prepared Analyzed 95 77 - 124 10/01/16 10:26 86 72 - 131 10/01/16 10:26 89 74 - 132 10/01/16 10:26

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		10/01/16 12:35	10/02/16 06:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	110		60 - 140				10/01/16 12:35	10/02/16 06:02	1
1,1,1,2-Tetrachloroethane	98		60 - 140				10/01/16 12:35	10/02/16 06:02	1

Client Sample ID: MW-8 Lab Sample ID: 460-120896-5 Date Collected: 09/22/16 14:33 Matrix: Water

RL

1.5

MDL Unit

ug/L

ug/L

Prepared

Analyzed

10/07/16 21:06 10/08/16 06:56

Dil Fac

Result Qualifier

ND

ND

Date Received: 09/27/16 10:46

1,2-Dibromoethane

Analyte

Lead

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	230		5.0		ug/L			10/01/16 10:02	5
1,2-Dichloroethane	ND		5.0		ug/L			10/01/16 10:02	5
Ethylbenzene	380		5.0		ug/L			10/01/16 10:02	5
Isopropylbenzene	60		5.0		ug/L			10/01/16 10:02	5
Naphthalene	110		5.0		ug/L			10/01/16 10:02	5
Toluene	20		5.0		ug/L			10/01/16 10:02	5
1,2,4-Trimethylbenzene	840		5.0		ug/L			10/01/16 10:02	5
1,3,5-Trimethylbenzene	240		5.0		ug/L			10/01/16 10:02	5
Xylenes, Total	670		10		ug/L			10/01/16 10:02	5
Methyl tert-butyl ether	ND		5.0		ug/L			10/01/16 10:02	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	98		77 - 124			2		10/01/16 10:02	5
Dibromofluoromethane (Surr)	91		72 - 131					10/01/16 10:02	5
1,2-Dichloroethane-d4 (Surr)	94		74 - 132					10/01/16 10:02	5
Toluene-d8 (Surr)	92		80 - 120					10/01/16 10:02	5
Method: 8011 - EDB, DBCF	, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

TestAmerica Edison

10/01/16 12:35 10/02/16 06:28

0.020

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Lab Sample ID: 460-120896-5 Client Sample ID: MW-8 Date Collected: 09/22/16 14:33

Matrix: Water

Date Received: 09/27/16 10:46

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	100	60 - 140	10/01/16 12:35	10/02/16 06:28	1
1,1,1,2-Tetrachloroethane	100	60 - 140	10/01/16 12:35	10/02/16 06:28	1

Method: 200.8 - Metals (ICP/MS)	Dissolv	red							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		10/07/16 21:06	10/08/16 07:01	5

Client Sample ID: MW-9 Lab Sample ID: 460-120896-6 Matrix: Water

Date Collected: 09/22/16 12:58

Date Received: 09/27/16 10:46

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.0		1.0		ug/L			10/01/16 09:39	1
1,2-Dichloroethane	ND		1.0		ug/L			10/01/16 09:39	1
Ethylbenzene	ND		1.0		ug/L			10/01/16 09:39	1
Isopropylbenzene	2.9		1.0		ug/L			10/01/16 09:39	1
Naphthalene	ND		1.0		ug/L			10/01/16 09:39	1
Toluene	ND		1.0		ug/L			10/01/16 09:39	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/01/16 09:39	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/01/16 09:39	1
Xylenes, Total	ND		2.0		ug/L			10/01/16 09:39	1
Methyl tert-butyl ether	1.6		1.0		ug/L			10/01/16 09:39	1

Surrogate	%Recovery Qualifier	Limits	Prepared Analyzed	Dil Fac
Bromofluorobenzene	90	77 - 124	10/01/16 09:3	9 1
Dibromofluoromethane (Surr)	88	72 - 131	10/01/16 09:3	9 1
1,2-Dichloroethane-d4 (Surr)	88	74 - 132	10/01/16 09:3	9 1
Toluene-d8 (Surr)	91	80 - 120	10/01/16 09:3	9 1

Method: 8011 - EDB, DBC	P, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		10/01/16 12:35	10/02/16 06:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	101		60 - 140				10/01/16 12:35	10/02/16 06:54	1
1,1,1,2-Tetrachloroethane	100		60 - 140				10/01/16 12:35	10/02/16 06:54	1

Method: 200.8 - Metals (ICP/MS)	- Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		10/07/16 21:06	10/08/16 07:06	5

Client Sample ID: MW-11 Lab Sample ID: 460-120896-7 Matrix: Water

Date Collected: 09/22/16 12:06 Date Received: 09/27/16 10:46

Method: 8260C - Volatile Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			10/01/16 09:16	1
1,2-Dichloroethane	ND		1.0		ug/L			10/01/16 09:16	1
Ethylbenzene	ND		1.0		ug/L			10/01/16 09:16	1
Isopropylbenzene	ND		1.0		ug/L			10/01/16 09:16	1

TestAmerica Edison

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10/8/2016

Client Sample Results

Client: Center Point Tank Service Project/Site: Liberty Oil #38

TestAmerica Job ID: 460-120896-1

Lab Sample ID: 460-120896-7

Matrix: Water

Client Sample ID: MW-11

Date Collected: 09/22/16 12:06 Date Received: 09/27/16 10:46

Method: 200.8 - Metals (ICP/MS) - Dissolved

Result Qualifier

ND

Analyte

Lead

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0		ug/L			10/01/16 09:16	1
Toluene	ND		1.0		ug/L			10/01/16 09:16	. 1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/01/16 09:16	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/01/16 09:16	1
Xylenes, Total	ND		2.0		ug/L			10/01/16 09:16	1
Methyl tert-butyl ether	ND		1.0		ug/L			10/01/16 09:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	90		77 - 124					10/01/16 09:16	1
Dibromofluoromethane (Surr)	89		72 - 131					10/01/16 09:16	1
1,2-Dichloroethane-d4 (Surr)	87		74 - 132					10/01/16 09:16	1
Toluene-d8 (Surr)	92		80 - 120					10/01/16 09:16	1
Method: 8011 - EDB, DBCF	, and 1,2,3-TC	P (GC)							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		10/01/16 12:35	10/02/16 07:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	101		60 - 140				10/01/16 12:35	10/02/16 07:20	1
1,1,1,2-Tetrachloroethane	102		60 - 140				10/01/16 12:35	10/02/16 07:20	1

RL

1.5

MDL Unit

ug/L

Prepared

Analyzed

10/07/16 21:06 10/08/16 07:10

Dil Fac

Certification Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-120896-1

Laboratory: TestAmerica Edison

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0200	09-30-18
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A	12-31-16
New Jersey	NELAP	2	12028	06-30-17
New York	NELAP	2	11452	03-31-17
Pennsylvania	NELAP	3	68-00522	02-28-17
Rhode Island	State Program	1	LAO00132	12-30-16
USDA	Federal		NJCA-003-08	04-04-17

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-17
California	State Program	9	2891	03-31-18
Connecticut	State Program	1	PH-0688	09-30-18
Florida	NELAP	4	E871008	06-30-17
Illinois	NELAP	5	200005	06-30-17
Kansas	NELAP	7	E-10350	01-31-17
Louisiana	NELAP	6	04041	06-30-17
New Hampshire	NELAP	1	2030	04-04-17
New Jersey	NELAP	2	PA005	06-30-17
New York	NELAP	2	11182	03-31-17
North Carolina (WW/SW)	State Program	4	434	12-31-16
Pennsylvania	NELAP	3	02-00416	04-30-17
South Carolina	State Program	4	89014	04-30-17
Texas	NELAP	6	T104704528-15-2	03-31-17
US Fish & Wildlife	Federal		LE94312A-1	10-31-16
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-17
Virginia	NELAP	3	460189	09-14-17
West Virginia DEP	State Program	3	142	01-31-17
Wisconsin	State Program	5	998027800	08-31-17

В

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TestAmerica Edison

Method Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-120896-1

TAL EDI

Protocol	Laboratory
SW846	TAL EDI

EPA

Protocol References:

Method

8260C

8011

200.8

EPA = US Environmental Protection Agency

Metals (ICP/MS)

Method Description

Volatile Organic Compounds by GC/MS

EDB, DBCP, and 1,2,3-TCP (GC)

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

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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777 New Durham Road Edison, New Jersey 08817 Phone: (732) 549-3900 Fax: (732) 549-3679

Rachel Burkart			s Namo (Printed Burl		+	Site	Projec	birty 01) #	38
Center Paint Tank Ser	wroc In	P. O. #	18-1	2-	420	12		e (Loca	ation of site): NJ: NY:	
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Sample Identification	Date	Time	Matrix	No. of. Cont.	200	000				Sample Numbers
MW-1	7/22/16	1037	GW	6	X	X				
mw-2		/055	1	6	x	X	_	_		
mw-3	-	1344	1	6	X	X	+	-		
mw-7-	-+-	1407	-	6	X	X	-	1		- J
mw-8	-+-	1433	-	6	X	~	+	+	DESCRIPTION OF THE PROPERTY OF	
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							-	F		
eservation Used: 1 = ICE, 2 = HCl, 3 =		, 5 = Na(HC	Soil:	11.	. bet	-	-		
6 = Other	7 = Other		_	Water:	1/2	114/4	_	_		1/0
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elinquished by C	ompany		9/20/	ate / Time	9	Received	by,	1	Company	alamili IN
						4) (1)				

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	Antenonia	COD	Nitrate Nitrite	Metals	Hardeess	Pest	EPH or QAM	Phenols	Sulfide	TKN	тос	Total Cyanide	Total Phos	Other	Other
TALS Sample Number	(pM<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH 5-9)	(pH<2)	(pH<2)	(pH>9)	(p)1<2)	(pH<2)	(pH>12)	(pH<2)		
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Sample No(s)	adjusted:					00							× 20		

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10/8/2016

Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-120896-1

Login Number: 120896 List Source: TestAmerica Edison

List Number: 1

Creator: Gilmore, Julie L.

oreator. Gilliore, Julie L		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	IR KOP#1 0.8
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <a><a><a><a><a><a><a><a><a><a><a><a><a><	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-120896-1

List Source: TestAmerica Pittsburgh
List Number: 2
List Creation: 09/28/16 06:47 PM

Creator: Say, Thomas C

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or ampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is som (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Edison 777 New Durham Road Edison, NJ 08817 Tel: (732)549-3900

TestAmerica Job ID: 460-125465-1 Client Project/Site: Liberty 38

For:

Center Point Tank Service 536 E Benjamin Franklin Douglassville, Pennsylvania 19518

Attn: Rachel Burkart



Authorized for release by: 12/27/2016 8:15:33 AM

Jill Miller, Project Manager II (732)549-3900 jill.miller@testamericainc.com

.....LINKS

Review your project results through

Total Access

Have a Question?



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

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

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

Client: Center Point Tank Service Project/Site: Liberty 38 TestAmerica Job ID: 460-125465-1

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Sample Summary

Client: Center Point Tank Service

Project/Site: Liberty 38

TestAmerica Job ID: 460-125465-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-125465-1	MW-1	Water	12/14/16 10:37	12/15/16 13:15
460-125465-2	MW-2	Water	12/14/16 10:56	12/15/16 13:15
460-125465-3	MW-3	Water	12/14/16 13:32	12/15/16 13:15
460-125465-4	MW-4	Water	12/14/16 13:04	12/15/16 13:15
460-125465-5	MW-5	Water	12/14/16 11:11	12/15/16 13:15
460-125465-6	MW-6	Water	12/14/16 11:50	12/15/16 13:15
460-125465-7	MW-9	Water	12/14/16 12:18	12/15/16 13:15
460-125465-8	MW-10	Water	12/14/16 12:36	12/15/16 13:15
460-125465-9	MW-11	Water	12/14/16 11:36	12/15/16 13:15

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Definitions/Glossary

Client: Center Point Tank Service

Project/Site: Liberty 38

TestAmerica Job ID: 460-125465-1

K

Glossary

ND

PQL

QC

RER

RPD

TEF

TEQ

RL

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

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

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

Reporting Limit or Requested Limit (Radiochemistry)

Practical Quantitation Limit

Toxicity Equivalent Factor (Dioxin)
Toxicity Equivalent Quotient (Dioxin)

Quality Control

Relative error ratio

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Case Narrative

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Project/Site: Liberty 38

TestAmerica Job ID: 460-125465-1

Job ID: 460-125465-1

Laboratory: TestAmerica Edison

Client: Center Point Tank Service

Narrative

Job Narrative 460-125465-1

Comments

No additional comments.

Receipt

The samples were received on 12/15/2016 1:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.2° C.

GC/MS VOA

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-10 (460-125465-8). Elevated reporting limits (RLs) are provided.

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

GC Semi VOA

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

Metals

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

VOA Prep

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

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TestAmerica Job ID: 460-125465-1

Client: Center Point Tank Service

Project/Site: Liberty 38

Client Sample ID: MW-1 Lab Sample ID: 460-125465-1

Date Collected: 12/14/16 10:37 Matrix: Water

Date Received: 12/15/16 13:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			12/23/16 16:56	1
1,2-Dichloroethane	ND		1.0		ug/L			12/23/16 16:56	1
Ethylbenzene	ND		1.0		ug/L			12/23/16 16:56	1
Isopropylbenzene	ND		1.0		ug/L			12/23/16 16:56	1
Naphthalene	ND		1.0		ug/L			12/23/16 16:56	1
Toluene	ND		1.0		ug/L			12/23/16 16:56	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			12/23/16 16:56	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			12/23/16 16:56	1
Xylenes, Total	ND		2.0		ug/L			12/23/16 16:56	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/23/16 16:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	102		77 - 124					12/23/16 16:56	1
Dibromofluoromethane (Surr)	102		72 - 131					12/23/16 16:56	1
1,2-Dichloroethane-d4 (Surr)	97		74 - 132					12/23/16 16:56	1
Toluene-d8 (Surr)	99		80 - 120					12/23/16 16:56	1

Analyte 1.2-Dibromoethane	Result	Qualifier	0.020	MDL	Unit ug/L	D	Prepared 12/17/16 12:49	Analyzed 12/18/16 23:47	Dil Fac
1,2-Dibromoetrarie	ND		0.020		ug/L		12/1//10 12.49	12/10/10 25.4/	: 1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	84		60 - 140				12/17/16 12:49	12/18/16 23:47	1
1,1,1,2-Tetrachloroethane	84		60 - 140				12/17/16 12:49	12/18/16 23:47	1

12/21/16 11:39 12/21/16 13:48 Lead ND ug/L Client Sample ID: MW-2 Lab Sample ID: 460-125465-2

Date Collected: 12/14/16 10:56 Date Received: 12/15/16 13:15

Toluene-d8 (Surr)

Method: 8260C - Volatile O Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			12/23/16 17:22	1
1,2-Dichloroethane	ND		1.0		ug/L			12/23/16 17:22	1
Ethylbenzene	ND		1.0		ug/L			12/23/16 17:22	1
Isopropylbenzene	ND		1.0		ug/L			12/23/16 17:22	1
Naphthalene	ND		1.0		ug/L			12/23/16 17:22	1
Toluene	ND		1.0		ug/L			12/23/16 17:22	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			12/23/16 17:22	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			12/23/16 17:22	1
Xylenes, Total	ND		2.0		ug/L			12/23/16 17:22	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/23/16 17:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	104		77 - 124					12/23/16 17:22	1
Dibromofluoromethane (Surr)	103		72 - 131					12/23/16 17:22	1
1,2-Dichloroethane-d4 (Surr)	99		74 - 132					12/23/16 17:22	1

TestAmerica Edison

12/23/16 17:22

Page 6 of 20

80 - 120

101

Matrix: Water

TestAmerica Job ID: 460-125465-1

Client: Center Point Tank Service

Project/Site: Liberty 38

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		12/17/16 12:49	12/19/16 00:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	81		60 - 140				12/17/16 12:49	12/19/16 00:11	1
1,1,1,2-Tetrachloroethane	80		60 - 140				12/17/16 12:49	12/19/16 00:11	1
Method: 200.8 - Metals (IC	CP/MS) - Dissolv	red							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		12/21/16 11:39	12/21/16 13:53	- 5

Client Sample ID: MW-3

Date Collected: 12/14/16 13:32 Date Received: 12/15/16 13:15

Lab Sample ID: 460-125465-3

Matrix: Water

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	1.0		ug/L			12/23/16 17:48	1
1,2-Dichloroethane	ND	1.0		ug/L			12/23/16 17:48	1
Ethylbenzene	ND	1.0		ug/L			12/23/16 17:48	1
Isopropylbenzene	ND	1.0		ug/L			12/23/16 17:48	1
Naphthalene	ND	1.0		ug/L			12/23/16 17:48	1
Toluene	ND	1.0		ug/L			12/23/16 17:48	1
1,2,4-Trimethylbenzene	ND	1.0		ug/L			12/23/16 17:48	1
1,3,5-Trimethylbenzene	ND	1.0		ug/L			12/23/16 17:48	1
Xylenes, Total	ND	2.0		ug/L			12/23/16 17:48	1
Methyl tert-butyl ether	ND	1.0		ug/L			12/23/16 17:48	1
Surrogate	% Pacovery Qualifier	1 imite				Prepared	Analyzad	Dil Fac

Surrogate	%Recovery	Qualifier	Limits	Prepared Analyzed	Dil Fac
Bromofluorobenzene	102		77 - 124	12/23/16 17:	48 1
Dibromofluoromethane (Surr)	105		72 - 131	12/23/16 17:	48 1
1,2-Dichloroethane-d4 (Surr)	100		74-132	12/23/16 17:	48 1
Toluene-d8 (Surr)	99		80 - 120	12/23/16 17:	48 1

Method: 8011 - EDB, DBC	P, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		12/17/16 12:49	12/19/16 00:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	85		60 - 140				12/17/16 12:49	12/19/16 00:36	1
1,1,1,2-Tetrachloroethane	85		60 - 140				12/17/16 12:49	12/19/16 00:36	1

Method: 200.8 - Metals	(ICP/MS) - Dissolved							
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	1.5		ug/L		12/21/16 11:39	12/21/16 13:56	5

Lab Sample ID: 460-125465-4 Client Sample ID: MW-4 Date Collected: 12/14/16 13:04 Matrix: Water

Date Received: 12/15/16 13:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	97		1.0		ug/L			12/23/16 18:14	1
1,2-Dichloroethane	ND		1.0		ug/L			12/23/16 18:14	1
Ethylbenzene	50		1.0		ug/L			12/23/16 18:14	1
Isopropylbenzene	14		1.0		ug/L			12/23/16 18:14	1

TestAmerica Edison

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Client: Center Point Tank Service

Project/Site: Liberty 38

Client Sample ID: MW-4 Lab Sample ID: 460-125465-4

Date Collected: 12/14/16 13:04 Date Received: 12/15/16 13:15 Matrix: Water

Method: 8260C - Volatile O Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	21		1.0		ug/L			12/23/16 18:14	1
Toluene	75		1.0		ug/L			12/23/16 18:14	1
1,2,4-Trimethylbenzene	67		1.0		ug/L			12/23/16 18:14	1
1,3,5-Trimethylbenzene	18		1.0		ug/L			12/23/16 18:14	1
Xylenes, Total	150		2.0		ug/L			12/23/16 18:14	1
Methyl tert-butyl ether	12		1.0		ug/L			12/23/16 18:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	103		77 - 124			1		12/23/16 18:14	1
Dibromofluoromethane (Surr)	101		72-131					12/23/16 18:14	1
1,2-Dichloroethane-d4 (Surr)	99		74 - 132					12/23/16 18:14	1
Toluene-d8 (Surr)	103		80 - 120					12/23/16 18:14	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		12/17/16 12:49	12/19/16 01:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	87		60 - 140				12/17/16 12:49	12/19/16 01:00	1
1,1,1,2-Tetrachloroethane	81		60 - 140				12/17/16 12:49	12/19/16 01:00	1

Client Sample ID: MW-5

Date Collected: 12/14/16 11:11

Lab Sample ID: 460-125465-5

Matrix: Water

RL

1.5

MDL Unit

ug/L

Prepared

Analyzed

12/21/16 11:39 12/21/16 13:58

Result Qualifier

ND

ND

Date Received: 12/15/16 13:15

1,2-Dibromoethane

Analyte

Lead

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			12/24/16 02:17	1
1,2-Dichloroethane	ND		1.0		ug/L			12/24/16 02:17	1
Ethylbenzene	ND		1.0		ug/L			12/24/16 02:17	1
Isopropylbenzene	ND		1.0		ug/L			12/24/16 02:17	1
Naphthalene	ND		1.0		ug/L			12/24/16 02:17	1
Toluene	ND		1.0		ug/L			12/24/16 02:17	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			12/24/16 02:17	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			12/24/16 02:17	1
Xylenes, Total	ND		2.0		ug/L			12/24/16 02:17	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/24/16 02:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	103		77 - 124			2		12/24/16 02:17	1
Dibromofluoromethane (Surr)	103		72 - 131					12/24/16 02:17	1
1,2-Dichloroethane-d4 (Surr)	101		74 - 132					12/24/16 02:17	1
Toluene-d8 (Surr)	101		80 - 120					12/24/16 02:17	1
Method: 8011 - EDB, DBCF	, and 1,2,3-TC	P (GC)							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

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TestAmerica Edison

12/17/16 12:49 12/19/16 01:24

ug/L

Client: Center Point Tank Service

Project/Site: Liberty 38

Client Sample ID: MW-5

Date Collected: 12/14/16 11:11 Date Received: 12/15/16 13:15

Lab Sample ID: 460-125465-5

Matrix: Water

	Dil Fac
12/19/16 01:24	1
12/19/16 01:24	1
	9 12/19/16 01:24

Method: 200.8 - N	Metals (ICP/MS) - Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		12/21/16 11:39	12/21/16 14:07	5

Client Sample ID: MW-6 Lab Sample ID: 460-125465-6

Date Received: 12/15/16 13:15

Date Collected: 12/14/16 11:50 Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			12/23/16 19:06	1
1,2-Dichloroethane	ND		1.0		ug/L			12/23/16 19:06	1
Ethylbenzene	ND		1.0		ug/L			12/23/16 19:06	1
Isopropylbenzene	ND		1.0		ug/L			12/23/16 19:06	1
Naphthalene	ND		1.0		ug/L			12/23/16 19:06	1
Toluene	ND		1.0		ug/L			12/23/16 19:06	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			12/23/16 19:06	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			12/23/16 19:06	1
Xylenes, Total	ND		2.0		ug/L			12/23/16 19:06	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/23/16 19:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared Analyzed	Dil Fac
Bromofluorobenzene	105		77 - 124	12/23/16 19:	06 1
Dibromofluoromethane (Surr)	105		72 - 131	12/23/16 19:	06 1
1,2-Dichloroethane-d4 (Surr)	99		74 - 132	12/23/16 19:	06 1
Toluene-d8 (Surr)	101		80 - 120	12/23/16 19:	06 1

Method: 8011 - EDB, DBC	P, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		12/17/16 12:49	12/19/16 01:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	84		60 - 140				12/17/16 12:49	12/19/16 01:49	1
1,1,1,2-Tetrachloroethane	83		60 - 140				12/17/16 12:49	12/19/16 01:49	1

Method: 200.8 - Metals	s (ICP/MS) - Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	40		1.5		ug/L		12/21/16 11:39	12/21/16 14:10	5

Client Sample ID: MW-9 Lab Sample ID: 460-125465-7

Date Collected: 12/14/16 12:18 Date Received: 12/15/16 13:15

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.7		1.0		ug/L			12/23/16 19:32	1
1,2-Dichloroethane	ND		1.0		ug/L			12/23/16 19:32	1
Ethylbenzene	ND		1.0		ug/L			12/23/16 19:32	1
Isopropylbenzene	2.4		1.0		ug/L			12/23/16 19:32	1

TestAmerica Edison

TestAmerica Job ID: 460-125465-1

Client: Center Point Tank Service

Project/Site: Liberty 38

Lab Sample ID: 460-125465-7

Matrix: Water

Date Collected: 12/14/16 12:18 Date Received: 12/15/16 13:15

Client Sample ID: MW-9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0		ug/L			12/23/16 19:32	1
Toluene	ND		1.0		ug/L			12/23/16 19:32	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			12/23/16 19:32	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			12/23/16 19:32	1
Xylenes, Total	ND		2.0		ug/L			12/23/16 19:32	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/23/16 19:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	103		77 - 124					12/23/16 19:32	1
Dibromofluoromethane (Surr)	104		72 - 131					12/23/16 19:32	1
1,2-Dichloroethane-d4 (Surr)	101		74 - 132					12/23/16 19:32	1
Toluene-d8 (Surr)	101		80 - 120					12/23/16 19:32	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,2-Dibromoethane	ND		0.020		ug/L		12/17/16 12:49	12/19/16 02:13	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	84		60 - 140				12/17/16 12:49	12/19/16 02:13	
1,1,1,2-Tetrachloroethane	83		60 - 140				12/17/16 12:49	12/19/16 02:13	
Method: 200.8 - Metals (IC	P/MS) - Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Lead	ND		1.5		ug/L		12/21/16 11:40	12/21/16 14:12	

Client Sample ID: MW-10 Lab Sample ID: 460-125465-8 Date Collected: 12/14/16 12:36 Matrix: Water

Date Received: 12/15/16 13:15

1,2-Dibromoethane

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	3300		10		ug/L			12/23/16 16:05	10
1,2-Dichloroethane	ND		10		ug/L			12/23/16 16:05	10
Ethylbenzene	530		10		ug/L			12/23/16 16:05	10
sopropylbenzene	55		10		ug/L			12/23/16 16:05	10
Naphthalene	27		10		ug/L			12/23/16 16:05	10
Toluene	31		10		ug/L			12/23/16 16:05	10
1,2,4-Trimethylbenzene	34		10		ug/L			12/23/16 16:05	10
1,3,5-Trimethylbenzene	ND		10		ug/L			12/23/16 16:05	10
Xylenes, Total	120		20		ug/L			12/23/16 16:05	10
Methyl tert-butyl ether	95		10		ug/L			12/23/16 16:05	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	104		77 - 124					12/23/16 16:05	10
Dibromofluoromethane (Surr)	102		72 - 131					12/23/16 16:05	10
1,2-Dichloroethane-d4 (Surr)	98		74 - 132					12/23/16 16:05	10
Toluene-d8 (Surr)	102		80 - 120					12/23/16 16:05	10

TestAmerica Edison

12/17/16 12:49 12/19/16 02:37

0.020

ug/L

ND

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Client: Center Point Tank Service

Project/Site: Liberty 38

Lab Sample ID: 460-125465-8

Matrix: Water

Client Sample ID: MW-10 Date Collected: 12/14/16 12:36 Date Received: 12/15/16 13:15

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	89	60 - 140	12/17/16 12:49	12/19/16 02:37	1
1,1,1,2-Tetrachloroethane	87	60 - 140	12/17/16 12:49	12/19/16 02:37	1

 Method: 200.8 - Metals (ICP/MS) - Dissolved

 Analyte
 Result Qualifier
 RL
 MDL Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Lead
 ND
 1.5
 ug/L
 12/21/16 11:40
 12/21/16 14:14
 5

Client Sample ID: MW-11 Lab Sample ID: 460-125465-9

Date Collected: 12/14/16 11:36 Matrix: Water

Date Received: 12/15/16 13:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			12/23/16 19:57	1
1,2-Dichloroethane	ND		1.0		ug/L			12/23/16 19:57	1
Ethylbenzene	ND		1.0		ug/L			12/23/16 19:57	1
Isopropylbenzene	ND		1.0		ug/L			12/23/16 19:57	1
Naphthalene	ND		1.0		ug/L			12/23/16 19:57	1
Toluene	ND		1.0		ug/L			12/23/16 19:57	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			12/23/16 19:57	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			12/23/16 19:57	1
Xylenes, Total	ND		2.0		ug/L			12/23/16 19:57	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/23/16 19:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	104		77 - 124					12/23/16 19:57	1
Dibromofluoromethane (Surr)	106		72 - 131					12/23/16 19:57	1
1,2-Dichloroethane-d4 (Surr)	101		74 - 132					12/23/16 19:57	1
Toluene-d8 (Surr)	102		80 - 120					12/23/16 19:57	1
Method: 8011 - EDB, DBCF	P. and 1,2,3-TC	P (GC)							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		12/17/16 12:49	12/19/16 03:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	88		60 - 140				12/17/16 12:49	12/19/16 03:02	1
1,1,1,2-Tetrachloroethane	87		60 - 140				12/17/16 12:49	12/19/16 03:02	1
Method: 200.8 - Metals (ICI	P/MS) - Dissolv	red							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		12/21/16 11:40	12/21/16 14:17	5

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Client: Center Point Tank Service

Project/Site: Liberty 38

Laboratory: TestAmerica Edison

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0200	09-30-18
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A	12-31-16
New Jersey	NELAP	2	12028	06-30-17
New York	NELAP	2	11452	03-31-17
Pennsylvania	NELAP	3	68-00522	02-28-17
Rhode Island	State Program	1	LAO00132	12-30-16
USDA	Federal		NJCA-003-08	04-04-17

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-17
California	State Program	9	2891	03-31-18
Connecticut	State Program	1	PH-0688	09-30-18
Florida	NELAP	4	E871008	06-30-17
Illinois	NELAP	5	200005	06-30-17
Kansas	NELAP	7	E-10350	01-31-17
Louisiana	NELAP	6	04041	06-30-17
New Hampshire	NELAP	1	2030	04-04-17
New Jersey	NELAP	2	PA005	06-30-17
New York	NELAP	2	11182	03-31-17
North Carolina (WW/SW)	State Program	4	434	12-31-16 *
Pennsylvania	NELAP	3	02-00416	04-30-17
South Carolina	State Program	4	89014	04-30-17
Texas	NELAP	6	T104704528-15-2	03-31-17
US Fish & Wildlife	Federal		LE94312A-1	10-31-17
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-17
Virginia	NELAP	3	460189	09-14-17
West Virginia DEP	State Program	3	142	01-31-17
Wisconsin	State Program	5	998027800	08-31-17

TestAmerica Edison

12/27/2016

^{*} Certification renewal pending - certification considered valid.

Method Summary

Client: Center Point Tank Service

Project/Site: Liberty 38

TestAmerica Job ID: 460-125465-1

Method Description	Protocol	Laboratory
Volatile Organic Compounds by GC/MS	SW846	TAL EDI
EDB, DBCP, and 1,2,3-TCP (GC)	SW846	TAL PIT
Metals (ICP/MS)	EPA	TAL EDI
	Volatile Organic Compounds by GC/MS EDB, DBCP, and 1,2,3-TCP (GC)	Volatile Organic Compounds by GC/MS SW846 EDB, DBCP, and 1,2,3-TCP (GC) SW846

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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THE LEADER IN ENVIRONMENTAL TESTING		IN OF CO	YOUR	/ ANALTSI	CHAIN OF CUSTOUY / ANALYSIS REQUEST	1	O.2 Page of
Name (for report and invoice)		Samplers Name (Printed)	ne (Printed)	+	Site/Project Identification	fication	
Company o		P. O. #			State (Location of site):	site): NJ:	NY: Other: FA
CONTROLL SON CON		08	08-15-4565	7.5	Regulatory Program:	am: PAUST	DKQP:
		Analysis Turnaround Time	und Time	ANALYSIS R	ANALYSIS REQUESTED (EVIER %: BELOW TO INDICATE REQUEST)	INDICATE REQUEST)	LAB USE ONLY
S36 E. Byrjamin Franklin	HWY	Standard		e			Project No:
ville	State	Rush Charges Authorized For 2 Week		ine solin			Job No:
Fax		Other Other		gasol gasol			25465
Sample Identification	Date	Time Matrix	No. of. Cont.	unle			Sample Numbers
MW-I	12/H W	1037 GW	0 6	×			
MW-2		105%	6	1,			
MW-3		1332	6	×			
h-mw		1304	6	×			
MW-S-MW		1111	6	X			Millian
Mu-lo		1150	6	X		THE REAL PROPERTY AND THE PARTY AND THE PART	
MW-9		1218	6	X			
MM-IO		1236	6	×			
Mw-II	<	1136 4	6	XX		ASD-125465 Chain of Custody	of Custody
						100	
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH	: H ₂ SO ₄ , 4 = HNO ₅	5 = NaOH	Soil:				
6 = Other	, 7 = Other		Water:	1/2/1/2			
Special Instructions Phase	CAB Filty	me to by	*			Water M	Water Metals Filtered (Yes/No)?
Relimpiished by	Company Censel Papin	Took M.	Date / Time	Received by	J by	Company	A
Refinquished By Homes of 2)	Company	12	Date / Time	Received by	aby val	Company	any
A STANKE			N. L.		1900		

Page 14 of 20

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

Relinquished by

Company

Date / Time

Received by

Company

TAL - 0016 (0715)

0

2000

Company

777 New Durham Road Edison, New Jersey 08817 Phone: (732) 549-3900 Fax: (732) 549-3679

Animonia COD Nitrite Metals Hardness Peat GAM Phenois Sulfide TKN TOC Cynnide Total Pleas Other (pH-C2) (pH-C2	EDS-WI-038, Rev 4, 06/09/2014	-	Pre	S	Γ		\Box			T	T	Τ	TALS Sam				N N	Job Number:
Cooler Temperatures Cooler Te	4, 06/09/2014	ot#ofPrese	servative Na	ample No(s).									ple Number		Cooley #3	Gooler #1		
Nilizate Metable Hardness Peast DAM Phanols Sulfide TKN TOC Cyanide Total Phos Other (pH-2) (rvative(s):_ Th	ne/Conc.:	adjusted:	If oH adii								(pH<2)	Ammonia	**			25465
Preservative used (ml): Expiration Date: Expir	Initials:	e appropri		9110110	etmente								(pH<2)	COD				8
Preservative used (ml): Expiration Date: Expir		iate Projec		a redain	200								(pH<2)	Nitrate Nitrite				alona by altaba
Preservative used (ml): Expiration Date: Expir	12	t Manage etal analy		1000	200								(pH<2)	Metals		o.	7 (S)	SPSE TATIONS
Preservative used (ml): Expiration Date: Expir		r and Dep sis which a			the infe								(pH<2)	Hardness		ł	8	Manager or
Preservative used (ml): Expiration Date: Expir		artment M	Volu										(pH 5-9)	Pest) 1	an all and a
Other		anager sh complianc	me of Pre		down								(pH<2)	EPH or QAM	6			1
Other	Date:	Expiral ould be no e must be	servative u										(pH<2)	Phenois			ures	in the Control of the
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Other	12	ut the san											(pH<2)	TKN	Separation of the separate of		11	MONTH WITH
Other	S	ples which											(pH<2)	тос				March Laborator
Other		h were ph or to analy							a.				(pH>12)					A Miles Street
Other		adjusted.											(pH<2)	Total Phos				
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04

TEST AMERICA - PITTSBURGH 301 ALPHA DR

TRK# 7779 6612 4260

V AGCA

Uncorrected temp Thermometer ID

CF_ O Initials

*estAmerica

Class 1/2 695.24480 Ex.	Client Information (Sub Contract Lab)	Sampler			Lab PM: Miller, Jill K	SII K	460-125465 Chain of Custody		GNo .0-47361.1
RIDC Park 12/2 1/2016 12/2 1/2 1/2016 12/2 1/2 1/2016 12/2 1/2 1/2016 12/2 1/2 1/2016 12/2 1/2 1/2016 12/2 1/2 1/2016 12/2 1/2 1/2016 12/2 1/2 1/2016 12/2 1/2 1/2016 12/2 1/2 1/2016 12/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/	Clert Contact Shipping/Receiving	Phone			E-Max.	r@testamen	cainc.com	-	ge age 1 of 1
Due Date Requests 12/2/1/2016 TAT Requested (da FO # 12/14/16 12/1	Company. TestAmerica Laboratories, Inc.				₹Z	ELAP - Penr	ote).	30	ob # 60-125465-1
TAT Requested (da WO # WO		Due Date Requeste 12/21/2016	9				Analysis Requested	Pr	Codes:
## Project ## ## ## ## ## ## ## ## ## ## ## ## ##	City Pritsburgh State, Zp.	TAT Requested (da	No.					(8 0 0 10	
## Project ## 46011357 ## 4601	Phone 412-963-7058(Tel) 412-963-2468(Fax)	9 Od						w O I	7
Project # 46011357	Email:	WO#.			ON 10				,
SSOWIII Sample Date 12/14/16 12/1	Project Name Liberty 38	Project #: 48011357				N 10 89			
Sample Date 12/14/16	260	SSOW#.			lomes	A) as		S-3-17-0	ther;
12/14/16 12/	Sample Identification - Client ID (Lab ID)	Sample Date	Sample		T	M\2M mohe9		Total Number	Special Instructions/Note:
12/14/16 12/		X	X	(85)	on Code:	X		X	
12/14/16 12/	MW-1 (460-125465-1)	12/14/16	10.37 Eastern		Water	×		2	
12/14/16 12/	MW-2 (460-125465-2)	12/14/16	10.56 Eastern		Water	×		2	
12/14/16 12/	MW-3 (460-125465-3)	12/14/16	13:32 Eastern		Water	×		2	
12/14/16 12/	MW-4 (460-125465-4)	12/14/16	13:04 Eastern		Water	×		2	
12/14/16 12/14/16	MW-5 (460-125465-5)	12/14/16	11:11 Eastern		Water	×		2	
distions are subject to change. Test/America Laboratories. Inc. places the non-in-the State of Origin Islaed above for analysis/helst-institutions being analysis/helst-institution. Design analysis/helst-institution. Design analysis/helst-institution. Design analysis/helst-institution. Design analysis/helst-institution. Design analysis of the Constody Seal No.: Custody Seal No.:	MW-6 (460-125465-6)	12/14/16	11:50 Eastern		Water	×		2	
12/14/16 12/14/16 12/14/16 12/14/16 12/14/16 12/14/16 12/14/16 12/14/16 12/14/16 12/14/16 12/14/16 12/14/16 12/14/16 12/14/16 12/14/16 12/14/16 12/14/16	MW-9 (460-125465-7)	12/14/16	12:18 Eastern		Water	×		2	
12/14/16 sel/merca Laboratories, Inc. places the ver for analysishtestsmatrix being analyzidations are current to disto, return the significant programs. Primary Delivert Date free. Date free. D	MW-10 (460-125465-8)	12/14/16	12:36 Eastern		Water	×		2	
Primary Deliver Date/free Date/free Date/free Date/free Date/free	MW-11 (460-125465-9)	12/14/16	11:36 Eastern		Water	×		2	
Primary Deliverable Rank: 1 Primary Deliverable Rank: 1 Date: Date: Date: Date: Date: Date: Date: Date: Date: Company Received by: Date: Company Received by: Conclusing Received by: Date: Conclusing Received by: Conclusion Rece	Note: Serice laboratory accreditations are subject to change. Test/America Currently maintain accreditation in the State of Origin laised above for ana Laboratories, inc. attention immediately. If all requested accreditations at	Laboratories, Inc. places the objects the cylindrical property of common to date, return the sign.	ownership of n nd, the sample gned Chain of	nethod, analyte is must be ships Custody affests	& accreditation or ed back to the Tr ng to said compli	ompliance upon estAmenca labo cance to TestAn	oul subconfract laboratories. This sample shipment is foreigney or other instructions will be provided. Any change merica Laboratories, Inc.	orwarded under of	hain-of-custody. If the laboratory does not status should be brought to TestAmerica.
Primary Deliverable Rank: 1 Special Instructions/GC Requirements: Date: Time: T	Possible Hazard Identification					Sample Di	isposal (A fee may be assessed if sample:	s are retained	Honger than 1 month)
Date: Date: Company Time. Time. Method of Supment	Unconfirmed Deliverable Reminerated: 1 III TV Other (consolid)		hie Donk:			Coord Inc	um To Client Disposal By Lab	Archive	e For Months
Machine Company Date: Company Company Received by Date/Time: Date/Time	Deliveration Nequesition, I, II, III, IV, Other (specify)		Die Namk.			opedai ins			
Company Received by Date/Time: Date/	Empty Kit Relinquished by:		Date:		-	100	Method of 3	aut.	
Date/Time Company Received by Date/Time Company Received by Cooler Temperature(s) *C and Other Remarks:	SAK		1500		Tha	Received		me.	Company
Company Received by OsterTime Contesting Contesting Contesting Coder Temperature(s) *C and Other Remarks:	to consider	Constitute a			dundana	Nective		ше	Company
Custody Seal No.	Relinquished by:	Date/Time			Sompany	Receive		ime	Company
						Cooler T	emperature(s) ⁹ C and Other Remarks.		

ooler Temperature(s) "C and Other Remarks:

Chain of Custody Record

** FestAmerica

Client Information (Sub Contract Lab)	Sampler		Lab PM: Miller, Hill K	MK	460-125465 Chain of C		C No.	
Charl Corbet	Dhone		CALC		on custody		1700171	
Shipping/Receiving	Phone.		jill mille	r@lestam	in miler@iestamericainc.com	age 1 of 1	1 of 1	
Company. TestAmerica Laboratories, Inc.			N.Z.	ELAP - Po	Acceptations Required (See note): NELAP - Pennsylvania	Job # 460-12	Job # 460-125465-1	
Address: 301 Alpha Drive, RIDC Park.	Due Date Requested: 12/21/2016		-		Analysis Requested	Preser	Cod	
	TAT Requested (days):		15000			A-HCI B-NaC		_ 2
State, Zp. PA, 15238			200			D - Naric Acid E - NaHSO4	ic Acid P - Na2O4S HSO4 Q - Na2SO3	
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	POR		1	100		F - Med G - Am	79	33 lecahydra
Email:	WO#.		0 10 N					
Project Name: Liberty 38	Project#:		\$9,0	4 10 a		_		(Appa
She	SSCWW		Names	en) as		of con		
Sample Identification - Client ID (Lab ID)	Sample Date Time	Sample Type (C=comp, G=grab)	Matrix (W-water, S-water, C-water, C-water, Matrix	M/SM mohaq qarq_rros/rros		redrink istoT	Special Instructions/Note:	Note
	X	Preservi	ation Code:	X	日本のでは、 では、 では、 では、 では、 では、 では、 では、	00000	V	
MW-1 (460-125465-1)	12/14/16 Faster		Water	×	*	2		
MW-2 (460-125465-2)	12/14/16 Eastern		Water	×		2		
MW-3 (460-125465-3)	12/14/16 Tastern		Water	×		2		
MW-4 (460-125465-4)	12/14/16 Fastern		Water	×		2		
MW-5 (460-125465-5)	12/14/16 Fastern		Water	×		2		
MW-6 (460-125465-6)	12/14/16 T1:50		Water	×		2		
MW-9 (460-125465-7)	12/14/16 12:18 Eastern		Water	×		2		
MW-10 (460-125465-8)	12/14/16 12:36 Eastern		Water	×		2		
MW-11 (460-125465-9)	12/14/16 Eastern		Water	×		2		
Note: Since laboratory accreditations are subject to changa. Test/kmerics Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample currently maintain accreditation in the State of Origin listed above for analysis/hests/matrix being analyzed, the samples must be shipped back to the Test/kmerica laboratories will be provided. Laboratories, inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Test/kmerica Laboratories, inc.	Laboratories, Inc. places the ownership of systematics being analyzed, the sam re current to date, return the signed Chain	of Custody attention	te & accreditation or pped back to the Tr sting to said compli	ompliance up rstAmerica la cance to Test		shipment is forwarded under chain-of-custody. If the laboratory does no Any changes to accreditation status should be brought to TestAmerica	if-custody. If the laboratory should be brought to Test/	y does no America
Possible Hazard Identification				Sample	ee may be	amples are retained long	ger than 1 month)	
Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable Rank:	2.1		Special I	Special Instructions/OC Requirements:	ab Archive For	Months	
Empty Kit Relinquished by:	Date:		1	Time:	() Method o	Method of Shipment.		
Regult Wall Kallmore	12/15/16 1500	0	Thred	Recen	Xumu Wisson	Jypo Cale Tire	- 16 Company	友
Reloanshed by	DataTrine		Company	Racao	Received by	Datedfine	100	1
So nousenhouse	Contract and		Company	Maran	ved by:	Date/sime.	Company	

Custody Seal No.

Custody Seals Infact.

Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-125465-1

Login Number: 125465 List Source: TestAmerica Edison

List Number: 1

Creator: Gilmore, Julie L

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	IR kOP#1 0.2
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is 66mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-125465-1

List Source: TestAmerica Pittsburgh
List Number: 2
List Creation: 12/16/16 06:14 PM

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey neter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or ampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is :6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Edison 777 New Durham Road Edison, NJ 08817 Tel: (732)549-3900

TestAmerica Job ID: 460-130682-1 Client Project/Site: Liberty Oil #38

For:

Center Point Tank Service 536 E Benjamin Franklin Douglassville, Pennsylvania 19518

Attn: Rachel Burkart

Sie miller

Authorized for release by: 4/10/2017 4:52:23 PM

Jill Miller, Project Manager II (732)549-3900 jill.miller@testamericainc.com

.....LINKS

Review your project results through
Total Access

Have a Question?



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

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

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

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-130682-1

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Sample Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

TestAmerica Job ID: 460-130682-1

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Lab Sample ID	Client Sample ID	Matrix		Received
460-130682-1	MW-2	Water	03/29/17 10:39	03/31/17 20:00
460-130682-2	MW-3	Water	03/29/17 13:19	03/31/17 20:00
460-130682-3	MW-4	Water	03/29/17 12:48	03/31/17 20:00
460-130682-4	MW-5	Water	03/29/17 10:55	03/31/17 20:00
460-130682-5	MW-6	Water	03/29/17 11:33	03/31/17 20:00
460-130682-6	MW-9	Water	03/29/17 11:53	03/31/17 20:00
460-130682-7	MW-10	Water	03/29/17 12:18	03/31/17 20:00
460-130682-8	MW-11	Water	03/29/17 11:09	03/31/17 20:00

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Definitions/Glossary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Practical Quantitation Limit

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

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

Quality Control

Relative error ratio

TestAmerica Job ID: 460-130682-1

Glossary

PQL

QC RER

RL

RPD

TEF

TEQ

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

4/10/2017

Case Narrative

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-130682-1

Job ID: 460-130682-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative 460-130682-1

Comments

No additional comments.

Receipt

The samples were received on 3/31/2017 8:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.2° C.

GC/MS VOA

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-10 (460-130682-7). Elevated reporting limits (RLs) are provided.

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

GC Semi VOA

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

Metals

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

VOA Prep

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

TestAmerica Edison 4/10/2017

TestAmerica Job ID: 460-130682-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-2 Lab Sample ID: 460-130682-1

Date Collected: 03/29/17 10:39 Matrix: Water

Date Received: 03/31/17 20:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			04/07/17 15:05	1
1,2-Dichloroethane	ND		1.0		ug/L			04/07/17 15:05	1
Ethylbenzene	ND		1.0		ug/L			04/07/17 15:05	1
Isopropylbenzene	ND		1.0		ug/L			04/07/17 15:05	1
Naphthalene	ND		1.0		ug/L			04/07/17 15:05	1
Toluene	ND		1.0		ug/L			04/07/17 15:05	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/07/17 15:05	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/07/17 15:05	1
Xylenes, Total	ND		2.0		ug/L			04/07/17 15:05	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/07/17 15:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	101		77 - 124					04/07/17 15:05	1
Dibromofluoromethane (Surr)	108		72 - 131					04/07/17 15:05	1
1,2-Dichloroethane-d4 (Surr)	105		74 - 132					04/07/17 15:05	1
Toluene-d8 (Surr)	102		80 - 120					04/07/17 15:05	1
Method: 8011 - EDB, DBCP	, and 1,2,3-TCI	P (GC)							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

0.020	ug/L	04/04/17 09:45	04/04/17 19:56	1
Limite				
Limits		Prepared	Analyzed	Dil Fac
60 - 140		04/04/17 09:45	04/04/17 19:56	1
60 - 140		04/04/17 09:45	04/04/17 19:56	1

04/06/17 01:38 04/06/17 06:50 ND ug/L Lead Client Sample ID: MW-3 Lab Sample ID: 460-130682-2

Date Collected: 03/29/17 13:19 Date Received: 03/31/17 20:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	81		1.0		ug/L			04/07/17 15:27	1
1,2-Dichloroethane	ND		1.0		ug/L			04/07/17 15:27	1
Ethylbenzene	34		1.0		ug/L			04/07/17 15:27	1
Isopropylbenzene	6.4		1.0		ug/L			04/07/17 15:27	1
Naphthalene	2.8		1.0		ug/L			04/07/17 15:27	1
Toluene	7.0		1.0		ug/L			04/07/17 15:27	1
1,2,4-Trimethylbenzene	34		1.0		ug/L			04/07/17 15:27	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/07/17 15:27	1
Xylenes, Total	24		2.0		ug/L			04/07/17 15:27	1
Methyl tert-butyl ether	9.6		1.0		ug/L			04/07/17 15:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	103		77 - 124					04/07/17 15:27	1
Dibromofluoromethane (Surr)	102		72 - 131					04/07/17 15:27	1
1,2-Dichloroethane-d4 (Surr)	101		74 - 132					04/07/17 15:27	1
Toluene-d8 (Surr)	101		80 - 120					04/07/17 15:27	1

TestAmerica Edison

Page 6 of 19

Matrix: Water

Client: Center Point Tank Service

TestAmerica Job ID: 460-130682-1

Project/Site: L	iberty	Oil	#38	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		04/04/17 09:45	04/04/17 20:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	94		60 - 140				04/04/17 09:45	04/04/17 20:22	1
1,1,1,2-Tetrachloroethane	95		60 - 140				04/04/17 09:45	04/04/17 20:22	1
Method: 200.8 - Metals (IC	CP/MS) - Dissolv	red							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		04/06/17 01:38	04/06/17 06:57	5

Client Sample ID: MW-4

Xylenes, Total

Methyl tert-butyl ether

Date Collected: 03/29/17 12:48 Date Received: 03/31/17 20:00

Lab Sample ID: 460-130682-3

04/07/17 15:50

04/07/17 15:50

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac 230 1.0 04/07/17 15:50 Benzene ug/L 1,2-Dichloroethane ND 1.0 ug/L 04/07/17 15:50 Ethylbenzene 140 1.0 ug/L 04/07/17 15:50 Isopropylbenzene 1.0 ug/L 04/07/17 15:50 16 Naphthalene 1.0 ug/L 04/07/17 15:50 9.9 1.0 ug/L 04/07/17 15:50 Toluene 160 1,2,4-Trimethylbenzene 57 1.0 ug/L 04/07/17 15:50 1,3,5-Trimethylbenzene 13 1.0 ug/L 04/07/17 15:50

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
Bromofluorobenzene	97	77 - 124		04/07/17 15:50	1
Dibromofluoromethane (Surr)	93	72 - 131		04/07/17 15:50	1
1,2-Dichloroethane-d4 (Surr)	94	74-132		04/07/17 15:50	1
Toluene-d8 (Surr)	95	80 - 120		04/07/17 15:50	1

2.0

1.0

ug/L

ug/L

260

23

Method: 8011 - EDB, DBC Analyte		P (GC) Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		04/04/17 09:45	04/04/17 20:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	93		60 - 140				04/04/17 09:45	04/04/17 20:47	1
1.1.1.2 Tetrachlomethane	00		60 140				04/04/47 00:45	04/04/47 20:47	

Method: 200.8 - Metals (ICP/MS)	 Dissolv 	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		04/06/17 01:38	04/06/17 07:00	5

Lab Sample ID: 460-130682-4 Client Sample ID: MW-5 Date Collected: 03/29/17 10:55 Matrix: Water

Date Received: 03/31/17 20:00

Method: 8260C - Volatile Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			04/07/17 16:12	1
1,2-Dichloroethane	ND		1.0		ug/L			04/07/17 16:12	1
Ethylbenzene	ND		1.0		ug/L			04/07/17 16:12	1
Isopropylbenzene	ND		1.0		ug/L			04/07/17 16:12	1

TestAmerica Edison

2

TestAmerica Job ID: 460-130682-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-5

Lab Sample ID: 460-130682-4

Matrix: Water

Date Collected: 03/29/17 10:55 Date Received: 03/31/17 20:00

Method: 8260C - Volatile On Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0		ug/L			04/07/17 16:12	1
Toluene	ND		1.0		ug/L			04/07/17 16:12	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/07/17 16:12	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/07/17 16:12	1
Xylenes, Total	ND		2.0		ug/L			04/07/17 16:12	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/07/17 16:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	102		77 - 124			1		04/07/17 16:12	1
Dibromofluoromethane (Surr)	108		72-131					04/07/17 16:12	1
1,2-Dichloroethane-d4 (Surr)	104		74-132					04/07/17 16:12	1
Toluene-d8 (Surr)	102		80 - 120					04/07/17 16:12	1

Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		04/04/17 09:45	04/04/17 21:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	94		60 - 140				04/04/17 09:45	04/04/17 21:12	1
1,1,1,2-Tetrachloroethane	95		60 - 140				04/04/17 09:45	04/04/17 21:12	1
Method: 200.8 - Metals (IC	P/MS) - Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		04/06/17 01:38	04/06/17 07:07	5

Client Sample ID: MW-6
Date Collected: 03/29/17 11:33
Lab Sample ID: 460-130682-5
Matrix: Water

Date Received: 03/31/17 20:00

1,2-Dibromoethane

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			04/07/17 16:35	1
1,2-Dichloroethane	ND		1.0		ug/L			04/07/17 16:35	1
Ethylbenzene	ND		1.0		ug/L			04/07/17 16:35	1
Isopropylbenzene	ND		1.0		ug/L			04/07/17 16:35	1
Naphthalene	ND		1.0		ug/L			04/07/17 16:35	1
Toluene	ND		1.0		ug/L			04/07/17 16:35	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/07/17 16:35	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/07/17 16:35	1
Xylenes, Total	ND		2.0		ug/L			04/07/17 16:35	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/07/17 16:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	95		77 - 124			2		04/07/17 16:35	1
Dibromofluoromethane (Surr)	99		72 - 131					04/07/17 16:35	1
1,2-Dichloroethane-d4 (Surr)	96		74 - 132					04/07/17 16:35	1
Toluene-d8 (Surr)	94		80 - 120					04/07/17 16:35	1
Method: 8011 - EDB, DBCP,	and 1,2,3-TC	P (GC)							

TestAmerica Edison

04/04/17 09:45 04/04/17 21:37

0.020

ug/L

E

7

8

1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-6 Lab Sample ID: 460-130682-5 Date Collected: 03/29/17 11:33

Matrix: Water

Date Received: 03/31/17 20:00

Surrogate	%Recovery Qualifier	Limits		Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	96	60 - 140		04/04/17 09:45	04/04/17 21:37	1
1,1,1,2-Tetrachloroethane	98	60 - 140		04/04/17 09:45	04/04/17 21:37	1
Method: 200.8 - Metals (IC	P/MS) - Dissolved	DI.	MDI II-II	0 0		DUE

Analyte Result Qualifier RL MDL Unit Prepared Analyzed 1.5 04/06/17 01:38 04/06/17 07:20 ug/L Lead 15

Lab Sample ID: 460-130682-6 Client Sample ID: MW-9

Date Collected: 03/29/17 11:53 Matrix: Water

Date Received: 03/31/17 20:00

Analyte	Result (Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	8.5		1.0		ug/L			04/07/17 16:57	1
1,2-Dichloroethane	ND		1.0		ug/L			04/07/17 16:57	1
Ethylbenzene	ND		1.0		ug/L			04/07/17 16:57	1
Isopropylbenzene	6.8		1.0		ug/L			04/07/17 16:57	1
Naphthalene	ND		1.0		ug/L			04/07/17 16:57	1
Toluene	ND		1.0		ug/L			04/07/17 16:57	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/07/17 16:57	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/07/17 16:57	1
Xylenes, Total	ND		2.0		ug/L			04/07/17 16:57	1
Methyl tert-butyl ether	3.4		1.0		ug/L			04/07/17 16:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared Ana	alyzed	Dil Fac
Bromofluorobenzene	105		77 - 124	04/07/	17 16:57	1
Dibromofluoromethane (Surr)	107		72 - 131	04/07/	17 16:57	1
1,2-Dichloroethane-d4 (Surr)	105		74 - 132	04/07/	17 16:57	1
Toluene-d8 (Surr)	101		80 - 120	04/07/	17 16:57	1

Method: 8011 - EDB, DBC	P, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		04/04/17 09:45	04/04/17 22:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	96		60 - 140				04/04/17 09:45	04/04/17 22:02	1
1,1,1,2-Tetrachloroethane	101		60 - 140				04/04/17 09:45	04/04/17 22:02	1

Method: 200.8 - Metals (ICP/MS)	- Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		04/06/17 01:38	04/06/17 07:24	5

Client Sample ID: MW-10 Lab Sample ID: 460-130682-7 Date Collected: 03/29/17 12:18 Matrix: Water

Date Received: 03/31/17 20:00

Method: 8260C - Volatile Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	810		5.0		ug/L			04/10/17 12:31	5
1,2-Dichloroethane	ND		5.0		ug/L			04/10/17 12:31	5
Ethylbenzene	130		5.0		ug/L			04/10/17 12:31	5
Isopropylbenzene	26		5.0		ug/L			04/10/17 12:31	5

TestAmerica Edison

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TestAmerica Job ID: 460-130682-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-10 Date Collected: 03/29/17 12:18 Lab Sample ID: 460-130682-7

04/06/17 01:38 04/06/17 07:27

Matrix: Water

Date Received: 03/31/17 20:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	5.9		5.0		ug/L			04/10/17 12:31	5
Toluene	6.1		5.0		ug/L			04/10/17 12:31	5
1,2,4-Trimethylbenzene	13		5.0		ug/L			04/10/17 12:31	5
1,3,5-Trimethylbenzene	ND		5.0		ug/L			04/10/17 12:31	5
Xylenes, Total	22		10		ug/L			04/10/17 12:31	5
Methyl tert-butyl ether	60		5.0		ug/L			04/10/17 12:31	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	100		77 - 124			1		04/10/17 12:31	5
Dibromofluoromethane (Surr)	97		72 - 131					04/10/17 12:31	5
1,2-Dichloroethane-d4 (Surr)	94		74 - 132					04/10/17 12:31	5
Toluene-d8 (Surr)	97		80 - 120					04/10/17 12:31	5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		04/04/17 09:45	04/04/17 22:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	91		60 - 140				04/04/17 09:45	04/04/17 22:27	1
1,1,1,2-Tetrachloroethane	94		60 - 140				04/04/17 09:45	04/04/17 22:27	1

Client Sample ID: MW-11

Date Collected: 03/29/17 11:09

Lab Sample ID: 460-130682-8

Matrix: Water

ND

Date Received: 03/31/17 20:00

Lead

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			04/07/17 17:20	1
1,2-Dichloroethane	ND		1.0		ug/L			04/07/17 17:20	1
Ethylbenzene	ND		1.0		ug/L			04/07/17 17:20	1
Isopropylbenzene	ND		1.0		ug/L			04/07/17 17:20	1
Naphthalene	ND		1.0		ug/L			04/07/17 17:20	1
Toluene	ND		1.0		ug/L			04/07/17 17:20	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/07/17 17:20	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/07/17 17:20	1
Xylenes, Total	ND		2.0		ug/L			04/07/17 17:20	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/07/17 17:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	94		77 - 124					04/07/17 17:20	1
Dibromofluoromethane (Surr)	99		72 - 131					04/07/17 17:20	1
1,2-Dichloroethane-d4 (Surr)	97		74 - 132					04/07/17 17:20	1
Toluene-d8 (Surr)	91		80 - 120					04/07/17 17:20	1

Method: 8011 - EDB, DBCP, an	d 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		04/04/17 09:47	04/04/17 22:51	1

TestAmerica Edison

Client Sample Results

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-130682-1

Lab Sample ID: 460-130682-8

Matrix: Water

Client Sample ID: MW-11 Date Collected: 03/29/17 11:09

Date Received: 03/31/17 20:00

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	99	60 - 140	04/04/17 09:47	04/04/17 22:51	1
1,1,1,2-Tetrachloroethane	102	60 - 140	04/04/17 09:47	04/04/17 22:51	1

Method: 200.8 - Metals (ICP/MS	S) - Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		04/06/17 01:38	04/06/17 07:34	5

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Accreditation/Certification Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-130682-1

Laboratory: TestAmerica Edison

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Connecticut	State Program	1	PH-0200	09-30-18
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A	12-31-17
New Jersey	NELAP	2	12028	06-30-17
New York	NELAP	2	11452	04-01-18
Pennsylvania	NELAP	3	68-00522	02-28-18
Rhode Island	State Program	1	LAO00132	12-30-17
USDA	Federal		NJCA-003-08	04-04-17 *

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-17
California	State Program	9	2891	03-31-18
Connecticut	State Program	1	PH-0688	09-30-18
Florida	NELAP	4	E871008	06-30-17
Illinois	NELAP	5	200005	06-30-17
Kansas	NELAP	7	E-10350	01-31-18
Louisiana	NELAP	6	04041	06-30-17
New Hampshire	NELAP	1	2030	04-04-17 *
New Jersey	NELAP	2	PA005	06-30-17
New York	NELAP	2	11182	03-31-18
North Carolina (WW/SW)	State Program	4	434	12-31-17
Pennsylvania	NELAP	3	02-00416	04-30-17 *
South Carolina	State Program	4	89014	04-30-17 *
Texas	NELAP	6	T104704528-15-2	03-31-18
US Fish & Wildlife	Federal		LE94312A-1	10-31-17
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-17
Virginia	NELAP	3	460189	09-14-17
West Virginia DEP	State Program	3	142	01-31-18
Wisconsin	State Program	5	998027800	08-31-17

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TestAmerica Edison

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

Method Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Method Description

Metals (ICP/MS)

Volatile Organic Compounds by GC/MS

EDB, DBCP, and 1,2,3-TCP (GC)

TestAmerica Job ID: 460-130682-1

TAL EDI

P	rotocol	Laboratory
S	W846	TAL EDI
S	W846	TAL PIT

EPA

Protocol References:

Method

8260C

8011

200.8

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

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900
TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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TESTING		N OF CUSTO	DY / ANALY	CHAIN OF CUSTODY / ANALYSIS REQUEST	3.20	7
dame (for report and invoice)		Samplers Name (Printed)	nted)	Site/Project Identification よるを]	
) (P. O. #		State (Location of site):	NY:	Other: PA
Contex fourt Taux Services		2624-71-89	265	Regulatory Program: PAUS 7	_	DKQP:
amin	Franklin Huy	Analysis Turnaround Time Standard X	ANALYSIS	REQUE	couest)	LAB USE ONLY Project No:
baudassuite pf		Rush Charges Authorized For 2 Week	line			Job No.
hone Fax		1 Week	godeal god god godo			3060
Sample Identification	Date	Time Matrix C	Cont. Unit			Sample Numbers
MD-2	3/29/17	M39 GW	e ×			
MW-3		7	XX			
N W		1 8hu	メメ 9		-	
NW -S-MM			XX			
mw-6		1133	7			
MW − β		1153	X			
01-mW		1218	か			
MW-11	<	1109	XX	460-1300	450-130682 Chain of Custody	
reservation Used: 1 = ICE, 2 = HCl, 3 =	2=HCI, 3=H ₂ SO ₄ , 4=HNO ₃	5 = NaOH	Soil:			
6 = Other	, 7 = Other		Water: 1/2 1/2			
Special Instructions Please Jak	lab 6-1kr for m	metals			Water Metals Filtered (Yes/No)?	Yes/No)? N
Religioushed by Rodulffan Q	CPTS	3/3//17	Date / Time Recei	Received by	Company	
edillimore	Company	5 31 行/		Received by	Company	0
Relinquished by	Company	3/3//r	3/3//17 (DOC) 3)	a) An Am	Company A	500
Relinquished by (C	Company	Date	Date / Time Recei	Received by O	Company S/	3/1/7 2000
Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).	/ (12028), New Y	ork (11452), Per	nsylvania (68-52)	2), Connecticut (PH-0200),	Rhode Island (132).	TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578)

TestAmerica Edison Receipt Temperature and pH Log

				3	W	Date:				36	03.65	Initials:		EDS-WI-038, Rev 4, 06/09/2014
	sis.	The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted. Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.	hours pri	at least 24	acidified	nould be n	compliant	are out of	rsis which	etal analy	ples for M	Sam	=	
					Expiration Date:	Expira	•		;				rvative(s):	Lot # of Preservative(s):
		1			used (ml):	Volume of Preservative used (ml):	ime of Pre	Volu					me/Conc.:	Preservative Name/Conc.:
													adjusted:	Sample No(s). adjusted:
		_					elow:	rmation b	If pH adjustments are required record the information below:	red recor	are requi	ustments	If pH adju	
41														
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	Š	144											118.3	
	(pH<2)	(pH>12)	(pH<2)	(pH<2)	(pH>9)	(pH<2)	(pH<2)	(pH 5-9)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	(pH<2)	TALS Sample Number
Other Other	Total Phos	Total · Cyanide	Toc	TKN	Sulfide	Phenois	EPH or QAM	Pest	Hardness	Metals	Nitrate Nitrite	COD	Ammonia	
												8	130682	Job Number:

Page of

ORIGIN ID:KPDA (610) 337-9992 SAMPLE RECEIPT TEST AMERICA 1010 WEST 9TH AVE SUITE 50 KING OF PRUSSIA, PA 19406 UNITED STATES US SHIP DATE: 31MAR17 ACTWGT: 36.00 LB CAD: 8490299/INET3850

BILL RECIPIENT

SAMPLE RECEIPT TEST AMERICA - PITTSBURGH 301 ALPHA DR

PITTSBURGH PA 15238

(412) 963-7058

REF



460-130682 Wayb



FedEx Express

III DE DOCAS LAGAS AR KORGARAN ANTA ARRAN

TRK# 7787 9632 8850

SATURDAY 12:00P RIORITY OVERNIGHT

XO AGCA

15238 PA-US PIT

Uncorrected temp Thermometer ID 2.9 0

CF+1-0

Initials

TN

PT-WI-SR-001 effective 7/26/13

Chain of Custody Record

TestAmerica

* C460-130682*

Client Informatic 460-130682 Chain of Cuslody	dy			Miller,	Miller, Jill K		Certaer Iracum	Carrier Tracking No(s):	460-48070.1	
hipping/Receiving				jillen	ller@te	ill.miler@testamericainc.com	Pennsylvania	vania	Page 1 of 1	
ompany: estAmerica Laboratories, Inc.					Accredit	Accrediations Required (See note): NELAP - Pennsylvania			Job #. 460-130682-1	
ddress: 101 Alpha Drive, RIDC Park,	Due Date Requested: 4/6/2017	i)				Analy	Analysis Requested		Cod	22
Artisburgh httsburgh artisburgh httsburgh	TAT Requested (days):	ys):			NO SE				B - NaCH C - Zn Acetate C D - Natic Add P P E - NaHSOA	N - Norne N - Norne O - AsNaO2 O - Na2O45 O - Na2SO3
74, 15236 hane: 112-963-7058(Tel) 412-963-2468(Fax)	PO #				(3	R - Na2S203 S - H2SO4 T - TSP Dodecahudrate
The Control of the Co	WO R								I - Ice J - Di Water	U - Acetone V - MCAA
roject Name Lberty Oil #38	Project # 46011357					(၁၅			K-EDTA L-EDA	W - pH 4-5 Z - other (specify)
lite.	SSOWE					EDB (of cor	
Sample Identification - Client ID (Lab ID)	Sample Date	Sample	Sample Type (C=comp, G=orab)	Matrix (www.sec. 5motol. Ownestedol.	benetili bield M\&M mrohed	dard_tro811108			over the state of	Special Instructional Note:
	X	X	7 m	Preservation Code:	-	単立 と だ 回	というない			
WW-2 (460-130682-1)	3/29/17	10:39 Eastern		Water		×			2	
MW-3 (460-130682-2)	3/29/17	13:19 Eastern		Water		×			2	
MW-4 (460-130682-3)	3/29/17	12:48 Eastern		Water		×			2	
MW-5 (460-130682-4)	3/29/17	10.55 Eastern		Water		×			2	
MW-6 (460-130682-5)	3/29/17	11:33 Eastern		Water		×			0	
MW-9 (460-130682-6)	3/29/17	11,53 Eastern		Water		×			2	
MW-10 (460-130682-7)	3/29/17	12:18 Eastern		Water		×			2	
MW-11 (460-130682-8)	3/29/17	11.09 Eastern		Water		×			2	
									500	

arrently martial acceptation in the plant of the property for the property of the property of the property of other instruction managed back to the transfer account of other instruction about the property of other instruction. The affection inmediately, if all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laborationes, Inc.

Unconfirmed			Return To Client Disposal By Lab	3y Lab Archive For	
Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable Rank: 1		Special Instructions/QC Requirements:		
Empty Kit Relinquished by:	Date:	Time:	ne: Method	of Shipment.	
Reinquished by KAN	S 3 31 17 1440	Company	Exception of the Sand	94 The 117 OFE	81
Reinquished by VV	Date/Time:	Сотралу	(Baeelvod by	Dafe/Turke:	S
Refinduished by	Date/Time:	Сотралу	Received by	Date/Time:	S
Custody Seals Intact: Custody Seal No			Cooler Temperature(s) ⁶ C and Other Remarks:		1

Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-130682-1

Login Number: 130682 List Source: TestAmerica Edison

List Number: 1

Creator: Gilmore, Julie L.

oreator. Gilliore, Julie L		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or ampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	IR KOP#1 3.2°C
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is som (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-130682-1

List Source: TestAmerica Pittsburgh
List Number: 2
List Creation: 04/01/17 10:35 AM

Creator: Neri, Tom

Creator: Neri, Tom		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	2.9
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <a><a><a><a><a><a><a><a><a><a><a><a><a><	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Edison 777 New Durham Road Edison, NJ 08817 Tel: (732)549-3900

TestAmerica Job ID: 460-135878-1 Client Project/Site: Liberty Oil 38

For:

Center Point Tank Service 536 E Benjamin Franklin Douglassville, Pennsylvania 19518

Attn: Rachel Burkart



Authorized for release by: 7/5/2017 9:15:02 AM

Jill Miller, Project Manager II (732)549-3900 jill.miller@testamericainc.com

----- LINKS

Review your project results through

Total Access

Have a Question?



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

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

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

Client: Center Point Tank Service Project/Site: Liberty Oil 38 TestAmerica Job ID: 460-135878-1

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Sample Summary

Client: Center Point Tank Service Project/Site: Liberty Oil 38

TestAmerica Job ID: 460-135878-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-135878-1	MW-1	Water	06/22/17 10:45	06/23/17 11:45
460-135878-2	MW-2	Water	06/22/17 11:00	06/23/17 11:45
460-135878-3	MW-3	Water	06/22/17 13:33	06/23/17 11:45
460-135878-4	MW-4	Water	06/22/17 13:06	06/23/17 11:45
460-135878-5	MW-5	Water	06/22/17 11:14	06/23/17 11:45
460-135878-6	MW-6	Water	06/22/17 11:40	06/23/17 11:45
460-135878-7	MW-7	Water	06/22/17 14:26	06/23/17 11:45
460-135878-8	MW-8	Water	06/22/17 13:57	06/23/17 11:45
460-135878-9	MW-9	Water	06/22/17 12:18	06/23/17 11:45
460-135878-10	MW-10	Water	06/22/17 12:37	06/23/17 11:45
460-135878-11	MW-11	Water	06/22/17 11:27	06/23/17 11:45

Definitions/Glossary

Client: Center Point Tank Service Project/Site: Liberty Oil 38 TestAmerica Job ID: 460-135878-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier	Description
	-	

LCS or LCSD is outside acceptance limits.

X Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.	
п	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	
CFL	Contains Free Liquid	
CNF	Contains No Free Liquid	
DER	Duplicate Error Ratio (normalized absolute difference)	
Dil Fac	Dilution Factor	
DL	Detection Limit (DoD/DOE)	
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample	
DLC	Decision Level Concentration (Radiochemistry)	
FDI	Estimated Detection Limit (Dioxin)	

LOD Limit of Detection (DoD/DOE)
LOQ Limit of Quantitation (DoD/DOE)
MDA Minimum Detectable Activity (Radioch

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit

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

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

PQL Practical Quantitation Limit

QC Quality Control

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

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

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

TestAmerica Edison

7/5/2017

Case Narrative

TestAmerica Job ID: 460-135878-1

Client: Center Point Tank Service Project/Site: Liberty Oil 38

Job ID: 460-135878-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative 460-135878-1

Comments

No additional comments.

Receipt

The samples were received on 6/23/2017 11:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

GC/MS VOA

Method(s) 8260C: Surrogate Toluene-d8 recovery for the following samples was outside control limits: MW-6 (460-135878-6) and MW-8 (460-135878-8). Surrogate recoveries for the other three system monitoring compounds were within control limits; therefore, re-analysis was not performed.

Method(s) 8260C: Surrogate Toluene-d8 recovery for the following LCSD was outside control limits: (LCSD 460-447020/5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8260C: The laboratory control sample duplicate (LCSD) for analytical batch 460-447020 recovered outside control limits for the following analyte: 1,3,5-Trimethylbenzene. This analyte was biased high in the LCSD and was not detected in the associated samples; therefore, the data has been flagged and reported.

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

GC Semi VOA

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

Metals

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

VOA Prep

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

TestAmerica Edison 7/5/2017

TestAmerica Job ID: 460-135878-1

Client: Center Point Tank Service

Project/Site: Liberty Oil 38

Lab Sample ID: 460-135878-1

Matrix: Water

Date Collected: 06/22/17 10:45 Date Received: 06/23/17 11:45

Client Sample ID: MW-1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			07/03/17 13:07	1
1,2-Dichloroethane	ND		1.0		ug/L			07/03/17 13:07	1
Ethylbenzene	ND		1.0		ug/L			07/03/17 13:07	1
Isopropylbenzene	ND		1.0		ug/L			07/03/17 13:07	1
Naphthalene	ND		1.0		ug/L			07/03/17 13:07	1
Toluene	ND		1.0		ug/L			07/03/17 13:07	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/03/17 13:07	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/03/17 13:07	1
Xylenes, Total	ND		2.0		ug/L			07/03/17 13:07	1
Methyl tert-butyl ether	ND		1.0		ug/L			07/03/17 13:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	104		77 - 124					07/03/17 13:07	1
Dibromofluoromethane (Surr)	97		72 - 131					07/03/17 13:07	1
1,2-Dichloroethane-d4 (Surr)	88		74 - 132					07/03/17 13:07	1
Toluene-d8 (Surr)	97		80 - 120					07/03/17 13:07	1

Analyte		Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		06/28/17 08:54	06/28/17 19:16	- 1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	94		60 - 140				06/28/17 08:54	06/28/17 19:16	1
1,1,1,2-Tetrachloroethane	106		60 - 140				06/28/17 08:54	06/28/17 19:16	1

06/28/17 14:49 06/28/17 17:38 Lead ND ug/L Client Sample ID: MW-2 Lab Sample ID: 460-135878-2

Date Collected: 06/22/17 11:00 Date Received: 06/23/17 11:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			06/30/17 22:56	1
1,2-Dichloroethane	ND		1.0		ug/L			06/30/17 22:56	1
Ethylbenzene	ND		1.0		ug/L			06/30/17 22:56	1
Isopropylbenzene	ND		1.0		ug/L			06/30/17 22:56	1
Naphthalene	ND		1.0		ug/L			06/30/17 22:56	1
Toluene	ND		1.0		ug/L			06/30/17 22:56	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			06/30/17 22:56	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			06/30/17 22:56	1
Xylenes, Total	ND		2.0		ug/L			06/30/17 22:56	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/30/17 22:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	94		77 - 124					06/30/17 22:56	1
Dibromofluoromethane (Surr)	104		72 - 131					06/30/17 22:56	1
1,2-Dichloroethane-d4 (Surr)	96		74 - 132					06/30/17 22:56	1
Toluene-d8 (Surr)	107		80 - 120					06/30/17 22:56	1

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7/5/2017

Matrix: Water

TestAmerica Job ID: 460-135878-1

Client: Center Point Tank Service Project/Site: Liberty Oil 38

Method: 8011 - EDB, DBCI Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		06/28/17 08:54	06/28/17 19:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	98		60 - 140				06/28/17 08:54	06/28/17 19:41	1
1,1,1,2-Tetrachloroethane	114		60 - 140				06/28/17 08:54	06/28/17 19:41	1
Method: 200.8 - Metals (IC	P/MS) - Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		06/28/17 14:49	06/28/17 17:45	5

Client Sample ID: MW-3

Date Collected: 06/22/17 13:33 Date Received: 06/23/17 11:45

Lab Sample ID: 460-135878-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	67		1.0		ug/L			06/30/17 23:18	1
1,2-Dichloroethane	ND		1.0		ug/L			06/30/17 23:18	1
Ethylbenzene	14		1.0		ug/L			06/30/17 23:18	1
Isopropylbenzene	2.8		1.0		ug/L			06/30/17 23:18	1
Naphthalene	1.4		1.0		ug/L			06/30/17 23:18	1
Toluene	11		1.0		ug/L			06/30/17 23:18	1
1,2,4-Trimethylbenzene	9.1		1.0		ug/L			06/30/17 23:18	1
1,3,5-Trimethylbenzene	1.4	*	1.0		ug/L			06/30/17 23:18	1
Xylenes, Total	17		2.0		ug/L			06/30/17 23:18	1
Methyl tert-butyl ether	5.4		1.0		ug/L			06/30/17 23:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits	Prepared Ar	nalyzed	Dil Fac
Bromofluorobenzene	102		77 - 124	06/30	0/17 23:18	1
Dibromofluoromethane (Surr)	112		72 - 131	06/30	0/17 23:18	1
1,2-Dichloroethane-d4 (Surr)	107		74-132	06/30	0/17 23:18	1
Toluene-d8 (Surr)	113		80 - 120	06/30	0/17 23:18	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		06/28/17 08:54	06/28/17 20:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	100		60 - 140				06/28/17 08:54	06/28/17 20:07	1
1,1,1,2-Tetrachloroethane	106		60 - 140				06/28/17 08:54	06/28/17 20:07	1

Method: 200.8 - Metals (ICP/MS)	- Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		06/28/17 14:49	06/28/17 17:48	5

Client Sample ID: MW-4 Lab Sample ID: 460-135878-4 Date Collected: 06/22/17 13:06 Matrix: Water

Date Recei	ved:	06/23/17	11:45
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Method: 8260C - Volatile Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	41	1.0		ug/L			06/30/17 23:41	1
1,2-Dichloroethane	ND	1.0		ug/L			06/30/17 23:41	1
Ethylbenzene	2.8	1.0		ug/L			06/30/17 23:41	1
Isopropylbenzene	2.7	1.0		ug/L			06/30/17 23:41	1

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TestAmerica Job ID: 460-135878-1

Client: Center Point Tank Service Project/Site: Liberty Oil 38

Client Sample ID: MW-4

Lab Sample ID: 460-135878-4

Lab Sample ID: 460-135878-5

Matrix: Water

Matrix: Water

Date Collected: 06/22/17 13:06 Date Received: 06/23/17 11:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	1.4		1.0		ug/L			06/30/17 23:41	1
Toluene	ND		1.0		ug/L			06/30/17 23:41	1
1,2,4-Trimethylbenzene	1.3		1.0		ug/L			06/30/17 23:41	1
1,3,5-Trimethylbenzene	ND	*	1.0		ug/L			06/30/17 23:41	1
Xylenes, Total	ND		2.0		ug/L			06/30/17 23:41	1
Methyl tert-butyl ether	13		1.0		ug/L			06/30/17 23:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	103		77 - 124					06/30/17 23:41	1
Dibromofluoromethane (Surr)	114		72 - 131					06/30/17 23:41	1
1,2-Dichloroethane-d4 (Surr)	108		74 - 132					06/30/17 23:41	1
Toluene-d8 (Surr)	115		80 - 120					06/30/17 23:41	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		06/28/17 08:54	06/28/17 20:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	95		60 - 140				06/28/17 08:54	06/28/17 20:32	1
1,1,1,2-Tetrachloroethane	106		60 - 140				06/28/17 08:54	06/28/17 20:32	1

RL MDL Unit Result Qualifier Prepared Analyzed Analyte 1.5 ug/L 06/28/17 14:49 06/28/17 17:55 Lead ND

Client Sample ID: MW-5 Date Collected: 06/22/17 11:14

Date Received: 06/23/17 11:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			07/01/17 00:02	1
1,2-Dichloroethane	ND		1.0		ug/L			07/01/17 00:02	1
Ethylbenzene	ND		1.0		ug/L			07/01/17 00:02	1
Isopropylbenzene	ND		1.0		ug/L			07/01/17 00:02	1
Naphthalene	ND		1.0		ug/L			07/01/17 00:02	1
Toluene	ND		1.0		ug/L			07/01/17 00:02	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/01/17 00:02	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/01/17 00:02	1
Xylenes, Total	ND		2.0		ug/L			07/01/17 00:02	1
Methyl tert-butyl ether	ND		1.0		ug/L			07/01/17 00:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	105		77 - 124					07/01/17 00:02	1
Dibromofluoromethane (Surr)	117		72 - 131					07/01/17 00:02	1
1,2-Dichloroethane-d4 (Surr)	112		74 - 132					07/01/17 00:02	1
Toluene-d8 (Surr)	116		80 - 120					07/01/17 00:02	1
Method: 8011 - EDB, DBCP	, and 1,2,3-TC	P (GC)							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		06/28/17 08:54	06/28/17 20:57	1

TestAmerica Edison

Client: Center Point Tank Service Project/Site: Liberty Oil 38

Client Sample ID: MW-5

Lab Sample ID: 460-135878-5

Matrix: Water

Date Collected: 06/22/17 11:14 Date Received: 06/23/17 11:45

Surrogate	%Recovery Qu	alifier Limits	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	93	60 - 140	06/28/17 08:54	06/28/17 20:57	1
1,1,1,2-Tetrachloroethane	106	60 - 140	06/28/17 08:54	06/28/17 20:57	1
Method: 200.8 - Metals (ICF	MS) - Dissolved				

Analyte Result Qualifier RL MDL Unit Prepared Analyzed ND 1.5 06/28/17 14:49 06/28/17 17:58 Lead ug/L

Lab Sample ID: 460-135878-6 Client Sample ID: MW-6

Date Received: 06/23/17 11:45

Date Collected: 06/22/17 11:40 Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			07/01/17 00:25	1
1,2-Dichloroethane	ND		1.0		ug/L			07/01/17 00:25	1
Ethylbenzene	ND		1.0		ug/L			07/01/17 00:25	1
Isopropylbenzene	ND		1.0		ug/L			07/01/17 00:25	1
Naphthalene	ND		1.0		ug/L			07/01/17 00:25	1
Toluene	ND		1.0		ug/L			07/01/17 00:25	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/01/17 00:25	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/01/17 00:25	1
Xylenes, Total	ND		2.0		ug/L			07/01/17 00:25	1
Methyl tert-butyl ether	ND		1.0		ug/L			07/01/17 00:25	1
								2-2-2	

Surrogate	%Recovery Qualifier	Limits	Prepared Analyzed	Dil Fac
Bromofluorobenzene	108	77 - 124	07/01/17 00:25	1
Dibromofluoromethane (Surr)	116	72 - 131	07/01/17 00:25	1
1,2-Dichloroethane-d4 (Surr)	115	74 - 132	07/01/17 00:25	1
Toluene-d8 (Surr)	122 X	80 - 120	07/01/17 00:25	1

Method: 8011 - EDB, DBC	P, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		06/28/17 08:54	06/28/17 21:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	100		60 - 140				06/28/17 08:54	06/28/17 21:22	1
1,1,1,2-Tetrachloroethane	116		60 - 140				06/28/17 08:54	06/28/17 21:22	1

Method: 200.8 - Metals (ICP/MS) - Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	22		1.5		ug/L		06/28/17 14:49	06/28/17 18:18	5

Client Sample ID: MW-7 Lab Sample ID: 460-135878-7 Matrix: Water

Date Collected: 06/22/17 14:26 Date Received: 06/23/17 11:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	160		1.0		ug/L			07/01/17 01:32	1
1,2-Dichloroethane	ND		1.0		ug/L			07/01/17 01:32	1
Ethylbenzene	57		1.0		ug/L			07/01/17 01:32	1
Isopropylbenzene	6.0		1.0		ug/L			07/01/17 01:32	1

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TestAmerica Job ID: 460-135878-1

Client: Center Point Tank Service Project/Site: Liberty Oil 38

Client Sample ID: MW-7

Lab Sample ID: 460-135878-7

06/28/17 14:49 06/28/17 18:22

ab Sample ID: 460-135676-7

Matrix: Water

Date Collected: 06/22/17 14:26 Date Received: 06/23/17 11:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	14		1.0		ug/L			07/01/17 01:32	1
Toluene	110		1.0		ug/L			07/01/17 01:32	1
1,2,4-Trimethylbenzene	61		1.0		ug/L			07/01/17 01:32	1
1,3,5-Trimethylbenzene	15	*	1.0		ug/L			07/01/17 01:32	1
Xylenes, Total	140		2.0		ug/L			07/01/17 01:32	1
Methyl tert-butyl ether	22		1.0		ug/L			07/01/17 01:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	105		77 - 124			1		07/01/17 01:32	1
Dibromofluoromethane (Surr)	113		72-131					07/01/17 01:32	1
1,2-Dichloroethane-d4 (Surr)	114		74-132					07/01/17 01:32	1
Toluene-d8 (Surr)	118		80 - 120					07/01/17 01:32	1

	Qualifier	RL	MDL	Unit	U	Prepared	Analyzed	Dil Fac
ND		0.020		ug/L		06/28/17 08:54	06/28/17 21:47	1
%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
98		60 - 140				06/28/17 08:54	06/28/17 21:47	1
104		60 - 140				06/28/17 08:54	06/28/17 21:47	1
	%Recovery	%Recovery Qualifier 98	%Recovery Qualifier Limits 98 60 - 140	%Recovery Qualifier Limits Prepared 98 60 - 140 06/28/17 08:54	%Recovery Qualifier Limits Prepared Analyzed 98 60 - 140 06/28/17 08:54 06/28/17 21:47			

Client Sample ID: MW-8

Date Collected: 06/22/17 13:57

Lab Sample ID: 460-135878-8

Matrix: Water

ND

1.5

ug/L

ug/L

Date Received: 06/23/17 11:45

1,2-Dibromoethane

Lead

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	41		1.0		ug/L			07/01/17 01:54	1
1,2-Dichloroethane	ND		1.0		ug/L			07/01/17 01:54	1
Ethylbenzene	58		1.0		ug/L			07/01/17 01:54	1
Isopropylbenzene	10		1.0		ug/L			07/01/17 01:54	1
Naphthalene	17		1.0		ug/L			07/01/17 01:54	1
Toluene	4.8		1.0		ug/L			07/01/17 01:54	1
1,2,4-Trimethylbenzene	150		1.0		ug/L			07/01/17 01:54	1
1,3,5-Trimethylbenzene	43	*	1.0		ug/L			07/01/17 01:54	1
Xylenes, Total	120		2.0		ug/L			07/01/17 01:54	1
Methyl tert-butyl ether	ND		1.0		ug/L			07/01/17 01:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	102		77 - 124			2		07/01/17 01:54	1
Dibromofluoromethane (Surr)	112		72 - 131					07/01/17 01:54	1
1,2-Dichloroethane-d4 (Surr)	111		74 - 132					07/01/17 01:54	1
Toluene-d8 (Surr)	121	X	80 - 120					07/01/17 01:54	1
Method: 8011 - EDB, DBCP	, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

TestAmerica Edison

06/28/17 08:54 06/28/17 22:13

0.020

Client: Center Point Tank Service Project/Site: Liberty Oil 38

Client Sample ID: MW-8 Lab Sample ID: 460-135878-8

Date Collected: 06/22/17 13:57

Matrix: Water

Date Collected: 06/22/17 13:57

Date Received: 06/23/17 11:45

Matrix: Wate

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	100	60 - 140	06/28/17 08:54	06/28/17 22:13	1
1,1,1,2-Tetrachloroethane	113	60 - 140	06/28/17 08:54	06/28/17 22:13	1

 Method: 200.8 - Metals (ICP/MS) - Dissolved

 Analyte
 Result Qualifier
 RL
 MDL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Lead
 ND
 1.5
 ug/L
 06/28/17 14:49
 06/28/17 18:25
 5

Client Sample ID: MW-9 Lab Sample ID: 460-135878-9

Date Collected: 06/22/17 12:18 Matrix: Water

Date Received: 06/23/17 11:45

Analyte	Result Q	Qualifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	11	1.0		ug/L			07/01/17 00:48	1
1,2-Dichloroethane	ND	1.0		ug/L			07/01/17 00:48	1
Ethylbenzene	ND	1.0		ug/L			07/01/17 00:48	1
Isopropylbenzene	10	1.0		ug/L			07/01/17 00:48	1
Naphthalene	ND	1.0		ug/L			07/01/17 00:48	1
Toluene	ND	1.0		ug/L			07/01/17 00:48	1
1,2,4-Trimethylbenzene	ND	1.0		ug/L			07/01/17 00:48	1
1,3,5-Trimethylbenzene	ND *	1.0		ug/L			07/01/17 00:48	1
Xylenes, Total	ND	2.0		ug/L			07/01/17 00:48	1
Methyl tert-butyl ether	5.9	1.0		ug/L			07/01/17 00:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared Analyzed	Dil Fac
Bromofluorobenzene	103		77 - 124	07/01/17 00:4	8 1
Dibromofluoromethane (Surr)	117		72 - 131	07/01/17 00:4	8 1
1,2-Dichloroethane-d4 (Surr)	124		74 - 132	07/01/17 00:4	8 1
Toluene-d8 (Surr)	119		80 - 120	07/01/17 00:4	8 1

Method: 8011 - EDB, DBC	P, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		06/28/17 08:54	06/28/17 22:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	102		60 - 140				06/28/17 08:54	06/28/17 22:38	1
1,1,1,2-Tetrachloroethane	110		60 - 140				06/28/17 08:54	06/28/17 22:38	1

Method: 200.8 - Metals (ICP/MS)	- Dissolv	red							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		06/28/17 14:49	06/28/17 18:28	5

Client Sample ID: MW-10

Date Collected: 06/22/17 12:37

Lab Sample ID: 460-135878-10

Matrix: Water

Date Received: 06/23/17 11:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	330		1.0		ug/L			07/01/17 02:17	1
1,2-Dichloroethane	ND		1.0		ug/L			07/01/17 02:17	1
Ethylbenzene	61		1.0		ug/L			07/01/17 02:17	1
Isopropylbenzene	5.7		1.0		ug/L			07/01/17 02:17	1

TestAmerica Edison

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TestAmerica Job ID: 460-135878-1

Client: Center Point Tank Service Project/Site: Liberty Oil 38

Client Sample ID: MW-10

Lab Sample ID: 460-135878-10

Matrix: Water

Date Collected: 06/22/17 12:37 Date Received: 06/23/17 11:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	12		1.0		ug/L			07/01/17 02:17	1
Toluene	9.0		1.0		ug/L			07/01/17 02:17	1
1,2,4-Trimethylbenzene	29		1.0		ug/L			07/01/17 02:17	1
1,3,5-Trimethylbenzene	2.2	*	1.0		ug/L			07/01/17 02:17	1
Xylenes, Total	42		2.0		ug/L			07/01/17 02:17	1
Methyl tert-butyl ether	13		1.0		ug/L			07/01/17 02:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	107		77 - 124			1		07/01/17 02:17	1
Dibromofluoromethane (Surr)	114		72-131					07/01/17 02:17	1
1,2-Dichloroethane-d4 (Surr)	116		74 - 132					07/01/17 02:17	1
Toluene-d8 (Surr)	120		80 - 120					07/01/17 02:17	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		06/28/17 08:54	06/28/17 23:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	106		60 - 140				06/28/17 08:54	06/28/17 23:03	1
1,1,1,2-Tetrachloroethane	119		60 - 140				06/28/17 08:54	06/28/17 23:03	1

Client Sample ID: MW-11 Lab Sample ID: 460-135878-11

Date Collected: 06/22/17 11:27 Matrix: Water

RL

1.5

MDL Unit

ug/L

ug/L

Prepared

06/28/17 14:49 06/28/17 18:32

Analyzed

Result Qualifier

ND

Date Received: 06/23/17 11:45

1,2-Dibromoethane

Analyte

Lead

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			07/01/17 01:10	1
1,2-Dichloroethane	ND		1.0		ug/L			07/01/17 01:10	1
Ethylbenzene	ND		1.0		ug/L			07/01/17 01:10	1
Isopropylbenzene	ND		1.0		ug/L			07/01/17 01:10	1
Naphthalene	ND		1.0		ug/L			07/01/17 01:10	1
Toluene	ND		1.0		ug/L			07/01/17 01:10	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/01/17 01:10	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/01/17 01:10	1
Xylenes, Total	ND		2.0		ug/L			07/01/17 01:10	1
Methyl tert-butyl ether	ND		1.0		ug/L			07/01/17 01:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	106		77 - 124					07/01/17 01:10	1
Dibromofluoromethane (Surr)	113		72 - 131					07/01/17 01:10	1
1,2-Dichloroethane-d4 (Surr)	112		74 - 132					07/01/17 01:10	1
Toluene-d8 (Surr)	115		80 - 120					07/01/17 01:10	1
Method: 8011 - EDB, DBCP	, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

TestAmerica Edison

06/28/17 08:54 06/28/17 23:28

0.020

17.

Client Sample Results

Client: Center Point Tank Service Project/Site: Liberty Oil 38 TestAmerica Job ID: 460-135878-1

Lab Sample ID: 460-135878-11

Matrix: Water

Client Sample ID: MW-11 Date Collected: 06/22/17 11:27

Date Received: 06/23/17 11:45

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	104	60 - 140	06/28/17 08:54	06/28/17 23:28	1
1,1,1,2-Tetrachloroethane	121	60 - 140	06/28/17 08:54	06/28/17 23:28	1

Method: 200.8 - Metal	s (ICP/MS) - Dissolve	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		06/28/17 14:49	06/28/17 18:42	5

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Accreditation/Certification Summary

Client: Center Point Tank Service

TestAmerica Job ID: 460-135878-1

Project/Site: Liberty Oil 38

Laboratory: TestAmerica Edison

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

Authority **EPA Region Identification Number Expiration Date** Pennsylvania NELAP 68-00522 02-28-18

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

Analysis Method Prep Method Matrix

8260C Water 1,3,5-Trimethylbenzene

Laboratory: TestAmerica Pittsburgh

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

Authority Program **EPA Region Identification Number Expiration Date** Pennsylvania NELAP 02-00416 04-30-18

Method Summary

Client: Center Point Tank Service Project/Site: Liberty Oil 38 TestAmerica Job ID: 460-135878-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	TAL PIT
200.8	Metals (ICP/MS)	EPA	TAL EDI

Protocol References:

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

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900
TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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MW-10 V 1237 V 6 X X	MM - 9 ISIS 6 XX	X X 9 LSC	1426	WM-G SAN	Why S III	1300	1333 6	MM 2 0011	MW1 6/22/17 10/3 Shot 1/1/22/2)	Sample Identification Date Time Matrix Cont. 3	385 4977 Other - 3	1 Week	Rush Charges Authorized For:	E. Benjamin Franklin Huny Standard 1		Coulty font Taul Services 08-12-4292 Regulatory Program: UST	P.O. #	Name (, for report and invoice) Samplers Name (Printed) Site/Project Identification (actual Eukayt Ciberty Oil 38	THE LEADER IN ENVIRONMENTAL TESTING CHAIN OF CUSTODY / ANALYSIS REQUEST	
		460-135878 Chain of Custody								Sample Numbers		1222/ 1222/		Project No:	NDICATE REQUEST) LAB USE ONLY			fication 8	KOPI Page 1 of 2	

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

Relinquished by

Company

Relinquished by

Compan

625-0-1700

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Date / Time

Received by

Date / Time

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Relinquished by

Company

Date / Time

Received by

Company

TAL - 0016 (0715)

Company

3

Special Instructions Please

17

Date / Time

Received by

Water Metals Filtered (Yes/No)?

Company

Company

Relipquished by

Preservation Used: 1 = ICE, 2 = HCl, 3 = H2SO4, 4 = HNO3, 5 = NaOH

Page 16 of 22

6 = Other

7 = Other

Water: 1/2 Soil:

777 New Durham Road

LYSIS REQUEST Site/Project Identification	J.	Company	line	Received by	7	⊣.	422.9		Company	Relinquished by Co
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CHAIN OF CUSTODY / ANALYSIS REQUEST EADER IN ENVIRONMENTAL TESTING CHAIN OF CUSTODY / ANALYSIS REQUEST Samples Name (Printed) Analysis Name (Printed) Bister Project Identification of site): N Regulatory Program: Analysis Namaround Time Sarodard X State (Location of site): N Regulatory Program: Analysis Namaround Time State (Location of site): N Regulatory Program: Analysis Namaround Time State (Location of site): N Regulatory Program: Analysis Namaround Time State (Location of site): N Regulatory Program: Analysis Namaround Time State (Location of site): N Regulatory Program: Analysis Namaround Time State (Location of site): N Regulatory Program: Analysis Namaround Time State (Location of site): N Regulatory Program: Analysis Namaround Time No. of: Analysis Namaround Time State (Location of site): N Regulatory Program: Analysis Namaround Time No. of: Analysis Namaround Time No.					Ï	Soil	유		12504, 4 = HNO3	1 = ICE,
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CHAIN OF CUSTODY / ANALYSIS REQUEST Samplers Name (Printed) Rankel Scykart	Ц	9		_				P. O. #		ompany
CHAIN OF CUSTODY / ANALYSIS REQUEST	0:138	-	Site/Project Identification		TAPE	Printed	s Name (Sampler		name (for report and invoice)
	ll .	1.1	REQUEST	ALYSIS	/AN	TODY	cus	N OF	СНА	THE LEADER IN ENVIRONMENTAL TESTING
The state of the s	v Jersey 08817 2) 549-3900 Fax: (7	Phone: (73)								TestAmerica

Massachusetts (M-NJ312), North Carolina (No. 578)

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

Relinquished by

Company

Date / Time

Redeived by

Company

TAL - 0016 (0715)

TestAmerica Edison
Receipt Temperature and pH Log

										TALS Sample Number		Coo	Clock Control			Job Number:
							Γ	Γ	二	er (pH<2)	Ammonia		40 Sept 146			135878
										(pH<2)	COD			Date (Personal		18
-0										(pH<2)	Nitrate Nitrite					
									П	(pH<2)	Metals				Recu	
				Г				Γ	П	(pH<2)	Hardness) [3) 			
						Г	Г	Г	-	(pH 5-9)	Pest			Ooler	16	
										(pH<2)	EPH or QAM			l entre	TO.	
										(pH<2)	Phenois			a di mos		
	 		-	 	-	-	-			(pH>9)	Suffide					- 1-
								Γ	П	(pH<2)	TKN					
		200								(pH<2)	тос					
8										(pH>12)	Total Cyanide					
							Г	8	-	(pH<2)	Total Cyanide Total Phos					
						Г			П		SOther					
											Other					

EDS-WI-038, Rev 4, 06/09/2014

Initials:

Preservative Name/Conc.:

Sample No(s), adjusted:

Lot # of Preservative(s):

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Volume of Preservative used (ml):

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	Paradise			100			WHITE STREET,		
Client Information (Sub Contract Lab)	- Continue			Mille	Miller, Jill K	WILLIAM WILLIAM OF CUStody	in of Custody	3.1	
Client Contact Shipping/Receiving	Phone:			E-Mait iii.mil	ller@testar	E-Marit A60-1-30012 A60-1-30012 IIII miller@testamericainc.com	ania	Page:	
Company TestAmerica Laboratories, Inc.					Accreditation NELAP - P	iote):		Job # 460-135878-1	
Address: 301 Alpha Drive, RIDC Park,	Due Date Requests 6/29/2017	194:				Analysis Requested		Code	
Cry, Pritsburgh State, Zp. PA, 15238	TAT Requested (days):	sys):						B - NACH C - Zn Acetate D - Nitric Acid E - NaHSOA	M - Hexare N - None O - AshaO2 P - Na2O4S Q - Na2SO3
Phone 412-963-7058(Tel) 412-963-2468(Fax)	POR				(4			3	R - Na26203 S - H2504 T - TSP Dedecatedrate
Email	WOR				_			1-lice J-Di Water	
Project Name. Liberty Oil 38	Project #. 46011357				N JO 88			L-EDA	W-pH 4-5 Z - other (specify)
Solder.	SSOW#.				r) as			of con	
Sample Identification - Client ID (Lab ID)	Sample Date	Sample	Sample Type (C=comp, G=grab)	Matrix (w-mate, S-sold, O-materiol, 817-Tasse, Anke)	benetilit bleit M\SM moheq enq_tros\tros			o sedmuk listoT	Special Instructions/Note:
	X	X	Preservat	Preservation Code:	X				
MW-1 (460-135878-1)	6/22/17	10:45 Eastern		Water	×			2	
MW-2 (460-135878-2)	6/22/17	11:00 Eastern		Water	×			2	
MW-3 (460-135878-3)	6/22/17	13:33 Eastern		Water	×			2	
MW-4 (460-135878-4)	6/22/17	13:06 Eastern		Water	×			2	
MW-5 (460-135878-5)	6/22/17	11:14 Eastern		Water	×			2	
MW-6 (460-135878-6)	6/22/17	11:40 Eastern		Water	×			2	
MW-7 (460-135878-7)	6/22/17	14:26 Eastern		Water	×			2	
MW-8 (460-135878-8)	6/22/17	13.57 Eastern		Water	×			2	
MW-9 (460-135878-9)	6/22/17	12:18 Eastern		Water	×			2	
Note: Since laboratory accreditations are subject to change. TestAmerica Laboratories, inc. places the ownership of method, analyze & accreditation compliance upon out subcontract laboratories. Currently maintain accreditation in the State of Origin Issaed above for analyze/hestalmariva being analyzed. The samples must be shipped back to the TestAmerica laboratory or other instructions will Laboratories, inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, inc.	Laboratories, Inc. places the lysis/lests/markx being analyz re current to date, return the s	ownership of red, the sample gned Chain of	nethod, analyte is must be ship Custody attesti	& accreditation ped back to the ing to said com	TestAmerica picance to Te		thipment is forwarded Any changes to accre	This sample shipment is forwarded under chain-of-custody. If the isboratory does not be provided. Any changes to accreditation status should be brought to TestAmerica.	e laboratory does not wight to TestAmerica
Possible Hazard Identification Unconfirmed					Sample	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	f samples are ret	tained longer than 1 n	Months
Deliverable Requested: I. II, III, IV, Other (specify)	Primary Deliverable Rank:	able Rank:	-		Special	Requirem			
Empty Kit Relinquished by:		Date:			Time:) - 1 1 Metho	Method of Shipment.		
Relinquisted Apply To The Relinquisted to The Relinquisted to The Relinquisted to The Relinquist and The Rel	Contrary 17	1336		The	Rec	Manage Marson	Cate/Terrie	1-18-	A Leans
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	Date/Time:			Campainy	Rec	Received by:	Date/Time		Company
Custody Seals Intact. Custody Seal No.: Δ Yes Δ No					Co	Cooler Temperature(s) "C and Other Remarks:			

Chain of Custody Record

Chain of Custody Record

<u>TestAmerica</u>

Client Information (Sub Contract Lab)	Sampler.			Miller,	Miller, Jill K		Carrier Tracking Ivola	460-48733.2	33.2
Client Contact	Phone			E-Mail.			State of Origin.	Page:	4.5
Shipping/Receiving				Jil.mil	er@testa	jill miller@testamericainc.com	Pennsylvania	Page 2 of 2	of 2
Company TestAmerica Laboratories, Inc.					VELAP - F	Accreditations Required (See note): NELAP - Pennsylvania		Job# 460-135878-1	878-1
Address. 301 Alpha Drive. RIDC Park.	Due Date Requested: 6/29/2017	:pa				Analysis Requested	equested	Preserva	Cod
	TAT Requested (da	ske);						B - NAOH C - Zh Acetah D - Nanc Aca	Acid P. Na2O4S
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO#				(0			G-Amch H-Ascor	100
Email:	WOW								
Project Name. Liberty Oil 38	Project #. 46011357				10 89				
Spin	SSOW				n) as			oo too of co	
Sample Identification - Client ID (Lab ID)	Sample Date	Sample	Sample Type (C=comp, G=grab)	Matrix (stream, treats, Orestella, Orestella,	Heald Files MiSM miohe9 perd_frostfros			Todan Mumber	Special Instructions/Note:
	X	X	10年日	100	X				
MW-10 (460-135878-10)	6/22/17	12:37 Eastern		Water	×			2	
MW-11 (460-135878-11)	6/22/17	11:27 Fastern		Water	×			2	
								89	
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the or	s Laboratories, Inc. places the	9.	sethod, analyte	& accreditation	complance	ship of method, analyte & accreditation compliance upon out subcontract laboratories.		This sample shipment is forwarded under chain-of-custody. I	outlody, I
Possible Hazard Identification					Samp	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	e assessed if samp	vies are retained longe	er than 1 month)
Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable Rank: 1	able Rank: 1			Specie	Special Instructions/QC Requirements	Disposal By Lab nents:	Archive For	Months
Empty Kit Relinquished by:		Date:			Time:		Method of Shipment	pment	JAN
Retringuishing 4 Km	OateTime C 23	7 13	36	Mutaduo	Re	Carried by L WSA	AM CUR	1-1 7 -C)	Company N
Relinquished by VVQ	Date/Time;		1000	Company	Re	Received by.	Da	de Time C	7/8 Company
Relinquished by	Oate/Time:			Company	Re	Received by	eo.	Date/Time	Company
Custody Seals Intact Custody Seal No.:					8	Cooler Temperature(s) "C and Other Remarks.	r Remarks:		
A1 0 6A1 0					1				

Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-135878-1

Login Number: 135878 List Source: TestAmerica Edison

List Number: 1

Creator: Gilmore, Julie L

Creator: Gilmore, Julie L		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	IR KOP#1
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-135878-1

List Source: TestAmerica Pittsburgh
List Number: 2
List Creation: 06/24/17 01:30 PM

Creator: Watson, Debbie

oreator. Watson, Debbie		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Edison 777 New Durham Road Edison, NJ 08817 Tel: (732)549-3900

TestAmerica Job ID: 460-141411-1 Client Project/Site: Liberty Oil #38

For:

Center Point Tank Service 536 E Benjamin Franklin Douglassville, Pennsylvania 19518

Attn: Rachel Burkart



Authorized for release by: 9/29/2017 9:25:44 AM

Jill Miller, Project Manager II (732)549-3900 jill.miller@testamericainc.com

.....LINKS

Review your project results through
Total Access

Have a Question?



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

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

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

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-141411-1

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Sample Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-141411-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-141411-1	MW-1	Water	09/20/17 10:29	09/22/17 11:30
460-141411-2	MW-2	Water	09/20/17 10:52	09/22/17 11:30
460-141411-3	MW-3	Water	09/20/17 13:46	09/22/17 11:30
460-141411-4	MW-4	Water	09/20/17 13:14	09/22/17 11:30
460-141411-5	MW-5	Water	09/20/17 11:06	09/22/17 11:30
460-141411-6	MW-9	Water	09/20/17 12:15	09/22/17 11:30
460-141411-7	MW-10	Water	09/20/17 12:40	09/22/17 11:30
460-141411-8	MW-11	Water	09/20/17 11:33	09/22/17 11:30

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Definitions/Glossary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Minimum Level (Dioxin)

Practical Quantitation Limit

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

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

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

Reporting Limit or Requested Limit (Radiochemistry)

Not Calculated

Quality Control

TestAmerica Job ID: 460-141411-1

10

Glossary

ML

NC

ND

PQL

QC

RER RL

RPD

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
п	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit

TestAmerica Edison

Case Narrative

TestAmerica Job ID: 460-141411-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Job ID: 460-141411-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative 460-141411-1

Comments

No additional comments.

Receipt

The samples were received on 9/22/2017 11:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

GC/MS VOA

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-10 (460-141411-7). Elevated reporting limits (RLs) are provided.

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

GC Semi VOA

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

Metals

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

VOA Prep

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

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Client: Center Point Tank Service Project/Site: Liberty Oil #38

Lab Sample ID: 460-141411-1

Matrix: Water

Date Collected: 09/20/17 10:29 Date Received: 09/22/17 11:30

Client Sample ID: MW-1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			09/28/17 06:05	1
1,2-Dichloroethane	ND		1.0		ug/L			09/28/17 06:05	1
Ethylbenzene	ND		1.0		ug/L			09/28/17 06:05	1
Isopropylbenzene	ND		1.0		ug/L			09/28/17 06:05	1
Naphthalene	ND		1.0		ug/L			09/28/17 06:05	1
Toluene	ND		1.0		ug/L			09/28/17 06:05	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/28/17 06:05	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/28/17 06:05	1
Xylenes, Total	ND		2.0		ug/L			09/28/17 06:05	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/28/17 06:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	103		77 - 124					09/28/17 06:05	1
Dibromofluoromethane (Surr)	84		72 - 131					09/28/17 06:05	1
1,2-Dichloroethane-d4 (Surr)	82		74 - 132					09/28/17 06:05	1
Toluene-d8 (Surr)	92		80 - 120					09/28/17 06:05	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		09/23/17 13:38	09/23/17 19:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	97		60 - 140				09/23/17 13:38	09/23/17 19:36	1
1,1,1,2-Tetrachloroethane	103		60 - 140				09/23/17 13:38	09/23/17 19:36	1
Method: 200.8 - Metals (IC	CP/MS) - Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5	77	ug/L	7	09/28/17 20:33	09/29/17 05:50	5

Client Sample ID: MW-2

Date Collected: 09/20/17 10:52

Lab Sample ID: 460-141411-2

Matrix: Water

Date Received: 09/22/17 11:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			09/28/17 06:31	1
1,2-Dichloroethane	ND		1.0		ug/L			09/28/17 06:31	1
Ethylbenzene	ND		1.0		ug/L			09/28/17 06:31	1
Isopropylbenzene	1.1		1.0		ug/L			09/28/17 06:31	1
Naphthalene	ND		1.0		ug/L			09/28/17 06:31	1
Toluene	ND		1.0		ug/L			09/28/17 06:31	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/28/17 06:31	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/28/17 06:31	1
Xylenes, Total	ND		2.0		ug/L			09/28/17 06:31	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/28/17 06:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	105		77 - 124					09/28/17 06:31	1
Dibromofluoromethane (Surr)	85		72 - 131					09/28/17 06:31	1
1,2-Dichloroethane-d4 (Surr)	82		74 - 132					09/28/17 06:31	1
Toluene-d8 (Surr)	93		80 - 120					09/28/17 06:31	1

TestAmerica Edison

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9/29/2017

Client: Center Point Tank Service Project/Site: Liberty Oil #38

TestAmerica Job ID: 460-141411-1

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC) Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac 1.2-Dibromoethane ND 0.020 ug/L 09/23/17 13:38 09/23/17 20:01 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 09/23/17 13:38 09/23/17 20:01 1,1,1,2-Tetrachloroethane 98 60 - 140 09/23/17 13:38 09/23/17 20:01 1,1,1,2-Tetrachloroethane 105 60 - 140 Method: 200.8 - Metals (ICP/MS) - Dissolved Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac Lead ND 1.5 ug/L 09/28/17 20:33 09/29/17 05:56

Lab Sample ID: 460-141411-3

Client Sample ID: MW-3 Date Collected: 09/20/17 13:46

Matrix: Water

Date Received: 09/22/17 11:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	33		1.0		ug/L			09/28/17 09:52	1
1,2-Dichloroethane	ND		1.0		ug/L			09/28/17 09:52	1
Ethylbenzene	ND		1.0		ug/L			09/28/17 09:52	1
Isopropylbenzene	ND		1.0		ug/L			09/28/17 09:52	1
Naphthalene	ND		1.0		ug/L			09/28/17 09:52	1
Toluene	1.4		1.0		ug/L			09/28/17 09:52	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/28/17 09:52	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/28/17 09:52	1
Xylenes, Total	ND		2.0		ug/L			09/28/17 09:52	1
Methyl tert-butyl ether	3.5		1.0		ug/L			09/28/17 09:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	104		77 - 124					09/28/17 09:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared Analyzed	Dil Fac
Bromofluorobenzene	104		77 - 124	09/28/17 09:	52
Dibromofluoromethane (Surr)	84		72 - 131	09/28/17 09:	52
1,2-Dichloroethane-d4 (Surr)	82		74-132	09/28/17 09:	52
Toluene-d8 (Surr)	93		80 - 120	09/28/17 09:	52

Method: 8011 - EDB, DBC Analyte		P (GC) Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		09/23/17 13:38	09/23/17 20:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	91		60 - 140				09/23/17 13:38	09/23/17 20:26	1
1,1,1,2-Tetrachloroethane	96		60 - 140				09/23/17 13:38	09/23/17 20:26	1

Method: 200.8 - Metals (ICP/MS)	- Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		09/28/17 20:33	09/29/17 06:06	5

Client Sample ID: MW-4 Lab Sample ID: 460-141411-4 Date Collected: 09/20/17 13:14 Matrix: Water

Date Received: 09/22/17 11:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	66		1.0		ug/L			09/28/17 10:19	1
1,2-Dichloroethane	ND		1.0		ug/L			09/28/17 10:19	1
Ethylbenzene	17		1.0		ug/L			09/28/17 10:19	1
Isopropylbenzene	3.4		1.0		ug/L			09/28/17 10:19	1

TestAmerica Edison

TestAmerica Job ID: 460-141411-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Lab Sample ID: 460-141411-4 Client Sample ID: MW-4

Date Collected: 09/20/17 13:14 Matrix: Water Date Received: 09/22/17 11:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	2.0		1.0		ug/L			09/28/17 10:19	1
Toluene	26		1.0		ug/L			09/28/17 10:19	1
1,2,4-Trimethylbenzene	6.9		1.0		ug/L			09/28/17 10:19	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/28/17 10:19	1
Xylenes, Total	23		2.0		ug/L			09/28/17 10:19	1
Methyl tert-butyl ether	7.1		1.0		ug/L			09/28/17 10:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	109		77 - 124			1		09/28/17 10:19	1
Dibromofluoromethane (Surr)	87		72 - 131					09/28/17 10:19	1
1,2-Dichloroethane-d4 (Surr)	83		74-132					09/28/17 10:19	1
Toluene-d8 (Surr)	95		80 - 120					09/28/17 10:19	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		09/23/17 13:38	09/23/17 20:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	95		60 - 140				09/23/17 13:38	09/23/17 20:51	1
1,1,1,2-Tetrachloroethane	100		60 - 140				09/23/17 13:38	09/23/17 20:51	1

Method: 200.8 - Meta	IS (ICP/NIS) - DISSOIV	ea							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	22	1.5		ug/L		09/28/17 20:33	09/29/17 06:20	5

Client Sample ID: MW-5 Lab Sample ID: 460-141411-5 Date Collected: 09/20/17 11:06 Matrix: Water

Date Received: 09/22/17 11:30

1,2-Dibromoethane

Name and Address of the Owner, where the Parket of the Owner, where the Owner, which is the Owner, where the Owner, which is the Own	Analyzed	areu	Prepared	D	Unit	MDL	RL	Qualifier	Result	Analyte
0:45	09/28/17 10:45				ug/L		1.0		ND	Benzene
0:45	09/28/17 10:45				ug/L		1.0		ND	1,2-Dichloroethane
0:45	09/28/17 10:45				ug/L		1.0		ND	Ethylbenzene
0:45	09/28/17 10:45				ug/L		1.0		ND	Isopropylbenzene
0:45	09/28/17 10:45				ug/L		1.0		ND	Naphthalene
0:45	09/28/17 10:45				ug/L		1.0		ND	Toluene
0:45	09/28/17 10:45				ug/L		1.0		ND	1,2,4-Trimethylbenzene
0:45	09/28/17 10:45				ug/L		1.0		ND	1,3,5-Trimethylbenzene
0:45	09/28/17 10:45				ug/L		2.0		ND	Xylenes, Total
0:45	09/28/17 10:45				ug/L		1.0		ND	Methyl tert-butyl ether
ed L	Analyzed	ared	Prepared				Limits	Qualifier	%Recovery	Surrogate
10:45	09/28/17 10:45						77 - 124		106	Bromofluorobenzene
10:45	09/28/17 10:45						72 - 131		85	Dibromofluoromethane (Surr)
10:45	09/28/17 10:45						74 - 132		83	1,2-Dichloroethane-d4 (Surr)
0:45	09/28/17 10:45						80 - 120		93	Toluene-d8 (Surr)
V17 1	_ 200.00		Prepared	D		MDL		P (GC)	93 and 1,2,3-TCF	

TestAmerica Edison

09/23/17 13:38 09/23/17 21:16

0.020

ug/L

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-5 Lab Sample ID: 460-141411-5

Matrix: Water

Date Collected: 09/20/17 11:06 Date Received: 09/22/17 11:30

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	89		60 - 140				09/23/17 13:38	09/23/17 21:16	1
1,1,1,2-Tetrachloroethane	95		60 - 140				09/23/17 13:38	09/23/17 21:16	1
Method: 200.8 - Metals (IC	P/MS) - Dissolve	d							
Method, 200.0 - Metals (it	21 /INIO1 - DI33014C	· ·							
Analyte	Result (RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: MW-9 Lab Sample ID: 460-141411-6

Date Collected: 09/20/17 12:15 Matrix: Water

Date Received: 09/22/17 11:30

Analyte	Result Qualif	ier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.9	1.0		ug/L			09/28/17 11:12	1
1,2-Dichloroethane	ND	1.0		ug/L			09/28/17 11:12	1
Ethylbenzene	ND	1.0		ug/L			09/28/17 11:12	1
Isopropylbenzene	2.6	1.0		ug/L			09/28/17 11:12	1
Naphthalene	ND	1.0		ug/L			09/28/17 11:12	1
Toluene	ND	1.0		ug/L			09/28/17 11:12	1
1,2,4-Trimethylbenzene	ND	1.0		ug/L			09/28/17 11:12	1
1,3,5-Trimethylbenzene	ND	1.0		ug/L			09/28/17 11:12	1
Xylenes, Total	ND	2.0		ug/L			09/28/17 11:12	1
Methyl tert-butyl ether	2.0	1.0		ug/L			09/28/17 11:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared Analyzed	Dil Fac
Bromofluorobenzene	106		77 - 124	09/28/17 11:1:	2 1
Dibromofluoromethane (Surr)	84		72 - 131	09/28/17 11:1:	2 1
1,2-Dichloroethane-d4 (Surr)	82		74 - 132	09/28/17 11:1:	2 1
Toluene-d8 (Surr)	92		80 - 120	09/28/17 11:1:	2 1

Method: 8011 - EDB, DBC	P, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		09/23/17 13:38	09/23/17 21:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	96		60 - 140				09/23/17 13:38	09/23/17 21:41	1
1,1,1,2-Tetrachloroethane	102		60 - 140				09/23/17 13:38	09/23/17 21:41	1

Method: 200.8 - Metals (ICP/MS)	- Dissolv	red							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		09/28/17 20:33	09/29/17 06:26	5

Client Sample ID: MW-10

Date Collected: 09/20/17 12:40

Lab Sample ID: 460-141411-7

Matrix: Water

Date Collected: 09/20/17 12:40 Date Received: 09/22/17 11:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2500		5.0		ug/L			09/28/17 12:32	5
1,2-Dichloroethane	50		5.0		ug/L			09/28/17 12:32	5
Ethylbenzene	550		5.0		ug/L			09/28/17 12:32	5
Isopropylbenzene	65		5.0		ug/L			09/28/17 12:32	5

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9/29/2017

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TestAmerica Job ID: 460-141411-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-10

Lab Sample ID: 460-141411-7

09/28/17 20:33 09/29/17 06:30

Matrix: Water

Date Collected: 09/20/17 12:40 Date Received: 09/22/17 11:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	46		5.0		ug/L			09/28/17 12:32	5
Toluene	20		5.0		ug/L			09/28/17 12:32	5
1,2,4-Trimethylbenzene	71		5.0		ug/L			09/28/17 12:32	5
1,3,5-Trimethylbenzene	14		5.0		ug/L			09/28/17 12:32	5
Xylenes, Total	85		10		ug/L			09/28/17 12:32	5
Methyl tert-butyl ether	68		5.0		ug/L			09/28/17 12:32	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	107		77 - 124			1		09/28/17 12:32	5
Dibromofluoromethane (Surr)	83		72-131					09/28/17 12:32	5
1,2-Dichloroethane-d4 (Surr)	83		74 - 132					09/28/17 12:32	5
Toluene-d8 (Surr)	93		80 - 120					09/28/17 12:32	5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		09/23/17 13:38	09/23/17 22:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	93		60 - 140				09/23/17 13:38	09/23/17 22:06	1
1,1,1,2-Tetrachloroethane	99		60 - 140				09/23/17 13:38	09/23/17 22:06	1

Client Sample ID: MW-11

Date Collected: 09/20/17 11:33

Lab Sample ID: 460-141411-8

Matrix: Water

1.5

ug/L

ug/L

ND

ND

Date Received: 09/22/17 11:30

1,2-Dibromoethane

Lead

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			09/28/17 11:39	1
1,2-Dichloroethane	ND		1.0		ug/L			09/28/17 11:39	1
Ethylbenzene	ND		1.0		ug/L			09/28/17 11:39	1
Isopropylbenzene	ND		1.0		ug/L			09/28/17 11:39	1
Naphthalene	ND		1.0		ug/L			09/28/17 11:39	1
Toluene	ND		1.0		ug/L			09/28/17 11:39	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/28/17 11:39	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/28/17 11:39	1
Xylenes, Total	ND		2.0		ug/L			09/28/17 11:39	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/28/17 11:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	107		77 - 124			2		09/28/17 11:39	1
Dibromofluoromethane (Surr)	87		72 - 131					09/28/17 11:39	1
1,2-Dichloroethane-d4 (Surr)	84		74 - 132					09/28/17 11:39	1
Toluene-d8 (Surr)	96		80 - 120					09/28/17 11:39	1
Method: 8011 - EDB, DBCP	, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

TestAmerica Edison

09/23/17 13:38 09/23/17 22:31

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Client Sample Results

Client: Center Point Tank Service Project/Site: Liberty Oil #38

TestAmerica Job ID: 460-141411-1

Client Sample ID: MW-11

Date Collected: 09/20/17 11:33 Date Received: 09/22/17 11:30

Lab Sample ID: 460-141411-8

Matrix: Water

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	93	60 - 140	09/23/17 13:38	09/23/17 22:31	1
1,1,1,2-Tetrachloroethane	99	60 - 140	09/23/17 13:38	09/23/17 22:31	1

Method: 200.8 - Metals (ICP/MS) - Dissolved							
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	1.5		ug/L		09/28/17 20:33	09/29/17 06:33	5

Accreditation/Certification Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

TestAmerica Job ID: 460-141411-1

Laboratory: TestAmerica Edison

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Connecticut	State Program	1	PH-0200	09-30-18
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A	12-31-17
New Jersey	NELAP	2	12028	06-30-18
New York	NELAP	2	11452	04-01-18
Pennsylvania	NELAP	3	68-00522	02-28-18
Rhode Island	State Program	1	LAO00132	12-30-17
USDA	Federal		NJCA-003-08	06-13-20

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	A2LA		PA00164	07-31-18
Arkansas DEQ	State Program	6	88-0690	06-27-18
California	State Program	9	2891	03-31-18
Connecticut	State Program	1	PH-0688	09-30-18
Florida	NELAP	4	E871008	06-30-18
Illinois	NELAP	5	200005	06-30-18
Kansas	NELAP	7	E-10350	01-31-18
Louisiana	NELAP	6	04041	06-30-18
Nevada	State Program	9	PA00164	07-31-18
New Hampshire	NELAP	1	2030	04-04-18
New Jersey	NELAP	2	PA005	06-30-18
New York	NELAP	2	11182	03-31-18
North Carolina (WW/SW)	State Program	4	434	12-31-17
Pennsylvania	NELAP	3	02-00416	04-30-18
South Carolina	State Program	4	89014	04-30-18
Texas	NELAP	6	T104704528-15-2	03-31-18
US Fish & Wildlife	Federal		LE94312A-1	07-31-18
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-18
Virginia	NELAP	3	460189	09-14-18
West Virginia DEP	State Program	3	142	01-31-18
Wisconsin	State Program	5	998027800	08-31-18

Method Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

TestAmerica Job ID: 460-141411-1

		-
rotocol	Laboratory	- 3

Method Description	Protocol	Laboratory
Volatile Organic Compounds by GC/MS	SW846	TAL EDI
EDB, DBCP, and 1,2,3-TCP (GC)	SW846	TAL PIT
Metals (ICP/MS)	EPA	TAL EDI
	Volatile Organic Compounds by GC/MS EDB, DBCP, and 1,2,3-TCP (GC)	Volatile Organic Compounds by GC/MS SW846 EDB, DBCP, and 1,2,3-TCP (GC) SW846

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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CHAIN OF		

		d	1111 080 30
		ec	1.1 20C U977
199		1 Week X	Phone Fax
JOD NO:		94	DO THIS COME AND
lob No.		0.50	Dalehoo III
		Rush Charges Authorized For:	City State
Project No:		Standard	COLUMN DAW DAM ON DAY
			100
LAB USE ONLY	ANALYSIS REQUESTED (ENTER X: BELOW TO INDICATE REQUEST)	round Time	Address
DKQP:	Regulatory Program: PAUST	7171-71-80	CONTROL SONT BALL DELLIGION OF 11-4016
Other: PA	State (Location of site): NJ: NY:	P.O.#	Company
	C1 Br/4 01 #38	Kackel Bukart	raewal Iswikart
	Site/Project Identification	Samplers Name (Printed)	Name (for report and invoice)
Page of	A KOK		THE LEADER IN ENVIRONMENTAL TESTING
		CHAIN OF CUSTODY / ANALYSIS BEOLIEST	OHO
Phone: (732) 549-3900 Fax: (732) 549-3679	Phone: (732) 549		Detamore
sey 08817	Edison, New Jersey 088177		
Road	777 New Durham Road		

DER IN ENVIRONMENTAL TESTING	CHAIN OF CUSTODY / ANALYSIS REQUEST	IS REQUEST	1.8021	Page of
reportand invoice)	Samplers Name (Printed)	Site/Project Identification	#38	
	B O #	Ctate (I postion of cital: NI	NI.	Other PA

THE PEOPLE IN CHAIRCNING INC.							1	Page of
ane (for report and invoice)	S	Samplers Name (Printed)	e (Printed)	7	Site/Proje	Site/Project Identification	,	
Conter Point Tank Services	7	2874-71-80 # 08	782h-	,	State (Lo Regulato		ST NA:	Other: PA
Address		Analysis Turnaround Time	nd Time		LYSIS REQUESTED (EXTER	ANALYSIS REQUESTED (EVTER 1% BELOW TO INDICATE REQUEST)	ŋ	LAB USE ONLY
C Bry amm Fran		Standard Authorized For	orized For:	oline	ine			Project No:
Daughass vill+ PA		2 Week		1	7201	101		Job No:
6.0 385 4977 Fax		Other X		ded adgo				14141
Sample Identification	Date	Time Matrix	No. of. Cont.	Lead		34		Sample Numbers
mw 1	19/10/17/1019	WD 620	0	×				
2-MM		1250	6	X				
MU -3	- 1	1346	6	X				
h-mm	- 1	13/4	0	XX				
S-MW		1106	6	X				
MW-9		1215	0	XX	(,			
MW-10	7	1240	6	メメ				
MW	<	1133 ₩	6	X		460-141411 C	460-141411 Chain of Custody	
						- - -	_	
Preservation Used: $1 = ICE$, $2 = HCI$, $3 = H2SO4$, $4 = HNO3$		5 = NaOH	Soil:					
6 = Other, 7 =	= Other	l	Water: 1/2	1/1211	-			
Special Instructions Prase Jab &	1 14 141 B	metals				*	y ater Metals Filtered (Yes/No)?	red (Yes/No)?
Relinduisher Company	더	9/1	Date / Time	30	Received by		Company	8
Relinquished by Company	pany	1	Date / Time		Received by		Company	

TAL - 0016 (071	Rhode Island (132).	, Connecticut (PH-0200),	, Pennsylvania (68-522),	, New York (11452), Pennsylvanii	New Jersey (12028),	Certifications: New	Laboratory
			- 4)				4)
	Company	of by	Date / Time Réceiva		Company	by	Relinquished
down	th Flore	ent Dunch	922-17 2000 31/20	4 922	1		3)

Massachusetts (M-NJ312), North Carolina (No. 578)

Company

Date / Time 7/19/5

Received by

Company

#118M

Company

2

Relinquished by

TestAmerica Edison Receipt Temperature and pH Log

	Lot # of Preservative(s)	Preservative Name/Conc.:	Sample No(s). adjusted:									TALS Sample Number			
4	servative(s)	Name/Conc.	s). adjusted:	П	T	T			T	Ť	$\overline{}$	(pH<2)	Ammonia		
he approp			usuments						1			(pH<2)	COD		
riate Proje			are requ		T	T				T		(pH<2)	Nitrate Nitrite		
propriate Project Manager and Department Manager should be notified about the samples which were pH ac Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.			if pri adjustments are required record the information below:									(pH<2)	Metals		
er and Dep sis which			d the into							1		(pH<2)	Hardness		
partment N		Volu	rmation							T		(pH 5-9)	Pest		
tanager si compliant		me of Pre	eiow:									(pH<2)	EPH or		
hould be n	Expira	servative										(pH<2)	Phenois		
otified abo	Expiration Date:	Volume of Preservative used (ml):										(pH>9)	Sulfide	l i k	
out the sar at least 24										T		(pH<2)	TKN		
nples which hours pri												(pH<2)	тос		
th were phor to analy							4					(pH>12)	Total Cyanide		
The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted. Samples for Metal analysis which are out of compliance must be addified at least 24 hours prior to analysis.		15									$\overline{}$	(pH<2)	Total . Cyanide Total Phos		
-													Other		
				П									Other		

EDS-WI-038, Rev 4, 06/09/2014

Page ____ of _

P	- pag 1 10t	hain	Chain of Custody Record	tody F	lecor	P		* America
Client Information (Sub Contract Lab)	Sampler			Lab PM Miller,	Lab PM: Miller, Jill K			13
Rent Contact.	Phone			E-Mail.	9		460-141411 Chain of Custody	Ustody
ompany estAmerica Laboratories, Inc.					Accreditat	Accreditations Required (See note): NELAP - Pennsylvania		J00 ₩ 460-141411-1
uddress: 01 Alpha Drive, RIDC Park,	Due Date Requested 9/28/2017	iĝ:		i			Analysis Requested	ion Code
.ey Pittsburgh	TAT Requested (days	ys):						al o
Jane, 2p. 2p. 7A, 15238								D - Nation Acid P - Na2O46 E - Na4SO4 Q - Na2O46 E - MACO4 Q - Na2O46
hone. 112-963-7058(Tel) 412-963-2468(Fax)	# Od				(0			Acid
	WO#.				_			J-Di Water V-
Project Name: tberty Oil #38	Project #: 46011357				_	(ot		K-EDTA L-EDA
Siba.	SSOWE				_	ED8 (d		of con
Sample Identification - Client ID (Lab ID)	Sample Date	Sample	Sample Type (C=comp, G=grab)	Matrix (Wwwter, Swooth, Ownerstook,	berettiq biefa McM moher	daug_F108/F108		Vumber Special Instructions/Note:
	X	X	Preserva	UC	X			
WW-1 (460-141411-1)	9/20/17	10.29 Fastern		Water		×		2
WW-2 (460-141411-2)	9/20/17	10:52 Eastern		Water		×		2
MW-3 (460-141411-3)	9/20/17	13:46 Eastern		Water		×		2
MW-4 (460-141411-4)	9/20/17	13:14 Eastern		Water		×		2
MW-S (460-14111-5)	9/20/17	11.06 Eastern		Water		×		2
MW-9 (460-141411-6)	9/20/17	12.15 Eastern		Water		×		2
MW-10 (460-141411-7)	9/20/17	12:40 Eastern		Water		×		2
MW-11 (460-141411-8)	9/20/17	11:33 Eastern		Water		×		2
Note: Since laboratory accreditations are subject to champe. TestAmerica Laboratories, Inc. places the ow currently mantain accreditation in the State of Origin Islaed above for analysis/lessis/maritic being analyzed. Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the sign.	Laboratores, Inc. places the lysis/lests/matrix being analyz re current to date, return the s	ownership of red, the sample gned Chain of	nethod, analyte is must be ship Custody attes	6 accreritati ped back to tr ing to said co	on complian a TestAme replicance it	nership of method, analyte & accre-fration compliance upon out subcontract laboratories. The samples must be shipped back to the TestAmerica laboratory or other instructions will ed Chain of Custody attesting to said complicance to TestAmerica Laboratories. Inc.	es. This sample shipment is will be provided. Any chang	remaking of method, analyte & accremitation compliance upon out subcontract laboratories. This sample shipment is forwinded under chain-of-custody. If the laboratory does not the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica and Chain of Custody attesting to said complicance to TestAmerica Laboratories, linc.
Possible Hazard Identification					Sam	ple Disposal (A fee may	be assessed if sample	ger than 1 mo
Unconstrated Deliverable Requested: I, III, IV, Other (specify)	Primary Deliverable Rank:	able Rank:			Spe	Special Instructions/QC Requirements	Disposal by Lab ements:	Archive For
Empty Kit Relinquished by:		Date:			Time:	-	Method of Shipment	nent
Reinquishedby	Date/Tripe	1 154	34	Company		Received by VV CO	TWO DAMETER	Date Time G. 33-17 Company
Reinquished by:	Date/Time			Company		Received by.	Date	Date/Time 900 Company
Custody Seals Intact: Custody Seal No.:						Cooler Temperature(s) ⁹ C and Other Remarks	er Remarks	
4 160 A NO					1			

State, 2p: PA, 15238 ritsburgh

Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-141411-1

Login Number: 141411 List Source: TestAmerica Edison

List Number: 1

Creator: Gilmore, Julie L.

Creator. Gilmore, Julie L		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	IR KOP#1
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is s6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-141411-1

List Source: TestAmerica Pittsburgh
List Number: 2
List Creation: 09/23/17 12:43 PM

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or ampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is som (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Edison 777 New Durham Road Edison, NJ 08817 Tel: (732)549-3900

TestAmerica Job ID: 460-147646-1 Client Project/Site: Liberty Oil #38

For:

Center Point Tank Service 536 E Benjamin Franklin Douglassville, Pennsylvania 19518

Attn: Rachel Burkart

Sie miller

Authorized for release by: 1/4/2018 10:15:36 AM

Jill Miller, Project Manager II (732)549-3900 jill.miller@testamericainc.com

.....LINKS

Review your project results through
Total Access

Have a Question?



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

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

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

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-147646-1

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Sample Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

TestAmerica Job ID: 460-147646-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-147646-1	MW-1	Water	12/22/17 10:50	12/26/17 11:35
460-147646-2	MW-2	Water	12/22/17 11:10	12/26/17 11:35
460-147646-3	MW-3	Water	12/22/17 13:22	12/26/17 11:35
460-147646-4	MW-4	Water	12/22/17 12:58	12/26/17 11:35
460-147646-5	MW-5	Water	12/22/17 11:24	12/26/17 11:35
460-147646-6	MW-9	Water	12/22/17 12:13	12/26/17 11:35
460-147646-7	MW-10	Water	12/22/17 12:32	12/26/17 11:35
460-147646-8	MW-11	Water	12/22/17 11:47	12/26/17 11:35

Definitions/Glossary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Minimum Level (Dioxin)

Practical Quantitation Limit

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

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

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

Reporting Limit or Requested Limit (Radiochemistry)

Not Calculated

Quality Control

TestAmerica Job ID: 460-147646-1

Glossary

ML

NC

ND

PQL

QC

RER RL

RPD

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
п	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit

Case Narrative

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-147646-1

K

Job ID: 460-147646-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative 460-147646-1

Comments

No additional comments.

Receipt

The samples were received on 12/26/2017 11:35 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.9° C.

GC/MS VOA

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-10 (460-147646-7). Elevated reporting limits (RLs) are provided.

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

GC Semi VOA

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

Metals

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

VOA Prep

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

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01/02/18 11:03 01/02/18 20:01

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Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-1 Lab Sample ID: 460-147646-1

Date Collected: 12/22/17 10:50 Matrix: Water

Date Received: 12/26/17 11:35

Method: 8260C - Volatile O Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			01/02/18 13:21	1
1,2-Dichloroethane	ND		1.0		ug/L			01/02/18 13:21	1
Ethylbenzene	ND		1.0		ug/L			01/02/18 13:21	1
Isopropylbenzene	ND		1.0		ug/L			01/02/18 13:21	1
Naphthalene	ND		1.0		ug/L			01/02/18 13:21	1
Toluene	ND		1.0		ug/L			01/02/18 13:21	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			01/02/18 13:21	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			01/02/18 13:21	1
Xylenes, Total	ND		2.0		ug/L			01/02/18 13:21	1
Methyl tert-butyl ether	ND		1.0		ug/L			01/02/18 13:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	97		77 - 124					01/02/18 13:21	1
Dibromofluoromethane (Surr)	99		72 - 131					01/02/18 13:21	1
1,2-Dichloroethane-d4 (Surr)	95		74 - 132					01/02/18 13:21	1
Toluene-d8 (Surr)	99		80 - 120					01/02/18 13:21	1
Method: 8011 - EDB, DBCF	e, and 1.2.3-TC	P (GC)							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		01/02/18 11:03	01/02/18 20:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	94		60 - 140				01/02/18 11:03	01/02/18 20:01	1

 Method: 200.8 - Metals (ICP/MS) - Dissolved
 Result Qualifier
 RL
 MDL Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Lead
 ND
 1.5
 ug/L
 12/29/17 10:10
 12/29/17 15:39
 5

60-140

Client Sample ID: MW-2

Date Collected: 12/22/17 11:10

Lab Sample ID: 460-147646-2

Matrix: Water

Date Received: 12/26/17 11:35

1,1,1,2-Tetrachloroethane

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			01/02/18 13:45	1
1,2-Dichloroethane	ND		1.0		ug/L			01/02/18 13:45	1
Ethylbenzene	ND		1.0		ug/L			01/02/18 13:45	1
Isopropylbenzene	ND		1.0		ug/L			01/02/18 13:45	1
Naphthalene	ND		1.0		ug/L			01/02/18 13:45	1
Toluene	ND		1.0		ug/L			01/02/18 13:45	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			01/02/18 13:45	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			01/02/18 13:45	1
Xylenes, Total	ND		2.0		ug/L			01/02/18 13:45	1
Methyl tert-butyl ether	ND		1.0		ug/L			01/02/18 13:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	99		77 - 124					01/02/18 13:45	1
Dibromofluoromethane (Surr)	98		72 - 131					01/02/18 13:45	1
1,2-Dichloroethane-d4 (Surr)	92		74 - 132					01/02/18 13:45	1
Toluene-d8 (Surr)	97		80 - 120					01/02/18 13:45	1

TestAmerica Edison

Result Qualifier

Qualifier

ND

99

100

%Recovery

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Analyte

Surrogate

1.2-Dibromoethane

1,1,1,2-Tetrachloroethane 1,1,1,2-Tetrachloroethane TestAmerica Job ID: 460-147646-1

RL MDL Unit Prepared Analyzed Dil Fac 01/02/18 11:03 01/02/18 20:28 0.020 ug/L Limits Prepared Analyzed Dil Fac 60 - 140 01/02/18 11:03 01/02/18 20:28 60 - 140 01/02/18 11:03 01/02/18 20:28

Method: 200.8 - Metals (ICP/MS) - Dissolved

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac Lead ND 1.5 12/29/17 10:10 12/29/17 15:52 ug/L

Client Sample ID: MW-3

Date Collected: 12/22/17 13:22 Date Received: 12/26/17 11:35

Lab Sample ID: 460-147646-3

Matrix: Water

Fac		
- 1		
1		
1		
4000		

Method: 8260C - Volatile Organic Compounds by GC/MS Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil ND 1.0 01/02/18 14:08 Benzene ug/L 1,2-Dichloroethane ND 1.0 ug/L 01/02/18 14:08 Ethylbenzene ND 1.0 ug/L 01/02/18 14:08 Isopropylbenzene ND 1.0 ug/L 01/02/18 14:08 Naphthalene ND 1.0 ug/L 01/02/18 14:08 Toluene ND 1.0 ug/L 01/02/18 14:08 1,2,4-Trimethylbenzene ND 1.0 ug/L 01/02/18 14:08 ND 1,3,5-Trimethylbenzene 1.0 01/02/18 14:08 ug/L Xylenes, Total ND 2.0 ug/L 01/02/18 14:08 Methyl tert-butyl ether ND 1.0 ug/L 01/02/18 14:08

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Bromofluorobenzene	98		77 - 124		01/02/18 14:08	1
Dibromofluoromethane (Surr)	101		72 - 131		01/02/18 14:08	1
1,2-Dichloroethane-d4 (Surr)	91		74-132		01/02/18 14:08	1
Toluene-d8 (Surr)	100		80 - 120		01/02/18 14:08	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		01/02/18 11:03	01/02/18 20:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	97		60 - 140				01/02/18 11:03	01/02/18 20:55	1
1.1.1.2-Tetrachloroethane	95		60 - 140				01/02/18 11:03	01/02/18 20:55	1

Method: 200.8 - Metals (ICP/MS)	 Dissolv 	red							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		12/29/17 10:10	12/29/17 15:56	5

Client Sample ID: MW-4 Lab Sample ID: 460-147646-4 Date Collected: 12/22/17 12:58 Date Received: 12/26/17 11:35

Matrix:	Water

Method: 8260C - Volatile Analyte	Result Qua		MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	53	1.0		ug/L			01/02/18 14:32	1
1,2-Dichloroethane	ND	1.0		ug/L			01/02/18 14:32	1
Ethylbenzene	24	1.0		ug/L			01/02/18 14:32	1
Isopropylbenzene	13	1.0		ug/L			01/02/18 14:32	1

TestAmerica Edison

2

TestAmerica Job ID: 460-147646-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-4

Lab Sample ID: 460-147646-4

Matrix: Water

Date Collected: 12/22/17 12:58 Date Received: 12/26/17 11:35

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DII Fac
Naphthalene	25		1.0		ug/L			01/02/18 14:32	1
Toluene	19		1.0		ug/L			01/02/18 14:32	1
1,2,4-Trimethylbenzene	47		1.0		ug/L			01/02/18 14:32	1
1,3,5-Trimethylbenzene	9.9		1.0		ug/L			01/02/18 14:32	1
Xylenes, Total	65		2.0		ug/L			01/02/18 14:32	1
Methyl tert-butyl ether	8.0		1.0		ug/L			01/02/18 14:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	98		77 - 124			1		01/02/18 14:32	1
Dibromofluoromethane (Surr)	97		72-131					01/02/18 14:32	1
1,2-Dichloroethane-d4 (Surr)	93		74-132					01/02/18 14:32	1
Toluene-d8 (Surr)	98		80 - 120					01/02/18 14:32	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		01/02/18 11:03	01/02/18 21:20	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	102		60 - 140				01/02/18 11:03	01/02/18 21:20	
1,1,1,2-Tetrachloroethane	99		60 - 140				01/02/18 11:03	01/02/18 21:20	
Method: 200.8 - Metals (IC	P/MS) - Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Lead	ND		1.5		ug/L		12/29/17 10:10	12/29/17 15:59	

Client Sample ID: MW-5
Date Collected: 12/22/17 11:24
Lab Sample ID: 460-147646-5
Matrix: Water

Date Received: 12/26/17 11:35

1,2-Dibromoethane

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			01/02/18 20:16	1
1,2-Dichloroethane	ND		1.0		ug/L			01/02/18 20:16	1
Ethylbenzene	ND		1.0		ug/L			01/02/18 20:16	1
Isopropylbenzene	ND		1.0		ug/L			01/02/18 20:16	1
Naphthalene	ND		1.0		ug/L			01/02/18 20:16	1
Toluene	ND		1.0		ug/L			01/02/18 20:16	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			01/02/18 20:16	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			01/02/18 20:16	1
Xylenes, Total	ND		2.0		ug/L			01/02/18 20:16	1
Methyl tert-butyl ether	ND		1.0		ug/L			01/02/18 20:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	98		77 - 124			2		01/02/18 20:16	1
Dibromofluoromethane (Surr)	97		72 - 131					01/02/18 20:16	1
1,2-Dichloroethane-d4 (Surr)	93		74 - 132					01/02/18 20:16	1
Toluene-d8 (Surr)	98		80 - 120					01/02/18 20:16	1
Method: 8011 - EDB, DBCP,		P (GC) Qualifier	RL	MDI	Unit	D	Prepared	Analyzed	Dil Fac

TestAmerica Edison

01/02/18 11:03 01/02/18 21:45

0.020

ug/L

Client: Center Point Tank Service

Project/Site: Liberty Oil #38

Client Sample ID: MW-5 Lab Sample ID: 460-147646-5

Date Collected: 12/22/17 11:24 Date Received: 12/26/17 11:35

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	100		60 - 140				01/02/18 11:03	01/02/18 21:45	1
1,1,1,2-Tetrachloroethane	98		60 - 140				01/02/18 11:03	01/02/18 21:45	1
Method: 200.8 - Metals (IC	CP/MS) - Dissolve	ed							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		12/29/17 10:10	12/29/17 16:02	- 1

Lab Sample ID: 460-147646-6 Client Sample ID: MW-9

Date Collected: 12/22/17 12:13

Matrix: Water

Date Received: 12/26/17 11:35

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	1.0		ug/L			01/02/18 15:18	1
1,2-Dichloroethane	ND	1.0		ug/L			01/02/18 15:18	1
Ethylbenzene	ND	1.0		ug/L			01/02/18 15:18	1
Isopropylbenzene	1.2	1.0		ug/L			01/02/18 15:18	1
Naphthalene	ND	1.0		ug/L			01/02/18 15:18	1
Toluene	ND	1.0		ug/L			01/02/18 15:18	1
1,2,4-Trimethylbenzene	ND	1.0		ug/L			01/02/18 15:18	1
1,3,5-Trimethylbenzene	ND	1.0		ug/L			01/02/18 15:18	1
Xylenes, Total	ND	2.0		ug/L			01/02/18 15:18	1
Methyl tert-butyl ether	ND	1.0		ug/L			01/02/18 15:18	1

Surrogate	%Recovery Qu	ualifier	Limits	Prepared Analyzed	Dil Fac
Bromofluorobenzene	98		77 - 124	01/02/18 15:1	8 1
Dibromofluoromethane (Surr)	102		72 - 131	01/02/18 15:1	8 1
1,2-Dichloroethane-d4 (Surr)	98		74 - 132	01/02/18 15:1	8 1
Toluene-d8 (Surr)	97		80 - 120	01/02/18 15:1	8 1

Method: 8011 - EDB, DBC	P, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		01/02/18 11:03	01/02/18 22:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	106		60 - 140				01/02/18 11:03	01/02/18 22:12	1
1,1,1,2-Tetrachloroethane	107		60 - 140				01/02/18 11:03	01/02/18 22:12	1

Method: 200.8 - Metals (ICP/MS)	- Dissolv	red							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		12/29/17 10:12	12/29/17 16:06	5

Client Sample ID: MW-10 Lab Sample ID: 460-147646-7 Matrix: Water

Date Collected: 12/22/17 12:32 Date Received: 12/26/17 11:35

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2000		5.0		ug/L			01/02/18 16:05	5
1,2-Dichloroethane	ND		5.0		ug/L			01/02/18 16:05	5
Ethylbenzene	490		5.0		ug/L			01/02/18 16:05	5
Isopropylbenzene	70		5.0		ug/L			01/02/18 16:05	5

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1/4/2018

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2

TestAmerica Job ID: 460-147646-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Client Sample ID: MW-10

Lab Sample ID: 460-147646-7

12/29/17 10:12 12/29/17 16:09

Matrix: Water

Date Collected: 12/22/17 12:32 Date Received: 12/26/17 11:35

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	27		5.0		ug/L			01/02/18 16:05	5
Toluene	13		5.0		ug/L			01/02/18 16:05	5
1,2,4-Trimethylbenzene	23		5.0		ug/L			01/02/18 16:05	5
1,3,5-Trimethylbenzene	ND		5.0		ug/L			01/02/18 16:05	5
Xylenes, Total	24		10		ug/L			01/02/18 16:05	5
Methyl tert-butyl ether	58		5.0		ug/L			01/02/18 16:05	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	95		77 - 124					01/02/18 16:05	5
Dibromofluoromethane (Surr)	99		72 - 131					01/02/18 16:05	5
1,2-Dichloroethane-d4 (Surr)	94		74 - 132					01/02/18 16:05	5
Toluene-d8 (Surr)	98		80 - 120					01/02/18 16:05	5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		01/02/18 11:03	01/02/18 22:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	103		60 - 140				01/02/18 11:03	01/02/18 22:38	1
1,1,1,2-Tetrachloroethane	105		60 - 140				01/02/18 11:03	01/02/18 22:38	1

Client Sample ID: MW-11 Lab Sample ID: 460-147646-8

Date Collected: 12/22/17 11:47

Matrix: Water

1.5

ug/L

ND

Result Qualifier

ND

Date Received: 12/26/17 11:35

Lead

Analyte

1,2-Dibromoethane

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			01/02/18 15:41	1
1,2-Dichloroethane	ND		1.0		ug/L			01/02/18 15:41	1
Ethylbenzene	ND		1.0		ug/L			01/02/18 15:41	1
Isopropylbenzene	ND		1.0		ug/L			01/02/18 15:41	1
Naphthalene	ND		1.0		ug/L			01/02/18 15:41	1
Toluene	ND		1.0		ug/L			01/02/18 15:41	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			01/02/18 15:41	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			01/02/18 15:41	1
Xylenes, Total	ND		2.0		ug/L			01/02/18 15:41	1
Methyl tert-butyl ether	ND		1.0		ug/L			01/02/18 15:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	97		77 - 124					01/02/18 15:41	1
Dibromofluoromethane (Surr)	98		72 - 131					01/02/18 15:41	1
1,2-Dichloroethane-d4 (Surr)	95		74 - 132					01/02/18 15:41	1
Toluene-d8 (Surr)	98		80 - 120					01/02/18 15:41	1

TestAmerica Edison

Analyzed

Prepared

01/02/18 11:03 01/02/18 23:03

RL

0.020

MDL Unit

ug/L

Dil Fac

Client Sample Results

Client: Center Point Tank Service Project/Site: Liberty Oil #38

TestAmerica Job ID: 460-147646-1

Client Sample ID: MW-11 Lab Sample ID: 460-147646-8 Date Collected: 12/22/17 11:47

Matrix: Water

Date Received: 12/26/17 11:35

l	Surrogate	%Recovery Qu	ualifier	Limits	Prepared	Analyzed	Dil Fac
ı	1,1,1,2-Tetrachloroethane	105		60 - 140	01/02/18 11:03	01/02/18 23:03	1
	1,1,1,2-Tetrachloroethane	103		60 - 140	01/02/18 11:03	01/02/18 23:03	1

Method: 200.8 - Metals (I	CP/MS) - Dissolve	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		12/29/17 10:12	12/29/17 16:16	5

Accreditation/Certification Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-147646-1

Laboratory: TestAmerica Edison

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Connecticut	State Program	1	PH-0200	09-30-18
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A	12-31-18
New Jersey	NELAP	2	12028	06-30-18
New York	NELAP	2	11452	04-01-18
Pennsylvania	NELAP	3	68-00522	02-28-18
Rhode Island	State Program	1	LAO00132	12-30-17 *
USDA	Federal		NJCA-003-08	06-13-20

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	A2LA		PA00164	07-31-18
Arkansas DEQ	State Program	6	88-0690	06-27-18
California	State Program	9	2891	03-31-18
Connecticut	State Program	1	PH-0688	09-30-18
Florida	NELAP	4	E871008	06-30-18
Illinois	NELAP	5	200005	06-30-18
Kansas	NELAP	7	E-10350	01-31-18
Louisiana	NELAP	6	04041	06-30-18
Nevada	State Program	9	PA00164	07-31-18
New Hampshire	NELAP	1	2030	04-04-18
New Jersey	NELAP	2	PA005	06-30-18
New York	NELAP	2	11182	03-31-18
North Carolina (WW/SW)	State Program	4	434	12-31-18
Pennsylvania	NELAP	3	02-00416	04-30-18
South Carolina	State Program	4	89014	04-30-18
Texas	NELAP	6	T104704528-15-2	03-31-18
US Fish & Wildlife	Federal		LE94312A-1	07-31-18
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-18
Virginia	NELAP	3	460189	09-14-18
West Virginia DEP	State Program	3	142	01-31-18
Wisconsin	State Program	5	998027800	08-31-18

TestAmerica Edison

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

Method Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Method Description

Metals (ICP/MS)

TestAmerica Job ID: 460-147646-1

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SW846 TAL EDI

EPA

Protocol References:

Method

8260C

8011

200.8

EPA = US Environmental Protection Agency

Volatile Organic Compounds by GC/MS

EDB, DBCP, and 1,2,3-TCP (GC)

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

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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by.

Cample				
		de	Other	610345 4977
		d	1 Week	Phone Fax
Job No:			2 Week	Day glass will ? PAT
	_	sol	Rush Charges Authorized For	
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LAB USE ONLY	ANALYSIS REQUESTED (ENTER X: BELOW TO HOLOWIE RECUEST)		Analysis Turnardund Time	Address
DKQP:	Regulatory Program: UST	7124-24-30	30	Center foint Tank Services
NY: Other: 17	State (Location of site): NJ:		P. O. #	Company
	L. bell 0:1 #38	d butant	Kache	Rachel Burkart
The second secon	20.	Samplers Name (Printed)	Samplers Na	Name (for report and invoice)
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VAP-1		ICTORY / ANALYSIS	CHAINIOF	
Phone: (732) 549-3900 Fax: (732) 549-3	Phone: (Tort A morion
777 New Durham Road	777 New			
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Name (for report and invoice)	· ·	Sampiers Name	- Common	7	Check to the #38	#38	
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Daslos wills	State	Rush Charges Au 2 Week	thorized For:	gesoli L Solin			Job No:
Phone 5 4977 Fax		Other D			_		
Sample Identification	Date T	Time Ma	lrix Cont.	uni			Sample
MWH	N 1727/1	12 050	9	8 8			
MW-2		IIIO	6	メメ			
MUJJ	13	1322	6	X			
Mw-4	7	1258	6				
MW-S)(M2H	6	XX			
MW-9	77	1213	C	-			
MW-ID	172	132	0	X			
MW-11	<	THI V	4	X			
						- 480-147646 Chain of Custody	Sustody
Preservation Used: 1 = ICE, 2 = HCI, 3	2 = HCI, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5	5 = NaOH	Soil:	47 44			
Special Instructions Please	196 87KY	6	detels			Water Metals Filtered (Yes/No)?	red (Yes/No)? N
Relinquished by	Company		Date / Time	Q.	Received by 2	Company	0
Relinquished by	Company TAK &		Date / Time		Received by	Company	
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Relinquished by 4)	Company		Date / Time		Received by 4)	Company	

Massachusetts (M-NJ312), North Carolina (No. 578)

DS-WI-038, Rev 4, 06/09/2014		Int # of Preservative(s)	Preservative Name/Conc.:	If pH adjusted: Sample No(s), adjusted:							That wantput reminary	TALS Sample Number		Job Number:	
	1	rvative(s)	me/Conc.	If pH ad,	П	1	11	T	П	П		Ammonia (nHc2)		1 4 T	
Initials:	e app			If pH adjustments are required record the information below:			П	T		П		COD		147646	
	propriate Project Manager and Department Manager should be notified about the samples which were pH ac Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.			are requi							9	Nitrate Nitrate			
7	ct Manage fetal analy			red recon								Metals			
1	sis which			d the info				\perp		\square		Hardness		Receip	_
1000	ertment N		Volu	rmation b						\prod		Pest		TestAmerica Edison Receipt Temperature and pH Log	
	fanager sh complianc		Volume of Preservative used (ml):	elow:							9	EPH or QAM		erica Ed erature a	
Date:	ould be n	Expira	servative u									Phenois	ŗ,	ison Ind pH L	
72	otified abo	Expiration Date:	used (ml):								1	Sulfide (pH>9)		.og	
12/26/17	ut the san at least 24											TKN			
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Chain of Custody Record

America

Sub Contract Lab		Samoler			Md de l					
September Sept	Client Information (Sub Contract Lab)				Miller	JHK	4	60-147646 Chain of		
Sign	lient Contact: Shipping/Receiving	Phone			E-Mail.	er@testam	ericainc com	Femiliayivanıı		
Fore Fido C Park, Doe	Jonephry restAmerica Laboratories, Inc.					VELAP - Pe	Required (See note): innsylvania		Job # 460-147646-1	
147646-3 142-652-3469 Fav.) P.O.e. P.		Due Date Requeste 1/2/2018	ą.				Analy	sis Requested	Preservation Co	odes:
A A A A A A A A A A	hity Pitsburgh Pitsburgh 24. 15238	TAT Requested (da	ys):						S - NO-H C - Zn Acetale D - Natric Acetale E - Natrics Acetal	N - None N - None O - AsNaO2 P - Na2O45 Q - Na2SO3
Project # Sample Matrix Sample Matrix Sample Cocomp Time Company Time	112-963-7058(Tel) 412-963-2468(Fax)	*04	100			- 10			F - MeOH G - Amchlor H - Assemble Acid	8 - Na25203 5 - H2504 T - TSP Dodecahutrate
Sample Date Sample Matrix Sample Matrix Sample Sample Matrix Sample Sample Matrix Sample Sample Matrix Sample Sampl	imail	WO#							_	U - Acetone V - MCAA
Sample Oate Time Gagrab) arrange Address and Sample (C-comp. S	Center Point (KOP)	Project #. 46011357				N 10 60				W - pH 4-5 Z - other (specify)
Sample (Cacomp. Covered. 12/22/17 Eastern 12/22/22/22/22/22/22/22/22/22/22/22/22/2	Site.	SSOW#:				Y) as				
12/22/17 10:50 Water X 12/22/17 11:10 Water X 12/22/17 11:10 Water X 12/22/17 12/22/	Sample Identification - Client ID (Lab ID)	Sample Date	Sample			MisM moher				nstructions/Note:
12/22/17		X	X	5.00	ion Code:	X	のできるが	NA INTERNATIONAL PROPERTY AND INC.		
12/22/17 13.52 12/22/17 13.52 Water X 12/22/17 Eastern 12.53 Water X 12/22/17 Eastern 13.52 Water X Int. A Water X Dashfirms Date. Date. Company Received by Received by Received by Received by Contrant Company Co	MW-1 (460-147646-1)	12/22/17	10:50 Eastern		Water	×			22	
12/22/17 Eastern X Water X 12/22/17 12/28 Water X 12/22/17 12/22	MW-2 (460-147646-2)	12/22/17	11:10 Eastern		Water	×			2	
12/22/17 12/32 12/22/17 12/32 Water X I 2/22/17 12/32 I 2/22/17 12/32 I 2/22/17 12/32 I 3/2 0 C Company Received by Received by Coorpany Coorpany Received by Coorpany Received by	WW-3 (460-147646-3)	12/22/17	13:22 Eastern		Water	×			2	
12/22/17 Eastern X 11/45 N 11/45	WW-4 (460-147646-4)	12/22/17	12.58 Eastern		Water	×			2	
Taylordy Seal No 12/22/17 Eastern 12/22/17 Eastern 12/22/17 Eastern 12/22/17 Eastern 12/22/17 Eastern 12/22/17 Eastern 11/47 Water X Date: Eastern Water X Water X Date: Eastern Water X Water X Date: Eastern Water X Sample acceptance upon out subcortract laboratories. Inc. Received acceptance of subcortract laboratories. Inc. Sample Disposal (A fee may be Company Company Received by Received by Company Received by Comp	MW-5 (460-147646-5)	12/22/17	11:24 Eastern		Water	×			2	
Table 1 12/22/17 Eastern 13/22/17 Eastern 14/47 14/48 14/48	MW-9 (460-147648-6)	12/22/17	12:13 Eastern		Water	×			2	
see subject to change. TestAmerica Laboratories. Inc. places the comment's political analysed, the sample Scale of Craim to date, retain the signed Chain of Custody attesting to said complicance upon out subcortical laboratories. Inc. attion. Int. IV, Other (specify) Primary Deliverable Rank: 1 Special Instructions/OC Requirem. Date: Company Received by Received by Received by Received by Received by Content of Content of Content of Company Received by Received by Content of Co	WW-10 (460-147646-7)	12/22/17	12.32 Eastern		Water	×			2	
Till, IV, Other (specify) Date: DateTime Da	WW-11 (460-147646-8)	12/22/17	11:47 Eastern		Water	×			N	
Author (specify) Primary Deliverable Rank: 1 Special Instructions/OC Requirements: III. IV. Other (specify) Primary Deliverable Rank: 1 Special Instructions/OC Requirements: Date: Time: Special Instructions/OC Requirements: Date: Time:	icter. Since laboratory accreditations are subject to change. TestAmerica surrently maintain accreditation in the State of Ongin listed above for ana aboratories, Inc. aftertion immediately. If all requested accreditations a	Laboratories, Inc. places the hysinfests/matrix being analysis re-current to date, return the s	ownership of n ed, the sample gned Chain of	nethod, analyte is must be shop Custody attesti	& accreditation and back to the rig to said comp	compliance up restAmerica la scance to Test	on out subcentract lab aboratory or other instr America Laboratories,	oratories. This sample ship uctions will be provided. An Inc.	ment is forwarded under chain-of curtody. y changes to accreditation status should be	if the laboratory does not brought to TestAmerica
Date: Date: 1 Special Instructions/OC Requirements: Time: Date: Da	Possible Hazard Identification Unconfirmed					Sample	Disposal (A fee	may be assessed if s	amples are retained longer than	f month) Months
Deterting to the Company Received by Contract Company Received by Contract	Deliverable Requested: I, II, III, IV, Other (specify)	Primary Delivera	able Rank:	_		Special	nstructions/QC R	equirements:		
Date/Time.	Empty Kit Relinquished by:		Date:			Time:	1	o poulars	/ Shipment	
als Intact: Custody Seal No.: Cooler Temperature(s) **C and Other Remarks: A No.	Seinquished by White	Date/Time. 12 26 17 17 17 17 17 17 17 1	13	0	TA-K of	Reco Nec	Kong wed by	Her	2/27/17	
Custody Seal No.:	delinquished by.	Date/Time:			Company	Recei	ved by		Date/Time.	Company
						Coole	r Temperature(s) °C a	nd Other Remarks:		

Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-147646-1

Login Number: 147646 List Source: TestAmerica Edison

List Number: 1

Creator: Keehn, Jeffrey S

Creator: Keenn, Jerrey S		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	2.9c IR#KOP-1
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <pre><6mm (1/4").</pre>	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Login Sample Receipt Checklist

Job Number: 460-147646-1 Client: Center Point Tank Service

List Source: TestAmerica Pittsburgh Login Number: 147646 List Number: 2

List Creation: 12/27/17 12:52 PM

Creator: Neri, Tom

Creator: Neri, Tom		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	2.6/2.1
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Edison 777 New Durham Road Edison, NJ 08817 Tel: (732)549-3900

TestAmerica Job ID: 460-151532-1 Client Project/Site: Liberty Oil #38

For:

Center Point Tank Service 536 E Benjamin Franklin Douglassville, Pennsylvania 19518

Attn: Rachel Burkart



Authorized for release by: 3/14/2018 12:08:12 PM

Jill Miller, Project Manager II (732)549-3900 jill.miller@testamericainc.com

----- LINKS

Review your project results through

Total Access

Have a Question?



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

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

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

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-151532-1

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Sample Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-151532-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-151532-1	MW-12	Water	03/06/18 13:00	03/08/18 11:34
460-151532-2	MW-13	Water	03/06/18 12:33	03/08/18 11:34

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Definitions/Glossary

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Minimum Level (Dioxin)

Practical Quantitation Limit

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

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

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

Reporting Limit or Requested Limit (Radiochemistry)

Not Calculated

Quality Control

TestAmerica Job ID: 460-151532-1

Glossary

ML

NC

ND

PQL

QC

RER RL

RPD

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
п	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit

3/14/2018

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Case Narrative

TestAmerica Job ID: 460-151532-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Job ID: 460-151532-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative 460-151532-1

Comments

No additional comments.

Receipt

The samples were received on 3/8/2018 11:34 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

GC/MS VOA

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-12 (460-151532-1). Elevated reporting limits (RLs) are provided.

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

GC Semi VOA

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

Metals

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

VOA Prep

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

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TestAmerica Job ID: 460-151532-1

Client: Center Point Tank Service Project/Site: Liberty Oil #38

Lab Sample ID: 460-151532-1

Matrix: Water

03/13/18 10:32 03/13/18 15:21

Date Collected: 03/06/18 13:00 Date Received: 03/08/18 11:34

Client Sample ID: MW-12

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	460		2.0		ug/L			03/10/18 08:38	2
1,2-Dichloroethane	ND		2.0		ug/L			03/10/18 08:38	2
Ethylbenzene	520		2.0		ug/L			03/10/18 08:38	2
Isopropylbenzene	78		2.0		ug/L			03/10/18 08:38	2
Naphthalene	160		2.0		ug/L			03/10/18 08:38	2
Toluene	120		2.0		ug/L			03/10/18 08:38	2
1,2,4-Trimethylbenzene	550		2.0		ug/L			03/10/18 08:38	2
1,3,5-Trimethylbenzene	180		2.0		ug/L			03/10/18 08:38	2
Xylenes, Total	720		4.0		ug/L			03/10/18 08:38	2
Methyl tert-butyl ether	25		2.0		ug/L			03/10/18 08:38	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	100		77 - 124					03/10/18 08:38	2
Dibromofluoromethane (Surr)	112		72 - 131					03/10/18 08:38	2
1,2-Dichloroethane-d4 (Surr)	94		74 - 132					03/10/18 08:38	2
Toluene-d8 (Surr)	99		80 - 120					03/10/18 08:38	2

Analyte		Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		03/10/18 07:31	03/10/18 13:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	103		60 - 140				03/10/18 07:31	03/10/18 13:22	1
1,1,1,2-Tetrachloroethane	97		60 - 140				03/10/18 07:31	03/10/18 13:22	1

Client Sample ID: MW-13

Date Collected: 03/06/18 12:33

Lab Sample ID: 460-151532-2

Matrix: Water

ug/L

ND

Date Received: 03/08/18 11:34

Lead

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	68		1.0		ug/L			03/10/18 08:13	1
1,2-Dichloroethane	ND		1.0		ug/L			03/10/18 08:13	1
Ethylbenzene	100		1.0		ug/L			03/10/18 08:13	1
Isopropylbenzene	8.3		1.0		ug/L			03/10/18 08:13	1
Naphthalene	12		1.0		ug/L			03/10/18 08:13	1
Toluene	99		1.0		ug/L			03/10/18 08:13	1
1,2,4-Trimethylbenzene	85		1.0		ug/L			03/10/18 08:13	1
1,3,5-Trimethylbenzene	15		1.0		ug/L			03/10/18 08:13	1
Xylenes, Total	210		2.0		ug/L			03/10/18 08:13	1
Methyl tert-butyl ether	1.4		1.0		ug/L			03/10/18 08:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	101		77 - 124					03/10/18 08:13	1
Dibromofluoromethane (Surr)	111		72 - 131					03/10/18 08:13	1
1,2-Dichloroethane-d4 (Surr)	94		74 - 132					03/10/18 08:13	1
Toluene-d8 (Surr)	99		80 - 120					03/10/18 08:13	1

TestAmerica Edison

Page 6 of 14

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Client Sample Results

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-151532-1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		03/10/18 07:31	03/10/18 13:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	102		60 - 140				03/10/18 07:31	03/10/18 13:48	1
1,1,1,2-Tetrachloroethane	97		60 - 140				03/10/18 07:31	03/10/18 13:48	1
Method: 200.8 - Metals (IC	CP/MS) - Dissolv	red							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		03/13/18 10:32	03/13/18 15:11	- 5

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Accreditation/Certification Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-151532-1

Laboratory: TestAmerica Edison

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Connecticut	State Program	1	PH-0200	09-30-18
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A	12-31-18
New Jersey	NELAP	2	12028	06-30-18
New York	NELAP	2	11452	04-01-18
Pennsylvania	NELAP	3	68-00522	02-28-19
Rhode Island	State Program	1	LAO00132	12-30-18
USDA	Federal		NJCA-003-08	06-13-20

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	A2LA		PA00164	07-31-18
Arkansas DEQ	State Program	6	88-0690	06-27-18
California	State Program	9	2891	03-31-18
Connecticut	State Program	1	PH-0688	09-30-18
Florida	NELAP	4	E871008	06-30-18
Illinois	NELAP	5	200005	06-30-18
Kansas	NELAP	7	E-10350	01-31-19
Louisiana	NELAP	6	04041	06-30-18
Nevada	State Program	9	PA00164	07-31-18
New Hampshire	NELAP	1	2030	04-04-18
New Jersey	NELAP	2	PA005	06-30-18
New York	NELAP	2	11182	03-31-18 *
North Carolina (WW/SW)	State Program	4	434	12-31-18
Oregon	NELAP Secondary AB	10	PA-2151	01-28-19
Pennsylvania	NELAP	3	02-00416	04-30-18
South Carolina	State Program	4	89014	04-30-18
Texas	NELAP	6	T104704528-15-2	03-31-18 *
US Fish & Wildlife	Federal		LE94312A-1	07-31-18
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-18
Virginia	NELAP	3	460189	09-14-18
West Virginia DEP	State Program	3	142	01-31-19
Wisconsin	State Program	5	998027800	08-31-18

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

Method Summary

Client: Center Point Tank Service Project/Site: Liberty Oil #38 TestAmerica Job ID: 460-151532-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	TAL PIT
200.8	Metals (ICP/MS)	EPA	TAL EDI

Protocol References:

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

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900
TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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777 New Durham Road Edison, New Jersey 08817 Phone: (732) 549-3900 Fax: (732) 549-3679

CHAIN OF CUSTODY / ANALYSIS REQUEST

TestAmerica

Rank (for report and invoice)		Sampler	Samplers, Name (Printed)	Brinted (7		Site/Project Identification	tre-Project Identification しながりでは は3F		
Company		P.O.#					State (Location of site):	site): NJ:	NY:	Other: PA
Center Point Tank Services	2	0	2624-21-30	5-2	29	2	Regulatory Program: US	Im: UST		DKQP:
Address		Analysis T	Analysis Turnaround Time	Ilme		ANALYSIS REC	ANALYSIS REQUESTED (ENTER 7): SELOW TO INDICATE REQUEST)	NOICATE REQUEST)		LAB USE ONLY
536 & Boygamin Franklin Huy	n Huy	Standard X	×		Mi					Project No:
Douglasswill PA	•	Rush Charg	Rush Charges Authorized For: 2 Week	and For:	Pal	31				Job No.
Fax 7		1 Week	X ID		סףפטר	Milion				796161
Sample Identification	Date	Time	Time Matrix Cont.	No. of. Cont.	רססי	مراد				Sample
MW -12	3/6/18	118 1300	39	6	X	K				
MW-13	21/10/ 1237 64	1227	(44)	5	V	×				
									\pm	
						H				
								460-151532 Chain of Custody	ain of Custo	dy
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH	4, 4 = HNO ₃	5 = Na(H	Soil:						
6 = Other . 7 =	7 = Other			Water:	Water: 1/7 1/5	112				

Special Instructions				Water Metals Filtered (Yes/No)?
Relinquished by	Company	, Date / Time	Received by	Company
Robert Rhound	CPTS	5/8/18/1134	= 4500	TA-KOP
Refinquished by	Company	Date / Time	Received by/ U O	Company
23	78408	3/4/18 1530 2)	2)	*
Relinquished by		Date / Time	Received by	Company 7/8/18
3)	74	3-8-18 1830 31/	3) Brash Sound	TAPEL 1930
Relinquished by	Company	Date / Time	Pyceived by	Company
4)		-	1 4	
Laboratory Certifications: New Jersey (12028),	11452), Pennsylvania (New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).	node Island (132). TAL-0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578)

Initials: EDS-WI-038, Rev 4, 06/09/2014

Date:

Other Total Cyanide Total Phos Other The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted. (pH<2) Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis. (pH>12) (pH<2) TOC (pH<2) TKN Volume of Preservative used (ml): Expiration Date: Phenols Suffide (pHb9) (pH<2) Cooler Temperatures QAM QAM (pH<2) If pH adjustments are required record the information below: (pH 5-9) Pest Hardness (pH<2) Metals (pH<2) (pH<2) Nitrate Nitrite (pH<2) COD Preservative Name/Conc.: Sample No(s). adjusted: Lot # of Preservative(s): Ammonia (pH<2) TALS Sample Number

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Page

Receipt Temperature and pH Log

Job Number:

TestAmerica Edison

Merica

Client Information (Sub Contract Lab)	Sampler			Miller, Jill K	All K		480-15	480-151532 Chain of Custody	Custody	8.1	
Ciren Contact: Shipping/Receiving	Phone			E-Mail:	er@test	C-Mait ill miller@testamericainc com	noo.	Penneytvania		1.5	
Company	-			2	or opposite to	Appropriate December 10 to a solar	Con section	remisjivan		1	
Company TestAmerica Laboratories, Inc.				2	VELAP -	NELAP - Pennsylvania	ilis			460-151532-1	
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 3/14/2018						Analysis Requested	aduested		Preservation Codes	180
Ony Pitsburgh State, Zp. PA, 15238	TAT Requested (days):	÷								B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSOA	M - Heraine N - None O - AshibO2 P - Na2O45 Q - Na2SO3
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO#.				le					F - MeOH G - Amchior H - Ascorbic Acid	R - Na2S203 S - H2504 T - TSP Dodecahvdrate
Email:	WO#				_					1 - Joe J - Di Water	U - Acetone V - MCAA
Project Name Center Point (KOP)	Project #. 46011357				N 10 80	lan			moniet	K-EDTA L-EDA	W - pH 4-5 Z - other (specify)
She:	SSOVIE				Y) as	Loo L			uoo jo	Other;	
Sample Identification - Client ID (Lab ID)	Sample Date	Sample	Sample Type (C=comp, G=grab) s	Matrix (Wester Septial Ownship)	Field Filtered Similarity MS/M	derd_fromrios			stedmuM latoT	Special	Special Instructions/Note:
	X	X		100	X				X		
MW-12 (460-151532-1)	3/6/18	13:00 Eastern		Water	_	×			2		
MW-13 (460-151532-2)	3/6/18	12:33 Eastern		Water	_	×			2		
									393		
									335		
									200		
Note Since aboratory accreditations are subject to charge. TestAmerica Laboratories, Inc. places the currently mancain accreditation in the State of Origin fished above for analysis fleshstationarities being analy Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the	Laboratories, inc. places the or rula/tests/matrix being analyzes a current to date, return the sign	wnership of m d, the sample ned Chain of	ethod, analyte is s must be shipp Custody attestin	& accreditation ed back to the ig to said compl	estAmenc cance to	upon out sub a laboratory o TestAmerica L	contract laboratories other instructions w aboratories, Inc.	This sample ship iii be provided. An	e ownership of method, analyte & accreditation compliance upon out subcentract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.	r chain of custody. If on status should be b	vertip of method, analyze & accreditation compliance upon out subcentract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica and Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.
Possible Hazard Identification					Samp	le Disposa	I (A fee may be	assessed if s	ples are re	ed longer than 1	month)
Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable Rank:	ble Rank: 1			Speci	al Instructions/OC	Special Instructions/QC Requirements	ursposal by Lab	ao Ard	Archive For	Months
Empty Kit Relinquished by.		Date:			Time:	1	0	Mothod	lethod of Shipment.		
Relinquished by ARX	3/8/18	125	-	Company TTO-KOP	\$17	Sacraday	m. It	No contract of the contract of	Dangung 1/10	8916	Company
Reinquished by: (VV)	Date/Time		0	Company	3	ectived by:			Date/Time.		Company
Relinquished by:	DateTime.		0	Company	8	Received by:			DateTime		Company
Custody Seals Intact. Custody Seal No.:				13	8	oler Temperal	oder Temperature(s) ^a C and Other Remarks	Remarks:			
											Ver. 09/20/2016

Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-151532-1

Login Number: 151532 List Source: TestAmerica Edison

List Number: 1

Creator: Gilmore, Julie L.

Answer N/A	Comment
N/A	
N/A	
N/A	
True	
True	
True	IR kOP#1
True	
N/A	
	N/A True True True True True True True True

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Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-151532-1

List Source: TestAmerica Pittsburgh
List Number: 2
List Creation: 03/09/18 04:29 PM

Creator: Neri, Tom

Creator: Neri, Tom		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	4.0/3.5
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <pre><6mm (1/4").</pre>	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Edison 777 New Durham Road Edison, NJ 08817 Tel: (732)549-3900

TestAmerica Job ID: 460-152747-1 Client Project/Site: Liberty Oil 38

For:

Center Point Tank Service 536 E Benjamin Franklin Douglassville, Pennsylvania 19518

Attn: Rachel Burkart



Authorized for release by: 4/4/2018 9:07:39 AM

Jill Miller, Project Manager II (732)549-3900 jill.miller@testamericainc.com

.....LINKS

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Have a Question?



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

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

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

Client: Center Point Tank Service Project/Site: Liberty Oil 38 TestAmerica Job ID: 460-152747-1

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Sample Summary

Client: Center Point Tank Service Project/Site: Liberty Oil 38 TestAmerica Job ID: 460-152747-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-152747-1	MW-2	Water	03/27/18 10:33	03/28/18 11:21
460-152747-2	MW-3	Water	03/27/18 14:37	03/28/18 11:21
460-152747-3	MW-4	Water	03/27/18 12:04	03/28/18 11:21
460-152747-4	MW-5	Water	03/27/18 10:52	03/28/18 11:21
460-152747-5	MW-6	Water	03/27/18 11:34	03/28/18 11:21
460-152747-6	MW-7	Water	03/27/18 15:02	03/28/18 11:21
460-152747-7	MW-8	Water	03/27/18 15:34	03/28/18 11:21
460-152747-8	MW-9	Water	03/27/18 13:40	03/28/18 11:21
460-152747-9	MW-10	Water	03/27/18 13:59	03/28/18 11:21
460-152747-10	MW-11	Water	03/27/18 11:10	03/28/18 11:21

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Definitions/Glossary

Client: Center Point Tank Service Project/Site: Liberty Oil 38

Minimum Level (Dioxin)

Practical Quantitation Limit

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

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

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

Reporting Limit or Requested Limit (Radiochemistry)

Not Calculated

Quality Control

TestAmerica Job ID: 460-152747-1

Glossary

ML

NC

ND

PQL

QC

RER RL

RPD

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
п	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit

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Case Narrative

TestAmerica Job ID: 460-152747-1

Client: Center Point Tank Service Project/Site: Liberty Oil 38

Job ID: 460-152747-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative 460-152747-1

Comments

No additional comments.

Receipt

The samples were received on 3/28/2018 11:21 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.9° C.

Receipt Exceptions

One or more containers for the following sample(s) was received broken or leaking: One 40mL HCl voa vial for MW-7 received broken.

GC/MS VOA

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-8 (460-152747-7) and MW-10 (460-152747-9). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-7 (460-152747-6). Elevated reporting limits (RLs) are provided.

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

GC Semi VOA

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

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

VOA Prep

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

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Client: Center Point Tank Service Project/Site: Liberty Oil 38

Lab Sample ID: 460-152747-1

Matrix: Water

Date Collected: 03/27/18 10:33 Date Received: 03/28/18 11:21

Client Sample ID: MW-2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			03/30/18 15:04	1
1,2-Dichloroethane	ND		1.0		ug/L			03/30/18 15:04	1
Ethylbenzene	ND		1.0		ug/L			03/30/18 15:04	1
Isopropylbenzene	ND		1.0		ug/L			03/30/18 15:04	1
Naphthalene	ND		1.0		ug/L			03/30/18 15:04	1
Toluene	ND		1.0		ug/L			03/30/18 15:04	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			03/30/18 15:04	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			03/30/18 15:04	1
Xylenes, Total	ND		2.0		ug/L			03/30/18 15:04	1
MTBE	ND		1.0		ug/L			03/30/18 15:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	79		77 - 124					03/30/18 15:04	1
Dibromofluoromethane (Surr)	75		72 - 131					03/30/18 15:04	1
1,2-Dichloroethane-d4 (Surr)	88		74 - 132					03/30/18 15:04	1
Toluene-d8 (Surr)	101		80 - 120					03/30/18 15:04	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		03/31/18 08:49	03/31/18 11:13	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	93		60 - 140				03/31/18 08:49	03/31/18 11:13	1
1,1,1,2-Tetrachloroethane	92		60 - 140				03/31/18 08:49	03/31/18 11:13	1
Method: 200.8 - Metals (IC	CP/MS) - Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5	-	ua/L	100	04/03/18 12:53	04/03/18 17:47	5

Client Sample ID: MW-3

Date Collected: 03/27/18 14:37

Lab Sample ID: 460-152747-2

Matrix: Water

Date Received: 03/28/18 11:21

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	85		1.0		ug/L			03/30/18 15:32	1
1,2-Dichloroethane	1.8		1.0		ug/L			03/30/18 15:32	1
Ethylbenzene	26		1.0		ug/L			03/30/18 15:32	1
Isopropylbenzene	5.8		1.0		ug/L			03/30/18 15:32	1
Naphthalene	3.4		1.0		ug/L			03/30/18 15:32	1
Toluene	2.2		1.0		ug/L			03/30/18 15:32	1
1,2,4-Trimethylbenzene	37		1.0		ug/L			03/30/18 15:32	1
1,3,5-Trimethylbenzene	1.3		1.0		ug/L			03/30/18 15:32	1
Xylenes, Total	17		2.0		ug/L			03/30/18 15:32	1
MTBE	9.8		1.0		ug/L			03/30/18 15:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	78		77 - 124					03/30/18 15:32	1
Dibromofluoromethane (Surr)	76		72 - 131					03/30/18 15:32	1
1,2-Dichloroethane-d4 (Surr)	88		74 - 132					03/30/18 15:32	1
Toluene-d8 (Surr)	100		80 - 120					03/30/18 15:32	1

TestAmerica Edison

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TestAmerica Job ID: 460-152747-1

Client: Center Point Tank Service

Project/Site: Liberty Oil 38

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		03/31/18 08:49	03/31/18 11:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	91		60 - 140				03/31/18 08:49	03/31/18 11:38	1
1,1,1,2-Tetrachloroethane	88		60 - 140				03/31/18 08:49	03/31/18 11:38	1

Method: 200.8 - Metals (ICP/MS) - Dissolved

Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac Lead ND 1.5 ug/L 04/03/18 12:53 04/03/18 17:54

Client Sample ID: MW-4 Lab Sample ID: 460-152747-3

Date Received: 03/28/18 11:21

Date Collected: 03/27/18 12:04 Matrix: Water

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	240	1.0		ug/L			04/01/18 15:17	1
1,2-Dichloroethane	ND	1.0		ug/L			04/01/18 15:17	1
Ethylbenzene	140	1.0		ug/L			04/01/18 15:17	1
Isopropylbenzene	17	1.0		ug/L			04/01/18 15:17	1
Naphthalene	16	1.0		ug/L			04/01/18 15:17	1
Toluene	24	1.0		ug/L			04/01/18 15:17	1
1,2,4-Trimethylbenzene	170	1.0		ug/L			04/01/18 15:17	1
1,3,5-Trimethylbenzene	50	1.0		ug/L			04/01/18 15:17	1
Xylenes, Total	220	2.0		ug/L			04/01/18 15:17	1
MTBE	12	1.0		ug/L			04/01/18 15:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Bromofluorobenzene	103		77 - 124	0	4/01/18 15:17	1
Dibromofluoromethane (Surr)	104		72 - 131	0	4/01/18 15:17	1
1,2-Dichloroethane-d4 (Surr)	99		74-132	0	4/01/18 15:17	1
Toluene-d8 (Surr)	97		80 - 120	0	4/01/18 15:17	1

Method: 8011 - EDB, DBCP	and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		03/31/18 08:49	03/31/18 12:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	88	60 - 140	03/31/18 08:49	03/31/18 12:03	1
1,1,1,2-Tetrachloroethane	82	60 - 140	03/31/18 08:49	03/31/18 12:03	1

Method: 200.8 - Metals (ICP/MS)	 Dissolv 	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		04/03/18 12:53	04/03/18 17:58	5

Lab Sample ID: 460-152747-4 Client Sample ID: MW-5 Date Collected: 03/27/18 10:52 Matrix: Water

Date Received: 03/28/18 11:21

Method: 8260C - Volatile Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			03/30/18 16:27	1
1,2-Dichloroethane	ND		1.0		ug/L			03/30/18 16:27	1
Ethylbenzene	ND		1.0		ug/L			03/30/18 16:27	1
Isopropylbenzene	ND		1.0		ug/L			03/30/18 16:27	1

TestAmerica Edison

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2

TestAmerica Job ID: 460-152747-1

Client: Center Point Tank Service Project/Site: Liberty Oil 38

Client Sample ID: MW-5

Lab Sample ID: 460-152747-4

Matrix: Water

Date Collected: 03/27/18 10:52 Date Received: 03/28/18 11:21

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0		ug/L			03/30/18 16:27	1
Toluene	ND		1.0		ug/L			03/30/18 16:27	1
1,2,4-Trimethylbenzene	1.3		1.0		ug/L			03/30/18 16:27	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			03/30/18 16:27	1
Xylenes, Total	ND		2.0		ug/L			03/30/18 16:27	1
MTBE	ND		1.0		ug/L			03/30/18 16:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	83		77 - 124					03/30/18 16:27	1
Dibromofluoromethane (Surr)	82		72 - 131					03/30/18 16:27	1
1,2-Dichloroethane-d4 (Surr)	96		74 - 132					03/30/18 16:27	1
Toluene-d8 (Surr)	106		80 - 120					03/30/18 16:27	

Analyte		Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		03/31/18 08:49	03/31/18 12:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	86		60 - 140				03/31/18 08:49	03/31/18 12:28	1
1,1,1,2-Tetrachloroethane	87		60 - 140				03/31/18 08:49	03/31/18 12:28	1
Method: 200.8 - Metals (IC	CP/MS) - Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		04/03/18 12:53	04/03/18 18:04	

Client Sample ID: MW-6

Date Collected: 03/27/18 11:34

Lab Sample ID: 460-152747-5

Matrix: Water

Date Received: 03/28/18 11:21

1,2-Dibromoethane

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			04/01/18 09:23	1
1,2-Dichloroethane	ND		1.0		ug/L			04/01/18 09:23	1
Ethylbenzene	ND		1.0		ug/L			04/01/18 09:23	1
Isopropylbenzene	ND		1.0		ug/L			04/01/18 09:23	1
Naphthalene	ND		1.0		ug/L			04/01/18 09:23	1
Toluene	ND		1.0		ug/L			04/01/18 09:23	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/01/18 09:23	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/01/18 09:23	1
Xylenes, Total	ND		2.0		ug/L			04/01/18 09:23	1
MTBE	ND		1.0		ug/L			04/01/18 09:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	103		77 - 124			2		04/01/18 09:23	1
Dibromofluoromethane (Surr)	112		72 - 131					04/01/18 09:23	1
1,2-Dichloroethane-d4 (Surr)	106		74 - 132					04/01/18 09:23	1
Toluene-d8 (Surr)	98		80 - 120					04/01/18 09:23	1
Method: 8011 - EDB, DBCP		P (GC) Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil F

TestAmerica Edison

03/31/18 08:49 03/31/18 12:53

0.020

ug/L

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Client: Center Point Tank Service Project/Site: Liberty Oil 38

Client Sample ID: MW-6

Lab Sample ID: 460-152747-5

Matrix: Water

Date Collected: 03/27/18 11:34 Date Received: 03/28/18 11:21

Surrogate	%Recovery Quality	er Limits				Prepared	Analyzed	Dil Fa
1,1,1,2-Tetrachloroethane	87	60 - 140				03/31/18 08:49	03/31/18 12:53	- 1
1,1,1,2-Tetrachloroethane	87	60 - 140				03/31/18 08:49	03/31/18 12:53	
Method: 200.8 - Metals (IC	CP/MS) - Dissolved							
Method: 200.8 - Metals (IC Analyte	CP/MS) - Dissolved Result Qualif	er RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: MW-7 Lab Sample ID: 460-152747-6 Matrix: Water

Date Collected: 03/27/18 15:02

Date Received: 03/28/18 11:21

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2500		10		ug/L			04/01/18 10:34	10
1,2-Dichloroethane	ND		10		ug/L			04/01/18 10:34	10
Ethylbenzene	540		10		ug/L			04/01/18 10:34	10
Isopropylbenzene	48		10		ug/L			04/01/18 10:34	10
Naphthalene	190		10		ug/L			04/01/18 10:34	10
Toluene	940		10		ug/L			04/01/18 10:34	10
1,2,4-Trimethylbenzene	700		10		ug/L			04/01/18 10:34	10
1,3,5-Trimethylbenzene	190		10		ug/L			04/01/18 10:34	10
Xylenes, Total	1900		20		ug/L			04/01/18 10:34	10
MTBE	390		10		ug/L			04/01/18 10:34	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	100		77 - 124					04/01/18 10:34	10
Dibromofluoromethane (Surr)	107		72 - 131					04/01/18 10:34	10
1,2-Dichloroethane-d4 (Surr)	93		74 - 132					04/01/18 10:34	10

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
Bromofluorobenzene	100	77 - 124		04/01/18 10:34	10
Dibromofluoromethane (Surr)	107	72 - 131		04/01/18 10:34	10
1,2-Dichloroethane-d4 (Surr)	93	74 - 132		04/01/18 10:34	10
Toluene-d8 (Surr)	96	80 - 120		04/01/18 10:34	10

Method: 8011 - EDB, DBC	P, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		03/31/18 08:49	03/31/18 13:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	88		60 - 140				03/31/18 08:49	03/31/18 13:18	1
1,1,1,2-Tetrachloroethane	77		60 - 140				03/31/18 08:49	03/31/18 13:18	1

Method: 200.8 - Metals	s (ICP/MS) - Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		04/03/18 12:54	04/03/18 18:22	5

Client Sample ID: MW-8 Lab Sample ID: 460-152747-7 Matrix: Water

Date Collected: 03/27/18 15:34 Date Received: 03/28/18 11:21

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	270		5.0		ug/L			03/31/18 11:56	5
1,2-Dichloroethane	ND		5.0		ug/L			03/31/18 11:56	5
Ethylbenzene	360		5.0		ug/L			03/31/18 11:56	5
Isopropylbenzene	53		5.0		ug/L			03/31/18 11:56	5

TestAmerica Edison

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4/4/2018

2

TestAmerica Job ID: 460-152747-1

Client: Center Point Tank Service Project/Site: Liberty Oil 38

Client Sample ID: MW-8

Lab Sample ID: 460-152747-7

Matrix: Water

Date Collected: 03/27/18 15:34 Date Received: 03/28/18 11:21

Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
96		5.0		ug/L			03/31/18 11:56	5
69		5.0		ug/L			03/31/18 11:56	5
620		5.0		ug/L			03/31/18 11:56	5
180		5.0		ug/L			03/31/18 11:56	5
790		10		ug/L			03/31/18 11:56	5
ND		5.0		ug/L			03/31/18 11:56	5
%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
101		77 - 124			1		03/31/18 11:56	5
106		72-131					03/31/18 11:56	5
98		74-132					03/31/18 11:56	5
88		80 - 120					03/31/18 11:56	5
	96 69 620 180 790 ND %Recovery 101 106 98	69 620 180 790 ND **Recovery Qualifier 101 106 98	96 5.0 69 5.0 620 5.0 180 5.0 790 10 ND 5.0 %Recovery Qualifier Limits 101 77-124 106 72-131 98 74-132	96 5.0 69 5.0 620 5.0 180 5.0 790 10 ND 5.0 **Recovery Qualifier Limits 101 77 - 124 106 72 - 131 98 74 - 132	96 5.0 ug/L 69 5.0 ug/L 620 5.0 ug/L 180 5.0 ug/L 790 10 ug/L ND 5.0 ug/L %Recovery Qualifier Limits 101 77 - 124 106 72 - 131 98 74 - 132	96 5.0 ug/L 69 5.0 ug/L 620 5.0 ug/L 180 5.0 ug/L 790 10 ug/L ND 5.0 ug/L %Recovery Qualifier Limits 101 77-124 106 72-131 98 74-132	96 5.0 ug/L 69 5.0 ug/L 620 5.0 ug/L 180 5.0 ug/L 790 10 ug/L ND 5.0 ug/L %Recovery Qualifier Limits Prepared 101 77-124 106 72-131 98 74-132	96 5.0 ug/L 03/31/18 11:56 69 5.0 ug/L 03/31/18 11:56 620 5.0 ug/L 03/31/18 11:56 180 5.0 ug/L 03/31/18 11:56 790 10 ug/L 03/31/18 11:56 ND 5.0 ug/L 03/31/18 11:56 %Recovery Qualifier Limits Prepared Analyzed 101 77 - 124 03/31/18 11:56 106 72 - 131 03/31/18 11:56 98 74 - 132 03/31/18 11:56

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		03/31/18 08:49	03/31/18 13:42	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	96		60 - 140				03/31/18 08:49	03/31/18 13:42	1
1,1,1,2-Tetrachloroethane	87		60 - 140				03/31/18 08:49	03/31/18 13:42	1
Method: 200.8 - Metals (IC	CP/MS) - Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		04/03/18 12:54	04/03/18 18:31	- 5

Client Sample ID: MW-9
Date Collected: 03/27/18 13:40
Lab Sample ID: 460-152747-8
Matrix: Water

Date Received: 03/28/18 11:21

1,2-Dibromoethane

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	18		1.0		ug/L			03/30/18 17:23	1
1,2-Dichloroethane	ND		1.0		ug/L			03/30/18 17:23	1
Ethylbenzene	ND		1.0		ug/L			03/30/18 17:23	1
Isopropylbenzene	10		1.0		ug/L			03/30/18 17:23	1
Naphthalene	ND		1.0		ug/L			03/30/18 17:23	1
Toluene	ND		1.0		ug/L			03/30/18 17:23	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			03/30/18 17:23	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			03/30/18 17:23	1
Xylenes, Total	ND		2.0		ug/L			03/30/18 17:23	1
MTBE	3.1		1.0		ug/L			03/30/18 17:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	79		77 - 124			2		03/30/18 17:23	1
Dibromofluoromethane (Surr)	77		72-131					03/30/18 17:23	1
1,2-Dichloroethane-d4 (Surr)	90		74 - 132					03/30/18 17:23	1
Toluene-d8 (Surr)	101		80 - 120					03/30/18 17:23	1
Method: 8011 - EDB, DBCF	, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

TestAmerica Edison

03/31/18 08:49 03/31/18 14:07

0.020

ug/L

Client: Center Point Tank Service

Project/Site: Liberty Oil 38

Client Sample ID: MW-9

Date Collected: 03/27/18 13:40 Date Received: 03/28/18 11:21

Lab Sample ID: 460-152747-8

Matrix: Water

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	83	60 - 140	03/31/18 08:49	03/31/18 14:07	1
1,1,1,2-Tetrachloroethane	86	60 - 140	03/31/18 08:49	03/31/18 14:07	1

Me	thod: 200.8 - Metals (ICP/MS)	- Dissolv	red							
Ana	alyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lea	d	ND		1.5		ug/L		04/03/18 12:54	04/03/18 18:38	5

Client Sample ID: MW-10 Lab Sample ID: 460-152747-9

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ate Collected: 03/27/18 13:59	Matrix: Water
ate Received: 03/28/18 11:21	

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1300	5.0		ug/L			03/31/18 12:19	5
1,2-Dichloroethane	ND	5.0		ug/L			03/31/18 12:19	5
Ethylbenzene	130	5.0		ug/L			03/31/18 12:19	5
Isopropylbenzene	19	5.0		ug/L			03/31/18 12:19	5
Naphthalene	34	5.0		ug/L			03/31/18 12:19	5
Toluene	36	5.0		ug/L			03/31/18 12:19	5
1,2,4-Trimethylbenzene	76	5.0		ug/L			03/31/18 12:19	5
1,3,5-Trimethylbenzene	8.2	5.0		ug/L			03/31/18 12:19	5
Xylenes, Total	240	10		ug/L			03/31/18 12:19	5
MTBE	77	5.0		ug/L			03/31/18 12:19	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Bromofluorobenzene	101		77 - 124		3/31/18 12:19	5
Dibromofluoromethane (Surr)	108		72 - 131	C	3/31/18 12:19	5
1,2-Dichloroethane-d4 (Surr)	98		74 - 132	C	3/31/18 12:19	5
Toluene-d8 (Surr)	97		80 - 120	0	3/31/18 12:19	5

Method: 8011 - EDB, DBC	P, and 1,2,3-TC	P (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		03/31/18 08:49	03/31/18 14:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	84		60 - 140				03/31/18 08:49	03/31/18 14:32	1
1,1,1,2-Tetrachloroethane	81		60 - 140				03/31/18 08:49	03/31/18 14:32	1

Method: 200.8	- Metals (ICP/MS) - Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		04/03/18 12:54	04/03/18 18:41	5

Client Sample ID: MW-11 Lab Sample ID: 460-152747-10 Matrix: Water

Date Collected: 03/27/18 11:10 Date Received: 03/28/18 11:21

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			03/30/18 17:51	1
1,2-Dichloroethane	ND		1.0		ug/L			03/30/18 17:51	1
Ethylbenzene	ND		1.0		ug/L			03/30/18 17:51	1
Isopropylbenzene	ND		1.0		ug/L			03/30/18 17:51	1

TestAmerica Edison

Client Sample Results

Client: Center Point Tank Service Project/Site: Liberty Oil 38

TestAmerica Job ID: 460-152747-1

Lab Sample ID: 460-152747-10

Matrix: Water

Client	t Samp	le I	D:	M۷	٧-	11
Data C	allantad	. 02	127	40	44	.40

Date Collected: 03/27/18 11:10 Date Received: 03/28/18 11:21

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	-	1.0		ug/L			03/30/18 17:51	1
Toluene	ND		1.0		ug/L			03/30/18 17:51	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			03/30/18 17:51	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			03/30/18 17:51	1
Xylenes, Total	ND		2.0		ug/L			03/30/18 17:51	1
MTBE	ND		1.0		ug/L			03/30/18 17:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	82		77 - 124					03/30/18 17:51	1
Dibromofluoromethane (Surr)	81		72 - 131					03/30/18 17:51	1
1,2-Dichloroethane-d4 (Surr)	94		74 - 132					03/30/18 17:51	1
Toluene-d8 (Surr)	105		80 - 120					03/30/18 17:51	1
Method: 8011 - EDB, DBCF	, and 1,2,3-TC	P (GC)							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		03/31/18 08:49	03/31/18 14:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	91		60 - 140				03/31/18 08:49	03/31/18 14:57	1
1,1,1,2-Tetrachloroethane	90		60 - 140				03/31/18 08:49	03/31/18 14:57	1
Method: 200.8 - Metals (ICF	P/MS) - Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		04/03/18 12:54	04/03/18 18:48	

Accreditation/Certification Summary

Client: Center Point Tank Service Project/Site: Liberty Oil 38 TestAmerica Job ID: 460-152747-1

Laboratory: TestAmerica Edison

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Connecticut	State Program	1	PH-0200	09-30-18
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A	12-31-18
New Jersey	NELAP	2	12028	06-30-18
New York	NELAP	2	11452	04-01-18 *
Pennsylvania	NELAP	3	68-00522	02-28-19
Rhode Island	State Program	1	LAO00132	12-30-18
USDA	Federal		NJCA-003-08	06-13-20
00011			11001100000	00 10 20

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	A2LA		PA00164	07-31-18
Arkansas DEQ	State Program	6	88-0690	06-27-18
California	State Program	9	2891	03-31-18 *
Connecticut	State Program	1	PH-0688	09-30-18
Florida	NELAP	4	E871008	06-30-18
Illinois	NELAP	5	200005	06-30-18
Kansas	NELAP	7	E-10350	01-31-19
Louisiana	NELAP	6	04041	06-30-18
Nevada	State Program	9	PA00164	07-31-18
New Hampshire	NELAP	1	2030	04-04-18 *
New Jersey	NELAP	2	PA005	06-30-18
New York	NELAP	2	11182	03-31-19
North Carolina (WW/SW)	State Program	4	434	12-31-18
Oregon	NELAP Secondary AB	10	PA-2151	01-28-19
Pennsylvania	NELAP	3	02-00416	04-30-18 *
South Carolina	State Program	4	89014	04-30-18 *
Texas	NELAP	6	T104704528-15-2	03-31-19
US Fish & Wildlife	Federal		LE94312A-1	07-31-18
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-18
Virginia	NELAP	3	460189	09-14-18
West Virginia DEP	State Program	3	142	01-31-19
Wisconsin	State Program	5	998027800	08-31-18

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

Method Summary

Client: Center Point Tank Service Project/Site: Liberty Oil 38 TestAmerica Job ID: 460-152747-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	TAL PIT
200.8	Metals (ICP/MS)	EPA	TAL EDI

Protocol References:

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

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900
TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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777 New Durham Road Edison, New Jersey 08817 Phone: (732) 549-3679 No LAB USE ONLY T of Project No: 152747 Sample Water Metals Filtered (Yes/No)? Other: PA DKQP: S 460-152747 Chain of Custody Company Company ž 3.9.6 609-1 Company ANALYSIS REQUESTED (ENTER Y, BELOW TO INDICATE REQUEST) State (Location of site): NJ: Regulatory Program: US co was Site/Project Identification CHAIN OF CUSTODY / ANALYSIS REQUEST Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connection 17 Received by 2) 3) Dal Received by Received by Received by Cont. Coded Saroline Water: //2 2621-15-4565 Samplers Name (Printed) 3/24/18 200 3/28/18 1121 Date / Time Date / Time Soil: Standard X Rush Charges Authorized F Analysis Turnaround Time Matrix 3/27/18 1633 GW 1 Week Preservation Used: 1 = ICE, 2 = HCl, 3 = H₂SO₄, 4 = HNO₃, 5 = NaOH 2 Week 1340 1502 Other 1052 1134 1534 1264 1359 Time 1437 0/11 P.O.# Date 536 E Sen, amintronklin Hus Special Instructions Please ab Altr 7 = Other E 5 Sompany Company Sompany Z Compromet Tank Sarrias THE LEADER IN ENVIRONMENTAL TESTING <u> TestAmerica</u> Sample Identification Fax 6 = Other lacke Burkart 616 385 4977 City Daus/accually Relinquished by Relinquished by Relinquished by Relinquished by Rapel MW 10 MW -3 MW MW 4 MW-2 ME-1- MM MWS 450 MWS ත

Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

K

Initials:

3/28/18

Other Other The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted. Total Cyanide Total Phos (pH<2) (pH>12) (pH<2) T00 (pH<2) TKN Expiration Date: Volume of Preservative used (ml): Phenois Suffide (pH>9) (pH<2) QAM QAM (pH<2) If pH adjustments are required record the information below: (pH 5-9) Pest Hardness (pH<2) Metals (pH<2) Nitrate Nitrite (pH<2) (pH<2) COD Lot # of Preservative(s): Sample No(s). adjusted: Preservative Name/Conc.: (pH<2) TALS Sample Number

Receipt Temperature and pH Log

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Job Number:

TestAmerica Edison

EDS-WI-038, Rev 4, 06/09/2014

TestAmerica

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Cuchoun	Anoisno	
Chain of	S III	

Analysis Required Sample (Yes or No) NELAP - Pennsylvania Analysis Req	Client Information (Sub Contract Lab)	Sampler			Miller, Jill K	JAHK		Carrier Tracking No(s)		COC No: 460-51160.1	
NULL Permy language Permy Perm	Client Contact. Shipping/Receiving	Prone			E-Mail:	er@testa	americainc.com	State of Origin. Pennsylvania		Page Page 1 of 2	
RIDC Plant,	Company. TestAmerica Laboratories, Inc.					corediate	na Required (See note). Pennsylvania			Job # 460-152747-1	
17 1963-2468(Fib.) 190		Due Date Request 4/3/2018	ipe				Analysis Re	quested		Preservation Co	200
412-663-2468 Fax)	Chy Pritsburgh Sale, Zip. PA, 15238	TAT Requested (d)	sys):						802 SEA	A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSOA	M - Haxane N - Marne O - AsnaO2 P - NazO4S Q - NazSO3
1-15 1-15		PO.#				(0				F - MeOH G - Amchior H - Ascorbic Acid	R - Na2S203 S - H2SO4 T - TSP Dodecahutrate
Comparison Com	Email	WO.R.							94	_	U - Acetone V - MCAA
Sample Date Time Sample Matrix Sample	Project Name Center Point (KOP)	Project #: 46011357				N to seY	(and		menistro	At all	W - pH 4-5 Z - other (specify)
Sample Date Trine Gagrab Preservation Code: X X X X X X X X X	Vote	SSOWE) asw			00 10 1		
3/27/18	Sample Identification - Client ID (Lab ID)	Sample Date	Sample	Sample Type (C=comp, G=grab)	7	NSM moheq			edmuN latoT		nstructions/Note:
327108 E1953 Water X X X X X X X X X		\ \	X	Preserva	1501	X	以 · · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	X		100
327718 14.37 Water X	MW-2 (460-152747-1)	3/27/18	10:33 Fastern		Water	×			2		
327718 Eastern X X X X X X X X X	MW-3 (460-152747-2)	3/27/18	14:37 Fastern		Water	×			2		160-1
3/27/16	MW-4 (460-152747-3)	3/27/18	12:04 Eastern		Water	×			N		5274
3/27/16 15/02 Water X	MW-5 (460-152747-4)	3/27/18	10.52 Eastern		Water	×			2		47 Ch
3/27/18 Eastern Water X	MW-6 (460-152747-5)	3/27/18	11:34 Eastern		Water	×			2		nain o
3/27/18 13/50 Water X 3/27/18 Eastern Valer Valer Valer X 3/27/18 Eastern Valer Valer Valer Valer Valer X 3/27/18 Eastern Valer	MW-7 (460-152747-6)	3/27/18	15:02 Eastern		Water	×			2		of Cu
13-40 Water X	MW-8 (460-152747-7)	3/27/18	15:34 Eastern		Water	×			2		stod
13.56 Eastern Mater X	MW-9 (460-152747-8)	3/27/18	13.40 Eastern		Water	×			2		
restrict of method, analyte & accreditation compliance upon out subcontract laboratories. This samples shipment is forwarded under chain-of-custody. If the first samples must be shipped back to the TestAmerica Laboratories, Inc. Sample Disposal (A fee may be assessed if samples are retained longer than 1 mo Return To Client Special Instructiona/QC Requirements. Time. Special Instructional Company Received by: Company Received by: Cooper Temperature(s) *C and Other Remarks. DaterTime. Cooper Temperature(s) *C and Other Remarks.	MW-10 (460-152747-9)	3/27/18	13.59 Eastern		Water	×			2		
Primary Deliverable Rank: 1 Semple Disposal (A fee may be assessed if samples are retained longer than 1 mo Return To Client Disposal By Lab Archive For Special Instructional/OC Requirements. Date: Date: Date: Company Received by: Cooler Temperature(s) *C and Other Remarks.	Note: Since laboratory accreditations are subject to change, Testhmenca currently maintain accreditation in the State of Origin Island above for anal Laboratories, Inc. attention immediately. If all requested accreditations at	Laboratories, inc. places the pis/lests/matrix being analyz a current to date, return the s		method, analyte es must be ship f Custody affest	& accreditation or ped back to the Trig to said compl	compliance TestAmerical Icance to T	upon our subcontract laboratories, a laboratory or other instructions wi restAmerica Laboratories, Inc.	This sample shipment is if be provided. Any chang	s forwarded under ges to accredital	or chain-of-custody. I son status should be	If the broug
Primary Deliverable Rank: 1 Special Instructions/OC Requirements. Date:	Possible Hazard Identification					Samp	le Disposal (A fee may be	assessed if sample	es are retain	ned longer than	1 month)
Primary Deliverable Rank: 1 Date: Date: Date: Date: Date: Date: Deliverable Rank: 1 Date: Deliverable Rank: 1 Deliverable Ran	Unconfirmed						Return To Client	Disposal By Lab	- Ard	hive For	Months
Date: Time: Method of Shipment Deletine Company Received by Call Deletine 3.9 48 Deletine Deletine Deletine Deletine Deletine Ontertine Deletine Ontertine Ontertine Ontertine Ontertine Ontertine Deletine	Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliver	able Rank:	1		Specia	al instructions/QC Requirem	ents:			
Date/Time Date/Time Company Received by Date/Time Onterfame On No. 1413 Contpany Received by Date/Time Onterfame Ont	Empty Kit Relinquished by:		Date:					Method of Shipm	nent		
Date-Time: Date-Time: Company Received by: Date-Time: Q Constant Seal No.: Content Con	Relinquished by	F-1	14	8/13	John	120	5	2 Pate	E General	74 PX	Company A B T
Context Intact: Custody Seal No.: Cooler Temperature(s) *C and Other Remarks.	Resimplifier to by	Date/Tinfe			Company	Re	ceived by.	Date	VTime	16	Company
Custody Seal No.:	Relinquished by	DateTime:			Company	R	using ph.	Date	ATime:	-	Company
						8	oler Temperature(s) "C and Other F	lemarks.			

Chain of Custody Record

TestAmerica DICTEMBER OF THE PROPERTY L. TESTING

Client Information (Sub Contract Lab)	Sampler			Lab PM. Miller, Jill K	×	Carrier Trac	racking No(s):	COC No. 460-51160.2	
Client Contact	Phone			E-Mail:	E-Mail:		gin	Page Once 2 of 2	
On appropriate the second seco				Junanie	er @testamencamo.com	remsyvania	ania	Page 2 of 2	
Company. TestAmerica Laboratories, Inc.				Z	NELAP - Pennsylvania	red (See note) Ivania		460-152747-1	
Address 301 Alpha Drive, RIDC Park,	Due Date Requested: 4/3/2018					Analysis Requested		Preservation Codes	
City. Pittsburgh State, Ze	TAT Requested (days	*		TEIGIG				A - MCI, 8 - NaOH C - Zn Acetate D - Nitric Acid	M - Hexane N - None O - AsNaO2 P - Na2O43
PA, 15238 Phone 412-963-7058(Tel) 412-963-2468(Fax)	PO #.							E - NaHSO4 F - MeOH G - Amehlor	G - Na2S203 R - Na2S203 S - H2S04
Email	wow			ON 10				1. Ice J. Di Waier	U - Acetone V - MCAA
Propert Name Center Point (KOP)	Project # 46011357			sell) e	N 10 84			_	W - pH 4-5 Z - other (specify)
Site	SSOWE			dme	A) as			Officer.	
Sample Identification - Client ID (Lab ID)	Sample Date	Sample	Sample Type (C=comp, G=grab) er	Matrix (Wester (Wester) Communication (Matrix Communication) (Matrix	Perform MS/M:			o sedmuki latoT	Special Instructions/Note:
		X	100	100	X	THE POST OF THE PO			
MW-11 (460-152747-10)	1	11:10		Water	,			,	
MW-11 (460-152/47-10)	3/2/1/8	Eastern		Water	×			2	
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the or	a Laboratories, Inc. places the ow	mership of me	God, analyte &	accreditation co	npiance upon out	serthip of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. I	shipment is forward	ded under chain-of-custody.	
Possible Hazard Identification Unconfirmed					Sample Dispo	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return To Cilent Disposal By Lab Archive For Mon	if samples are	Archive For	1 month) Months
Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable Rank:	le Rank: 1			Special Instru	Special Instructions/QC Requirements:			
Empty Kit Relinquished by:	a)ate:		T	ime:	Me	thod of Shipment		
Reimquished by,	3/22/18	141	8	The Los	Received by:	D water	Date/Linge	21-65	A Minday
Reinquished by	DateTimé		Ö	cupany	Received by		Date/Time:	30%	Company
	Date/Time:		Ö	Company	Received by.		Date/Time:		Company
Custody Seals Intact: Custody Seal No.:					Cooler Temp	Cooler Temperature(s) "C and Other Remarks:			
									Ver. 09/20/2016

Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-152747-1

Login Number: 152747 List Source: TestAmerica Edison

List Number: 1

Creator: Keehn, Jeffrey S

Credior. Reenn, Jenrey 5		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	3.9c IR#KOP-1
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	One vial for MW-7 received broken.
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <pre><6mm (1/4").</pre>	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-152747-1

List Source: TestAmerica Pittsburgh
List Number: 2
List Creation: 03/29/18 12:05 PM

Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or ampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is 66mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Edison 777 New Durham Road Edison, NJ 08817 Tel: (732)549-3900

TestAmerica Job ID: 460-152748-1 Client Project/Site: Liberty Oil 38

For:

Center Point Tank Service 536 E Benjamin Franklin Douglassville, Pennsylvania 19518

Attn: Rachel Burkart

Sigl Miller

Authorized for release by: 4/4/2018 9:07:29 AM

Jill Miller, Project Manager II (732)549-3900 jill.miller@testamericainc.com

.....LINKS

Review your project results through
Total Access

Have a Question?



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

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

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

Client: Center Point Tank Service Project/Site: Liberty Oil 38 TestAmerica Job ID: 460-152748-1

Table of Contents

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ertification Summary	8
ethod Summary	9
nain of Custody	10
eceipt Checklists	13

Sample Summary

Client: Center Point Tank Service Project/Site: Liberty Oil 38

TestAmerica Job ID: 460-152748-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-152748-1	MW-12	Water	03/27/18 12:59	03/28/18 11:23
460-152748-2	MW-13	Water	03/27/18 12:34	03/28/18 11:23

TestAmerica Edison

Definitions/Glossary

Client: Center Point Tank Service Project/Site: Liberty Oil 38

Minimum Level (Dioxin)

Practical Quantitation Limit

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

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

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

Reporting Limit or Requested Limit (Radiochemistry)

Not Calculated

Quality Control

TestAmerica Job ID: 460-152748-1

Glossary

ML

NC

ND

PQL

QC

RER RL

RPD

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
п	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit

4/4/2018

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Case Narrative

TestAmerica Job ID: 460-152748-1

Client: Center Point Tank Service

Project/Site: Liberty Oil 38

Job ID: 460-152748-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative 460-152748-1

Comments

No additional comments.

Receipt

The samples were received on 3/28/2018 11:23 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.9° C.

GC/MS VOA

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-12 (460-152748-1). Elevated reporting limits (RLs) are provided.

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

GC Semi VOA

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

Metals

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

VOA Prep

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

TestAmerica Edison

TestAmerica Job ID: 460-152748-1

Client: Center Point Tank Service Project/Site: Liberty Oil 38

Client Sample ID: MW-12 Date Collected: 03/27/18 12:59

Date Received: 03/28/18 11:23

Lab Sample ID: 460-152748-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	560		2.0		ug/L			03/31/18 12:43	2
1,2-Dichloroethane	ND		2.0		ug/L			03/31/18 12:43	2
Ethylbenzene	470		2.0		ug/L			03/31/18 12:43	2
Isopropylbenzene	79		2.0		ug/L			03/31/18 12:43	2
Naphthalene	160		2.0		ug/L			03/31/18 12:43	2
Toluene	150		2.0		ug/L			03/31/18 12:43	2
1,2,4-Trimethylbenzene	490		2.0		ug/L			03/31/18 12:43	2
1,3,5-Trimethylbenzene	150		2.0		ug/L			03/31/18 12:43	2
Xylenes, Total	550		4.0		ug/L			03/31/18 12:43	2
Methyl tert-butyl ether	29		2.0		ug/L			03/31/18 12:43	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Bromofluorobenzene	96		77 - 124					03/31/18 12:43	2
Dibromofluoromethane (Surr)	95		72 - 131					03/31/18 12:43	2
1,2-Dichloroethane-d4 (Surr)	103		74 - 132					03/31/18 12:43	2
Toluene-d8 (Surr)	91		80 - 120					03/31/18 12:43	2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		03/31/18 08:49	03/31/18 15:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	98		60 - 140				03/31/18 08:49	03/31/18 15:47	1
1,1,1,2-Tetrachloroethane	91		60 - 140				03/31/18 08:49	03/31/18 15:47	1
Method: 200.8 - Metals (IC	CP/MS) - Dissolv	ed							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		un/l		04/03/18 12:54	04/03/18 19:11	- 6

Client Sample ID: MW-13 Lab Sample ID: 460-152748-2 Date Collected: 03/27/18 12:34 Matrix: Water

Date Received: 03/28/18 11:23

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	110		1.0		ug/L			03/30/18 18:18	1
1,2-Dichloroethane	2.4		1.0		ug/L			03/30/18 18:18	1
Ethylbenzene	140		1.0		ug/L			03/30/18 18:18	1
Isopropylbenzene	11		1.0		ug/L			03/30/18 18:18	1
Naphthalene	19		1.0		ug/L			03/30/18 18:18	1
Toluene	44		1.0		ug/L			03/30/18 18:18	1
1,2,4-Trimethylbenzene	150		1.0		ug/L			03/30/18 18:18	1
1,3,5-Trimethylbenzene	25		1.0		ug/L			03/30/18 18:18	1
Xylenes, Total	220		2.0		ug/L			03/30/18 18:18	1
Methyl tert-butyl ether	1.8		1.0		ug/L			03/30/18 18:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	DII Fac
Bromofluorobenzene	78		77 - 124					03/30/18 18:18	1
Dibromofluoromethane (Surr)	78		72 - 131					03/30/18 18:18	1
1,2-Dichloroethane-d4 (Surr)	91		74 - 132					03/30/18 18:18	1
Toluene-d8 (Surr)	100		80 - 120					03/30/18 18:18	1

TestAmerica Edison

Page 6 of 14

4/4/2018

Client Sample Results

Client: Center Point Tank Service Project/Site: Liberty Oil 38 TestAmerica Job ID: 460-152748-1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020		ug/L		03/31/18 08:49	03/31/18 16:12	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	97		60 - 140				03/31/18 08:49	03/31/18 16:12	1
1,1,1,2-Tetrachloroethane	91		60 - 140				03/31/18 08:49	03/31/18 16:12	1
Method: 200.8 - Metals (IC	CP/MS) - Dissolv	red							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5		ug/L		04/03/18 12:54	04/03/18 19:18	- 5

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Accreditation/Certification Summary

Client: Center Point Tank Service Project/Site: Liberty Oil 38 TestAmerica Job ID: 460-152748-1

Laboratory: TestAmerica Edison

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Connecticut	State Program	1	PH-0200	09-30-18
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A	12-31-18
New Jersey	NELAP	2	12028	06-30-18
New York	NELAP	2	11452	04-01-18 *
Pennsylvania	NELAP	3	68-00522	02-28-19
Rhode Island	State Program	1	LAO00132	12-30-18
USDA	Federal		NJCA-003-08	06-13-20

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	A2LA		PA00164	07-31-18
Arkansas DEQ	State Program	6	88-0690	06-27-18
California	State Program	9	2891	03-31-18 *
Connecticut	State Program	1	PH-0688	09-30-18
Florida	NELAP	4	E871008	06-30-18
Illinois	NELAP	5	200005	06-30-18
Kansas	NELAP	7	E-10350	01-31-19
Louisiana	NELAP	6	04041	06-30-18
Nevada	State Program	9	PA00164	07-31-18
New Hampshire	NELAP	1	2030	04-04-18 *
New Jersey	NELAP	2	PA005	06-30-18
New York	NELAP	2	11182	03-31-19
North Carolina (WW/SW)	State Program	4	434	12-31-18
Oregon	NELAP Secondary AB	10	PA-2151	01-28-19
Pennsylvania	NELAP	3	02-00416	04-30-18 *
South Carolina	State Program	4	89014	04-30-18 *
Texas	NELAP	6	T104704528-15-2	03-31-19
US Fish & Wildlife	Federal		LE94312A-1	07-31-18
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-18
Virginia	NELAP	3	460189	09-14-18
West Virginia DEP	State Program	3	142	01-31-19
Wisconsin	State Program	5	998027800	08-31-18

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

Method Summary

Client: Center Point Tank Service Project/Site: Liberty Oil 38 TestAmerica Job ID: 460-152748-1

TAL EDI

Protocol	Laboratory
SW846	TAL EDI
SW846	TAL PIT

EPA

Protocol References:

Method

8260C

8011

200.8

EPA = US Environmental Protection Agency

Metals (ICP/MS)

Method Description

Volatile Organic Compounds by GC/MS

EDB, DBCP, and 1,2,3-TCP (GC)

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

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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Kip 3.9. CHAIN OF CUSTODY / ANALYSIS REQUEST

THE LEADER IN ENVIRONMENTAL TESTING

777 New Durham Road Edison, New Jersey 08817 Phone: (732) 549-3679

TAL - 0016 (0715) LAB USE ONLY 2 30b No: Project No: Sample Numbers Water Metals Filtered (Yes/No)? DKQP: Other: 460-152748 Chain of Custody Laboratory Certifications: New Jersey (12028), New York (11452), Pehnsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). Z Company Ϋ́ Company Company 6.76th 0.738 ANALYSIS REQUESTED (ENTER Y. BELOW TO INDICATE REQUEST) Regulatory Program: US7 Site/Project Identification State (Location of site): 200 Received by Received by Received by Received by X 3 7 5 لدهره هم معرفانه X Water: 1/2 Samplers Name (Printed) 28-12-9292 3/24/18 2. 52 3/28/16 112/ Date / Time Date / Time No. of. Date / Time Cont. Soil: 0 Rush Charges Authorized Matrix 1259 GW 3/21/8/1234 GW Standard X Analysis Turnar 1 Week Preservation Used: 1 = ICE, 2 = HCI, 3 = H₂SO₄, 4 = HNO₃, 5 = NaOH 2 Week Other # O Time Startes 1ab 811 536 E. Briganin Franklin Huy 7 = Other CAT Company Company Centr Point Tank services Special Instructions // Pass Sample Identification Fax Rackel Burleart Shand 6 = Other 610 385 4977 Douglassalle Relinquished by elinquished by Relinquished by Relinquished by colle MW-12 MW-13

Massachusetts (M-NJ312), North Carolina (No. 578)

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3/28/18

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Initials:

Other Other Total Cyanide Total Phos The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted. (pH<2) Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis. (pH>12) TOC (pH<2) (pH<2) TKN Volume of Preservative used (ml): Phenois Sulfide Expiration Date: (pH>9) (pH<2) QAM (pH<2) If pH adjustments are required record the information below: (pH 5-9) Pest Hardness (pH<2) Metals (pH<2) Nitrate Nitrite (pH<2) COD (pH<2) Sample No(s). adjusted: Preservative Name/Conc.: Lot # of Preservative(s): Ammonia (pH<2) TALS Sample Number

Receipt Temperature and pH Log

STAN8

Job Number:

TestAmerica Edison

EDS-WI-038, Rev 4, 06/09/2014

TestAmerica

Chain of Custody Record

Client Information (Sub Contract Lab)	Sampler			Lab PM. Miller,	Miler, Jill K		Carrier Tra	Carrier Tracking No(s):	COC No: 460-51161.1	
then contact Shipping/Receiving	Phone			E-Mail jill.mil	ller@t	E-Mail ill.miller@testamericainc.com	State of Origin: Pennsylvania	ign.	Page: Page 1 of 1	
company company Laboratories, Inc.					Accredin	Accrediations Required (See note): NELAP - Pennsylvania	ote).		Job #: 460-152748-1	
301 Alpha Drive, RIDC Park,	Due Date Requeste 4/3/2018	ipa					Analysis Requested		Preservation Codes	odes:
Pittsburgh Pittsburgh Sales, Zip:	TAT Requested (days):	sys);							8 - NaOH C - Zn Acetare D - Naric Acid	M - None N - None O - AsNaO2 P - Na2O45
2A, 15238	POR								F - MeOH G - Amchor	G - Na2S203 R - Na2S203 S - H2S04
11Z-905-7036 [el] 41Z-905-Z488(Fax)	WO #								H - Ascorbic Acid	T - TSP Dodecahydrate U - Acetons
toject Name: Center Point (KOP)	Project #. 46011357					(0)			L-EDA	V - pH 4-5 Z - other (specify)
ile.	SSOWE				0.7772-00-	EDB (C			octoo lu	
Sample Identification - Client ID (Lab ID)	Sample Date	Sample	Sample Type (C=comp, G=grab)	Matrix (www.sec. Second Commenterion, 01-Trans. Acade)	Field Filtered S Perform MS/MS	qar4_1108\1108			o sedrmuk ladoT	480-15
	X	X	4 m:	Preservation Code:				103 101 034		527
MV-12 (460-152748-1)	3/27/18	12.59 Factorn		Water		×			2	48 C
MW-13 (460-152748-2)	3/27/18	12.34		Water		×			2	nain
										of Custody
lote Since laborators are subject to change. Test/merica Laboratories, inc. places the ownership of method analyzed compliance upon out subcortract laboratories. This sample shipment is forwarded under chain of-custody. If the laboratory does not analyzed the samples must be shipped back to the Test/merica laboratories will be provided. Any changes to accreditation status should be brought to Test/merica aboratories, inc. attention immediately. If all requested accreditations are current to date, return the spined Chain of Custody attesting to said complicance to Test/merica Laboratories, inc.	Laboratories, inc. places the ysis/dests/imatrix being analyz e current to date, return the s	ownership of a aid, the sample igned Chain o	nethod, analyte as must be ship Coustody attest	& accreditation ped back to the ng to said com	TestAm plicance	nce upon out subcort enca laboratory or oth to TestAmerica Labor	nership of method, analyte & accreditation complance upon out subcortract laboratories. This sample shipment is towarded under chain of-custody. If the laboratory or other institutions will be provided. Any changes to accreditation status should be brought to TestAmerica and Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.	shipment is forware. Any changes to a	ded under chain-of-custody, corecitation status should be	if the laboratory does not brought to TestAmerica
Possible Hazard Identification					Sa	mple Disposal (ee may be	if samples are	retained longer than	1 month)
Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable Rank:	able Rank:	1		Sp	ecial Instructions/QC	Special Instructions/QC Requirements:	sy Lab	Archive For	Months
Empty Kit Relinquished by:		Date:			Time		Meth	Method of Shipment		
refraçuished by,	3/28/18	14	13	7 Made	8	Received by	the	Date/Time?	21-68-8	II CHESTOS
telinquished by:	1			Company		Received by		Date/Time:	900	Company
beinquished by:	DetaTime			Company		Received by:		Date/Time.		Company
Custody Seals Intact Custody Seal No.:						Cooler Temperature	Cooler Temperature(s) ⁹ C and Other Remarks.			

Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-152748-1

Login Number: 152748 List Source: TestAmerica Edison

List Number: 1

Creator: Keehn, Jeffrey S

Creator: Keenn, Jeffrey S		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	3.9c IR#KOP-1
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Login Sample Receipt Checklist

Client: Center Point Tank Service Job Number: 460-152748-1

List Source: TestAmerica Pittsburgh
List Number: 2
List Creation: 03/29/18 12:05 PM

Creator: Watson, Debbie

Creator: Watson, Debbie		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is 66mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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APPENDIX G Aquifer Testing Data

Slug Testing Methodology

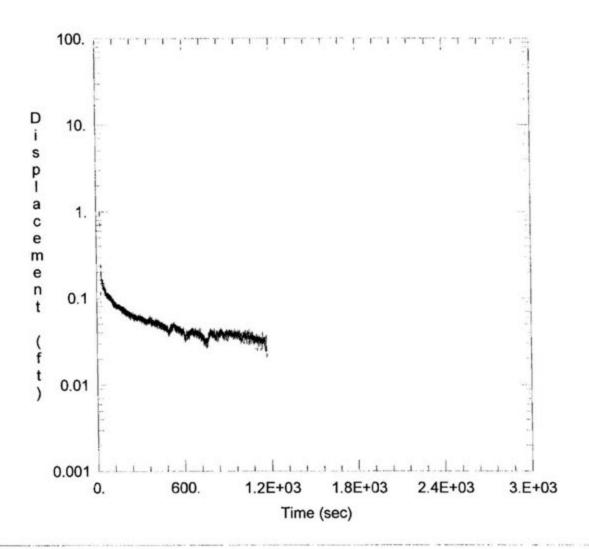
Field Methodology used for each well tested:

- Well top was opened, plug removed, allowed to equilibrate, and depth-to-water measurements made from a top-of-casing reference with a Keck electric tape.
- An In-Situ model cable connected level troll transducer was introduced to within approximately one foot from the well bottom.
- A Rugged Reader Level Troll Hand Held PC equipped with Win-Situ data logger software was attached to the land end of the downhole cable. The PC was used to set the clock, setup the test parameters; start, stop and monitor tests; and download and store completed test data sets.
- Once the falling head test parameters were set up and the test manually started, an
 approximately 1.0-gallon volume slug was quickly introduced to the well by submerging
 it completely beneath the static water level. A 0.4-gallon slug may be used in well
 casings that cannot accommodate the larger diameter one-gallon slug.
- The static water level was allowed recovered to within approximately +/- 0.05 of static water level.
- Once the rising head test parameters were set up and the test manually started, the submerged slug was quickly removed from the well and the water level allowed to recover.
- Level troll data was downloaded and stored to the hand held PC.
- Slug, data cable and level troll system were decontaminated as necessary between each
 test well with an Alconox solution and clean water rinse prior to setting up on the next
 test well.

Data Evaluation:

The hand held PC saved data logger test information was downloaded to a desktop PC. Data files were evaluated using the Aqtesolve software program.

For each slug test, each test data set consisted of two columns of data: elapsed time and top casing referenced depth-to-water elevations. Using the program filters, the elevation data were transformed into feet of displacement. The well construction and water level test parameters were entered into the program. A straight-line manual curve matching option was used to estimate hydraulic conductivity from the data curves using the Bouwer and Rice method of slug testing analysis. The Bouwer and Rice method was used to accommodate tests completed on wells with partially submerged screens for an unconfined aquifer. This line matching process is based in part on a method described in Butler, 1998 which calls for straight-line matching those displacements ranging between 0.2 and 0.3 feet of normalized displacement along the curve. Line matching was adjusted where necessary to include valid portions of displacement data field that would have otherwise remained outside the ideal data ranges.



LIBERTY OIL #38 MW-1F

Data Set: C:\...\Tam38.MW-1F.aqt

Date: 02/25/09

Time: 14:47:28

PROJECT INFORMATION

Company: CPTS
Client: Liberty Oil #38
Test Location: Tamaqua

Test Well: MW-1F Test Date: 2/16/09

AQUIFER DATA

Saturated Thickness: 15. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (Tam38 MW-1F)

Initial Displacement: 0.896 ft Wellbore Radius: 0.42 ft

Screen Length: 15. ft Gravel Pack Porosity: 0.25 Casing Radius: 0.16 ft Well Skin Radius: 0.42 ft

Total Well Penetration Depth: 15. ft

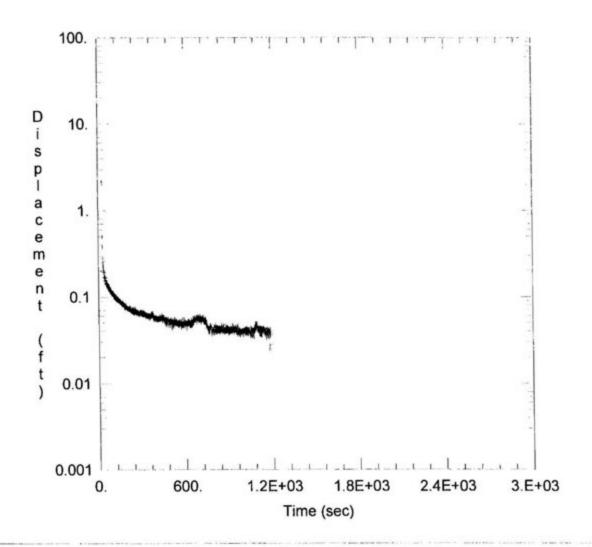
SOLUTION

Aquifer Model: Unconfined

K = 1.896 ft/day

Solution Method: Bouwer-Rice

y0 = 0.1997 ft



LIBERTY OIL #38 MW-1R

Data Set: C:\...\Tam38.MW-1R.agt

Date: 02/25/09

Time: 14:53:19

PROJECT INFORMATION

Company: CPTS Client: Liberty Oil #38 Test Location: Tamagua Test Well: MW-1R

Test Date: 2/16/09

AQUIFER DATA

Saturated Thickness: 15. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (Tam38 MW-1R)

Initial Displacement: 2.153 ft Wellbore Radius: 0.42 ft

Screen Length: 15. ft Gravel Pack Porosity: 0.25 Casing Radius: 0.16 ft Well Skin Radius: 0.42 ft

Total Well Penetration Depth: 15. ft

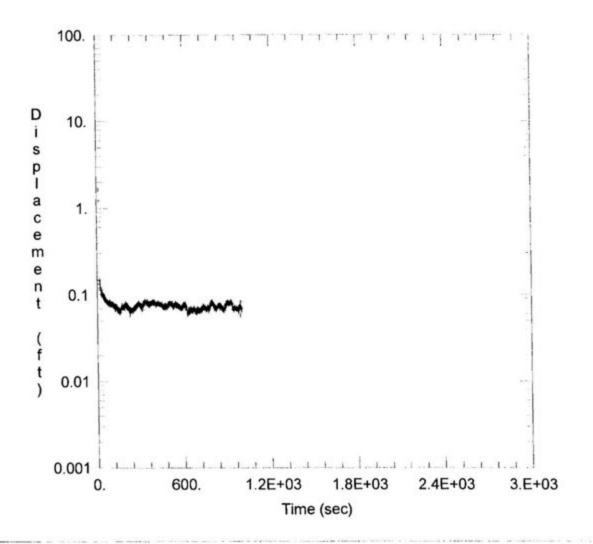
SOLUTION

Aquifer Model: Unconfined

K = 1.538 ft/day

Solution Method: Bouwer-Rice

y0 = 0.2284 ft



LIBERTY OIL #38 MW-2F

Data Set: C:\...\Tam38.MW-2F.aqt

Date: 02/25/09 Time: 15:03:52

PROJECT INFORMATION

Company: CPTS
Client: Liberty Oil #38
Test Location: Tamaqua
Test Well: MW-2F

Test Date: 2/16/09

AQUIFER DATA

Saturated Thickness: 4.61 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (Tam38 MW-2F)

Initial Displacement: 1.573 ft Wellbore Radius: 0.42 ft Screen Length: 18. ft Gravel Pack Porosity: 0.25 Casing Radius: 0.16 ft
Well Skin Radius: 0.42 ft
Total Well Penetration Depth: 4.61 ft

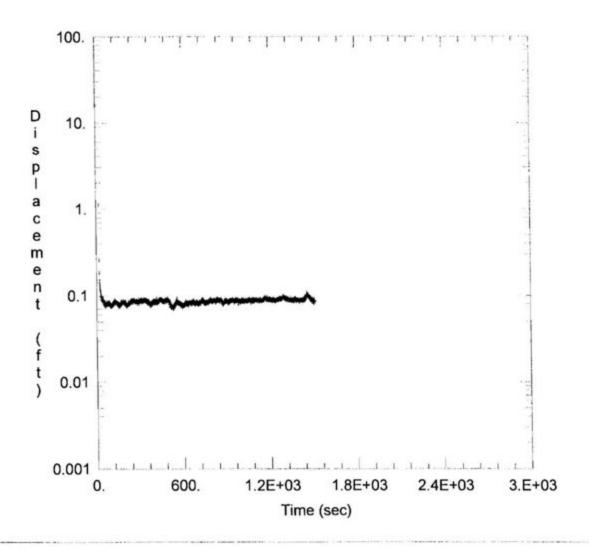
SOLUTION

Aquifer Model: Unconfined

K = 0.9158 ft/day

Solution Method: Bouwer-Rice

y0 = 0.1385 ft



LIBERTY OIL #38 MW-2R

Data Set: C:\...\Tam38.MW-2R.agt

Date: 02/25/09

Time: 15:09:57

PROJECT INFORMATION

Company: CPTS
Client: Liberty Oil #38
Test Location: Tamaqua
Test Well: MW-2R

Test Well: MW-2R Test Date: 2/16/09

AQUIFER DATA

Saturated Thickness: 4.61 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (Tam38 MW-2R)

Initial Displacement: 1.05 ft Wellbore Radius: 0.42 ft Screen Length: 18. ft

Gravel Pack Porosity: 0.25

Casing Radius: 0.16 ft Well Skin Radius: 0.42 ft

Total Well Penetration Depth: 4.61 ft

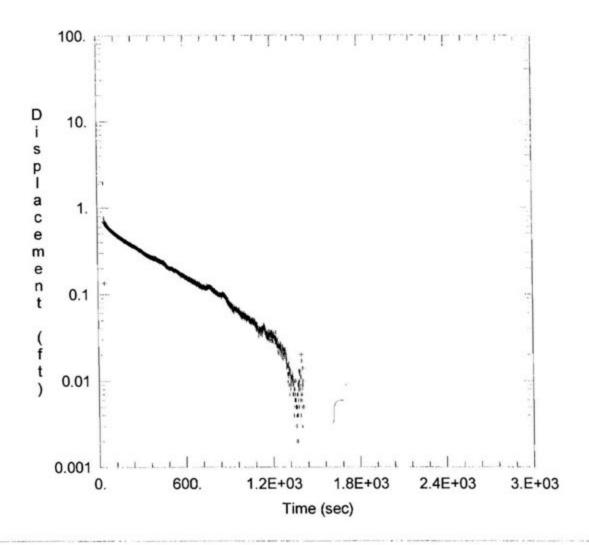
SOLUTION

Aquifer Model: Unconfined

K = 1.679 ft/day

Solution Method: Bouwer-Rice

y0 = 0.1663 ft



LIBERTY OIL #38 MW-3F

Data Set: C:\...\Tam38.MW-3F.aqt

Date: 02/25/09

Time: 15:15:30

PROJECT INFORMATION

Company: CPTS Client: Liberty Oil #38

Test Location: Tamagua

Test Well: MW-3F Test Date: 2/16/09

AQUIFER DATA

Saturated Thickness: 14.95 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (Tam38 MW-3F)

Initial Displacement: 1.883 ft Wellbore Radius: 0.42 ft

Screen Length: 18. ft

Gravel Pack Porosity: 0.25

Casing Radius: 0.16 ft Well Skin Radius: 0.42 ft

Total Well Penetration Depth: 14.95 ft

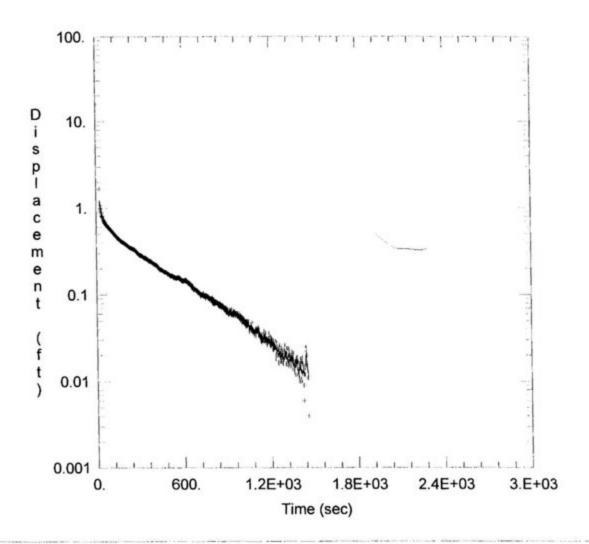
SOLUTION

Aquifer Model: Unconfined

K = 0.6981 ft/day

Solution Method: Bouwer-Rice

y0 = 0.8507 ft



LIBERTY OIL #38 MW-3R

Data Set: C:\...\Tam38.MW-3R.aqt

Date: 02/25/09 Time: 15:25:36

PROJECT INFORMATION

Company: CPTS
Client: Liberty Oil #38
Test Location: Tamaqua
Test Well: MW-3R
Test Date: 2/16/09

AQUIFER DATA

Saturated Thickness: 14.95 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (Tam38 MW-3R)

Initial Displacement: 1.66 ft Wellbore Radius: 0.42 ft Screen Length: 18. ft Gravel Pack Porosity: 0.25 Casing Radius: 0.16 ft Well Skin Radius: 0.42 ft

Total Well Penetration Depth: 14.95 ft

SOLUTION

Aquifer Model: Unconfined

K = 0.9429 ft/day

Solution Method: Bouwer-Rice

y0 = 0.9664 ft

APPENDIX H

Mann Kendall Trend Analysis

GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis Evaluation Date: May 29, 2018 Job ID: 08-12-4292 Facility Name: Liberty Oil #38 Constituent: benzene Conducted By: Rachel Burkart Concentration Units: ug/L Sampling Point ID: MW-3 MW-7 MW-4 MW-8 MW-9 MW-10 BENZENE CONCENTRATION (ug/L) 240 130 9/24/09 280 11/12/09 770 511 5,560 931 712 865 6/2/10 96.9 820 18.6 9/1/10 597 706 101 198 3/4/11 720 781 5/6/11 10 674 9/9/11 450 210 380 12/8/11 560 960 3/27/12 13 6/8/12 14 450 350 9/6/12 340 4,800 34 500 2,200 1,500 16 12/4/12 3/15/13 300 300 170 2,800 19 9/13/13 230 18 2,900 12/11/13 260 11 20 160 2,000 22 23 5/27/14 240 65 1.300 2,900 9/19/14 1.9 54 160 1,700 25 3/13/15 160 15 630 17 2.200 6/29/15 120 12/11/15 270 1.5 1,000 100 4/8/16 260 5.0 1.300 6.0 2,200 31 9/22/16 0.05 590 230 2.0 97 3,300 30 12/14/16 0.05 1.7 810 3/29/17 81 230 34 67 41 11 330 160 41 35 9/20/17 33 66 1.9 2,500 12/22/17 2.000 0.05 0.1 85 240 2,500 270 18 1,300 38 Mann-Kendall Statistic (S): Confidence Factor 82.15 Concentration Trend Decreasing Stable Decreasing Prob. Decreasing 10000 MW-3 1000 MW.4 Concentration (ug/L) MW-7 100 -MW-8 MW-9 10 MW-10 0.1 0.01 04/12 08/13 02/08 07/09 11/10 12/14 05/16 09/17 02/19 Sampling Date

Notes

- At least four independent sampling events per well are required for calculating the trend. Methodology is valid for 4 to 40 samples.
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing;
 ≥90% = Probably Increasing or Probably Decreasing;
 <90% and S>0 = No Trend;
 <90%, and COV ≥ 1 = No Trend;
 <90% and COV ≥ 1 = No Trend;
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, Ground Water, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis Evaluation Date: May 29, 2018 Job ID: 08-12-4292 Constituent: MTBE Facility Name: Liberty Oil #38 Conducted By: Rachel Burkart Concentration Units: ug/L Sampling Point ID: MW-4 MW-7 MW-10 MW-12 MTBE CONCENTRATION (ug/L) 11/12/09 970 513 3/26/10 1,620 6/2/10 477 9/1/10 348 12/2/10 274 3/4/11 350 5/6/11 140 9/9/11 12/8/11 180 10 3/27/12 200 6/8/12 89 9/6/12 13 92 230 140 120 14 3/15/13 100 120 16 6/25/13 80 160 9/13/13 51 160 12/11/13 49 130 19 3/20/14 40 130 5/27/14 20 29 74 9/19/14 <1.0 140 12/26/14 28 89 3/13/15 32 43 110 25 9/18/15 19 100 12/11/15 28 54 6/15/16 34 130 50 9/22/16 12/14/16 95 31 3/29/17 23 60 22 30 6/22/17 13 13 9/20/17 34 8.0 58 35 3/6/18 25 3/27/18 12 390 38 Mann-Kendall Statistic (S): Confidence Factor 97.85 Concentration Trend: Decreasing Decreasing 10000 MW-4 MW.7 Concentration (ug/L) 1000 MW-10 -MW-12 100 10 02/08 07/09 11/10 04/12 08/13 12/14 05/16 09/17 02/19 Sampling Date

Notes

- At least four independent sampling events per well are required for calculating the trend. Methodology is valid for 4 to 40 samples.
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing;
 ≥90% = Probably Increasing or Probably Decreasing;
 <90% and S>0 = No Trend;
 <90%, and COV ≥ 1 = No Trend;
 <90% and COV ≥ 1 = No Trend;
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, Ground Water, 41(3):355-367, 2003.

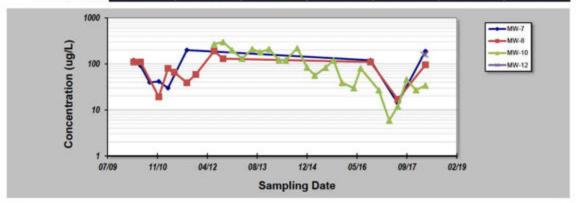
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GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: May 29, 2018	Job ID: 08-12-4292
Facility Name: Liberty Oil #38	Constituent: naphthalene
Conducted By: Rachel Burkart	Concentration Units: ug/L

Sam	pling Point ID:	MVV-7	MW-8	MW-10	MW-12			
Sampling Event	Sampling Date	302 2		NAPHTHALE	NE CONCENTR	RATION (ug/L)	22	0.00
1	3/26/10	120	110					
2	6/2/10	91.1	110					
3	9/1/10	39.6	J. Stream					
4	12/2/10	41.7	19.2					Ø.
5	3/4/11	29.9	80.2					
6	5/6/11		65.9			1	3	
7	9/9/11	200	39					15
8	12/8/11		59					
9	3/27/12							
10	6/8/12	- 6	190	270				
11	9/6/12	5	130	300				
12	12/4/12	- 9	7	200				
13	3/15/13			130				
14	6/25/13	- 1		210				
15	9/13/13	- 8		180				0.5
16	12/11/13			210				
17	3/20/14			120				
18	5/27/14			120		1		
19	9/19/14			220				
20	12/26/14			84				
21	3/13/15			56				
22	6/29/15			83				
23	9/18/15	- 8		120				
24	12/11/15			39				
25	4/8/16	- 3		30				
26	6/15/16			80			1	
27	9/22/16	120	110					
28	12/14/16			27				
29	3/29/17			5.9				
30	6/22/17	14	17	12				
31	9/20/17			46				
32	12/22/17			27				
33	3/6/18				160			
34	3/27/18	190	96	34	160			
35								
Coefficier	nt of Variation:	0.73	0.58	0.77	0.00			
	Il Statistic (S):	-1	-3	-180	0		8	18
	idence Factor:	50.0%	55.4%	>99.9%		3	8	16
1,500	stration Trend:	Stable	Stable	Decreasing				



Notes:

- 1. At least four independent sampling events per well are required for calculating the trend. Methodology is valid for 4 to 40 samples.
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥90% = Probably Increasing or Probably Decreasing; <90% and S>0 = No Trend; <90%, S≤0, and COV ≥ 1 = No Trend; <90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, Ground Water, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis Evaluation Date: May 29, 2018 Job ID: 08-12-4292 Facility Name: Liberty Oil #38 Constituent: 1,2,4-TMB Conducted By: Rachel Burkart Concentration Units: ug/L Sampling Point ID: MW-4 MW-7 MW-8 MW-10 MW-12 MW-13 1,2,4-TMB CONCENTRATION (ug/L) 11/12/09 336 843 2.060 3/26/10 701 6/2/10 202 9/1/10 83.0 12/2/10 77.5 180 71.5 841 5/6/11 539 BAIN 9/9/11 380 220 12/8/11 300 430 10 3/27/12 350 6/8/12 140 580 1,700 9/6/12 790 410 340 490 14 3/15/13 86 590 990 780 16 6/25/13 110 9/13/13 350 12/11/13 220 630 19 3/20/14 110 440 5/27/14 390 20 90 9/19/14 130 640 22 23 12/26/14 93 350 3/13/15 100 170 25 9/18/15 52 170 12/11/15 80 69 27 4/8/16 31 58 170 6/15/16 19 28 340 840 9/22/16 29 12/14/16 67 34 30 3/29/17 57 13 31 150 6/22/17 1.3 61 29 32 71 9/20/17 6.9 34 12/22/17 47 23 550 85 35 3/6/18 170 700 76 150 3/27/18 620 490 38 Mann-Kendall Statistic (S) Confidence Factor 68.19 Concentration Trend Stable Stable Decreasing 10000 MW-4 MW.7 Concentration (ug/L) 1000 MW-8 MW-10 10 11/18/2010 4/1/2012 8/14/2013 12/27/2014 5/10/2016 9/22/2017 7/6/2009

Notes

- 1. At least four independent sampling events per well are required for calculating the trend. Methodology is valid for 4 to 40 samples.
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥90% = Probably Increasing or Probably Decreasing; <90% and S>0 = No Trend; <90%, S≤0, and COV ≥ 1 = No Trend; <90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, Ground Water, 41(3):355-367, 2003.

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Sampling Date