

ANALYTICAL REPORT

Job Number: 180-71625-1

Job Description: Harley Davidson

For:

Groundwater Sciences Corporation
2601 Market Place Street, Suite 310
Harrisburg, PA 17110-9307

Attention: Christopher O'Neil



Approved for release.
Carrie L. Gamber
Senior Project Manager
10/27/2017 9:52 AM

Carrie L Gamber, Senior Project Manager
301 Alpha Drive, Pittsburgh, PA, 15238
(412)963-2428
carrie.gamber@testamericainc.com
10/27/2017

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TestAmerica Laboratories, Inc.

TestAmerica Pittsburgh 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238
Tel (412) 963-7058 Fax (412) 963-2468 www.testamericainc.com



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Definitions/Glossary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71625-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
^c	CCV Recovery is outside acceptance limits.
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

CASE NARRATIVE

Client: Groundwater Sciences Corporation

Project: Harley Davidson

Report Number: 180-71625-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 10/21/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.4 C.

VOLATILES

The following analyte recovered outside control limits for the LCS associated with analytical batch 180-227028:
1,1,2,2-Tetrachloroethane. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Several analytes failed the recovery criteria low for the MS/MSD of sample HD-MW-20M-0/1-0 (180-71625-1) in batch 180-227028.

The continuing calibration verification (CCV) analyzed in batch 180-227028 was outside the method criteria for the following analytes: 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, 1,4-Dioxane, Acrylonitrile, Bromomethane and Carbon tetrachloride. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes is considered estimated.

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71625-1

Client Sample ID: HD-MW-20M-0/1-0

Lab Sample ID: 180-71625-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.83	J	1.0	0.60	ug/L	1		8260C	Total/NA
Trichloroethene	32	F1	1.0	0.69	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.48	J	1.0	0.47	ug/L	1		8260C	Total/NA

Client Sample ID: HD-MW-20D-0/1-0

Lab Sample ID: 180-71625-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.74	J	1.0	0.46	ug/L	1		8260C	Total/NA

Client Sample ID: HD-MW-9-0/1-0

Lab Sample ID: 180-71625-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	3.7		1.0	0.88	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	27		1.0	0.71	ug/L	1		8260C	Total/NA
Trichloroethene	20		1.0	0.69	ug/L	1		8260C	Total/NA

Client Sample ID: HD-MW-88-0/1-0

Lab Sample ID: 180-71625-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.91	J	1.0	0.71	ug/L	1		8260C	Total/NA
Trichloroethene	2.7		1.0	0.69	ug/L	1		8260C	Total/NA
Tetrachloroethene	2.9		1.0	0.47	ug/L	1		8260C	Total/NA

Client Sample ID: HD-QC3-0/1-2

Lab Sample ID: 180-71625-5

No Detections.

Client Sample Results

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71625-1

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

Client Sample ID: HD-MW-20M-0/1-0

Date Collected: 10/20/17 09:04

Date Received: 10/21/17 09:00

Lab Sample ID: 180-71625-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.90	ug/L			10/26/17 13:53	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			10/26/17 13:53	1
Bromomethane	1.0	U ^c	1.0	0.89	ug/L			10/26/17 13:53	1
Chloroethane	1.0	U	1.0	0.90	ug/L			10/26/17 13:53	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			10/26/17 13:53	1
Acetone	5.0	U	5.0	3.4	ug/L			10/26/17 13:53	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			10/26/17 13:53	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			10/26/17 13:53	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			10/26/17 13:53	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			10/26/17 13:53	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			10/26/17 13:53	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			10/26/17 13:53	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			10/26/17 13:53	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			10/26/17 13:53	1
Chloroform	0.83	J	1.0	0.60	ug/L			10/26/17 13:53	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			10/26/17 13:53	1
Carbon tetrachloride	1.0	U ^c	1.0	0.88	ug/L			10/26/17 13:53	1
Benzene	1.0	U	1.0	0.60	ug/L			10/26/17 13:53	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			10/26/17 13:53	1
Trichloroethene	32	F1	1.0	0.69	ug/L			10/26/17 13:53	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			10/26/17 13:53	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			10/26/17 13:53	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			10/26/17 13:53	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			10/26/17 13:53	1
Toluene	1.0	U	1.0	0.46	ug/L			10/26/17 13:53	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			10/26/17 13:53	1
1,1,2-Trichloroethane	1.0	U F1	1.0	0.45	ug/L			10/26/17 13:53	1
Tetrachloroethene	0.48	J	1.0	0.47	ug/L			10/26/17 13:53	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			10/26/17 13:53	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			10/26/17 13:53	1
1,2-Dibromoethane (EDB)	1.0	U F1	1.0	0.50	ug/L			10/26/17 13:53	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			10/26/17 13:53	1
1,1,1,2-Tetrachloroethane	1.0	U ^c	1.0	0.57	ug/L			10/26/17 13:53	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			10/26/17 13:53	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			10/26/17 13:53	1
Styrene	1.0	U	1.0	0.47	ug/L			10/26/17 13:53	1
Bromoform	1.0	U	1.0	0.98	ug/L			10/26/17 13:53	1
1,1,2,2-Tetrachloroethane	1.0	U F1 ^c *	1.0	0.60	ug/L			10/26/17 13:53	1
Acrylonitrile	20	U F1 ^c	20	7.8	ug/L			10/26/17 13:53	1
1,4-Dioxane	200	U ^c	200	14	ug/L			10/26/17 13:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	69		65 - 121		10/26/17 13:53	1
Toluene-d8 (Surr)	87		73 - 120		10/26/17 13:53	1
4-Bromofluorobenzene (Surr)	83		80 - 120		10/26/17 13:53	1
Dibromofluoromethane (Surr)	87		73 - 120		10/26/17 13:53	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-71625-1

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

Client Sample ID: HD-MW-20D-0/1-0

Date Collected: 10/20/17 09:02

Date Received: 10/21/17 09:00

Lab Sample ID: 180-71625-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.90	ug/L			10/26/17 14:18	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			10/26/17 14:18	1
Bromomethane	1.0	U ^c	1.0	0.89	ug/L			10/26/17 14:18	1
Chloroethane	1.0	U	1.0	0.90	ug/L			10/26/17 14:18	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			10/26/17 14:18	1
Acetone	5.0	U	5.0	3.4	ug/L			10/26/17 14:18	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			10/26/17 14:18	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			10/26/17 14:18	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			10/26/17 14:18	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			10/26/17 14:18	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			10/26/17 14:18	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			10/26/17 14:18	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			10/26/17 14:18	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			10/26/17 14:18	1
Chloroform	1.0	U	1.0	0.60	ug/L			10/26/17 14:18	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			10/26/17 14:18	1
Carbon tetrachloride	1.0	U ^c	1.0	0.88	ug/L			10/26/17 14:18	1
Benzene	1.0	U	1.0	0.60	ug/L			10/26/17 14:18	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			10/26/17 14:18	1
Trichloroethene	1.0	U	1.0	0.69	ug/L			10/26/17 14:18	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			10/26/17 14:18	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			10/26/17 14:18	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			10/26/17 14:18	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			10/26/17 14:18	1
Toluene	0.74	J	1.0	0.46	ug/L			10/26/17 14:18	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			10/26/17 14:18	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			10/26/17 14:18	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			10/26/17 14:18	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			10/26/17 14:18	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			10/26/17 14:18	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			10/26/17 14:18	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			10/26/17 14:18	1
1,1,1,2-Tetrachloroethane	1.0	U ^c	1.0	0.57	ug/L			10/26/17 14:18	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			10/26/17 14:18	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			10/26/17 14:18	1
Styrene	1.0	U	1.0	0.47	ug/L			10/26/17 14:18	1
Bromoform	1.0	U	1.0	0.98	ug/L			10/26/17 14:18	1
1,1,2,2-Tetrachloroethane	1.0	U ^c *	1.0	0.60	ug/L			10/26/17 14:18	1
Acrylonitrile	20	U ^c	20	7.8	ug/L			10/26/17 14:18	1
1,4-Dioxane	200	U ^c	200	14	ug/L			10/26/17 14:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	70		65 - 121		10/26/17 14:18	1
Toluene-d8 (Surr)	86		73 - 120		10/26/17 14:18	1
4-Bromofluorobenzene (Surr)	83		80 - 120		10/26/17 14:18	1
Dibromofluoromethane (Surr)	87		73 - 120		10/26/17 14:18	1

Client Sample Results

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71625-1

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

Client Sample ID: HD-MW-9-0/1-0

Date Collected: 10/20/17 13:55

Date Received: 10/21/17 09:00

Lab Sample ID: 180-71625-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.90	ug/L			10/26/17 16:02	1
Vinyl chloride	3.7		1.0	0.88	ug/L			10/26/17 16:02	1
Bromomethane	1.0	U ^c	1.0	0.89	ug/L			10/26/17 16:02	1
Chloroethane	1.0	U	1.0	0.90	ug/L			10/26/17 16:02	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			10/26/17 16:02	1
Acetone	5.0	U	5.0	3.4	ug/L			10/26/17 16:02	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			10/26/17 16:02	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			10/26/17 16:02	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			10/26/17 16:02	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			10/26/17 16:02	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			10/26/17 16:02	1
cis-1,2-Dichloroethene	27		1.0	0.71	ug/L			10/26/17 16:02	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			10/26/17 16:02	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			10/26/17 16:02	1
Chloroform	1.0	U	1.0	0.60	ug/L			10/26/17 16:02	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			10/26/17 16:02	1
Carbon tetrachloride	1.0	U ^c	1.0	0.88	ug/L			10/26/17 16:02	1
Benzene	1.0	U	1.0	0.60	ug/L			10/26/17 16:02	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			10/26/17 16:02	1
Trichloroethene	20		1.0	0.69	ug/L			10/26/17 16:02	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			10/26/17 16:02	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			10/26/17 16:02	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			10/26/17 16:02	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			10/26/17 16:02	1
Toluene	1.0	U	1.0	0.46	ug/L			10/26/17 16:02	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			10/26/17 16:02	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			10/26/17 16:02	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			10/26/17 16:02	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			10/26/17 16:02	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			10/26/17 16:02	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			10/26/17 16:02	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			10/26/17 16:02	1
1,1,1,2-Tetrachloroethane	1.0	U ^c	1.0	0.57	ug/L			10/26/17 16:02	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			10/26/17 16:02	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			10/26/17 16:02	1
Styrene	1.0	U	1.0	0.47	ug/L			10/26/17 16:02	1
Bromoform	1.0	U	1.0	0.98	ug/L			10/26/17 16:02	1
1,1,2,2-Tetrachloroethane	1.0	U ^c *	1.0	0.60	ug/L			10/26/17 16:02	1
Acrylonitrile	20	U ^c	20	7.8	ug/L			10/26/17 16:02	1
1,4-Dioxane	200	U ^c	200	14	ug/L			10/26/17 16:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	66		65 - 121		10/26/17 16:02	1
Toluene-d8 (Surr)	89		73 - 120		10/26/17 16:02	1
4-Bromofluorobenzene (Surr)	84		80 - 120		10/26/17 16:02	1
Dibromofluoromethane (Surr)	87		73 - 120		10/26/17 16:02	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-71625-1

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

Client Sample ID: HD-MW-88-0/1-0

Date Collected: 10/20/17 14:00

Date Received: 10/21/17 09:00

Lab Sample ID: 180-71625-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.90	ug/L			10/26/17 16:56	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			10/26/17 16:56	1
Bromomethane	1.0	U ^c	1.0	0.89	ug/L			10/26/17 16:56	1
Chloroethane	1.0	U	1.0	0.90	ug/L			10/26/17 16:56	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			10/26/17 16:56	1
Acetone	5.0	U	5.0	3.4	ug/L			10/26/17 16:56	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			10/26/17 16:56	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			10/26/17 16:56	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			10/26/17 16:56	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			10/26/17 16:56	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			10/26/17 16:56	1
cis-1,2-Dichloroethene	0.91	J	1.0	0.71	ug/L			10/26/17 16:56	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			10/26/17 16:56	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			10/26/17 16:56	1
Chloroform	1.0	U	1.0	0.60	ug/L			10/26/17 16:56	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			10/26/17 16:56	1
Carbon tetrachloride	1.0	U ^c	1.0	0.88	ug/L			10/26/17 16:56	1
Benzene	1.0	U	1.0	0.60	ug/L			10/26/17 16:56	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			10/26/17 16:56	1
Trichloroethene	2.7		1.0	0.69	ug/L			10/26/17 16:56	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			10/26/17 16:56	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			10/26/17 16:56	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			10/26/17 16:56	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			10/26/17 16:56	1
Toluene	1.0	U	1.0	0.46	ug/L			10/26/17 16:56	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			10/26/17 16:56	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			10/26/17 16:56	1
Tetrachloroethene	2.9		1.0	0.47	ug/L			10/26/17 16:56	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			10/26/17 16:56	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			10/26/17 16:56	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			10/26/17 16:56	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			10/26/17 16:56	1
1,1,1,2-Tetrachloroethane	1.0	U ^c	1.0	0.57	ug/L			10/26/17 16:56	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			10/26/17 16:56	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			10/26/17 16:56	1
Styrene	1.0	U	1.0	0.47	ug/L			10/26/17 16:56	1
Bromoform	1.0	U	1.0	0.98	ug/L			10/26/17 16:56	1
1,1,2,2-Tetrachloroethane	1.0	U ^c *	1.0	0.60	ug/L			10/26/17 16:56	1
Acrylonitrile	20	U ^c	20	7.8	ug/L			10/26/17 16:56	1
1,4-Dioxane	200	U ^c	200	14	ug/L			10/26/17 16:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	66		65 - 121		10/26/17 16:56	1
Toluene-d8 (Surr)	87		73 - 120		10/26/17 16:56	1
4-Bromofluorobenzene (Surr)	82		80 - 120		10/26/17 16:56	1
Dibromofluoromethane (Surr)	86		73 - 120		10/26/17 16:56	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-71625-1

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

Client Sample ID: HD-QC3-0/1-2

Date Collected: 10/20/17 12:00

Date Received: 10/21/17 09:00

Lab Sample ID: 180-71625-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.90	ug/L			10/26/17 13:28	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			10/26/17 13:28	1
Bromomethane	1.0	U ^c	1.0	0.89	ug/L			10/26/17 13:28	1
Chloroethane	1.0	U	1.0	0.90	ug/L			10/26/17 13:28	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			10/26/17 13:28	1
Acetone	5.0	U	5.0	3.4	ug/L			10/26/17 13:28	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			10/26/17 13:28	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			10/26/17 13:28	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			10/26/17 13:28	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			10/26/17 13:28	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			10/26/17 13:28	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			10/26/17 13:28	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			10/26/17 13:28	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			10/26/17 13:28	1
Chloroform	1.0	U	1.0	0.60	ug/L			10/26/17 13:28	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			10/26/17 13:28	1
Carbon tetrachloride	1.0	U ^c	1.0	0.88	ug/L			10/26/17 13:28	1
Benzene	1.0	U	1.0	0.60	ug/L			10/26/17 13:28	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			10/26/17 13:28	1
Trichloroethene	1.0	U	1.0	0.69	ug/L			10/26/17 13:28	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			10/26/17 13:28	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			10/26/17 13:28	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			10/26/17 13:28	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			10/26/17 13:28	1
Toluene	1.0	U	1.0	0.46	ug/L			10/26/17 13:28	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			10/26/17 13:28	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			10/26/17 13:28	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			10/26/17 13:28	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			10/26/17 13:28	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			10/26/17 13:28	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			10/26/17 13:28	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			10/26/17 13:28	1
1,1,1,2-Tetrachloroethane	1.0	U ^c	1.0	0.57	ug/L			10/26/17 13:28	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			10/26/17 13:28	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			10/26/17 13:28	1
Styrene	1.0	U	1.0	0.47	ug/L			10/26/17 13:28	1
Bromoform	1.0	U	1.0	0.98	ug/L			10/26/17 13:28	1
1,1,2,2-Tetrachloroethane	1.0	U ^c *	1.0	0.60	ug/L			10/26/17 13:28	1
Acrylonitrile	20	U ^c	20	7.8	ug/L			10/26/17 13:28	1
1,4-Dioxane	200	U ^c	200	14	ug/L			10/26/17 13:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	68		65 - 121		10/26/17 13:28	1
Toluene-d8 (Surr)	88		73 - 120		10/26/17 13:28	1
4-Bromofluorobenzene (Surr)	84		80 - 120		10/26/17 13:28	1
Dibromofluoromethane (Surr)	84		73 - 120		10/26/17 13:28	1

Default Detection Limits

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-71625-1

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

Analyte	RL	MDL	Units	Method
1,1,1,2-Tetrachloroethane	1.0	0.57	ug/L	8260C
1,1,1-Trichloroethane	1.0	0.60	ug/L	8260C
1,1,2,2-Tetrachloroethane	1.0	0.60	ug/L	8260C
1,1,2-Trichloroethane	1.0	0.45	ug/L	8260C
1,1-Dichloroethane	1.0	0.63	ug/L	8260C
1,1-Dichloroethene	1.0	0.55	ug/L	8260C
1,2-Dibromoethane (EDB)	1.0	0.50	ug/L	8260C
1,2-Dichloroethane	1.0	0.57	ug/L	8260C
1,2-Dichloropropane	1.0	0.66	ug/L	8260C
1,4-Dioxane	200	14	ug/L	8260C
2-Butanone (MEK)	5.0	2.6	ug/L	8260C
2-Hexanone	5.0	3.3	ug/L	8260C
4-Methyl-2-pentanone (MIBK)	5.0	3.1	ug/L	8260C
Acetone	5.0	3.4	ug/L	8260C
Acrylonitrile	20	7.8	ug/L	8260C
Benzene	1.0	0.60	ug/L	8260C
Bromochloromethane	1.0	0.63	ug/L	8260C
Bromodichloromethane	1.0	0.64	ug/L	8260C
Bromoform	1.0	0.98	ug/L	8260C
Bromomethane	1.0	0.89	ug/L	8260C
Carbon disulfide	1.0	0.88	ug/L	8260C
Carbon tetrachloride	1.0	0.88	ug/L	8260C
Chlorobenzene	1.0	0.50	ug/L	8260C
Chloroethane	1.0	0.90	ug/L	8260C
Chloroform	1.0	0.60	ug/L	8260C
Chloromethane	1.0	0.90	ug/L	8260C
cis-1,2-Dichloroethene	1.0	0.71	ug/L	8260C
cis-1,3-Dichloropropene	1.0	0.59	ug/L	8260C
Dibromochloromethane	1.0	0.84	ug/L	8260C
Ethylbenzene	1.0	0.51	ug/L	8260C
Methyl tert-butyl ether	1.0	0.59	ug/L	8260C
Methylene Chloride	1.0	0.36	ug/L	8260C
Styrene	1.0	0.47	ug/L	8260C
Tetrachloroethene	1.0	0.47	ug/L	8260C
Toluene	1.0	0.46	ug/L	8260C
trans-1,2-Dichloroethene	1.0	0.67	ug/L	8260C
trans-1,3-Dichloropropene	1.0	0.58	ug/L	8260C
Trichloroethene	1.0	0.69	ug/L	8260C
Vinyl chloride	1.0	0.88	ug/L	8260C
Xylenes, Total	2.0	0.89	ug/L	8260C

Surrogate Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71625-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (65-121)	TOL (73-120)	BFB (80-120)	DBFM (73-120)
180-71625-1	HD-MW-20M-0/1-0	69	87	83	87
180-71625-1 MS	HD-MW-20M-0/1-0	75	104	96	104
180-71625-1 MSD	HD-MW-20M-0/1-0	74	108	100	103
180-71625-2	HD-MW-20D-0/1-0	70	86	83	87
180-71625-3	HD-MW-9-0/1-0	66	89	84	87
180-71625-4	HD-MW-88-0/1-0	66	87	82	86
180-71625-5	HD-QC3-0/1-2	68	88	84	84
LCS 180-227028/4	Lab Control Sample	93	108	106	115
MB 180-227028/7	Method Blank	69	87	83	85

Surrogate Legend

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

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

QC Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-71625-1

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

Lab Sample ID: MB 180-227028/7

Matrix: Water

Analysis Batch: 227028

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.90	ug/L			10/26/17 13:04	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			10/26/17 13:04	1
Bromomethane	1.0	U	1.0	0.89	ug/L			10/26/17 13:04	1
Chloroethane	1.0	U	1.0	0.90	ug/L			10/26/17 13:04	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			10/26/17 13:04	1
Acetone	5.0	U	5.0	3.4	ug/L			10/26/17 13:04	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			10/26/17 13:04	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			10/26/17 13:04	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			10/26/17 13:04	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			10/26/17 13:04	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			10/26/17 13:04	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			10/26/17 13:04	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			10/26/17 13:04	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			10/26/17 13:04	1
Chloroform	1.0	U	1.0	0.60	ug/L			10/26/17 13:04	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			10/26/17 13:04	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			10/26/17 13:04	1
Benzene	1.0	U	1.0	0.60	ug/L			10/26/17 13:04	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			10/26/17 13:04	1
Trichloroethene	1.0	U	1.0	0.69	ug/L			10/26/17 13:04	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			10/26/17 13:04	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			10/26/17 13:04	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			10/26/17 13:04	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			10/26/17 13:04	1
Toluene	1.0	U	1.0	0.46	ug/L			10/26/17 13:04	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			10/26/17 13:04	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			10/26/17 13:04	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			10/26/17 13:04	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			10/26/17 13:04	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			10/26/17 13:04	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			10/26/17 13:04	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			10/26/17 13:04	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			10/26/17 13:04	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			10/26/17 13:04	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			10/26/17 13:04	1
Styrene	1.0	U	1.0	0.47	ug/L			10/26/17 13:04	1
Bromoform	1.0	U	1.0	0.98	ug/L			10/26/17 13:04	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			10/26/17 13:04	1
Acrylonitrile	20	U	20	7.8	ug/L			10/26/17 13:04	1
1,4-Dioxane	200	U	200	14	ug/L			10/26/17 13:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	69		65 - 121		10/26/17 13:04	1
Toluene-d8 (Surr)	87		73 - 120		10/26/17 13:04	1
4-Bromofluorobenzene (Surr)	83		80 - 120		10/26/17 13:04	1
Dibromofluoromethane (Surr)	85		73 - 120		10/26/17 13:04	1

QC Sample Results

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71625-1

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

Lab Sample ID: LCS 180-227028/4

Matrix: Water

Analysis Batch: 227028

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	9.71		ug/L		97	49 - 135
Vinyl chloride	10.0	8.33		ug/L		83	52 - 136
Bromomethane	10.0	5.97		ug/L		60	37 - 150
Chloroethane	10.0	9.59		ug/L		96	44 - 139
1,1-Dichloroethene	10.0	9.82		ug/L		98	64 - 131
Acetone	20.0	20.0		ug/L		100	24 - 150
Carbon disulfide	10.0	8.93		ug/L		89	20 - 150
Methylene Chloride	10.0	11.3		ug/L		113	66 - 123
trans-1,2-Dichloroethene	10.0	11.3		ug/L		113	70 - 123
Methyl tert-butyl ether	10.0	9.28		ug/L		93	66 - 130
1,1-Dichloroethane	10.0	11.0		ug/L		110	66 - 122
cis-1,2-Dichloroethene	10.0	11.3		ug/L		113	73 - 120
Bromochloromethane	10.0	11.4		ug/L		114	73 - 122
2-Butanone (MEK)	20.0	21.9		ug/L		110	37 - 150
Chloroform	10.0	11.0		ug/L		110	72 - 123
1,1,1-Trichloroethane	10.0	12.2		ug/L		122	66 - 129
Carbon tetrachloride	10.0	12.6		ug/L		126	58 - 145
Benzene	10.0	10.7		ug/L		107	75 - 123
1,2-Dichloroethane	10.0	9.29		ug/L		93	63 - 130
Trichloroethene	10.0	11.5		ug/L		115	74 - 121
1,2-Dichloropropane	10.0	10.5		ug/L		105	67 - 119
Bromodichloromethane	10.0	10.1		ug/L		101	62 - 127
cis-1,3-Dichloropropene	10.0	10.5		ug/L		105	61 - 127
4-Methyl-2-pentanone (MIBK)	20.0	22.1		ug/L		110	41 - 135
Toluene	10.0	10.2		ug/L		102	76 - 129
trans-1,3-Dichloropropene	10.0	9.24		ug/L		92	61 - 136
1,1,2-Trichloroethane	10.0	8.68		ug/L		87	74 - 126
Tetrachloroethene	10.0	10.2		ug/L		102	76 - 128
2-Hexanone	20.0	23.9		ug/L		119	37 - 150
Dibromochloromethane	10.0	10.0		ug/L		100	63 - 131
1,2-Dibromoethane (EDB)	10.0	8.32		ug/L		83	76 - 128
Chlorobenzene	10.0	11.2		ug/L		112	79 - 124
1,1,1,2-Tetrachloroethane	10.0	12.3		ug/L		123	70 - 130
Ethylbenzene	10.0	10.3		ug/L		103	77 - 124
Xylenes, Total	20.0	21.3		ug/L		107	76 - 124
Styrene	10.0	10.8		ug/L		108	80 - 125
Bromoform	10.0	8.35		ug/L		83	54 - 136
1,1,2,2-Tetrachloroethane	10.0	7.12	*	ug/L		71	72 - 128
Acrylonitrile	100	67.0		ug/L		67	60 - 130
1,4-Dioxane	200	169	J	ug/L		85	26 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		65 - 121
Toluene-d8 (Surr)	108		73 - 120
4-Bromofluorobenzene (Surr)	106		80 - 120
Dibromofluoromethane (Surr)	115		73 - 120

QC Sample Results

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71625-1

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

Lab Sample ID: 180-71625-1 MS

Matrix: Water

Analysis Batch: 227028

Client Sample ID: HD-MW-20M-0/1-0

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Chloromethane	1.0	U	10.0	8.86		ug/L		89	49 - 135
Vinyl chloride	1.0	U	10.0	9.06		ug/L		91	52 - 136
Bromomethane	1.0	U ^c	10.0	6.75		ug/L		68	37 - 150
Chloroethane	1.0	U	10.0	9.61		ug/L		96	44 - 139
1,1-Dichloroethene	1.0	U	10.0	10.2		ug/L		102	64 - 131
Acetone	5.0	U	20.0	9.65		ug/L		48	24 - 150
Carbon disulfide	1.0	U	10.0	9.03		ug/L		90	20 - 150
Methylene Chloride	1.0	U	10.0	8.69		ug/L		87	66 - 123
trans-1,2-Dichloroethene	1.0	U	10.0	10.4		ug/L		104	70 - 123
Methyl tert-butyl ether	1.0	U	10.0	6.60		ug/L		66	66 - 130
1,1-Dichloroethane	1.0	U	10.0	9.71		ug/L		97	66 - 122
cis-1,2-Dichloroethene	1.0	U	10.0	10.0		ug/L		100	73 - 120
Bromochloromethane	1.0	U	10.0	9.10		ug/L		91	73 - 122
2-Butanone (MEK)	5.0	U	20.0	10.7		ug/L		53	37 - 150
Chloroform	0.83	J	10.0	10.0		ug/L		92	72 - 123
1,1,1-Trichloroethane	1.0	U	10.0	12.0		ug/L		120	66 - 129
Carbon tetrachloride	1.0	U ^c	10.0	13.3		ug/L		133	58 - 145
Benzene	1.0	U	10.0	9.63		ug/L		96	75 - 123
1,2-Dichloroethane	1.0	U	10.0	7.29		ug/L		73	63 - 130
Trichloroethene	32	F1	10.0	33.6	F1	ug/L		12	74 - 121
1,2-Dichloropropane	1.0	U	10.0	8.58		ug/L		86	67 - 119
Bromodichloromethane	1.0	U	10.0	8.33		ug/L		83	62 - 127
cis-1,3-Dichloropropene	1.0	U	10.0	8.39		ug/L		84	61 - 127
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	9.84		ug/L		49	41 - 135
Toluene	1.0	U	10.0	9.42		ug/L		94	76 - 129
trans-1,3-Dichloropropene	1.0	U	10.0	7.45		ug/L		75	61 - 136
1,1,2-Trichloroethane	1.0	U F1	10.0	6.76	F1	ug/L		68	74 - 126
Tetrachloroethene	0.48	J	10.0	10.8		ug/L		104	76 - 128
2-Hexanone	5.0	U	20.0	10.9		ug/L		54	37 - 150
Dibromochloromethane	1.0	U	10.0	7.83		ug/L		78	63 - 131
1,2-Dibromoethane (EDB)	1.0	U F1	10.0	6.39	F1	ug/L		64	76 - 128
Chlorobenzene	1.0	U	10.0	10.0		ug/L		100	79 - 124
1,1,1,2-Tetrachloroethane	1.0	U ^c	10.0	10.6		ug/L		106	70 - 130
Ethylbenzene	1.0	U	10.0	9.67		ug/L		97	77 - 124
Xylenes, Total	2.0	U	20.0	19.4		ug/L		97	76 - 124
Styrene	1.0	U	10.0	9.61		ug/L		96	80 - 125
Bromoform	1.0	U	10.0	6.43		ug/L		64	54 - 136
1,1,2,2-Tetrachloroethane	1.0	U F1 ^c *	10.0	5.17	F1	ug/L		52	72 - 128
Acrylonitrile	20	U F1 ^c	100	45.5	F1	ug/L		45	60 - 130
1,4-Dioxane	200	U ^c	200	86.3	J	ug/L		43	26 - 150
	MS	MS							
Surrogate	%Recovery	Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	75		65 - 121						
Toluene-d8 (Surr)	104		73 - 120						
4-Bromofluorobenzene (Surr)	96		80 - 120						
Dibromofluoromethane (Surr)	104		73 - 120						

QC Sample Results

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71625-1

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

Lab Sample ID: 180-71625-1 MSD

Matrix: Water

Analysis Batch: 227028

Client Sample ID: HD-MW-20M-0/1-0

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
Chloromethane	1.0	U	10.0	8.98		ug/L		90	49 - 135	1	20
Vinyl chloride	1.0	U	10.0	9.13		ug/L		91	52 - 136	1	19
Bromomethane	1.0	U ^c	10.0	5.99		ug/L		60	37 - 150	12	23
Chloroethane	1.0	U	10.0	9.95		ug/L		99	44 - 139	3	19
1,1-Dichloroethene	1.0	U	10.0	10.1		ug/L		101	64 - 131	1	20
Acetone	5.0	U	20.0	9.48		ug/L		47	24 - 150	2	35
Carbon disulfide	1.0	U	10.0	8.91		ug/L		89	20 - 150	1	21
Methylene Chloride	1.0	U	10.0	8.62		ug/L		86	66 - 123	1	22
trans-1,2-Dichloroethene	1.0	U	10.0	10.3		ug/L		103	70 - 123	1	19
Methyl tert-butyl ether	1.0	U	10.0	6.56		ug/L		66	66 - 130	1	23
1,1-Dichloroethane	1.0	U	10.0	9.64		ug/L		96	66 - 122	1	20
cis-1,2-Dichloroethene	1.0	U	10.0	9.72		ug/L		97	73 - 120	3	23
Bromochloromethane	1.0	U	10.0	8.93		ug/L		89	73 - 122	2	24
2-Butanone (MEK)	5.0	U	20.0	10.2		ug/L		51	37 - 150	4	35
Chloroform	0.83	J	10.0	9.94		ug/L		91	72 - 123	1	20
1,1,1-Trichloroethane	1.0	U	10.0	11.6		ug/L		116	66 - 129	4	21
Carbon tetrachloride	1.0	U ^c	10.0	12.7		ug/L		127	58 - 145	4	22
Benzene	1.0	U	10.0	9.49		ug/L		95	75 - 123	1	20
1,2-Dichloroethane	1.0	U	10.0	7.10		ug/L		71	63 - 130	3	21
Trichloroethene	32	F1	10.0	33.4	F1	ug/L		11	74 - 121	0	20
1,2-Dichloropropane	1.0	U	10.0	8.56		ug/L		86	67 - 119	0	21
Bromodichloromethane	1.0	U	10.0	8.20		ug/L		82	62 - 127	2	19
cis-1,3-Dichloropropene	1.0	U	10.0	8.05		ug/L		80	61 - 127	4	22
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	9.83		ug/L		49	41 - 135	0	35
Toluene	1.0	U	10.0	9.67		ug/L		97	76 - 129	3	18
trans-1,3-Dichloropropene	1.0	U	10.0	7.53		ug/L		75	61 - 136	1	17
1,1,2-Trichloroethane	1.0	U F1	10.0	6.95	F1	ug/L		70	74 - 126	3	20
Tetrachloroethene	0.48	J	10.0	10.9		ug/L		104	76 - 128	0	20
2-Hexanone	5.0	U	20.0	10.9		ug/L		55	37 - 150	0	35
Dibromochloromethane	1.0	U	10.0	7.83		ug/L		78	63 - 131	0	20
1,2-Dibromoethane (EDB)	1.0	U F1	10.0	6.41	F1	ug/L		64	76 - 128	0	21
Chlorobenzene	1.0	U	10.0	10.1		ug/L		101	79 - 124	1	16
1,1,1,2-Tetrachloroethane	1.0	U ^c	10.0	10.9		ug/L		109	70 - 130	3	17
Ethylbenzene	1.0	U	10.0	9.99		ug/L		100	77 - 124	3	16
Xylenes, Total	2.0	U	20.0	20.0		ug/L		100	76 - 124	3	17
Styrene	1.0	U	10.0	9.87		ug/L		99	80 - 125	3	18
Bromoform	1.0	U	10.0	6.17		ug/L		62	54 - 136	4	23
1,1,2,2-Tetrachloroethane	1.0	U F1 ^c *	10.0	5.35	F1	ug/L		53	72 - 128	3	24
Acrylonitrile	20	U F1 ^c	100	44.4	F1	ug/L		44	60 - 130	2	32
1,4-Dioxane	200	U ^c	200	115	J	ug/L		57	26 - 150	28	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	74		65 - 121
Toluene-d8 (Surr)	108		73 - 120
4-Bromofluorobenzene (Surr)	100		80 - 120
Dibromofluoromethane (Surr)	103		73 - 120

QC Association Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71625-1

GC/MS VOA

Analysis Batch: 227028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-71625-1	HD-MW-20M-0/1-0	Total/NA	Water	8260C	
180-71625-2	HD-MW-20D-0/1-0	Total/NA	Water	8260C	
180-71625-3	HD-MW-9-0/1-0	Total/NA	Water	8260C	
180-71625-4	HD-MW-88-0/1-0	Total/NA	Water	8260C	
180-71625-5	HD-QC3-0/1-2	Total/NA	Water	8260C	
MB 180-227028/7	Method Blank	Total/NA	Water	8260C	
LCS 180-227028/4	Lab Control Sample	Total/NA	Water	8260C	
180-71625-1 MS	HD-MW-20M-0/1-0	Total/NA	Water	8260C	
180-71625-1 MSD	HD-MW-20M-0/1-0	Total/NA	Water	8260C	

Lab Chronicle

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71625-1

Client Sample ID: HD-MW-20M-0/1-0

Date Collected: 10/20/17 09:04

Date Received: 10/21/17 09:00

Lab Sample ID: 180-71625-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	227028	10/26/17 13:53	PJJ	TAL PIT
Instrument ID: CHHP6										

Client Sample ID: HD-MW-20D-0/1-0

Date Collected: 10/20/17 09:02

Date Received: 10/21/17 09:00

Lab Sample ID: 180-71625-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	227028	10/26/17 14:18	PJJ	TAL PIT
Instrument ID: CHHP6										

Client Sample ID: HD-MW-9-0/1-0

Date Collected: 10/20/17 13:55

Date Received: 10/21/17 09:00

Lab Sample ID: 180-71625-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	227028	10/26/17 16:02	PJJ	TAL PIT
Instrument ID: CHHP6										

Client Sample ID: HD-MW-88-0/1-0

Date Collected: 10/20/17 14:00

Date Received: 10/21/17 09:00

Lab Sample ID: 180-71625-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	227028	10/26/17 16:56	PJJ	TAL PIT
Instrument ID: CHHP6										

Client Sample ID: HD-QC3-0/1-2

Date Collected: 10/20/17 12:00

Date Received: 10/21/17 09:00

Lab Sample ID: 180-71625-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	227028	10/26/17 13:28	PJJ	TAL PIT
Instrument ID: CHHP6										

Laboratory References:

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

Analyst References:

Lab: TAL PIT

Batch Type: Analysis

PJJ = Patrick Journet

Accreditation/Certification Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71625-1

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Pennsylvania	NELAP	3	02-00416	04-30-18

Method Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71625-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	SW846	TAL PIT

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71625-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-71625-1	HD-MW-20M-0/1-0	Water	10/20/17 09:04	10/21/17 09:00
180-71625-2	HD-MW-20D-0/1-0	Water	10/20/17 09:02	10/21/17 09:00
180-71625-3	HD-MW-9-0/1-0	Water	10/20/17 13:55	10/21/17 09:00
180-71625-4	HD-MW-88-0/1-0	Water	10/20/17 14:00	10/21/17 09:00
180-71625-5	HD-QC3-0/1-2	Water	10/20/17 12:00	10/21/17 09:00

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1

SDG No.: _____

Instrument ID: CHHP6 Analysis Batch Number: 217861Lab Sample ID: IC 180-217861/3 Client Sample ID: _____Date Analyzed: 07/24/17 06:39 Lab File ID: 60724D03.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	2.50	Poor chromatography	bungardf	07/24/17 07:17

Lab Sample ID: IC 180-217861/4 Client Sample ID: _____Date Analyzed: 07/24/17 07:03 Lab File ID: 60724D04.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	7.80	Poor chromatography	bungardf	07/24/17 07:27

Lab Sample ID: ICIS 180-217861/5 Client Sample ID: _____Date Analyzed: 07/24/17 07:27 Lab File ID: 60724D05.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	7.81	Poor chromatography	bungardf	07/24/17 07:58

Lab Sample ID: IC 180-217861/6 Client Sample ID: _____Date Analyzed: 07/24/17 07:52 Lab File ID: 60724D06.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	7.81	Poor chromatography	bungardf	07/24/17 08:11

Lab Sample ID: IC 180-217861/7 Client Sample ID: _____Date Analyzed: 07/24/17 08:16 Lab File ID: 60724D07.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	7.80	Poor chromatography	bungardf	07/24/17 08:44

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1

SDG No.: _____

Instrument ID: CHHP6 Analysis Batch Number: 217861

Lab Sample ID: IC 180-217861/9 Client Sample ID: _____

Date Analyzed: 07/24/17 09:04 Lab File ID: 60724D09.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	7.81	Poor chromatography	bungardf	07/24/17 09:26

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1

SDG No.: _____

Instrument ID: CHHP6 Analysis Batch Number: 227028

Lab Sample ID: LCS 180-227028/4 Client Sample ID: _____

Date Analyzed: 10/26/17 11:31 Lab File ID: 6102504N.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1,2,2-Tetrachloroethane	11.49	Poor chromatography	journetp	10/26/17 13:56

Lab Sample ID: 180-71625-4 Client Sample ID: HD-MW-88-0/1-0

Date Analyzed: 10/26/17 16:56 Lab File ID: 6102516N.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dichloroethane-d4 (Surr)	6.69	Poor chromatography	bungardf	10/26/17 20:57

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71625-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration					
					Reagent ID	Volume Added							
VOA8260INT_00072	08/21/17	07/21/17	Methanol, Lot 2019055	10 mL	VOA8260INTRES_00123	1 mL	1,4-Dichlorobenzene-d4	25 ug/mL					
							Chlorobenzene-d5	25 ug/mL					
							Fluorobenzene (IS)	25 ug/mL					
							TBA-d9 (IS)	500 ug/mL					
.VOA8260INTRES_00123	08/31/20		Restek, Lot A0113246		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL					
							Chlorobenzene-d5	250 ug/mL					
							Fluorobenzene (IS)	250 ug/mL					
							TBA-d9 (IS)	5000 ug/mL					
VOA8260INT_00075	11/20/17	10/20/17	Methanol, Lot 2469125	10 mL	VOA8260INTRES_00136	1 mL	1,4-Dichlorobenzene-d4	25 ug/mL					
							Chlorobenzene-d5	25 ug/mL					
							Fluorobenzene (IS)	25 ug/mL					
							TBA-d9 (IS)	500 ug/mL					
.VOA8260INTRES_00136	01/31/22		Restek, Lot A0124343		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL					
							Chlorobenzene-d5	250 ug/mL					
							Fluorobenzene (IS)	250 ug/mL					
							TBA-d9 (IS)	5000 ug/mL					
VOA8260SURR_00071	08/21/17	07/21/17	Methanol, Lot 2019055	100 mL	VOA8260SURRES_00118	1 mL	1,2-Dichloroethane-d4 (Surr)	25 ug/mL					
							4-Bromofluorobenzene (Surr)	25 ug/mL					
							Dibromofluoromethane (Surr)	25 ug/mL					
							Toluene-d8 (Surr)	25 ug/mL					
.VOA8260SURRES_00118	10/31/20		Restek, Lot A0114901		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL					
							4-Bromofluorobenzene (Surr)	2500 ug/mL					
							Dibromofluoromethane (Surr)	2500 ug/mL					
							Toluene-d8 (Surr)	2500 ug/mL					
VOA8260SURR_00074	11/20/17	10/20/17	Methanol, Lot 2469125	100 mL	VOA8260SURRES_00120	1 mL	1,2-Dichloroethane-d4 (Surr)	25 ug/mL					
							4-Bromofluorobenzene (Surr)	25 ug/mL					
							Dibromofluoromethane (Surr)	25 ug/mL					
							Toluene-d8 (Surr)	25 ug/mL					
.VOA8260SURRES_00120	10/31/20		Restek, Lot A0114901		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL					
							4-Bromofluorobenzene (Surr)	2500 ug/mL					
							Dibromofluoromethane (Surr)	2500 ug/mL					
							Toluene-d8 (Surr)	2500 ug/mL					
VOA8260VOA2ND_00270	11/01/17	10/25/17	Methanol, Lot 2469125	10 mL	VOA8260GAS2ND_00216	0.1 mL	Bromomethane	25 ug/mL					
							Chloroethane	25 ug/mL					
							Chloromethane	25 ug/mL					
							Vinyl chloride	25 ug/mL					
					VOA8260VOA2ND_00268						1 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
												1,1,1-Trichloroethane	25 ug/mL
												1,1,2,2-Tetrachloroethane	25 ug/mL
												1,1,2-Trichloroethane	25 ug/mL
												1,1-Dichloroethane	25 ug/mL
												1,1-Dichloroethene	25 ug/mL
												1,2-Dibromoethane (EDB)	25 ug/mL
												1,2-Dichloroethane	25 ug/mL
												1,2-Dichloropropane	25 ug/mL
												1,4-Dioxane	500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71625-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260GAS2ND_00216	06/30/20		Restek, Lot A0128832			(Purchased Reagent)	Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOA2ND_00268	11/16/17	10/16/17	Methanol, Lot 2469120	10 mL	VOA8260MEGA2_00065	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Dibromochloromethane	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71625-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ethylbenzene	250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylene Chloride	250 ug/mL
							Styrene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							Trichloroethene	250 ug/mL
							Xylenes, Total	500 ug/mL
..VOA8260MEGA2_00065	12/31/18		Restek, Lot A0123775		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VOA8260VOAPRI_00263	07/29/17	07/22/17	Methanol, Lot 2019055	10 mL	VOA8260GAS1ST_00203	0.1 mL	Bromomethane	25 ug/mL
							Butadiene	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Dichlorodifluoromethane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71625-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichlorofluoromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00260	1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
							1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,1-Dichloropropene	25 ug/mL
							1,2,3-Trichlorobenzene	25 ug/mL
							1,2,3-Trichloropropane	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2,4-Trimethylbenzene	25 ug/mL
							1,2-Dibromo-3-Chloropropane	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dichloropropane	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	500 ug/mL
							2,2-Dichloropropane	25 ug/mL
							2-Chlorotoluene	25 ug/mL
							2-Methyl-2-propanol	250 ug/mL
							3-Chloro-1-propene	25 ug/mL
							4-Chlorotoluene	25 ug/mL
							4-Isopropyltoluene	25 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromobenzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Cyclohexane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71625-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibromochloromethane	25 ug/mL
							Dibromomethane	25 ug/mL
							Ethyl ether	25 ug/mL
							Ethyl methacrylate	25 ug/mL
							Ethylbenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexane	25 ug/mL
							Iodomethane	25 ug/mL
							Isobutyl alcohol	625 ug/mL
							Isopropylbenzene	25 ug/mL
							m-Xylene & p-Xylene	25 ug/mL
							Methyl acetate	50 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylcyclohexane	25 ug/mL
							Methylene Chloride	25 ug/mL
							n-Butylbenzene	25 ug/mL
							n-Heptane	25 ug/mL
							N-Propylbenzene	25 ug/mL
							Naphthalene	25 ug/mL
							o-Xylene	25 ug/mL
							sec-Butylbenzene	25 ug/mL
							Styrene	25 ug/mL
							tert-Butylbenzene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Tetrahydrofuran	50 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							trans-1,4-Dichloro-2-butene	25 ug/mL
							Trichloroethene	25 ug/mL
.VOA8260GAS1ST_00203	01/31/20		Restek, Lot A0124278			(Purchased Reagent)	Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00260	08/06/17	07/06/17	Methanol, Lot 2019056	10 mL	VOA8260KET1ST_00100	0.2 mL	2-Butanone (MEK)	250 ug/mL
							2-Hexanone	250 ug/mL
							4-Methyl-2-pentanone (MIBK)	250 ug/mL
							Acetone	250 ug/mL
					VOA8260MEGA1_00065	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71625-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethene	250 ug/mL
							1,1-Dichloropropene	250 ug/mL
							1,2,3-Trichlorobenzene	250 ug/mL
							1,2,3-Trichloropropane	250 ug/mL
							1,2,4-Trichlorobenzene	250 ug/mL
							1,2,4-Trimethylbenzene	250 ug/mL
							1,2-Dibromo-3-Chloropropane	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichlorobenzene	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,3,5-Trimethylbenzene	250 ug/mL
							1,3-Dichlorobenzene	250 ug/mL
							1,3-Dichloropropane	250 ug/mL
							1,4-Dichlorobenzene	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							2,2-Dichloropropane	250 ug/mL
							2-Chlorotoluene	250 ug/mL
							2-Methyl-2-propanol	2500 ug/mL
							3-Chloro-1-propene	250 ug/mL
							4-Chlorotoluene	250 ug/mL
							4-Isopropyltoluene	250 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromobenzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Cyclohexane	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Dibromomethane	250 ug/mL
							Ethyl ether	250 ug/mL
							Ethyl methacrylate	250 ug/mL
							Ethylbenzene	250 ug/mL
							Hexachlorobutadiene	250 ug/mL
							Hexane	250 ug/mL
							Iodomethane	250 ug/mL
							Isobutyl alcohol	6250 ug/mL
							Isopropylbenzene	250 ug/mL
							m-Xylene & p-Xylene	250 ug/mL
							Methyl acetate	500 ug/mL
							Methyl tert-butyl ether	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71625-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methylcyclohexane	250 ug/mL
							Methylene Chloride	250 ug/mL
							n-Butylbenzene	250 ug/mL
							n-Heptane	250 ug/mL
							N-Propylbenzene	250 ug/mL
							Naphthalene	250 ug/mL
							o-Xylene	250 ug/mL
							sec-Butylbenzene	250 ug/mL
							Styrene	250 ug/mL
							tert-Butylbenzene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Tetrahydrofuran	500 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							trans-1,4-Dichloro-2-butene	250 ug/mL
							Trichloroethene	250 ug/mL
..VOA8260KET1ST_00100	01/31/20		Restek, Lot A0123890		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VOA8260MEGA1_00065	12/31/18		Restek, Lot A0123711		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71625-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
Naphthalene	2500 ug/mL							
o-Xylene	2500 ug/mL							
sec-Butylbenzene	2500 ug/mL							
Styrene	2500 ug/mL							
tert-Butylbenzene	2500 ug/mL							
Tetrachloroethene	2500 ug/mL							
Tetrahydrofuran	5000 ug/mL							
Toluene	2500 ug/mL							
trans-1,2-Dichloroethene	2500 ug/mL							
trans-1,3-Dichloropropene	2500 ug/mL							
trans-1,4-Dichloro-2-butene	2500 ug/mL							
Trichloroethene	2500 ug/mL							
VOA8260VOAPRI_00268	10/30/17	10/23/17	Methanol, Lot 2469119	10 mL	VOA8260GAS1ST_00206	100 uL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71625-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration	
					Reagent ID	Volume Added			
					VOA8260VOAPRI_00264	1 mL	Chloromethane	25 ug/mL	
							Vinyl chloride	25 ug/mL	
							1,1,1,2-Tetrachloroethane	25 ug/mL	
							1,1,1-Trichloroethane	25 ug/mL	
							1,1,2,2-Tetrachloroethane	25 ug/mL	
							1,1,2-Trichloroethane	25 ug/mL	
							1,1-Dichloroethane	25 ug/mL	
							1,1-Dichloroethene	25 ug/mL	
							1,2-Dibromoethane (EDB)	25 ug/mL	
							1,2-Dichloroethane	25 ug/mL	
							1,2-Dichloropropane	25 ug/mL	
							1,4-Dioxane	500 ug/mL	
							Acrylonitrile	250 ug/mL	
							Benzene	25 ug/mL	
							Bromochloromethane	25 ug/mL	
							Bromodichloromethane	25 ug/mL	
							Bromoform	25 ug/mL	
							Carbon disulfide	25 ug/mL	
							Carbon tetrachloride	25 ug/mL	
							Chlorobenzene	25 ug/mL	
							Chloroform	25 ug/mL	
							cis-1,2-Dichloroethene	25 ug/mL	
							cis-1,3-Dichloropropene	25 ug/mL	
							Dibromochloromethane	25 ug/mL	
							Ethylbenzene	25 ug/mL	
							Methyl tert-butyl ether	25 ug/mL	
							Methylene Chloride	25 ug/mL	
Styrene	25 ug/mL								
Tetrachloroethene	25 ug/mL								
Toluene	25 ug/mL								
trans-1,2-Dichloroethene	25 ug/mL								
trans-1,3-Dichloropropene	25 ug/mL								
Trichloroethene	25 ug/mL								
Xylenes, Total	50 ug/mL								
.VOA8260GAS1ST_00206	01/31/20		Restek, Lot A0124278				(Purchased Reagent)	Bromomethane	2500 ug/mL
								Chloroethane	2500 ug/mL
								Chloromethane	2500 ug/mL
								Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00264	11/06/17	10/06/17	Methanol, Lot 2469120	10 mL	VOA8260MEGA1_00066	1 mL		1,1,1,2-Tetrachloroethane	250 ug/mL
								1,1,1-Trichloroethane	250 ug/mL
								1,1,2,2-Tetrachloroethane	250 ug/mL
								1,1,2-Trichloroethane	250 ug/mL
								1,1-Dichloroethane	250 ug/mL
								1,1-Dichloroethene	250 ug/mL
								1,2-Dibromoethane (EDB)	250 ug/mL
								1,2-Dichloroethane	250 ug/mL
								1,2-Dichloropropane	250 ug/mL
								1,4-Dioxane	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71625-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Ethylbenzene	250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylene Chloride	250 ug/mL
							Styrene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							Trichloroethene	250 ug/mL
							Xylenes, Total	500 ug/mL
..VOA8260MEGA1_00066	12/31/18		Restek, Lot A0123711			(Purchased Reagent)	1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							Styrene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71625-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VOABFB25_00090							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
							Total BTEX	
							Xylenes, Total	
.VOABFB50_00093	08/10/17	07/10/17	Methanol, Lot 2019056	50 mL	VOABFB50_00093	5 mL	BFB	25 ug/mL
..VOABFBRES_00058	11/30/21		Restek, Lot A0122647		VOABFBRES_00058	1 mL	BFB	50 ug/mL
					(Purchased Reagent)		BFB	2500 ug/mL
VOABFB25_00094							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
							Total BTEX	
							Xylenes, Total	
.VOABFB50_00096	11/09/17	10/09/17	Methanol, Lot 2469125	50 mL	VOABFB50_00096	5 mL	BFB	25 ug/mL
..VOABFBRES_00055	11/30/21		Restek, Lot A0122647		VOABFBRES_00055	1 mL	BFB	50 ug/mL
					(Purchased Reagent)		BFB	2500 ug/mL
voaW2clev1stR_00013	07/31/17	07/24/17	Methanol, Lot 2019056	10 mL	VOACEVERES_00127	200 uL	2-Chloroethyl vinyl ether	50 ug/mL
.VOACEVERES_00127	01/31/20		Restek, Lot A0123891		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
voaWAcro1stRe_00016	08/17/17	07/17/17	Methanol, Lot 2019056	100 mL	VOAACRORES_00115	0.125 mL	Acrolein	25 ug/mL
.VOAACRORES_00115	09/30/17		Restek, Lot A0125560		(Purchased Reagent)		Acrolein	20000 ug/mL
voaWEEmix1stR_00009	08/03/17	07/03/17	Methanol, Lot 127999	25 mL	VOARESEE1ST_00045	0.125 mL	1,2-dichloro-4-(trifluoromethyl)benzene	25 ug/mL
							2,3,6-Trichlorotoluene	25 ug/mL
							2,3- & 3,4- Dichlorotoluene	50 ug/mL
							2,4,5-Trichlorotoluene	25 ug/mL
							2,4- & 2,5- & 2,6-Dichlorotoluene	75 ug/mL
							2,4-Dichloro-1-(trifluoromethyl)-benzene	25 ug/mL
							2,5-Dichlorobenzotrifluoride	25 ug/mL
							2-Chlorobenzotrifluoride	25 ug/mL
							3-Chlorobenzotrifluoride	25 ug/mL
							3-Chlorotoluene	25 ug/mL
							4-Chlorobenzotrifluoride	25 ug/mL
.VOARESEE1ST_00045	01/31/18		Restek, Lot A0120234		(Purchased Reagent)		1,2-dichloro-4-(trifluoromethyl)benzene	5000 ug/mL
							2,3,6-Trichlorotoluene	5000 ug/mL
							2,3- & 3,4- Dichlorotoluene	10000 ug/mL
							2,4,5-Trichlorotoluene	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71625-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4- & 2,5- & 2,6-Dichlorotoluene	15000 ug/mL
							2,4-Dichloro-1-(triflouromethyl)-benzene	5000 ug/mL
							2,5-Dichlorobenzotrifluoride	5000 ug/mL
							2-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorotoluene	5000 ug/mL
							4-Chlorobenzotrifluoride	5000 ug/mL
voaWKet2ndRes_00022	11/16/17	10/16/17	Methanol, Lot 2469120	50 mL	VOA8260KET2ND_00103	0.1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET2ND_00103	03/31/19		Restek, Lot A0123880		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
voaWKetmix1st_00004	07/29/17	06/29/17	Methanol, Lot 2019054	50 mL	VOA8260KET1ST_00099	0.1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET1ST_00099	01/31/20		Restek, Lot A0123890		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
voaWVA1stRest_00016	07/31/17	07/17/17	Methanol, Lot 2019056	25 mL	VOA8260VARES_00082	0.125 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00082	07/31/17		Restek, Lot A0124520		(Purchased Reagent)		Vinyl acetate	5000 ug/mL

Reagent

VOA8260GAS1ST_00203



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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569722 Lot No.: A0124278

Description : 8260 List 1 / Std #3 Gases (2015)
8260 List 1 / Std #3 Gases (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : January 31, 2020 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Dichlorodifluoromethane (CFC-12)	2,500.5 µg/mL	+/-	16.7232	µg/mL	Gravimetric
	CAS # 75-71-8 (Lot Q167-08)		+/-	140.4412	µg/mL	Unstressed
	Purity 99%		+/-	143.7161	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,498.7 µg/mL	+/-	17.4998	µg/mL	Gravimetric
	CAS # 74-87-3 (Lot SHBG7976V)		+/-	140.4406	µg/mL	Unstressed
	Purity 99%		+/-	143.7111	µg/mL	Stressed
3	Vinyl chloride	2,498.4 µg/mL	+/-	16.6753	µg/mL	Gravimetric
	CAS # 75-01-4 (Lot 1026101231B1)		+/-	140.3203	µg/mL	Unstressed
	Purity 99%		+/-	143.5926	µg/mL	Stressed
4	1,3-Butadiene	2,496.9 µg/mL	+/-	17.0619	µg/mL	Gravimetric
	CAS # 106-99-0 (Lot SHBF3387V)		+/-	140.2843	µg/mL	Unstressed
	Purity 99%		+/-	143.5535	µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,500.5 µg/mL	+/-	17.3456	µg/mL	Gravimetric
	CAS # 74-83-9 (Lot 101604)		+/-	140.5211	µg/mL	Unstressed
	Purity 99%		+/-	143.7944	µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,500.5 µg/mL	+/-	16.8189	µg/mL	Gravimetric
	CAS # 75-00-3 (Lot 23593)		+/-	140.4526	µg/mL	Unstressed
	Purity 99%		+/-	143.7272	µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,500.0 µg/mL	+/-	10.0499	µg/mL	Gravimetric
	CAS # 75-43-4 (Lot 4938100)		+/-	139.7786	µg/mL	Unstressed
	Purity 99%		+/-	143.0675	µg/mL	Stressed

8	Trichlorofluoromethane (CFC-11)	2,501.5	µg/mL	+/-	16.5404	µg/mL	Gravimetric
	CAS # 75-69-4 (Lot SHBG7531V)			+/-	140.4793	µg/mL	Unstressed
	Purity 99%			+/-	143.7562	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

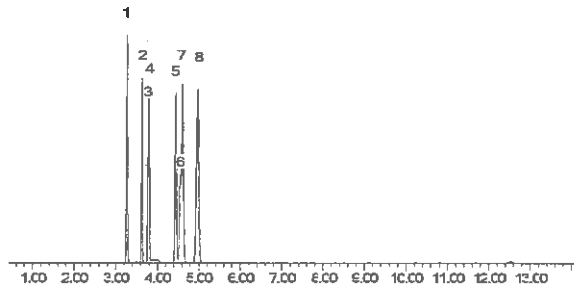
Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Joseph Jaglowski
Joseph Jaglowski - Mix Technician

Date Mixed: 17-Jan-2017 **Balance:** 1125113331

Jennifer J Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 24-Jan-2017

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

Reagent

VOA8260GAS1ST_00206



CERTIFIED REFERENCE MATERIAL

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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Catalog No. : 569722 Lot No.: A0124278

Description : 8260 List 1 / Std #3 Gases (2015)
8260 List 1 / Std #3 Gases (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : January 31, 2020 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Dichlorodifluoromethane (CFC-12)	2,500.5 µg/mL	+/-	16.7232	µg/mL	Gravimetric
	CAS # 75-71-8 (Lot Q167-08)		+/-	140.4412	µg/mL	Unstressed
	Purity 99%		+/-	143.7161	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,498.7 µg/mL	+/-	17.4998	µg/mL	Gravimetric
	CAS # 74-87-3 (Lot SHBG7976V)		+/-	140.4406	µg/mL	Unstressed
	Purity 99%		+/-	143.7111	µg/mL	Stressed
3	Vinyl chloride	2,498.4 µg/mL	+/-	16.6753	µg/mL	Gravimetric
	CAS # 75-01-4 (Lot 1026101231B1)		+/-	140.3203	µg/mL	Unstressed
	Purity 99%		+/-	143.5926	µg/mL	Stressed
4	1,3-Butadiene	2,496.9 µg/mL	+/-	17.0619	µg/mL	Gravimetric
	CAS # 106-99-0 (Lot SHBF3387V)		+/-	140.2843	µg/mL	Unstressed
	Purity 99%		+/-	143.5535	µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,500.5 µg/mL	+/-	17.3456	µg/mL	Gravimetric
	CAS # 74-83-9 (Lot 101604)		+/-	140.5211	µg/mL	Unstressed
	Purity 99%		+/-	143.7944	µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,500.5 µg/mL	+/-	16.8189	µg/mL	Gravimetric
	CAS # 75-00-3 (Lot 23593)		+/-	140.4526	µg/mL	Unstressed
	Purity 99%		+/-	143.7272	µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,500.0 µg/mL	+/-	10.0499	µg/mL	Gravimetric
	CAS # 75-43-4 (Lot 4938100)		+/-	139.7786	µg/mL	Unstressed
	Purity 99%		+/-	143.0675	µg/mL	Stressed

8	Trichlorofluoromethane (CFC-11)	2,501.5 $\mu\text{g/mL}$	+/- 16.5404	$\mu\text{g/mL}$	Gravimetric
	CAS # 75-69-4 (Lot SHBG7531V)		+/- 140.4793	$\mu\text{g/mL}$	Unstressed
	Purity 99%		+/- 143.7562	$\mu\text{g/mL}$	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4 μm
Rtx-502.2 (cat.#10916)

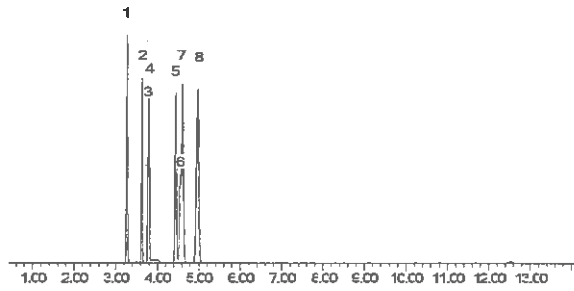
Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Joseph Jaglowski
Joseph Jaglowski - Mix Technician

Date Mixed: 17-Jan-2017 **Balance:** 1125113331

Jennifer J Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 24-Jan-2017

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

Reagent

VOA8260GAS2ND_00216

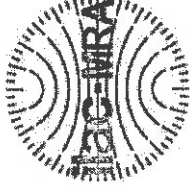


CERTIFIED REFERENCE MATERIAL

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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569722.SEC Lot No.: A0128832

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : June 30, 2020 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)
1	Dichlorodifluoromethane (CFC-12) CAS # 75-71-8.SEC Purity 99%	2,505.9 µg/mL	+/- 22.3986 µg/mL +/- 141.5312 µg/mL +/- 144.7955 µg/mL
2	Chloromethane (methyl chloride) CAS # 74-87-3.SEC Purity 99%	2,503.7 µg/mL	+/- 24.8413 µg/mL +/- 141.8153 µg/mL +/- 145.0675 µg/mL
3	Vinyl chloride CAS # 75-01-4.SEC Purity 99%	2,503.2 µg/mL	+/- 25.9197 µg/mL +/- 141.9813 µg/mL +/- 145.2285 µg/mL
4	1,3-Butadiene CAS # 106-99-0.SEC Purity 99%	2,508.9 µg/mL	+/- 20.6969 µg/mL +/- 141.4379 µg/mL +/- 144.7121 µg/mL
5	Bromomethane (methyl bromide) CAS # 74-83-9.SEC Purity 99%	2,502.6 µg/mL	+/- 26.2540 µg/mL +/- 142.0076 µg/mL +/- 145.2526 µg/mL
6	Chloroethane (ethyl chloride) CAS # 75-00-3.SEC Purity 99%	2,510.6 µg/mL	+/- 24.9094 µg/mL +/- 142.2038 µg/mL +/- 145.4650 µg/mL
7	Dichlorofluoromethane (CFC-21) CAS # 75-43-4.SEC Purity 99%	2,510.9 µg/mL	+/- 25.6719 µg/mL +/- 142.3575 µg/mL +/- 145.6160 µg/mL

Reagent

VOA8260INTRES_00123



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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568718 Lot No.: A0113246

Description : 8260 Internal Standard 2014

8260 Internal Standard 2014 250-5,000 ug/ml, P&T Methanol, 5 ml/ampul

Container Size : 5 mL Pkg Amt: > 5 mL

Expiration Date : August 31, 2020 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)		
1	tert-Butyl-d9-alcohol CAS # 25725-11-5 Purity 99% (Lot I201P18)	5,000.4 µg/mL	+/-	29.0712	µg/mL Gravimetric
			+/-	106.0450	µg/mL Unstressed
			+/-	106.5155	µg/mL Stressed
2	2-Butanone-d5 CAS # 24313-50-6 Purity 99% (Lot M276P24)	1,250.2 µg/mL	+/-	7.2688	µg/mL Gravimetric
			+/-	26.5135	µg/mL Unstressed
			+/-	26.6311	µg/mL Stressed
3	Fluorobenzene CAS # 462-06-6 Purity 99% (Lot BCBK8171V)	250.2 µg/mL	+/-	1.4580	µg/mL Gravimetric
			+/-	5.3070	µg/mL Unstressed
			+/-	5.3305	µg/mL Stressed
4	1,4-Dioxane-d8 CAS # 17647-74-4 Purity 98% (Lot I-19073)	5,000.6 µg/mL	+/-	29.0727	µg/mL Gravimetric
			+/-	106.0502	µg/mL Unstressed
			+/-	106.5208	µg/mL Stressed
5	Chlorobenzene-d5 CAS # 3114-55-4 Purity 99% (Lot PR-23926)	250.4 µg/mL	+/-	1.4592	µg/mL Gravimetric
			+/-	5.3113	µg/mL Unstressed
			+/-	5.3348	µg/mL Stressed
6	1,4-Dichlorobenzene-d4 CAS # 3855-82-1 Purity 99% (Lot PR-18488)	250.0 µg/mL	+/-	1.4569	µg/mL Gravimetric
			+/-	5.3028	µg/mL Unstressed
			+/-	5.3263	µg/mL Stressed

Reagent

VOA8260INTRES_00136



CERTIFIED REFERENCE MATERIAL

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Catalog No. : 568718 **Lot No.:** A0124343
Description : 8260 Internal Standard 2014
8260 Internal Standard 2014 250-5,000 ug/ml, P&T Methanol, 5 ml/ampul
Container Size : 5 mL **Pkg Amt:** > 5 mL
Expiration Date : January 31, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	tert-Butyl-d9-alcohol CAS # 25725-11-5 Purity 99% (Lot I-201)	5,050.0 µg/mL	+/-	29.3596	µg/mL	Gravimetric
			+/-	108.1207	µg/mL	Unstressed
			+/-	111.2640	µg/mL	Stressed
2	2-Butanone-d5 CAS # 24313-50-6 Purity 99% (Lot M-276)	1,262.5 µg/mL	+/-	7.3403	µg/mL	Gravimetric
			+/-	27.0303	µg/mL	Unstressed
			+/-	27.8161	µg/mL	Stressed
3	Fluorobenzene CAS # 462-06-6 Purity 99% (Lot BCBK8171V)	251.6 µg/mL	+/-	1.4664	µg/mL	Gravimetric
			+/-	5.3884	µg/mL	Unstressed
			+/-	5.5450	µg/mL	Stressed
4	1,4-Dioxane-d8 CAS # 17647-74-4 Purity 99% (Lot I-19942)	5,048.8 µg/mL	+/-	29.3526	µg/mL	Gravimetric
			+/-	108.0950	µg/mL	Unstressed
			+/-	111.2375	µg/mL	Stressed
5	Chlorobenzene-d5 CAS # 3114-55-4 Purity 99% (Lot PR-23926)	251.5 µg/mL	+/-	1.4654	µg/mL	Gravimetric
			+/-	5.3849	µg/mL	Unstressed
			+/-	5.5413	µg/mL	Stressed
6	1,4-Dichlorobenzene-d4 CAS # 3855-82-1 Purity 99% (Lot PR-18488)	252.5 µg/mL	+/-	1.4714	µg/mL	Gravimetric
			+/-	5.4070	µg/mL	Unstressed
			+/-	5.5641	µg/mL	Stressed

Reagent

VOA8260KET1ST_00099



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Catalog No. : 569721 **Lot No.:** A0123890

Description : 8260 List 1/ Std #2 Ketones (2015)
8260 List 1/ Std #2 Ketones (2015) 12,500 µg/ml, P&T Methanol/Water (90:10), 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2020 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
1	Acetone	12,517.5 µg/mL (Lot SHBH0922V)	+/-	72.7778	µg/mL	Gravimetric
	CAS # 67-64-1		+/-	755.2362	µg/mL	Unstressed
	Purity 99%		+/-	757.0293	µg/mL	Stressed
2	2-Butanone (MEK)	12,521.8 µg/mL (Lot SHBF2461V)	+/-	72.8025	µg/mL	Gravimetric
	CAS # 78-93-3		+/-	755.4927	µg/mL	Unstressed
	Purity 99%		+/-	757.2863	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,519.8 µg/mL (Lot SHBG3630V)	+/-	72.7909	µg/mL	Gravimetric
	CAS # 108-10-1		+/-	755.3720	µg/mL	Unstressed
	Purity 99%		+/-	757.1654	µg/mL	Stressed
4	2-Hexanone	12,508.5 µg/mL (Lot MKBW0198V)	+/-	72.7255	µg/mL	Gravimetric
	CAS # 591-78-6		+/-	754.6932	µg/mL	Unstressed
	Purity 99%		+/-	756.4850	µg/mL	Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Reagent

VOA8260KET1ST_00100



CERTIFIED REFERENCE MATERIAL

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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569721 **Lot No.:** A0123890
Description : 8260 List 1/ Std #2 Ketones (2015)
8260 List 1/ Std #2 Ketones (2015) 12,500 µg/ml, P&T Methanol/Water (90:10), 1 ml/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : January 31, 2020 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
1	Acetone	12,517.5 µg/mL (Lot SHBH0922V)	+/-	72.7778	µg/mL	Gravimetric
	CAS # 67-64-1		+/-	755.2362	µg/mL	Unstressed
	Purity 99%		+/-	757.0293	µg/mL	Stressed
2	2-Butanone (MEK)	12,521.8 µg/mL (Lot SHBF2461V)	+/-	72.8025	µg/mL	Gravimetric
	CAS # 78-93-3		+/-	755.4927	µg/mL	Unstressed
	Purity 99%		+/-	757.2863	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,519.8 µg/mL (Lot SHBG3630V)	+/-	72.7909	µg/mL	Gravimetric
	CAS # 108-10-1		+/-	755.3720	µg/mL	Unstressed
	Purity 99%		+/-	757.1654	µg/mL	Stressed
4	2-Hexanone	12,508.5 µg/mL (Lot MKBW0198V)	+/-	72.7255	µg/mL	Gravimetric
	CAS # 591-78-6		+/-	754.6932	µg/mL	Unstressed
	Purity 99%		+/-	756.4850	µg/mL	Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Reagent

VOA8260KET2ND_00103



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569721.sec **Lot No.:** A0123880

Description : 8260 List 1/ Std #2 Ketones (2015)
8260 List 1/ Std #2 Ketones (2015) 12,500 µg/ml, P&T Methanol/Water (90:10), 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2020 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone	12,501.6 µg/mL	+/-	73.1996	µg/mL	Gravimetric
	CAS # 67-64-1.SEC (Lot P14A572)		+/-	754.3267	µg/mL	Unstressed
	Purity 99%		+/-	756.1173	µg/mL	Stressed
2	2-Butanone (MEK)	12,503.6 µg/mL	+/-	73.2113	µg/mL	Gravimetric
	CAS # 78-93-3.SEC (Lot RA58J)		+/-	754.4473	µg/mL	Unstressed
	Purity 99%		+/-	756.2383	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,506.0 µg/mL	+/-	73.2254	µg/mL	Gravimetric
	CAS # 108-10-1.SEC (Lot E29T040)		+/-	754.5921	µg/mL	Unstressed
	Purity 99%		+/-	756.3834	µg/mL	Stressed
4	2-Hexanone	12,504.0 µg/mL	+/-	73.2137	µg/mL	Gravimetric
	CAS # 591-78-6.SEC (Lot V3NRA)		+/-	754.4715	µg/mL	Unstressed
	Purity 99%		+/-	756.2625	µg/mL	Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Reagent

VOA8260MEGA1_00065



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Catalog No. : 571992 **Lot No.:** A0123711
Description : 8260 List 1 / Std #1 MegaMix (2017)
8260 List 1 / Std #1 MegaMix (2017) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : December 31, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Diethyl ether (ethyl ether) CAS # 60-29-7 (Lot SHBG1462V) Purity 99%	2,501.3 µg/mL	+/- 14.5425 µg/mL	+/- 150.9115 µg/mL	+/- 151.2698 µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) CAS # 76-13-1 (Lot 00009482) Purity 99%	2,505.1 µg/mL	+/- 14.5650 µg/mL	+/- 151.1453 µg/mL	+/- 151.5041 µg/mL	Gravimetric Unstressed Stressed
3	1,1-dichloroethene CAS # 75-35-4 (Lot SHBG8609V) Purity 99%	2,511.5 µg/mL	+/- 14.6021 µg/mL	+/- 151.5299 µg/mL	+/- 151.8897 µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) CAS # 75-65-0 (Lot SHBF0688V) Purity 99%	25,001.8 µg/mL	+/- 145.3547 µg/mL	+/- 1,508.4656 µg/mL	+/- 1,512.0470 µg/mL	Gravimetric Unstressed Stressed
5	Methyl acetate CAS # 79-20-9 (Lot SHBG4345V) Purity 99%	5,000.5 µg/mL	+/- 29.0733 µg/mL	+/- 301.7023 µg/mL	+/- 302.4186 µg/mL	Gravimetric Unstressed Stressed
6	Iodomethane (methyl iodide) CAS # 74-88-4 (Lot SHBF2149V) Purity 99%	2,502.9 µg/mL	+/- 14.5519 µg/mL	+/- 151.0095 µg/mL	+/- 151.3681 µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) CAS # 107-05-1 (Lot SHBF8133V) Purity 99%	2,517.1 µg/mL	+/- 14.6348 µg/mL	+/- 151.8693 µg/mL	+/- 152.2299 µg/mL	Gravimetric Unstressed Stressed

8	Methylene chloride (dichloromethane) CAS # 75-09-2 Purity 99%	(Lot SHBH2578V)	2,502.1 µg/mL	+/- 14.5476 +/- 150.9643 +/- 151.3227	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Carbon disulfide CAS # 75-15-0 Purity 99%	(Lot S20A856)	2,501.4 µg/mL	+/- 14.5432 +/- 150.9190 +/- 151.2773	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Acrylonitrile CAS # 107-13-1 Purity 99%	(Lot T07B2030)	25,001.3 µg/mL	+/- 145.3518 +/- 1,508.4355 +/- 1,512.0167	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	Methyl-tert-butyl ether (MTBE) CAS # 1634-04-4 Purity 99%	(Lot SHBG2655V)	2,505.3 µg/mL	+/- 14.5657 +/- 151.1528 +/- 151.5117	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	cis-1,2-Dichloroethene CAS # 156-59-2 Purity 98%	(Lot MKBV2831V)	2,500.5 µg/mL	+/- 14.5379 +/- 150.8644 +/- 151.2226	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Hexane (C6) CAS # 110-54-3 Purity 99%	(Lot SHBG2674V)	2,503.8 µg/mL	+/- 14.5570 +/- 151.0623 +/- 151.4210	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	1,1-Dichloroethane CAS # 75-34-3 Purity 99%	(Lot 00008621)	2,500.4 µg/mL	+/- 14.5374 +/- 150.8587 +/- 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	2,2-Dichloropropane CAS # 594-20-7 Purity 98%	(Lot BCBR0622V)	2,501.0 µg/mL	+/- 14.5408 +/- 150.8940 +/- 151.2522	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	trans-1,2-Dichloroethene CAS # 156-60-5 Purity 99%	(Lot 09431AEV)	2,503.8 µg/mL	+/- 14.5570 +/- 151.0623 +/- 151.4210	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Isobutanol (2-Methyl-1-propanol) CAS # 78-83-1 Purity 99%	(Lot SHBG8201V)	62,512.5 µg/mL	+/- 363.4341 +/- 3,771.6543 +/- 3,780.6088	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	chloroform CAS # 67-66-3 Purity 99%	(Lot MKBV2089V)	2,501.9 µg/mL	+/- 14.5461 +/- 150.9492 +/- 151.3076	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Bromochloromethane CAS # 74-97-5 Purity 99%	(Lot 00004559)	2,503.3 µg/mL	+/- 14.5541 +/- 151.0322 +/- 151.3907	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	Tetrahydrofuran CAS # 109-99-9 Purity 99%	(Lot SHBG2910V)	5,001.3 µg/mL	+/- 29.0777 +/- 301.7476 +/- 302.4640	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,1,1-trichloroethane CAS # 71-55-6 Purity 99%	(Lot B15W12061)	2,500.3 µg/mL	+/- 14.5367 +/- 150.8512 +/- 151.2093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	Cyclohexane CAS # 110-82-7 Purity 99%	(Lot MKBX4768V)	2,502.0 µg/mL	+/- 14.5468 +/- 150.9567 +/- 151.3151	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	1,1-Dichloropropene CAS # 563-58-6 Purity 99%	(Lot 160727JLM)	2,500.5 µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	carbon tetrachloride CAS # 56-23-5 Purity 99%	(Lot SHBG1763V)	2,503.3	µg/mL	+/-	14.5541 151.0322 151.3907	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	n-Heptane (C7) CAS # 142-82-5 Purity 99%	(Lot SHBG6171V)	2,505.5	µg/mL	+/-	14.5672 151.1679 151.5268	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	1,2-Dichloroethane CAS # 107-06-2 Purity 99%	(Lot SHBF9313V)	2,504.8	µg/mL	+/-	14.5628 151.1227 151.4815	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Benzene CAS # 71-43-2 Purity 99%	(Lot SHBH2056V)	2,506.9	µg/mL	+/-	14.5752 151.2509 151.6100	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Trichloroethene CAS # 79-01-6 Purity 99%	(Lot SHBH1955V)	2,502.4	µg/mL	+/-	14.5490 150.9794 151.3378	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	Methylcyclohexane CAS # 108-87-2 Purity 98%	(Lot SHBG0634V)	2,500.3	µg/mL	+/-	14.5372 150.8570 151.2152	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	1,2-Dichloropropane CAS # 78-87-5 Purity 99%	(Lot 01113D0V)	2,503.0	µg/mL	+/-	14.5527 151.0171 151.3756	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane CAS # 123-91-1 Purity 99%	(Lot SHBH2584V)	50,011.4	µg/mL	+/-	290.7552 3,017.4064 3,024.5702	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane CAS # 74-95-3 Purity 98%	(Lot 10183283)	2,501.9	µg/mL	+/-	14.5465 150.9531 151.3115	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene CAS # 10061-01-5 Purity 99%	(Lot 22622)	2,501.0	µg/mL	+/-	14.5410 150.8964 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene CAS # 108-88-3 Purity 99%	(Lot SHBH1932V)	2,504.3	µg/mL	+/-	14.5599 151.0925 151.4512	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate CAS # 97-63-2 Purity 99%	(Lot SHBD9190V)	2,506.9	µg/mL	+/-	14.5752 151.2509 151.6100	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene CAS # 10061-02-6 Purity 99%	(Lot C584177)	2,503.6	µg/mL	+/-	14.5563 151.0548 151.4134	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane CAS # 79-00-5 Purity 99%	(Lot FGB01)	2,501.0	µg/mL	+/-	14.5410 150.8964 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane CAS # 142-28-9 Purity 99%	(Lot BCBG2162V)	2,503.5	µg/mL	+/-	14.5556 151.0472 151.4059	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene CAS # 127-18-4 Purity 99%	(Lot SHBD9374V)	2,500.9	µg/mL	+/-	14.5403 150.8889 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	dibromochloromethane CAS # 124-48-1 Purity 98%	(Lot MKBW3597V)	2,500.2 µg/mL	+/- 14.5365 +/- 150.8497 +/- 151.2078	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	1,2-Dibromoethane (EDB) CAS # 106-93-4 Purity 99%	(Lot BCBH3877V)	2,501.3 µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	Chlorobenzene CAS # 108-90-7 Purity 99%	(Lot SHBF0505V)	2,500.1 µg/mL	+/- 14.5359 +/- 150.8436 +/- 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	m-Xylene CAS # 108-38-3 Purity 99%	(Lot SHBG4347V)	1,250.3 µg/mL	+/- 7.2691 +/- 75.4331 +/- 75.6122	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	p-Xylene CAS # 106-42-3 Purity 99%	(Lot SHBG3928V)	1,251.3 µg/mL	+/- 7.2749 +/- 75.4935 +/- 75.6727	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	Ethylbenzene CAS # 100-41-4 Purity 99%	(Lot SHBG5920V)	2,503.3 µg/mL	+/- 14.5541 +/- 151.0322 +/- 151.3907	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	1,1,1,2-Tetrachloroethane CAS # 630-20-6 Purity 99%	(Lot MKBS3769V)	2,500.3 µg/mL	+/- 14.5367 +/- 150.8512 +/- 151.2093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	o-Xylene CAS # 95-47-6 Purity 99%	(Lot SHBH3432V)	2,504.9 µg/mL	+/- 14.5636 +/- 151.1302 +/- 151.4890	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	Styrene CAS # 100-42-5 Purity 99%	(Lot MKBS7097V)	2,506.3 µg/mL	+/- 14.5716 +/- 151.2132 +/- 151.5722	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	Isopropylbenzene (cumene) CAS # 98-82-8 Purity 99%	(Lot 10185056)	2,501.6 µg/mL	+/- 14.5447 +/- 150.9341 +/- 151.2925	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	bromoform CAS # 75-25-2 Purity 99%	(Lot SHBD8459V)	2,502.9 µg/mL	+/- 14.5519 +/- 151.0095 +/- 151.3681	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	bromodichloromethane CAS # 75-27-4 Purity 97%	(Lot MKBW5506V)	2,506.8 µg/mL	+/- 14.5750 +/- 151.2490 +/- 151.6081	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	1,1,2,2-Tetrachloroethane CAS # 79-34-5 Purity 99%	(Lot CFA4D)	2,501.3 µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	1,2,3-Trichloropropane CAS # 96-18-4 Purity 99%	(Lot BCBH8722V)	2,508.5 µg/mL	+/- 14.5846 +/- 151.3489 +/- 151.7082	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	trans-1,4-dichloro-2-butene CAS # 110-57-6 Purity 95%	(Lot MKBP6041V)	2,500.8 µg/mL	+/- 14.5396 +/- 150.8817 +/- 151.2399	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	n-Propylbenzene CAS # 103-65-1 Purity 99%	(Lot MKBJ0332V)	2,501.9 µg/mL	+/- 14.5461 +/- 150.9492 +/- 151.3076	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Bromobenzene CAS # 108-86-1 Purity 99%	(Lot MKBD4032V)	2,507.0 µg/mL	+/- 14.5759 +/- 151.2584 +/- 151.6175	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	1,3,5-Trimethylbenzene CAS # 108-67-8 Purity 99%	(Lot BCBQ2165V)	2,501.1 µg/mL	+/- 14.5418 +/- 150.9040 +/- 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	2-Chlorotoluene CAS # 95-49-8 Purity 99%	(Lot MKBW5554V)	2,500.6 µg/mL	+/- 14.5388 +/- 150.8738 +/- 151.2320	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4-Chlorotoluene CAS # 106-43-4 Purity 99%	(Lot MKBL7753V)	2,501.3 µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	tert-Butylbenzene CAS # 98-06-6 Purity 99%	(Lot S52237V)	2,507.0 µg/mL	+/- 14.5759 +/- 151.2584 +/- 151.6175	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	1,2,4-Trimethylbenzene CAS # 95-63-6 Purity 98%	(Lot MKBJ6229V)	2,500.8 µg/mL	+/- 14.5401 +/- 150.8866 +/- 151.2448	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	sec-Butylbenzene CAS # 135-98-8 Purity 99%	(Lot MKBR9260V)	2,505.4 µg/mL	+/- 14.5665 +/- 151.1604 +/- 151.5193	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	p-Isopropyltoluene (p-Cymene) CAS # 99-87-6 Purity 99%	(Lot MKBS2604V)	2,503.8 µg/mL	+/- 14.5570 +/- 151.0623 +/- 151.4210	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	1,3-Dichlorobenzene CAS # 541-73-1 Purity 99%	(Lot BCBM5751V)	2,503.9 µg/mL	+/- 14.5577 +/- 151.0699 +/- 151.4285	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	1,4-Dichlorobenzene CAS # 106-46-7 Purity 99%	(Lot MKBS1350V)	2,509.9 µg/mL	+/- 14.5926 +/- 151.4319 +/- 151.7914	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	n-Butylbenzene CAS # 104-51-8 Purity 99%	(Lot 09418JJV)	2,503.3 µg/mL	+/- 14.5541 +/- 151.0322 +/- 151.3907	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	1,2-Dichlorobenzene CAS # 95-50-1 Purity 99%	(Lot SHBD7331V)	2,503.8 µg/mL	+/- 14.5570 +/- 151.0623 +/- 151.4210	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane CAS # 96-12-8 Purity 99%	(Lot FBL01)	2,505.0 µg/mL	+/- 14.5643 +/- 151.1378 +/- 151.4966	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 99%	(Lot SHBC5541V)	2,505.3 µg/mL	+/- 14.5657 +/- 151.1528 +/- 151.5117	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene CAS # 87-68-3 Purity 98%	(Lot J31X013)	2,506.5 µg/mL	+/- 14.5728 +/- 151.2266 +/- 151.5856	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene CAS # 91-20-3 Purity 99%	(Lot MKBW2603V)	2,500.9 µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	1,2,3-Trichlorobenzene		2,511.1 µg/mL	+/-	14.5999 µg/mL	Gravimetric
	CAS # 87-61-6	(Lot 12912PFV)		+/-	151.5073 µg/mL	Unstressed
	Purity 99%			+/-	151.8670 µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

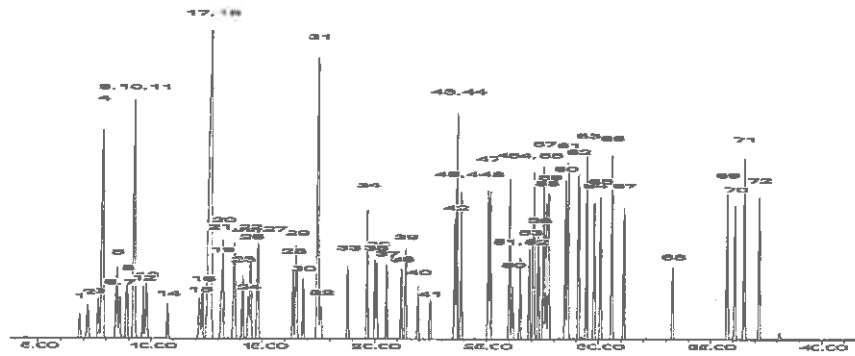
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

F. Joseph Tallon
F. Joseph Tallon - Mix Technician

Date Mixed: 22-Dec-2016 **Balance:** B251644995

Jennifer A. Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 04-Jan-2017

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

Reagent

VOA8260MEGA1_00066



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Catalog No. : 571992 Lot No.: A0123711

Description : 8260 List 1 / Std #1 MegaMix (2017)
8260 List 1 / Std #1 MegaMix (2017) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : December 31, 2018 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Diethyl ether (ethyl ether) CAS # 60-29-7 (Lot SHBG1462V) Purity 99%	2,501.3 µg/mL	+/- 14.5425 µg/mL	+/- 150.9115 µg/mL	+/- 151.2698 µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) CAS # 76-13-1 (Lot 00009482) Purity 99%	2,505.1 µg/mL	+/- 14.5650 µg/mL	+/- 151.1453 µg/mL	+/- 151.5041 µg/mL	Gravimetric Unstressed Stressed
3	1,1-dichloroethene CAS # 75-35-4 (Lot SHBG8609V) Purity 99%	2,511.5 µg/mL	+/- 14.6021 µg/mL	+/- 151.5299 µg/mL	+/- 151.8897 µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) CAS # 75-65-0 (Lot SHBF0688V) Purity 99%	25,001.8 µg/mL	+/- 145.3547 µg/mL	+/- 1,508.4656 µg/mL	+/- 1,512.0470 µg/mL	Gravimetric Unstressed Stressed
5	Methyl acetate CAS # 79-20-9 (Lot SHBG4345V) Purity 99%	5,000.5 µg/mL	+/- 29.0733 µg/mL	+/- 301.7023 µg/mL	+/- 302.4186 µg/mL	Gravimetric Unstressed Stressed
6	Iodomethane (methyl iodide) CAS # 74-88-4 (Lot SHBF2149V) Purity 99%	2,502.9 µg/mL	+/- 14.5519 µg/mL	+/- 151.0095 µg/mL	+/- 151.3681 µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) CAS # 107-05-1 (Lot SHBF8133V) Purity 99%	2,517.1 µg/mL	+/- 14.6348 µg/mL	+/- 151.8693 µg/mL	+/- 152.2299 µg/mL	Gravimetric Unstressed Stressed

8	Methylene chloride (dichloromethane) CAS # 75-09-2 Purity 99%	(Lot SHBH2578V)	2,502.1 µg/mL	+/- 14.5476 +/- 150.9643 +/- 151.3227	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Carbon disulfide CAS # 75-15-0 Purity 99%	(Lot S20A856)	2,501.4 µg/mL	+/- 14.5432 +/- 150.9190 +/- 151.2773	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Acrylonitrile CAS # 107-13-1 Purity 99%	(Lot T07B2030)	25,001.3 µg/mL	+/- 145.3518 +/- 1,508.4355 +/- 1,512.0167	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	Methyl-tert-butyl ether (MTBE) CAS # 1634-04-4 Purity 99%	(Lot SHBG2655V)	2,505.3 µg/mL	+/- 14.5657 +/- 151.1528 +/- 151.5117	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	cis-1,2-Dichloroethene CAS # 156-59-2 Purity 98%	(Lot MKBV2831V)	2,500.5 µg/mL	+/- 14.5379 +/- 150.8644 +/- 151.2226	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Hexane (C6) CAS # 110-54-3 Purity 99%	(Lot SHBG2674V)	2,503.8 µg/mL	+/- 14.5570 +/- 151.0623 +/- 151.4210	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	1,1-Dichloroethane CAS # 75-34-3 Purity 99%	(Lot 00008621)	2,500.4 µg/mL	+/- 14.5374 +/- 150.8587 +/- 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	2,2-Dichloropropane CAS # 594-20-7 Purity 98%	(Lot BCBR0622V)	2,501.0 µg/mL	+/- 14.5408 +/- 150.8940 +/- 151.2522	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	trans-1,2-Dichloroethene CAS # 156-60-5 Purity 99%	(Lot 09431AEV)	2,503.8 µg/mL	+/- 14.5570 +/- 151.0623 +/- 151.4210	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Isobutanol (2-Methyl-1-propanol) CAS # 78-83-1 Purity 99%	(Lot SHBG8201V)	62,512.5 µg/mL	+/- 363.4341 +/- 3,771.6543 +/- 3,780.6088	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	chloroform CAS # 67-66-3 Purity 99%	(Lot MKBV2089V)	2,501.9 µg/mL	+/- 14.5461 +/- 150.9492 +/- 151.3076	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Bromochloromethane CAS # 74-97-5 Purity 99%	(Lot 00004559)	2,503.3 µg/mL	+/- 14.5541 +/- 151.0322 +/- 151.3907	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	Tetrahydrofuran CAS # 109-99-9 Purity 99%	(Lot SHBG2910V)	5,001.3 µg/mL	+/- 29.0777 +/- 301.7476 +/- 302.4640	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,1,1-trichloroethane CAS # 71-55-6 Purity 99%	(Lot B15W12061)	2,500.3 µg/mL	+/- 14.5367 +/- 150.8512 +/- 151.2093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	Cyclohexane CAS # 110-82-7 Purity 99%	(Lot MKBX4768V)	2,502.0 µg/mL	+/- 14.5468 +/- 150.9567 +/- 151.3151	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	1,1-Dichloropropene CAS # 563-58-6 Purity 99%	(Lot 160727JLM)	2,500.5 µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	carbon tetrachloride CAS # 56-23-5 Purity 99%	(Lot SHBG1763V)	2,503.3	µg/mL	+/-	14.5541 151.0322 151.3907	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	n-Heptane (C7) CAS # 142-82-5 Purity 99%	(Lot SHBG6171V)	2,505.5	µg/mL	+/-	14.5672 151.1679 151.5268	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	1,2-Dichloroethane CAS # 107-06-2 Purity 99%	(Lot SHBF9313V)	2,504.8	µg/mL	+/-	14.5628 151.1227 151.4815	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Benzene CAS # 71-43-2 Purity 99%	(Lot SHBH2056V)	2,506.9	µg/mL	+/-	14.5752 151.2509 151.6100	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Trichloroethene CAS # 79-01-6 Purity 99%	(Lot SHBH1955V)	2,502.4	µg/mL	+/-	14.5490 150.9794 151.3378	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	Methylcyclohexane CAS # 108-87-2 Purity 98%	(Lot SHBG0634V)	2,500.3	µg/mL	+/-	14.5372 150.8570 151.2152	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	1,2-Dichloropropane CAS # 78-87-5 Purity 99%	(Lot 01113D0V)	2,503.0	µg/mL	+/-	14.5527 151.0171 151.3756	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane CAS # 123-91-1 Purity 99%	(Lot SHBH2584V)	50,011.4	µg/mL	+/-	290.7552 3,017.4064 3,024.5702	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane CAS # 74-95-3 Purity 98%	(Lot 10183283)	2,501.9	µg/mL	+/-	14.5465 150.9531 151.3115	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene CAS # 10061-01-5 Purity 99%	(Lot 22622)	2,501.0	µg/mL	+/-	14.5410 150.8964 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene CAS # 108-88-3 Purity 99%	(Lot SHBH1932V)	2,504.3	µg/mL	+/-	14.5599 151.0925 151.4512	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate CAS # 97-63-2 Purity 99%	(Lot SHBD9190V)	2,506.9	µg/mL	+/-	14.5752 151.2509 151.6100	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene CAS # 10061-02-6 Purity 99%	(Lot C584177)	2,503.6	µg/mL	+/-	14.5563 151.0548 151.4134	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane CAS # 79-00-5 Purity 99%	(Lot FGB01)	2,501.0	µg/mL	+/-	14.5410 150.8964 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane CAS # 142-28-9 Purity 99%	(Lot BCBG2162V)	2,503.5	µg/mL	+/-	14.5556 151.0472 151.4059	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene CAS # 127-18-4 Purity 99%	(Lot SHBD9374V)	2,500.9	µg/mL	+/-	14.5403 150.8889 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	dibromochloromethane CAS # 124-48-1 Purity 98%	(Lot MKBW3597V)	2,500.2 µg/mL	+/- 14.5365 +/- 150.8497 +/- 151.2078	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	1,2-Dibromoethane (EDB) CAS # 106-93-4 Purity 99%	(Lot BCBH3877V)	2,501.3 µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	Chlorobenzene CAS # 108-90-7 Purity 99%	(Lot SHBF0505V)	2,500.1 µg/mL	+/- 14.5359 +/- 150.8436 +/- 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	m-Xylene CAS # 108-38-3 Purity 99%	(Lot SHBG4347V)	1,250.3 µg/mL	+/- 7.2691 +/- 75.4331 +/- 75.6122	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	p-Xylene CAS # 106-42-3 Purity 99%	(Lot SHBG3928V)	1,251.3 µg/mL	+/- 7.2749 +/- 75.4935 +/- 75.6727	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	Ethylbenzene CAS # 100-41-4 Purity 99%	(Lot SHBG5920V)	2,503.3 µg/mL	+/- 14.5541 +/- 151.0322 +/- 151.3907	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	1,1,1,2-Tetrachloroethane CAS # 630-20-6 Purity 99%	(Lot MKBS3769V)	2,500.3 µg/mL	+/- 14.5367 +/- 150.8512 +/- 151.2093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	o-Xylene CAS # 95-47-6 Purity 99%	(Lot SHBH3432V)	2,504.9 µg/mL	+/- 14.5636 +/- 151.1302 +/- 151.4890	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	Styrene CAS # 100-42-5 Purity 99%	(Lot MKBS7097V)	2,506.3 µg/mL	+/- 14.5716 +/- 151.2132 +/- 151.5722	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	Isopropylbenzene (cumene) CAS # 98-82-8 Purity 99%	(Lot 10185056)	2,501.6 µg/mL	+/- 14.5447 +/- 150.9341 +/- 151.2925	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	bromoform CAS # 75-25-2 Purity 99%	(Lot SHBD8459V)	2,502.9 µg/mL	+/- 14.5519 +/- 151.0095 +/- 151.3681	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	bromodichloromethane CAS # 75-27-4 Purity 97%	(Lot MKBW5506V)	2,506.8 µg/mL	+/- 14.5750 +/- 151.2490 +/- 151.6081	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	1,1,2,2-Tetrachloroethane CAS # 79-34-5 Purity 99%	(Lot CFA4D)	2,501.3 µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	1,2,3-Trichloropropane CAS # 96-18-4 Purity 99%	(Lot BCBH8722V)	2,508.5 µg/mL	+/- 14.5846 +/- 151.3489 +/- 151.7082	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	trans-1,4-dichloro-2-butene CAS # 110-57-6 Purity 95%	(Lot MKBP6041V)	2,500.8 µg/mL	+/- 14.5396 +/- 150.8817 +/- 151.2399	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	n-Propylbenzene CAS # 103-65-1 Purity 99%	(Lot MKBJ0332V)	2,501.9 µg/mL	+/- 14.5461 +/- 150.9492 +/- 151.3076	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Bromobenzene CAS # 108-86-1 Purity 99%	(Lot MKBD4032V)	2,507.0 µg/mL	+/- 14.5759 +/- 151.2584 +/- 151.6175	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	1,3,5-Trimethylbenzene CAS # 108-67-8 Purity 99%	(Lot BCBQ2165V)	2,501.1 µg/mL	+/- 14.5418 +/- 150.9040 +/- 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	2-Chlorotoluene CAS # 95-49-8 Purity 99%	(Lot MKBW5554V)	2,500.6 µg/mL	+/- 14.5388 +/- 150.8738 +/- 151.2320	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4-Chlorotoluene CAS # 106-43-4 Purity 99%	(Lot MKBL7753V)	2,501.3 µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	tert-Butylbenzene CAS # 98-06-6 Purity 99%	(Lot S52237V)	2,507.0 µg/mL	+/- 14.5759 +/- 151.2584 +/- 151.6175	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	1,2,4-Trimethylbenzene CAS # 95-63-6 Purity 98%	(Lot MKBJ6229V)	2,500.8 µg/mL	+/- 14.5401 +/- 150.8866 +/- 151.2448	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	sec-Butylbenzene CAS # 135-98-8 Purity 99%	(Lot MKBR9260V)	2,505.4 µg/mL	+/- 14.5665 +/- 151.1604 +/- 151.5193	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	p-Isopropyltoluene (p-Cymene) CAS # 99-87-6 Purity 99%	(Lot MKBS2604V)	2,503.8 µg/mL	+/- 14.5570 +/- 151.0623 +/- 151.4210	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	1,3-Dichlorobenzene CAS # 541-73-1 Purity 99%	(Lot BCBM5751V)	2,503.9 µg/mL	+/- 14.5577 +/- 151.0699 +/- 151.4285	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	1,4-Dichlorobenzene CAS # 106-46-7 Purity 99%	(Lot MKBS1350V)	2,509.9 µg/mL	+/- 14.5926 +/- 151.4319 +/- 151.7914	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	n-Butylbenzene CAS # 104-51-8 Purity 99%	(Lot 09418JJV)	2,503.3 µg/mL	+/- 14.5541 +/- 151.0322 +/- 151.3907	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	1,2-Dichlorobenzene CAS # 95-50-1 Purity 99%	(Lot SHBD7331V)	2,503.8 µg/mL	+/- 14.5570 +/- 151.0623 +/- 151.4210	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane CAS # 96-12-8 Purity 99%	(Lot FBL01)	2,505.0 µg/mL	+/- 14.5643 +/- 151.1378 +/- 151.4966	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 99%	(Lot SHBC5541V)	2,505.3 µg/mL	+/- 14.5657 +/- 151.1528 +/- 151.5117	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene CAS # 87-68-3 Purity 98%	(Lot J31X013)	2,506.5 µg/mL	+/- 14.5728 +/- 151.2266 +/- 151.5856	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene CAS # 91-20-3 Purity 99%	(Lot MKBW2603V)	2,500.9 µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	1,2,3-Trichlorobenzene		2,511.1 µg/mL	+/-	14.5999 µg/mL	Gravimetric
	CAS # 87-61-6	(Lot 12912PFV)		+/-	151.5073 µg/mL	Unstressed
	Purity 99%			+/-	151.8670 µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

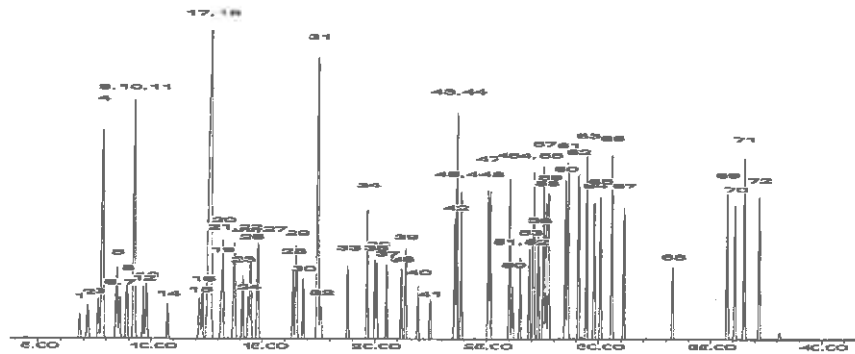
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

F. Joseph Tallon
F. Joseph Tallon - Mix Technician

Date Mixed: 22-Dec-2016 **Balance:** B251644995

Jennifer J. Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 04-Jan-2017

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

Reagent

VOA8260MEGA2_00065



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571992.sec **Lot No.:** A0123775
Description : 8260 List 1 / Std #1 MegaMix (2017)
8260 List 1 / Std #1 MegaMix (2017) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : December 31, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
1	Diethyl ether (ethyl ether)	2,501.2 µg/mL	+/-	14.5422	µg/mL	Gravimetric
	CAS # 60-29-7.SEC (Lot F23X068)		+/-	150.9088	µg/mL	Unstressed
	Purity 98%		+/-	151.2671	µg/mL	Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113)	2,501.1 µg/mL	+/-	14.5418	µg/mL	Gravimetric
	CAS # 76-13-1.SEC (Lot 18342)		+/-	150.9040	µg/mL	Unstressed
	Purity 99%		+/-	151.2622	µg/mL	Stressed
3	1,1-Dichloroethene	2,500.5 µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 75-35-4.SEC (Lot 2767000)		+/-	150.8662	µg/mL	Unstressed
	Purity 99%		+/-	151.2244	µg/mL	Stressed
4	tert-Butanol (TBA)	25,003.1 µg/mL	+/-	145.3626	µg/mL	Gravimetric
	CAS # 75-65-0.SEC (Lot XYXDO)		+/-	1,508.5475	µg/mL	Unstressed
	Purity 98%		+/-	1,512.1291	µg/mL	Stressed
5	Methyl acetate	5,000.4 µg/mL	+/-	29.0726	µg/mL	Gravimetric
	CAS # 79-20-9.SEC (Lot YDGVD)		+/-	301.6948	µg/mL	Unstressed
	Purity 99%		+/-	302.4111	µg/mL	Stressed
6	Iodomethane (methyl iodide)	2,500.4 µg/mL	+/-	14.5374	µg/mL	Gravimetric
	CAS # 74-88-4.SEC (Lot Y25A027)		+/-	150.8587	µg/mL	Unstressed
	Purity 99%		+/-	151.2169	µg/mL	Stressed
7	Allyl chloride (3-chloropropene)	2,500.1 µg/mL	+/-	14.5358	µg/mL	Gravimetric
	CAS # 107-05-1.SEC (Lot VEBOC)		+/-	150.8423	µg/mL	Unstressed
	Purity 98%		+/-	151.2004	µg/mL	Stressed

8	Methylene chloride (dichloromethane)	2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS # 75-09-2.SEC (Lot FGM02)			+/-	150.8813	µg/mL	Unstressed
	Purity 99%			+/-	151.2395	µg/mL	Stressed
9	Carbon disulfide	2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS # 75-15-0.SEC (Lot MKBL1376V)			+/-	150.8889	µg/mL	Unstressed
	Purity 99%			+/-	151.2471	µg/mL	Stressed
10	Acrylonitrile	25,000.9	µg/mL	+/-	145.3496	µg/mL	Gravimetric
	CAS # 107-13-1.SEC (Lot UERIL)			+/-	1,508.4128	µg/mL	Unstressed
	Purity 99%			+/-	1,511.9941	µg/mL	Stressed
11	Methyl-tert-butyl ether (MTBE)	2,500.0	µg/mL	+/-	14.5352	µg/mL	Gravimetric
	CAS # 1634-04-4.SEC (Lot ZAQTA-MS)			+/-	150.8361	µg/mL	Unstressed
	Purity 99%			+/-	151.1942	µg/mL	Stressed
12	cis-1,2-Dichloroethene	2,500.7	µg/mL	+/-	14.5394	µg/mL	Gravimetric
	CAS # 156-59-2.SEC (Lot HGC01-BLKT)			+/-	150.8792	µg/mL	Unstressed
	Purity 98%			+/-	151.2374	µg/mL	Stressed
13	n-Hexane (C6)	2,501.5	µg/mL	+/-	14.5439	µg/mL	Gravimetric
	CAS # 110-54-3.SEC (Lot 10188491)			+/-	150.9266	µg/mL	Unstressed
	Purity 99%			+/-	151.2849	µg/mL	Stressed
14	1,1-Dichloroethane	2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
	CAS # 75-34-3.SEC (Lot 5379000)			+/-	150.8512	µg/mL	Unstressed
	Purity 99%			+/-	151.2093	µg/mL	Stressed
15	2,2-Dichloropropane	2,500.1	µg/mL	+/-	14.5358	µg/mL	Gravimetric
	CAS # 594-20-7.SEC (Lot I7E8E)			+/-	150.8423	µg/mL	Unstressed
	Purity 98%			+/-	151.2004	µg/mL	Stressed
16	trans-1,2-Dichloroethene	2,500.2	µg/mL	+/-	14.5362	µg/mL	Gravimetric
	CAS # 156-60-5.SEC (Lot TS5UB)			+/-	150.8466	µg/mL	Unstressed
	Purity 97%			+/-	151.2048	µg/mL	Stressed
17	Isobutanol (2-Methyl-1-propanol)	62,506.9	µg/mL	+/-	363.4014	µg/mL	Gravimetric
	CAS # 78-83-1.SEC (Lot 83NHH)			+/-	3,771.3149	µg/mL	Unstressed
	Purity 99%			+/-	3,780.2687	µg/mL	Stressed
18	Chloroform	2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS # 67-66-3.SEC (Lot 1297547)			+/-	150.8436	µg/mL	Unstressed
	Purity 99%			+/-	151.2017	µg/mL	Stressed
19	Bromochloromethane	2,501.1	µg/mL	+/-	14.5418	µg/mL	Gravimetric
	CAS # 74-97-5.SEC (Lot 5670200)			+/-	150.9040	µg/mL	Unstressed
	Purity 99%			+/-	151.2622	µg/mL	Stressed
20	Tetrahydrofuran	5,002.3	µg/mL	+/-	29.0835	µg/mL	Gravimetric
	CAS # 109-99-9.SEC (Lot K3V7J-SJ)			+/-	301.8079	µg/mL	Unstressed
	Purity 99%			+/-	302.5245	µg/mL	Stressed
21	1,1,1-Trichloroethane	2,500.7	µg/mL	+/-	14.5394	µg/mL	Gravimetric
	CAS # 71-55-6.SEC (Lot CS160712)			+/-	150.8792	µg/mL	Unstressed
	Purity 98%			+/-	151.2374	µg/mL	Stressed
22	Cyclohexane	2,501.0	µg/mL	+/-	14.5410	µg/mL	Gravimetric
	CAS # 110-82-7.SEC (Lot YADRA)			+/-	150.8964	µg/mL	Unstressed
	Purity 99%			+/-	151.2547	µg/mL	Stressed
23	1,1-Dichloropropene	2,501.3	µg/mL	+/-	14.5427	µg/mL	Gravimetric
	CAS # 563-58-6.SEC (Lot 5221100)			+/-	150.9133	µg/mL	Unstressed
	Purity 96%			+/-	151.2716	µg/mL	Stressed

24	Carbon tetrachloride CAS # 56-23-5.SEC Purity 99%	(Lot 11466)	2,500.5 µg/mL	+/-	14.5381 µg/mL 150.8662 µg/mL 151.2244 µg/mL	Gravimetric Unstressed Stressed
25	n-Heptane (C7) CAS # 142-82-5.SEC Purity 99%	(Lot OGM01)	2,500.5 µg/mL	+/-	14.5381 µg/mL 150.8662 µg/mL 151.2244 µg/mL	Gravimetric Unstressed Stressed
26	1,2-Dichloroethane CAS # 107-06-2.SEC Purity 99%	(Lot FO6PK)	2,500.1 µg/mL	+/-	14.5359 µg/mL 150.8436 µg/mL 151.2017 µg/mL	Gravimetric Unstressed Stressed
27	Benzene CAS # 71-43-2.SEC Purity 99%	(Lot B28Y008)	2,501.5 µg/mL	+/-	14.5439 µg/mL 150.9266 µg/mL 151.2849 µg/mL	Gravimetric Unstressed Stressed
28	Trichloroethene CAS # 79-01-6.SEC Purity 99%	(Lot H04X050)	2,501.0 µg/mL	+/-	14.5410 µg/mL 150.8964 µg/mL 151.2547 µg/mL	Gravimetric Unstressed Stressed
29	Methylcyclohexane CAS # 108-87-2.SEC Purity 99%	(Lot 24MSD-CD)	2,500.9 µg/mL	+/-	14.5403 µg/mL 150.8889 µg/mL 151.2471 µg/mL	Gravimetric Unstressed Stressed
30	1,2-Dichloropropane CAS # 78-87-5.SEC Purity 99%	(Lot OGG01)	2,501.1 µg/mL	+/-	14.5418 µg/mL 150.9040 µg/mL 151.2622 µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane CAS # 123-91-1.SEC Purity 99%	(Lot MUFZH)	50,007.1 µg/mL	+/-	290.7305 µg/mL 3,017.1500 µg/mL 3,024.3132 µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane CAS # 74-95-3.SEC Purity 99%	(Lot FGI01-OICH)	2,501.6 µg/mL	+/-	14.5447 µg/mL 150.9341 µg/mL 151.2925 µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene CAS # 10061-01-5.SEC Purity 99%	(Lot 487OA)	2,500.1 µg/mL	+/-	14.5359 µg/mL 150.8436 µg/mL 151.2017 µg/mL	Gravimetric Unstressed Stressed
34	Toluene CAS # 108-88-3.SEC Purity 99%	(Lot YND2B-BD)	2,500.0 µg/mL	+/-	14.5352 µg/mL 150.8361 µg/mL 151.1942 µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate CAS # 97-63-2.SEC Purity 99%	(Lot MLWYK-LS)	2,500.5 µg/mL	+/-	14.5381 µg/mL 150.8662 µg/mL 151.2244 µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene CAS # 10061-02-6.SEC Purity 99%	(Lot ZDMSL)	2,500.5 µg/mL	+/-	14.5381 µg/mL 150.8662 µg/mL 151.2244 µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane CAS # 79-00-5.SEC Purity 98%	(Lot 5034600)	2,500.8 µg/mL	+/-	14.5401 µg/mL 150.8866 µg/mL 151.2448 µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane CAS # 142-28-9.SEC Purity 99%	(Lot AGN01-EFPC)	2,500.5 µg/mL	+/-	14.5381 µg/mL 150.8662 µg/mL 151.2244 µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene CAS # 127-18-4.SEC Purity 99%	(Lot F09W014)	2,501.3 µg/mL	+/-	14.5425 µg/mL 150.9115 µg/mL 151.2698 µg/mL	Gravimetric Unstressed Stressed

40	Dibromochloromethane CAS # 124-48-1.SEC Purity 97%	(Lot 10181507)	2,500.4	µg/mL	+/-	14.5376 150.8613 151.2194	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	1,2-Dibromoethane (EDB) CAS # 106-93-4.SEC Purity 99%	(Lot 3505900)	2,500.5	µg/mL	+/-	14.5381 150.8662 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	Chlorobenzene CAS # 108-90-7.SEC Purity 99%	(Lot 1161936)	2,501.0	µg/mL	+/-	14.5410 150.8964 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	m-Xylene CAS # 108-38-3.SEC Purity 99%	(Lot OUKMG-GB)	1,250.9	µg/mL	+/-	7.2727 75.4708 75.6500	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	p-Xylene CAS # 106-42-3.SEC Purity 99%	(Lot GM01)	1,250.5	µg/mL	+/-	7.2705 75.4482 75.6273	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	Ethylbenzene CAS # 100-41-4.SEC Purity 99%	(Lot PI4SE)	2,500.9	µg/mL	+/-	14.5403 150.8889 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	1,1,1,2-Tetrachloroethane CAS # 630-20-6.SEC Purity 99%	(Lot GC01)	2,501.1	µg/mL	+/-	14.5418 150.9040 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	o-Xylene CAS # 95-47-6.SEC Purity 99%	(Lot FGL01-KTPK)	2,500.9	µg/mL	+/-	14.5403 150.8889 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	Styrene CAS # 100-42-5.SEC Purity 99%	(Lot OFIOL-IA)	2,500.4	µg/mL	+/-	14.5374 150.8587 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	Isopropylbenzene (cumene) CAS # 98-82-8.SEC Purity 99%	(Lot 2PHXG-IH)	2,500.5	µg/mL	+/-	14.5381 150.8662 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	Bromoform CAS # 75-25-2.SEC Purity 99%	(Lot 5139000)	2,502.3	µg/mL	+/-	14.5483 150.9718 151.3303	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	Bromodichloromethane CAS # 75-27-4.SEC Purity 98%	(Lot 13780)	2,500.1	µg/mL	+/-	14.5358 150.8423 151.2004	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	1,1,1,2-Tetrachloroethane CAS # 79-34-5.SEC Purity 99%	(Lot CFA4D-AQ)	2,501.3	µg/mL	+/-	14.5425 150.9115 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	1,2,3-Trichloropropane CAS # 96-18-4.SEC Purity 98%	(Lot OGI01)	2,500.1	µg/mL	+/-	14.5358 150.8423 151.2004	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	trans-1,4-Dichloro-2-butene CAS # 110-57-6.SEC Purity 98%	(Lot 100700-3)	2,501.0	µg/mL	+/-	14.5408 150.8940 151.2522	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	n-Propylbenzene CAS # 103-65-1.SEC Purity 99%	(Lot T2HFC-IT)	2,500.0	µg/mL	+/-	14.5352 150.8361 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Bromobenzene CAS # 108-86-1.SEC Purity 99%	(Lot 2FUHG-EM)	2,500.1 µg/mL	+/- 14.5359 +/- 150.8436 +/- 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	1,3,5-Trimethylbenzene CAS # 108-67-8.SEC Purity 99%	(Lot TOOOF)	2,500.3 µg/mL	+/- 14.5367 +/- 150.8512 +/- 151.2093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	2-Chlorotoluene CAS # 95-49-8.SEC Purity 99%	(Lot SW8QG-AO)	2,500.9 µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4-Chlorotoluene CAS # 106-43-4.SEC Purity 99%	(Lot P4XHJ-AO)	2,500.5 µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	tert-Butylbenzene CAS # 98-06-6.SEC Purity 99%	(Lot OGN01-CAI)	2,500.1 µg/mL	+/- 14.5359 +/- 150.8436 +/- 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	1,2,4-Trimethylbenzene CAS # 95-63-6.SEC Purity 99%	(Lot SC7LO-QA)	2,500.4 µg/mL	+/- 14.5374 +/- 150.8587 +/- 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	sec-Butylbenzene CAS # 135-98-8.SEC Purity 99%	(Lot OGN01-IMA)	2,501.4 µg/mL	+/- 14.5432 +/- 150.9190 +/- 151.2773	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	4-Isopropyltoluene (p-cymene) CAS # 99-87-6.SEC Purity 99%	(Lot 5221800)	2,501.3 µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	1,3-Dichlorobenzene CAS # 541-73-1.SEC Purity 99%	(Lot FMDFD)	2,500.9 µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	1,4-Dichlorobenzene CAS # 106-46-7.SEC Purity 99%	(Lot 4Y5DC)	2,500.8 µg/mL	+/- 14.5396 +/- 150.8813 +/- 151.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	n-Butylbenzene CAS # 104-51-8.SEC Purity 99%	(Lot OGN01-PNP)	2,500.8 µg/mL	+/- 14.5396 +/- 150.8813 +/- 151.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	1,2-Dichlorobenzene CAS # 95-50-1.SEC Purity 99%	(Lot R6QDM)	2,501.0 µg/mL	+/- 14.5410 +/- 150.8964 +/- 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane CAS # 96-12-8.SEC Purity 98%	(Lot LC00408V)	2,501.5 µg/mL	+/- 14.5436 +/- 150.9236 +/- 151.2819	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene CAS # 120-82-1.SEC Purity 99%	(Lot 3LYYC)	2,502.5 µg/mL	+/- 14.5498 +/- 150.9869 +/- 151.3454	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene CAS # 87-68-3.SEC Purity 97%	(Lot 5526800)	2,501.4 µg/mL	+/- 14.5433 +/- 150.9198 +/- 151.2781	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene CAS # 91-20-3.SEC Purity 99%	(Lot SKZ5N)	2,501.8 µg/mL	+/- 14.5454 +/- 150.9417 +/- 151.3000	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	1,2,3-Trichlorobenzene		2,500.7 µg/mL	+/-	14.5394	µg/mL	Gravimetric
	CAS # 87-61-6.SEC	(Lot A0043055)		+/-	150.8792	µg/mL	Unstressed
	Purity 98%			+/-	151.2374	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

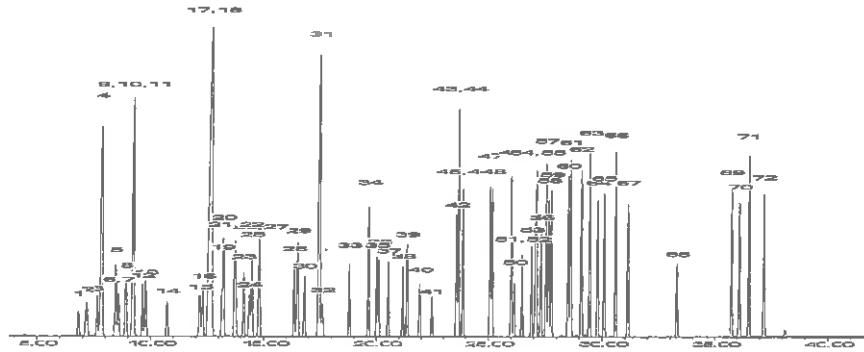
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Michael Mays

Date Mixed: 28-Dec-2016 **Balance:** 1127510105

Jennifer J Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 04-Jan-2017

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

Reagent

VOA8260SURRES_00118



CERTIFIED REFERENCE MATERIAL

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 Bellefonte, PA 16823-8812
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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567650 Lot No.: A0114901
 Description : 8260 Surrogate Standard
8260 Surrogate Standard 2,500 ug/ml, P&T Methanol, 5 ml/ampul
 Container Size : 5 mL Pkg Amt: > 5 mL
 Expiration Date : October 31, 2020 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)		
1	Dibromofluoromethane CAS # 1868-53-7 Purity 99% (Lot 022012)	2,509.4 µg/mL	+/- 14.5899	µg/mL	Gravimetric
			+/- 140.6996	µg/mL	Unstressed
			+/- 143.9918	µg/mL	Stressed
2	1,2-Dichloroethane-d4 CAS # 17060-07-0 Purity 98% (Lot PR-25433)	2,509.0 µg/mL	+/- 14.5875	µg/mL	Gravimetric
			+/- 140.6769	µg/mL	Unstressed
			+/- 143.9686	µg/mL	Stressed
3	Toluene-d8 CAS # 2037-26-5 Purity 99% (Lot PR-26282)	2,507.0 µg/mL	+/- 14.5759	µg/mL	Gravimetric
			+/- 140.5650	µg/mL	Unstressed
			+/- 143.8540	µg/mL	Stressed
4	1-Bromo-4-fluorobenzene (BFB) CAS # 460-00-4 Purity 99% (Lot 20401KOV)	2,503.6 µg/mL	+/- 14.5561	µg/mL	Gravimetric
			+/- 140.3744	µg/mL	Unstressed
			+/- 143.6590	µg/mL	Stressed

Solvent: P&T Methanol
 CAS # 67-56-1
 Purity 99%

Reagent

VOA8260SURRES_00120



CERTIFIED REFERENCE MATERIAL

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Catalog No. : 567650 Lot No.: A0114901
 Description : 8260 Surrogate Standard
8260 Surrogate Standard 2,500 ug/ml, P&T Methanol, 5 ml/ampul
 Container Size : 5 mL Pkg Amt: > 5 mL
 Expiration Date : October 31, 2020 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
1	Dibromofluoromethane	2,509.4 µg/mL (Lot 022012)	+/-	14.5899	µg/mL	Gravimetric
	CAS # 1868-53-7		+/-	140.6996	µg/mL	Unstressed
	Purity 99%		+/-	143.9918	µg/mL	Stressed
2	1,2-Dichloroethane-d4	2,509.0 µg/mL (Lot PR-25433)	+/-	14.5875	µg/mL	Gravimetric
	CAS # 17060-07-0		+/-	140.6769	µg/mL	Unstressed
	Purity 98%		+/-	143.9686	µg/mL	Stressed
3	Toluene-d8	2,507.0 µg/mL (Lot PR-26282)	+/-	14.5759	µg/mL	Gravimetric
	CAS # 2037-26-5		+/-	140.5650	µg/mL	Unstressed
	Purity 99%		+/-	143.8540	µg/mL	Stressed
4	1-Bromo-4-fluorobenzene (BFB)	2,503.6 µg/mL (Lot 20401KOV)	+/-	14.5561	µg/mL	Gravimetric
	CAS # 460-00-4		+/-	140.3744	µg/mL	Unstressed
	Purity 99%		+/-	143.6590	µg/mL	Stressed

Solvent: P&T Methanol
 CAS # 67-56-1
 Purity 99%

Reagent

VOA8260VARES_00082



CERTIFIED REFERENCE MATERIAL

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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569724 **Lot No.:** A0124520

Description : 8260 List 1 / Std #6 Vinyl Acetate (2015)
8260 List 1 / Std #6 Vinyl Acetate (2015) 5000 ug/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2017 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate CAS # 108-05-4 Purity 99% (Lot STBD7333V)	5,027.0 µg/mL	+/- 29.5013	µg/mL	Gravimetric
			+/- 303.3277	µg/mL	Unstressed
			+/- 304.0477	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Reagent

VOAACRORES_00115



CERTIFIED REFERENCE MATERIAL

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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568720 **Lot No.:** A0125560

Description : 8260 List 1/Std #5 Acrolein High
8260 List 1/Std #5 Acrolein High 19,750 µg/mL, Water, 1 mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2017 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Acrolein CAS # 107-02-8 Purity 99% (Lot 170123JLM)	19,779.0 µg/mL	+/- 115.8104 µg/mL Gravimetric +/- 634.1769 µg/mL Unstressed +/- 737.1613 µg/mL Stressed

Solvent: Water
CAS # 7732-18-5
Purity 99%

Reagent

VOABFBRES_00055



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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30067 **Lot No.:** A0122647

Description : 4-Bromofluorobenzene Standard

4-Bromofluorobenzene Standard 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1-Bromo-4-fluorobenzene (BFB) CAS # 460-00-4 (Lot 20401KOV) Purity 99%	2,524.0 µg/mL	+/-	14.8122	µg/mL	Gravimetric
			+/-	141.5325	µg/mL	Unstressed
			+/-	144.8435	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Reagent

VOABFBRES_00058



CERTIFIED REFERENCE MATERIAL

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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30067 **Lot No.:** A0122647

Description : 4-Bromofluorobenzene Standard

4-Bromofluorobenzene Standard 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1-Bromo-4-fluorobenzene (BFB) CAS # 460-00-4 (Lot 20401KOV) Purity 99%	2,524.0 µg/mL	+/-	14.8122	µg/mL	Gravimetric
			+/-	141.5325	µg/mL	Unstressed
			+/-	144.8435	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Reagent

VOACEVERES_00127



CERTIFIED REFERENCE MATERIAL

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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569723 **Lot No.:** A0123891

Description : 8260 List 1 / Std #4 2-CEVE (2015)
8260 List 1 / Std #4 2-CEVE (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2020 **Storage:** 0°C or colder

2406027
28
29
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CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
1	2-Chloroethyl vinyl ether CAS # 110-75-8 Purity 98% (Lot MKBS6526V)	2,503.5 µg/mL	+/- 14.5556	µg/mL	Gravimetric	
			+/- 53.6004	µg/mL	Unstressed	
			+/- 55.1587	µg/mL	Stressed	

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

Reagent

VOARESEE1ST_00045



CERTIFIED REFERENCE MATERIAL

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568363-FL Lot No.: A0120234

Description : Custom EE Standard

Custom EE Standard 5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : January 31, 2018 Storage: 0°C or colder

2396751

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	3-Chlorobenzotrifluoride	5,025.0 µg/mL (Lot 21324DO)	+/-	29.4895	µg/mL	Gravimetric
	CAS # 98-15-7		+/-	281.7753	µg/mL	Unstressed
	Purity 99%		+/-	288.3671	µg/mL	Stressed
2	4-Chlorobenzotrifluoride	5,031.0 µg/mL (Lot 08507BO)	+/-	29.5247	µg/mL	Gravimetric
	CAS # 98-56-6		+/-	282.1117	µg/mL	Unstressed
	Purity 99%		+/-	288.7115	µg/mL	Stressed
3	2-Chlorobenzotrifluoride	5,011.0 µg/mL (Lot I0316DQ)	+/-	29.4074	µg/mL	Gravimetric
	CAS # 88-16-4		+/-	280.9902	µg/mL	Unstressed
	Purity 99%		+/-	287.5637	µg/mL	Stressed
4	3-Chlorotoluene	5,046.0 µg/mL (Lot 13528LX)	+/-	29.6128	µg/mL	Gravimetric
	CAS # 108-41-8		+/-	282.9528	µg/mL	Unstressed
	Purity 99%		+/-	289.5723	µg/mL	Stressed
5	2,4-Dichlorobenzotrifluoride	5,018.0 µg/mL (Lot MKBL3552V)	+/-	29.4484	µg/mL	Gravimetric
	CAS # 320-60-5		+/-	281.3828	µg/mL	Unstressed
	Purity 99%		+/-	287.9654	µg/mL	Stressed
6	3,4-Dichlorobenzotrifluoride	5,031.0 µg/mL (Lot 11105EJV)	+/-	29.5247	µg/mL	Gravimetric
	CAS # 328-84-7		+/-	282.1117	µg/mL	Unstressed
	Purity 99%		+/-	288.7115	µg/mL	Stressed
7	2,5-Dichlorobenzotrifluoride	5,047.0 µg/mL (Lot 04415DSV)	+/-	29.6186	µg/mL	Gravimetric
	CAS # 320-50-3		+/-	283.0089	µg/mL	Unstressed
	Purity 99%		+/-	289.6296	µg/mL	Stressed

Method 8260C Low Level

Volatile Organic Compounds (GC/MS)
by Method 8260C Low Level

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Matrix: Water Level: Low
 GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
HD-MW-20M-0/1-0	180-71625-1	87	69	87	83
HD-MW-20D-0/1-0	180-71625-2	87	70	86	83
HD-MW-9-0/1-0	180-71625-3	87	66	89	84
HD-MW-88-0/1-0	180-71625-4	86	66	87	82
HD-QC3-0/1-2	180-71625-5	84	68	88	84
	MB 180-227028/7	85	69	87	83
	LCS 180-227028/4	115	93	108	106
HD-MW-20M-0/1-0 MS	180-71625-1 MS	104	75	104	96
HD-MW-20M-0/1-0 MSD	180-71625-1 MSD	103	74	108	100

	<u>QC LIMITS</u>
DBFM = Dibromofluoromethane (Surr)	73-120
DCA = 1,2-Dichloroethane-d4 (Surr)	65-121
TOL = Toluene-d8 (Surr)	73-120
BFB = 4-Bromofluorobenzene (Surr)	80-120

Column to be used to flag recovery values

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71625-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: 6102504N.D

Lab ID: LCS 180-227028/4

Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	9.71	97	49-135	
Vinyl chloride	10.0	8.33	83	52-136	
Bromomethane	10.0	5.97	60	37-150	
Chloroethane	10.0	9.59	96	44-139	
1,1-Dichloroethene	10.0	9.82	98	64-131	
Acetone	20.0	20.0	100	24-150	
Carbon disulfide	10.0	8.93	89	20-150	
Methylene Chloride	10.0	11.3	113	66-123	
trans-1,2-Dichloroethene	10.0	11.3	113	70-123	
Methyl tert-butyl ether	10.0	9.28	93	66-130	
1,1-Dichloroethane	10.0	11.0	110	66-122	
cis-1,2-Dichloroethene	10.0	11.3	113	73-120	
Bromochloromethane	10.0	11.4	114	73-122	
2-Butanone (MEK)	20.0	21.9	110	37-150	
Chloroform	10.0	11.0	110	72-123	
1,1,1-Trichloroethane	10.0	12.2	122	66-129	
Carbon tetrachloride	10.0	12.6	126	58-145	
Benzene	10.0	10.7	107	75-123	
1,2-Dichloroethane	10.0	9.29	93	63-130	
Trichloroethene	10.0	11.5	115	74-121	
1,2-Dichloropropane	10.0	10.5	105	67-119	
Bromodichloromethane	10.0	10.1	101	62-127	
cis-1,3-Dichloropropene	10.0	10.5	105	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	22.1	110	41-135	
Toluene	10.0	10.2	102	76-129	
trans-1,3-Dichloropropene	10.0	9.24	92	61-136	
1,1,2-Trichloroethane	10.0	8.68	87	74-126	
Tetrachloroethene	10.0	10.2	102	76-128	
2-Hexanone	20.0	23.9	119	37-150	
Dibromochloromethane	10.0	10.0	100	63-131	
1,2-Dibromoethane (EDB)	10.0	8.32	83	76-128	
Chlorobenzene	10.0	11.2	112	79-124	
1,1,1,2-Tetrachloroethane	10.0	12.3	123	70-130	
Ethylbenzene	10.0	10.3	103	77-124	
Xylenes, Total	20.0	21.3	107	76-124	
Styrene	10.0	10.8	108	80-125	
Bromoform	10.0	8.35	83	54-136	
1,1,2,2-Tetrachloroethane	10.0	7.12	71	72-128	*
Acrylonitrile	100	67.0	67	60-130	
1,4-Dioxane	200	169 J	85	26-150	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71625-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: 6102511N.D

Lab ID: 180-71625-1 MS

Client ID: HD-MW-20M-0/1-0 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Chloromethane	10.0	1.0 U	8.86	89	49-135	
Vinyl chloride	10.0	1.0 U	9.06	91	52-136	
Bromomethane	10.0	1.0 U	6.75	68	37-150	
Chloroethane	10.0	1.0 U	9.61	96	44-139	
1,1-Dichloroethene	10.0	1.0 U	10.2	102	64-131	
Acetone	20.0	5.0 U	9.65	48	24-150	
Carbon disulfide	10.0	1.0 U	9.03	90	20-150	
Methylene Chloride	10.0	1.0 U	8.69	87	66-123	
trans-1,2-Dichloroethene	10.0	1.0 U	10.4	104	70-123	
Methyl tert-butyl ether	10.0	1.0 U	6.60	66	66-130	
1,1-Dichloroethane	10.0	1.0 U	9.71	97	66-122	
cis-1,2-Dichloroethene	10.0	1.0 U	10.0	100	73-120	
Bromochloromethane	10.0	1.0 U	9.10	91	73-122	
2-Butanone (MEK)	20.0	5.0 U	10.7	53	37-150	
Chloroform	10.0	0.83 J	10.0	92	72-123	
1,1,1-Trichloroethane	10.0	1.0 U	12.0	120	66-129	
Carbon tetrachloride	10.0	1.0 U	13.3	133	58-145	
Benzene	10.0	1.0 U	9.63	96	75-123	
1,2-Dichloroethane	10.0	1.0 U	7.29	73	63-130	
Trichloroethene	10.0	32	33.6	12	74-121	F1
1,2-Dichloropropane	10.0	1.0 U	8.58	86	67-119	
Bromodichloromethane	10.0	1.0 U	8.33	83	62-127	
cis-1,3-Dichloropropene	10.0	1.0 U	8.39	84	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	5.0 U	9.84	49	41-135	
Toluene	10.0	1.0 U	9.42	94	76-129	
trans-1,3-Dichloropropene	10.0	1.0 U	7.45	75	61-136	
1,1,2-Trichloroethane	10.0	1.0 U	6.76	68	74-126	F1
Tetrachloroethene	10.0	0.48 J	10.8	104	76-128	
2-Hexanone	20.0	5.0 U	10.9	54	37-150	
Dibromochloromethane	10.0	1.0 U	7.83	78	63-131	
1,2-Dibromoethane (EDB)	10.0	1.0 U	6.39	64	76-128	F1
Chlorobenzene	10.0	1.0 U	10.0	100	79-124	
1,1,1,2-Tetrachloroethane	10.0	1.0 U	10.6	106	70-130	
Ethylbenzene	10.0	1.0 U	9.67	97	77-124	
Xylenes, Total	20.0	2.0 U	19.4	97	76-124	
Styrene	10.0	1.0 U	9.61	96	80-125	
Bromoform	10.0	1.0 U	6.43	64	54-136	
1,1,2,2-Tetrachloroethane	10.0	1.0 U	5.17	52	72-128	F1
Acrylonitrile	100	20 U	45.5	45	60-130	F1
1,4-Dioxane	200	200 U	86.3 J	43	26-150	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71625-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: 6102512N.D

Lab ID: 180-71625-1 MSD

Client ID: HD-MW-20M-0/1-0 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Chloromethane	10.0	8.98	90	1	20	49-135	
Vinyl chloride	10.0	9.13	91	1	19	52-136	
Bromomethane	10.0	5.99	60	12	23	37-150	
Chloroethane	10.0	9.95	99	3	19	44-139	
1,1-Dichloroethene	10.0	10.1	101	1	20	64-131	
Acetone	20.0	9.48	47	2	35	24-150	
Carbon disulfide	10.0	8.91	89	1	21	20-150	
Methylene Chloride	10.0	8.62	86	1	22	66-123	
trans-1,2-Dichloroethene	10.0	10.3	103	1	19	70-123	
Methyl tert-butyl ether	10.0	6.56	66	1	23	66-130	
1,1-Dichloroethane	10.0	9.64	96	1	20	66-122	
cis-1,2-Dichloroethene	10.0	9.72	97	3	23	73-120	
Bromochloromethane	10.0	8.93	89	2	24	73-122	
2-Butanone (MEK)	20.0	10.2	51	4	35	37-150	
Chloroform	10.0	9.94	91	1	20	72-123	
1,1,1-Trichloroethane	10.0	11.6	116	4	21	66-129	
Carbon tetrachloride	10.0	12.7	127	4	22	58-145	
Benzene	10.0	9.49	95	1	20	75-123	
1,2-Dichloroethane	10.0	7.10	71	3	21	63-130	
Trichloroethene	10.0	33.4	11	0	20	74-121	F1
1,2-Dichloropropane	10.0	8.56	86	0	21	67-119	
Bromodichloromethane	10.0	8.20	82	2	19	62-127	
cis-1,3-Dichloropropene	10.0	8.05	80	4	22	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	9.83	49	0	35	41-135	
Toluene	10.0	9.67	97	3	18	76-129	
trans-1,3-Dichloropropene	10.0	7.53	75	1	17	61-136	
1,1,2-Trichloroethane	10.0	6.95	70	3	20	74-126	F1
Tetrachloroethene	10.0	10.9	104	0	20	76-128	
2-Hexanone	20.0	10.9	55	0	35	37-150	
Dibromochloromethane	10.0	7.83	78	0	20	63-131	
1,2-Dibromoethane (EDB)	10.0	6.41	64	0	21	76-128	F1
Chlorobenzene	10.0	10.1	101	1	16	79-124	
1,1,1,2-Tetrachloroethane	10.0	10.9	109	3	17	70-130	
Ethylbenzene	10.0	9.99	100	3	16	77-124	
Xylenes, Total	20.0	20.0	100	3	17	76-124	
Styrene	10.0	9.87	99	3	18	80-125	
Bromoform	10.0	6.17	62	4	23	54-136	
1,1,2,2-Tetrachloroethane	10.0	5.35	53	3	24	72-128	F1
Acrylonitrile	100	44.4	44	2	32	60-130	F1
1,4-Dioxane	200	115 J	57	28	35	26-150	

Column to be used to flag recovery and RPD values

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Lab File ID: 6102507N.D Lab Sample ID: MB 180-227028/7
 Matrix: Water Heated Purge: (Y/N) N
 Instrument ID: CHHP6 Date Analyzed: 10/26/2017 13:04
 GC Column: DB-624 ID: 0.18 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 180-227028/4	6102504N.D	10/26/2017 11:31
HD-QC3-0/1-2	180-71625-5	6102508N.D	10/26/2017 13:28
HD-MW-20M-0/1-0	180-71625-1	6102509N.D	10/26/2017 13:53
HD-MW-20D-0/1-0	180-71625-2	6102510N.D	10/26/2017 14:18
HD-MW-20M-0/1-0 MS	180-71625-1 MS	6102511N.D	10/26/2017 14:48
HD-MW-20M-0/1-0 MSD	180-71625-1 MSD	6102512N.D	10/26/2017 15:13
HD-MW-9-0/1-0	180-71625-3	6102514N.D	10/26/2017 16:02
HD-MW-88-0/1-0	180-71625-4	6102516N.D	10/26/2017 16:56

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Lab File ID: 60724D01.D BFB Injection Date: 07/24/2017
 Instrument ID: CHHP6 BFB Injection Time: 04:58
 Analysis Batch No.: 217861

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.3	
75	30.0 - 60.0 % of mass 95	52.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.7	
173	Less than 2.0 % of mass 174	0.3	(0.4) 1
174	50.0 - 120.00 % of mass 95	68.6	
175	5.0 - 9.0 % of mass 174	4.4	(6.4) 1
176	95.0 - 101.0 % of mass 174	68.1	(99.3) 1
177	5.0 - 9.0 % of mass 176	4.9	(7.1) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-217861/3	60724D03.D	07/24/2017	06:39
	IC 180-217861/4	60724D04.D	07/24/2017	07:03
	ICIS 180-217861/5	60724D05.D	07/24/2017	07:27
	IC 180-217861/6	60724D06.D	07/24/2017	07:52
	IC 180-217861/7	60724D07.D	07/24/2017	08:16
	IC 180-217861/8	60724D08.D	07/24/2017	08:40
	IC 180-217861/9	60724D09.D	07/24/2017	09:04
	IC 180-217861/10	60724D10.D	07/24/2017	09:28

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Lab File ID: 6102501N.D BFB Injection Date: 10/26/2017
 Instrument ID: CHHP6 BFB Injection Time: 07:52
 Analysis Batch No.: 227028

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	17.0
75	30.0 - 60.0 % of mass 95	53.1
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.2
173	Less than 2.0 % of mass 174	0.0 (0.0) 1
174	50.0 - 120.00 % of mass 95	79.0
175	5.0 - 9.0 % of mass 174	6.5 (8.2) 1
176	95.0 - 101.0 % of mass 174	78.0 (98.8) 1
177	5.0 - 9.0 % of mass 176	5.6 (7.2) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-227028/3	6102503N.D	10/26/2017	10:50
	LCS 180-227028/4	6102504N.D	10/26/2017	11:31
	MB 180-227028/7	6102507N.D	10/26/2017	13:04
HD-QC3-0/1-2	180-71625-5	6102508N.D	10/26/2017	13:28
HD-MW-20M-0/1-0	180-71625-1	6102509N.D	10/26/2017	13:53
HD-MW-20D-0/1-0	180-71625-2	6102510N.D	10/26/2017	14:18
HD-MW-20M-0/1-0 MS	180-71625-1 MS	6102511N.D	10/26/2017	14:48
HD-MW-20M-0/1-0 MSD	180-71625-1 MSD	6102512N.D	10/26/2017	15:13
HD-MW-9-0/1-0	180-71625-3	6102514N.D	10/26/2017	16:02
HD-MW-88-0/1-0	180-71625-4	6102516N.D	10/26/2017	16:56

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Sample No.: CCVIS 180-227028/3 Date Analyzed: 10/26/2017 10:50
 Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 6102503N.D Heated Purge: (Y/N) N
 Calibration ID: 35029

	TBA _d 9		FB		CBN _{Zd} 5		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	211248	3.97	911595	7.05	233174	10.17	
UPPER LIMIT	422496	4.47	1823190	7.55	466348	10.67	
LOWER LIMIT	105624	3.47	455798	6.55	116587	9.67	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-227028/4	210768	3.97	866836	7.05	225934	10.17	
MB 180-227028/7	170459	3.96	907213	7.05	254067	10.17	
180-71625-5	HD-QC3-0/1-2	171590	3.96	888742	7.05	245212	10.17
180-71625-1	HD-MW-20M-0/1-0	152085	3.96	858733	7.05	240715	10.17
180-71625-2	HD-MW-20D-0/1-0	147101	3.96	842315	7.05	241047	10.17
180-71625-1 MS	HD-MW-20M-0/1-0 MS	184212	3.96	1167082	7.05	294585	10.17
180-71625-1 MSD	HD-MW-20M-0/1-0 MSD	193006	3.97	1202459	7.05	292511	10.17
180-71625-3	HD-MW-9-0/1-0	130657	3.95	852993	7.05	239114	10.17
180-71625-4	HD-MW-88-0/1-0	127512	3.95	848675	7.05	240034	10.17

TBA_d9 = TBA-d9 (IS)

FB = Fluorobenzene (IS)

CBN_{Zd}5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area

RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Sample No.: CCVIS 180-227028/3 Date Analyzed: 10/26/2017 10:50
 Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 6102503N.D Heated Purge: (Y/N) N
 Calibration ID: 35029

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		365626	12.51				
UPPER LIMIT		731252	13.01				
LOWER LIMIT		182813	12.01				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-227028/4		349468	12.51				
MB 180-227028/7		376501	12.51				
180-71625-5	HD-QC3-0/1-2	369386	12.51				
180-71625-1	HD-MW-20M-0/1-0	362746	12.51				
180-71625-2	HD-MW-20D-0/1-0	362897	12.51				
180-71625-1 MS	HD-MW-20M-0/1-0 MS	455488	12.51				
180-71625-1 MSD	HD-MW-20M-0/1-0 MSD	462006	12.51				
180-71625-3	HD-MW-9-0/1-0	359853	12.51				
180-71625-4	HD-MW-88-0/1-0	350327	12.51				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Client Sample ID: HD-MW-20M-0/1-0 Lab Sample ID: 180-71625-1
 Matrix: Water Lab File ID: 6102509N.D
 Analysis Method: 8260C Date Collected: 10/20/2017 09:04
 Sample wt/vol: 5 (mL) Date Analyzed: 10/26/2017 13:53
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 227028 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.90
75-01-4	Vinyl chloride	1.0	U	1.0	0.88
74-83-9	Bromomethane	1.0	U ^c	1.0	0.89
75-00-3	Chloroethane	1.0	U	1.0	0.90
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.55
67-64-1	Acetone	5.0	U	5.0	3.4
75-15-0	Carbon disulfide	1.0	U	1.0	0.88
75-09-2	Methylene Chloride	1.0	U	1.0	0.36
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.67
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.59
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.63
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.71
74-97-5	Bromochloromethane	1.0	U	1.0	0.63
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	0.83	J	1.0	0.60
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.60
56-23-5	Carbon tetrachloride	1.0	U ^c	1.0	0.88
71-43-2	Benzene	1.0	U	1.0	0.60
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.57
79-01-6	Trichloroethene	32	F1	1.0	0.69
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.66
75-27-4	Bromodichloromethane	1.0	U	1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1
108-88-3	Toluene	1.0	U	1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.58
79-00-5	1,1,2-Trichloroethane	1.0	U F1	1.0	0.45
127-18-4	Tetrachloroethene	0.48	J	1.0	0.47
591-78-6	2-Hexanone	5.0	U	5.0	3.3
124-48-1	Dibromochloromethane	1.0	U	1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	1.0	U F1	1.0	0.50
108-90-7	Chlorobenzene	1.0	U	1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U ^c	1.0	0.57
100-41-4	Ethylbenzene	1.0	U	1.0	0.51
1330-20-7	Xylenes, Total	2.0	U	2.0	0.89
100-42-5	Styrene	1.0	U	1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Client Sample ID: HD-MW-20M-0/1-0 Lab Sample ID: 180-71625-1
 Matrix: Water Lab File ID: 6102509N.D
 Analysis Method: 8260C Date Collected: 10/20/2017 09:04
 Sample wt/vol: 5 (mL) Date Analyzed: 10/26/2017 13:53
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 227028 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U F1 ^c *	1.0	0.60
107-13-1	Acrylonitrile	20	U F1 ^c	20	7.8
123-91-1	1,4-Dioxane	200	U ^c	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	69		65-121
2037-26-5	Toluene-d8 (Surr)	87		73-120
460-00-4	4-Bromofluorobenzene (Surr)	83		80-120
1868-53-7	Dibromofluoromethane (Surr)	87		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102509N.D
 Lims ID: 180-71625-B-1
 Client ID: HD-MW-20M-0/1-0
 Sample Type: Client
 Inject. Date: 26-Oct-2017 13:53:30 ALS Bottle#: 9 Worklist Smp#: 9
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019043-009
 Misc. Info.: 180-71625-B-1
 Operator ID: 034635 Instrument ID: CHHP6
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 26-Oct-2017 16:26:29 Calib Date: 28-Sep-2017 15:13:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK032

First Level Reviewer: journey

Date: 26-Oct-2017 14:34:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	3.960	3.950	0.010	90	152085	1000.0	
* 2 Fluorobenzene (IS)	96	7.051	7.046	0.005	99	858733	50.0	
* 3 Chlorobenzene-d5	119	10.165	10.167	-0.002	85	240715	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.508	12.509	-0.001	95	362746	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.315	6.310	0.005	92	193461	43.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.692	6.687	0.005	70	221420	34.7	
\$ 7 Toluene-d8 (Surr)	98	8.712	8.713	-0.001	93	847777	43.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.352	11.353	-0.001	94	346870	41.7	
12 Chloromethane	50		1.626				ND	
13 Vinyl chloride	62		1.741				ND	
15 Bromomethane	94		2.076				ND	
16 Chloroethane	64		2.198				ND	
22 1,1-Dichloroethene	96		3.098				ND	
24 Acetone	43	3.188	3.177	0.011	78	5300	2.88	
26 Carbon disulfide	76		3.360				ND	
31 Methylene Chloride	84		3.834				ND	
33 Acrylonitrile	53		4.236				ND	
34 trans-1,2-Dichloroethene	96		4.278				ND	
35 Methyl tert-butyl ether	73		4.284				ND	
37 1,1-Dichloroethane	63		4.923				ND	
43 cis-1,2-Dichloroethene	96	5.694	5.690	0.004	76	11017	1.86	
44 2-Butanone (MEK)	43		5.702				ND	
48 Chlorobromomethane	128		5.975				ND	
50 Chloroform	83	6.132	6.128	0.004	93	36647	4.13	
51 1,1,1-Trichloroethane	97		6.280				ND	
53 Carbon tetrachloride	117		6.456				ND	
56 Benzene	78		6.693				ND	
57 1,2-Dichloroethane	62		6.772				ND	
61 Trichloroethene	130	7.440	7.442	-0.002	97	777222	161.6	
64 1,2-Dichloropropane	63		7.715				ND	
65 1,4-Dioxane	88		7.807				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.001				ND	
71 cis-1,3-Dichloropropene	75		8.451				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.610				ND	
73 Toluene	91		8.780				ND	
74 trans-1,3-Dichloropropene	75		9.042				ND	
76 1,1,2-Trichloroethane	97		9.230				ND	
77 Tetrachloroethene	164	9.296	9.291	0.005	95	10280	2.42	
79 2-Hexanone	43		9.449				ND	
81 Chlorodibromomethane	129		9.595				ND	
82 Ethylene Dibromide	107		9.705				ND	
84 Chlorobenzene	112		10.197				ND	
86 1,1,1,2-Tetrachloroethane	131		10.295				ND	
87 Ethylbenzene	106		10.301				ND	
88 m-Xylene & p-Xylene	106		10.435				ND	
89 o-Xylene	106		10.812				ND	
90 Styrene	104		10.836				ND	
91 Bromoform	173		11.006				ND	
96 1,1,2,2-Tetrachloroethane	83		11.499				ND	
S 131 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00075

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00074

Amount Added: 2.00

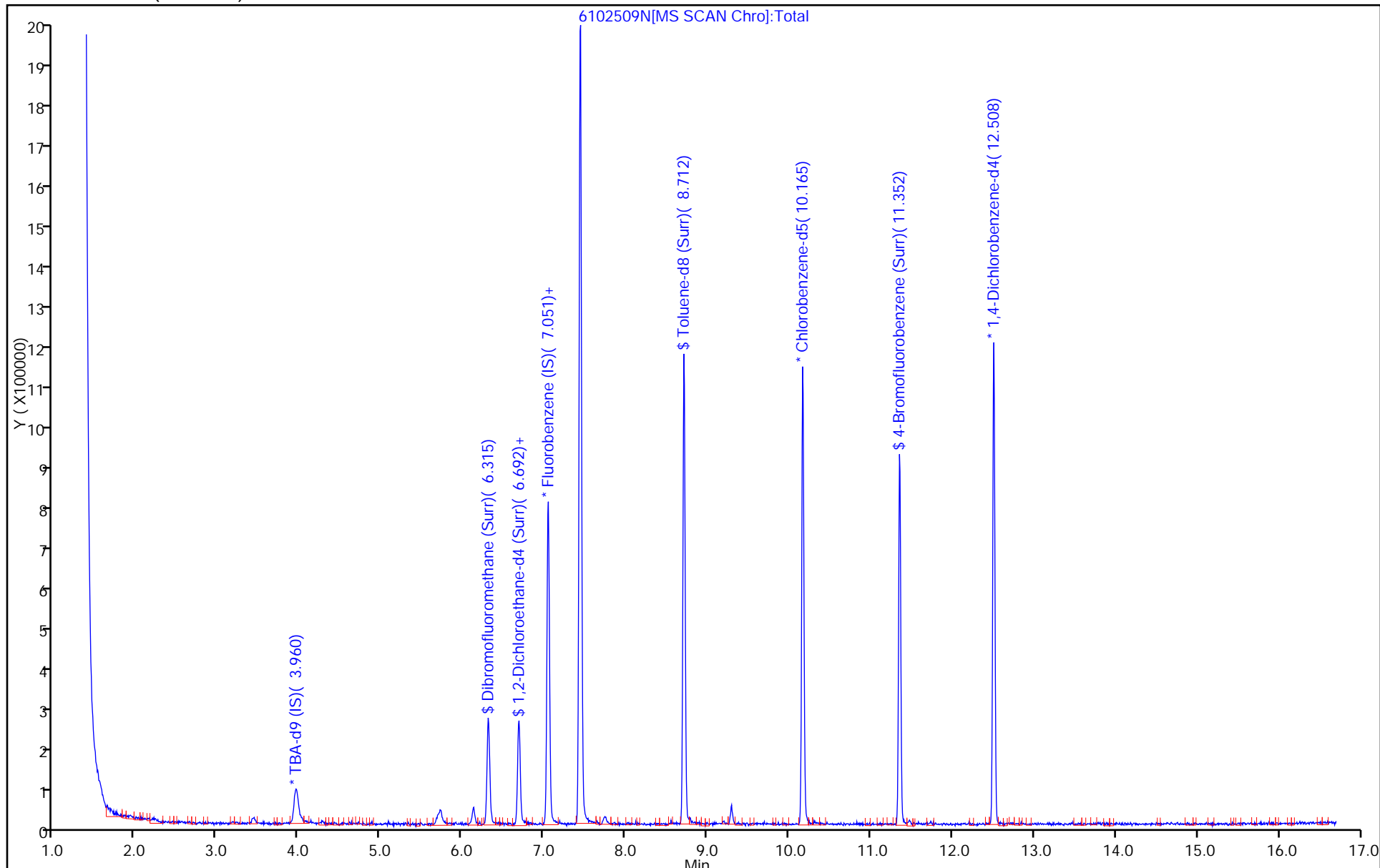
Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102509N.D
Injection Date: 26-Oct-2017 13:53:30 Instrument ID: CHHP6
Lims ID: 180-71625-B-1 Lab Sample ID: 180-71625-1
Client ID: HD-MW-20M-0/1-0
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm)

Operator ID: 034635
Worklist Smp#: 9
ALS Bottle#: 9



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102509N.D
 Lims ID: 180-71625-B-1
 Client ID: HD-MW-20M-0/1-0
 Sample Type: Client
 Inject. Date: 26-Oct-2017 13:53:30 ALS Bottle#: 9 Worklist Smp#: 9
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019043-009
 Misc. Info.: 180-71625-B-1
 Operator ID: 034635 Instrument ID: CHHP6
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 26-Oct-2017 16:26:29 Calib Date: 28-Sep-2017 15:13:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK032

First Level Reviewer: journey Date: 26-Oct-2017 14:34:32

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	43.4	86.71
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	34.7	69.44
\$ 7 Toluene-d8 (Surr)	50.0	43.5	87.08
\$ 8 4-Bromofluorobenzene (Surr)	50.0	41.7	83.47

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102509N.D

Injection Date: 26-Oct-2017 13:53:30

Instrument ID: CHHP6

Lims ID: 180-71625-B-1

Lab Sample ID: 180-71625-1

Client ID: HD-MW-20M-0/1-0

Operator ID: 034635

ALS Bottle#: 9 Worklist Smp#: 9

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

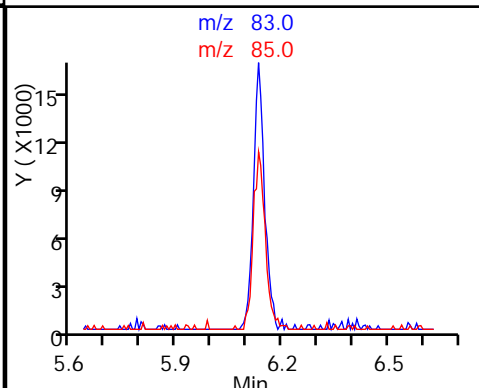
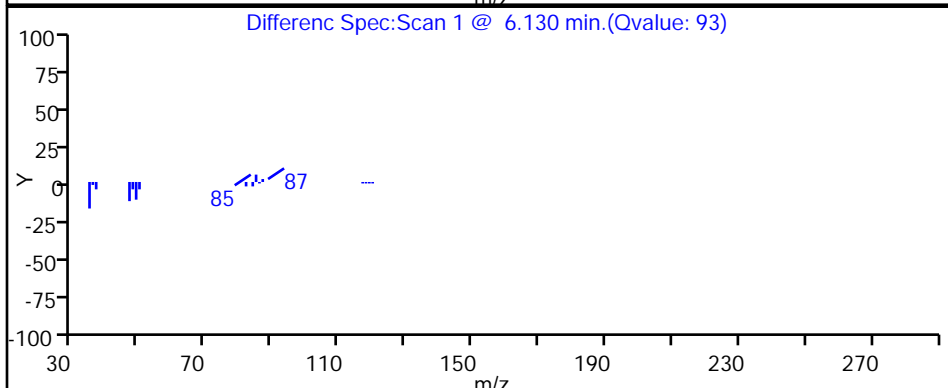
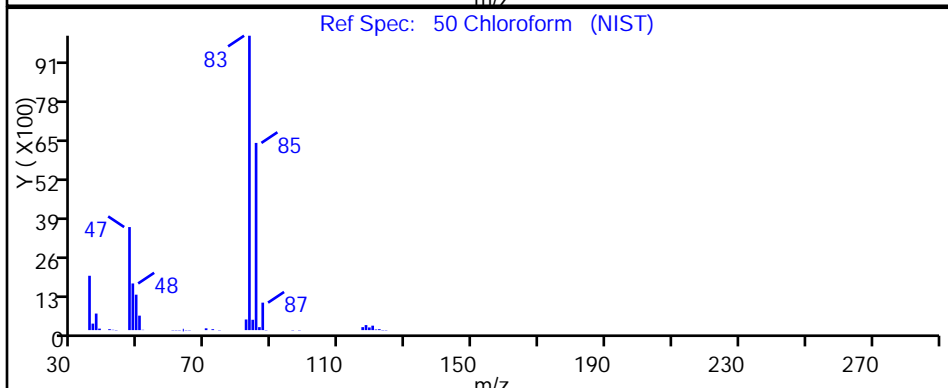
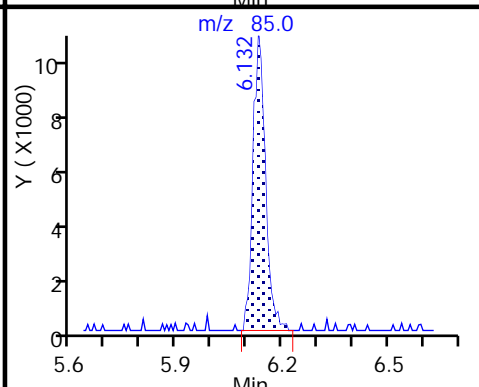
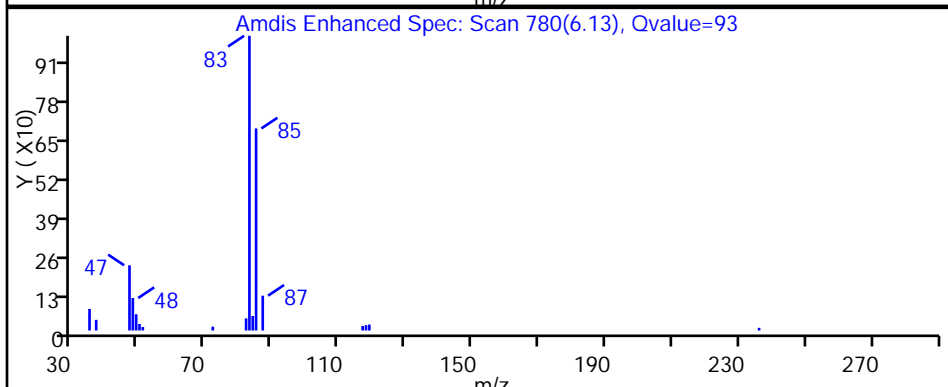
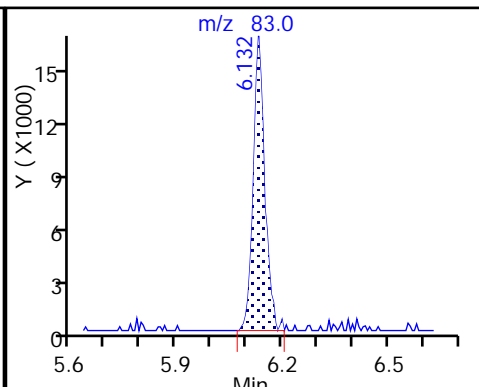
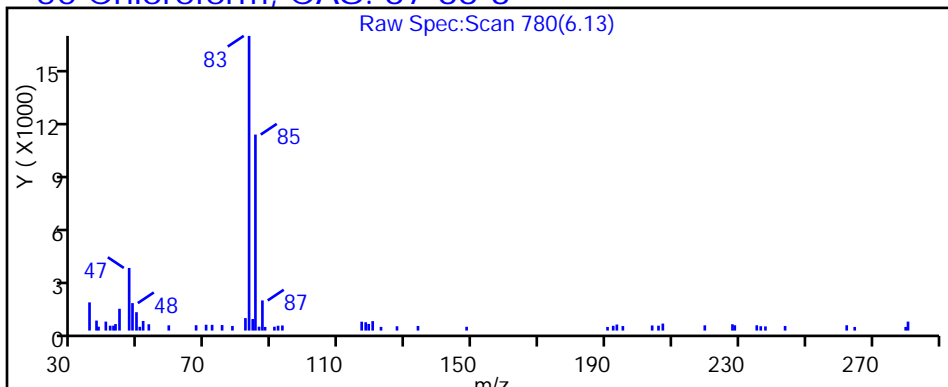
Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

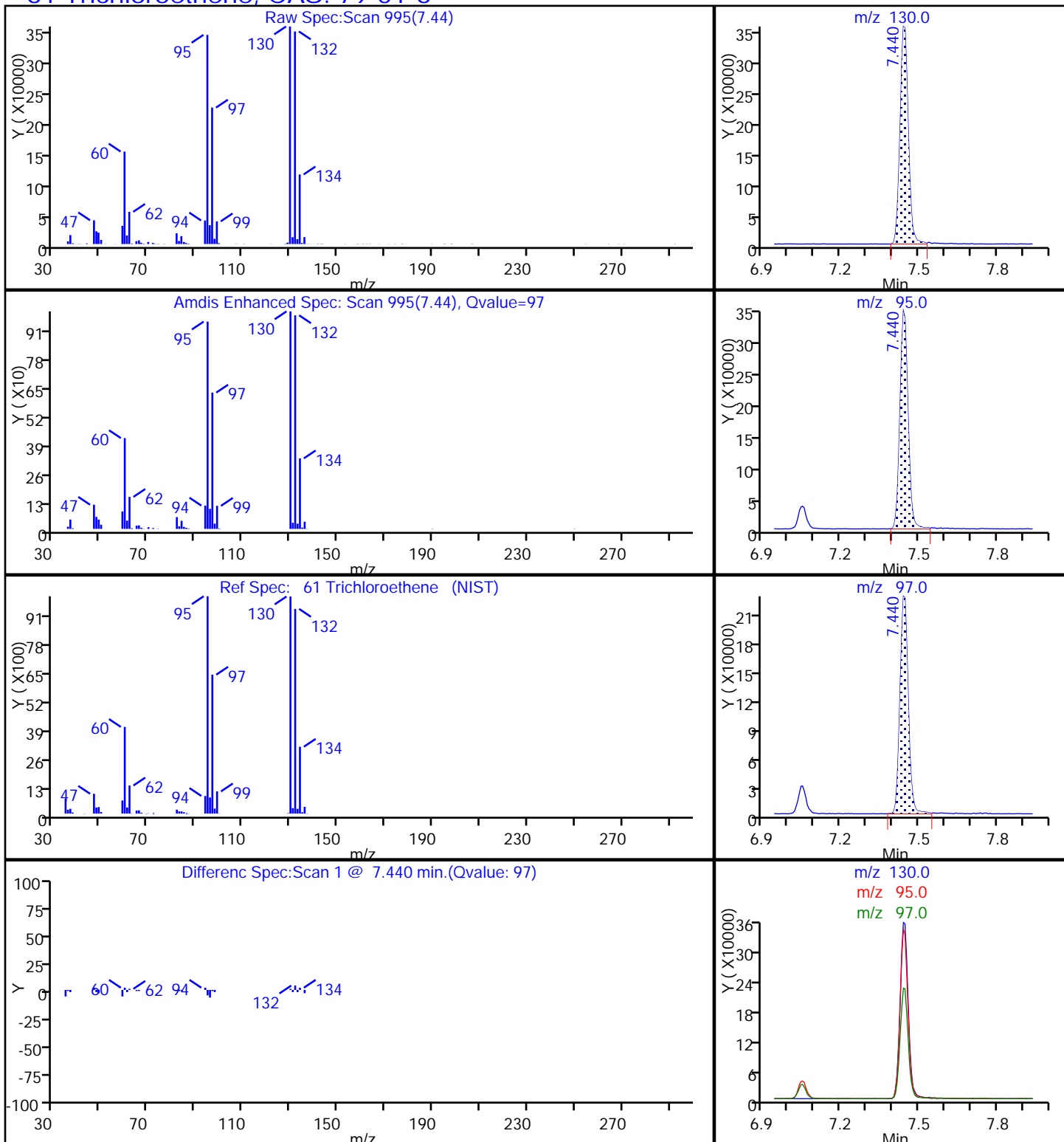
50 Chloroform, CAS: 67-66-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102509N.D
Injection Date: 26-Oct-2017 13:53:30 Instrument ID: CHHP6
Lims ID: 180-71625-B-1 Lab Sample ID: 180-71625-1
Client ID: HD-MW-20M-0/1-0
Operator ID: 034635 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

61 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102509N.D

Injection Date: 26-Oct-2017 13:53:30

Instrument ID: CHHP6

Lims ID: 180-71625-B-1

Lab Sample ID: 180-71625-1

Client ID: HD-MW-20M-0/1-0

Operator ID: 034635

ALS Bottle#: 9 Worklist Smp#: 9

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

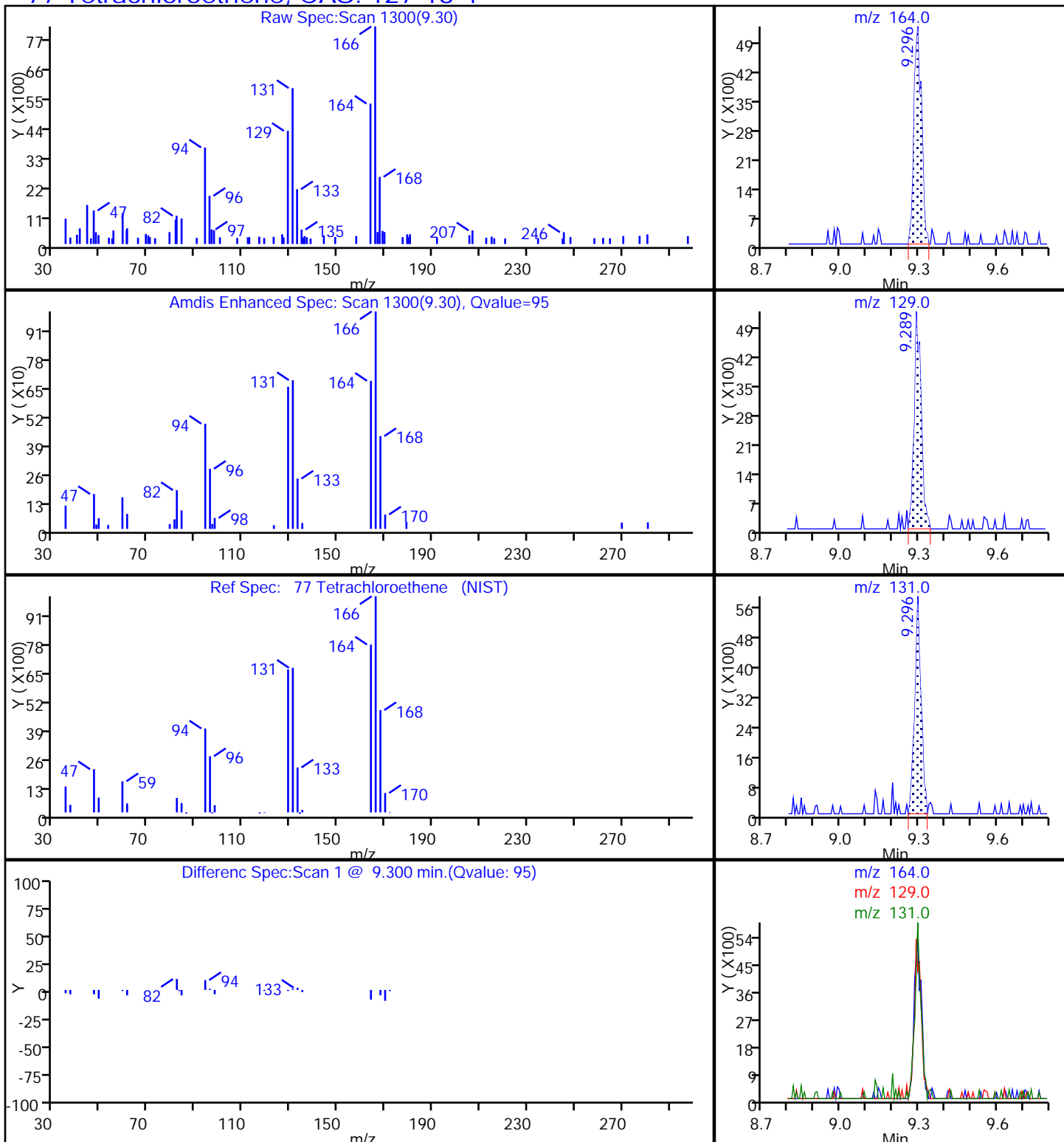
Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

77 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Client Sample ID: HD-MW-20D-0/1-0 Lab Sample ID: 180-71625-2
 Matrix: Water Lab File ID: 6102510N.D
 Analysis Method: 8260C Date Collected: 10/20/2017 09:02
 Sample wt/vol: 5 (mL) Date Analyzed: 10/26/2017 14:18
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 227028 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.90
75-01-4	Vinyl chloride	1.0	U	1.0	0.88
74-83-9	Bromomethane	1.0	U ^c	1.0	0.89
75-00-3	Chloroethane	1.0	U	1.0	0.90
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.55
67-64-1	Acetone	5.0	U	5.0	3.4
75-15-0	Carbon disulfide	1.0	U	1.0	0.88
75-09-2	Methylene Chloride	1.0	U	1.0	0.36
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.67
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.59
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.63
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.71
74-97-5	Bromochloromethane	1.0	U	1.0	0.63
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.60
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.60
56-23-5	Carbon tetrachloride	1.0	U ^c	1.0	0.88
71-43-2	Benzene	1.0	U	1.0	0.60
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.57
79-01-6	Trichloroethene	1.0	U	1.0	0.69
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.66
75-27-4	Bromodichloromethane	1.0	U	1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1
108-88-3	Toluene	0.74	J	1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.58
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.45
127-18-4	Tetrachloroethene	1.0	U	1.0	0.47
591-78-6	2-Hexanone	5.0	U	5.0	3.3
124-48-1	Dibromochloromethane	1.0	U	1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50
108-90-7	Chlorobenzene	1.0	U	1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U ^c	1.0	0.57
100-41-4	Ethylbenzene	1.0	U	1.0	0.51
1330-20-7	Xylenes, Total	2.0	U	2.0	0.89
100-42-5	Styrene	1.0	U	1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Client Sample ID: HD-MW-20D-0/1-0 Lab Sample ID: 180-71625-2
 Matrix: Water Lab File ID: 6102510N.D
 Analysis Method: 8260C Date Collected: 10/20/2017 09:02
 Sample wt/vol: 5 (mL) Date Analyzed: 10/26/2017 14:18
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 227028 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U ^c *	1.0	0.60
107-13-1	Acrylonitrile	20	U ^c	20	7.8
123-91-1	1,4-Dioxane	200	U ^c	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	70		65-121
2037-26-5	Toluene-d8 (Surr)	86		73-120
460-00-4	4-Bromofluorobenzene (Surr)	83		80-120
1868-53-7	Dibromofluoromethane (Surr)	87		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102510N.D
 Lims ID: 180-71625-A-2
 Client ID: HD-MW-20D-0/1-0
 Sample Type: Client
 Inject. Date: 26-Oct-2017 14:18:30 ALS Bottle#: 10 Worklist Smp#: 10
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019043-010
 Misc. Info.: 180-71625-A-2
 Operator ID: 034635 Instrument ID: CHHP6
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 26-Oct-2017 16:26:29 Calib Date: 28-Sep-2017 15:13:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK032

First Level Reviewer: journey

Date: 26-Oct-2017 15:16:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	3.960	3.950	0.010	91	147101	1000.0	
* 2 Fluorobenzene (IS)	96	7.051	7.046	0.005	99	842315	50.0	
* 3 Chlorobenzene-d5	119	10.171	10.167	0.004	86	241047	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.507	12.509	-0.002	96	362897	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.315	6.310	0.004	93	189840	43.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.692	6.687	0.005	70	218685	35.0	
\$ 7 Toluene-d8 (Surr)	98	8.717	8.713	0.004	93	839813	43.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.352	11.353	-0.001	88	343333	41.3	
12 Chloromethane	50		1.626				ND	
13 Vinyl chloride	62		1.741				ND	
15 Bromomethane	94		2.076				ND	
16 Chloroethane	64		2.198				ND	
22 1,1-Dichloroethene	96		3.098				ND	
24 Acetone	43	3.182	3.177	0.005	88	9979	5.52	
26 Carbon disulfide	76		3.360				ND	
31 Methylene Chloride	84		3.834				ND	
33 Acrylonitrile	53		4.236				ND	
34 trans-1,2-Dichloroethene	96		4.278				ND	
35 Methyl tert-butyl ether	73		4.284				ND	
37 1,1-Dichloroethane	63		4.923				ND	
43 cis-1,2-Dichloroethene	96		5.690				ND	
44 2-Butanone (MEK)	43		5.702				ND	
48 Chlorobromomethane	128		5.975				ND	
50 Chloroform	83	6.126	6.128	-0.002	92	12261	1.41	
51 1,1,1-Trichloroethane	97		6.280				ND	
53 Carbon tetrachloride	117		6.456				ND	
56 Benzene	78		6.693				ND	
57 1,2-Dichloroethane	62		6.772				ND	
61 Trichloroethene	130	7.446	7.442	0.004	44	2079	0.4407	
64 1,2-Dichloropropane	63		7.715				ND	
65 1,4-Dioxane	88		7.807				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.001				ND	
71 cis-1,3-Dichloropropene	75		8.451				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.610				ND	
73 Toluene	91	8.778	8.780	-0.002	96	87710	3.69	
74 trans-1,3-Dichloropropene	75		9.042				ND	
76 1,1,2-Trichloroethane	97		9.230				ND	
77 Tetrachloroethene	164		9.291				ND	
79 2-Hexanone	43		9.449				ND	
81 Chlorodibromomethane	129		9.595				ND	
82 Ethylene Dibromide	107		9.705				ND	
84 Chlorobenzene	112		10.197				ND	
86 1,1,1,2-Tetrachloroethane	131		10.295				ND	
87 Ethylbenzene	106		10.301				ND	
88 m-Xylene & p-Xylene	106		10.435				ND	
89 o-Xylene	106		10.812				ND	
90 Styrene	104		10.836				ND	
91 Bromoform	173		11.006				ND	
96 1,1,2,2-Tetrachloroethane	83		11.499				ND	
S 131 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00075

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00074

Amount Added: 2.00

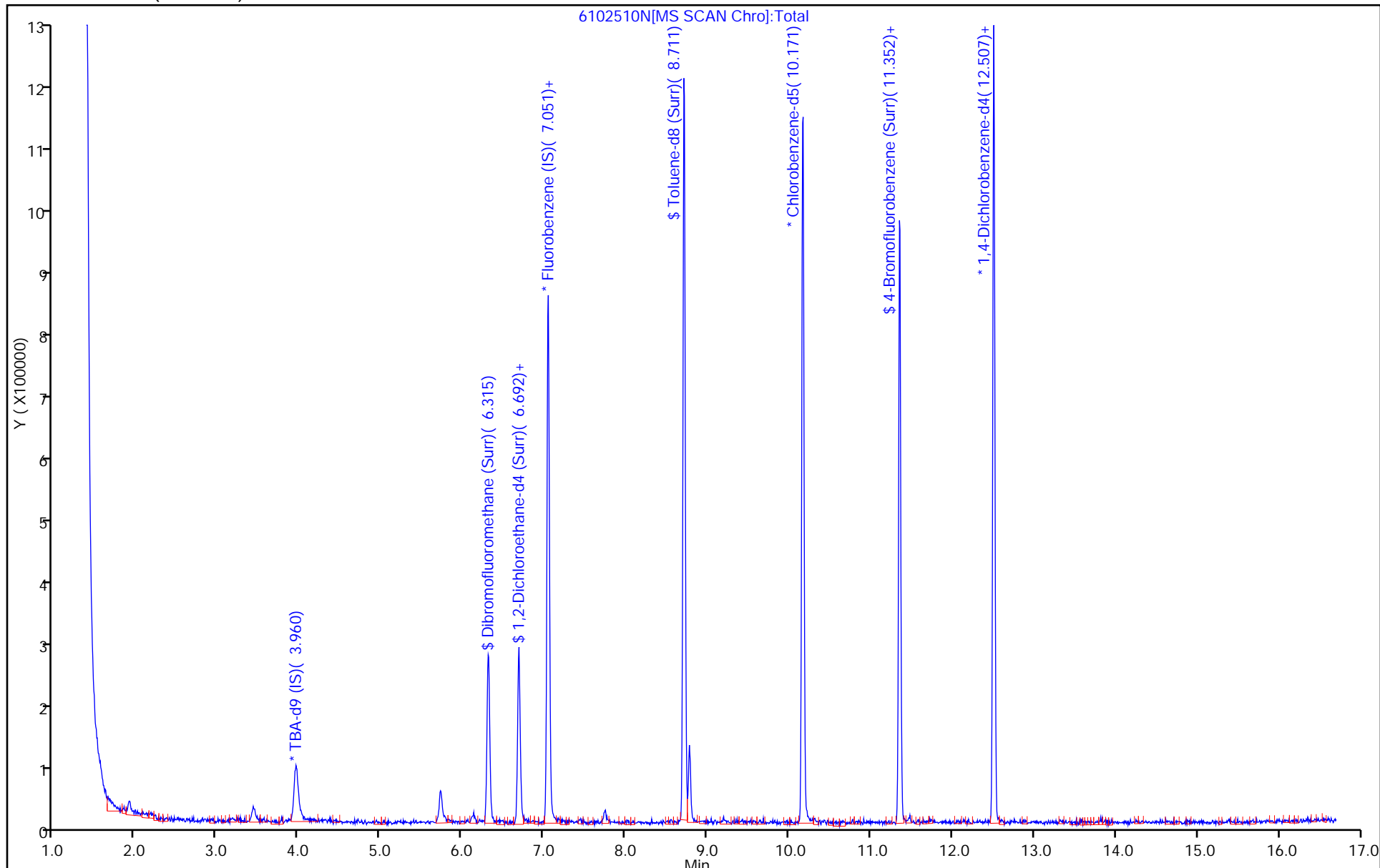
Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102510N.D
Injection Date: 26-Oct-2017 14:18:30 Instrument ID: CHHP6
Lims ID: 180-71625-A-2 Lab Sample ID: 180-71625-2
Client ID: HD-MW-20D-0/1-0
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm)

Operator ID: 034635
Worklist Smp#: 10
ALS Bottle#: 10



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102510N.D
 Lims ID: 180-71625-A-2
 Client ID: HD-MW-20D-0/1-0
 Sample Type: Client
 Inject. Date: 26-Oct-2017 14:18:30 ALS Bottle#: 10 Worklist Smp#: 10
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019043-010
 Misc. Info.: 180-71625-A-2
 Operator ID: 034635 Instrument ID: CHHP6
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 26-Oct-2017 16:26:29 Calib Date: 28-Sep-2017 15:13:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK032

First Level Reviewer: journetp Date: 26-Oct-2017 15:16:43

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	43.4	86.74
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	35.0	69.91
\$ 7 Toluene-d8 (Surr)	50.0	43.0	86.07
\$ 8 4-Bromofluorobenzene (Surr)	50.0	41.3	82.50

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102510N.D

Injection Date: 26-Oct-2017 14:18:30

Instrument ID: CHHP6

Lims ID: 180-71625-A-2

Lab Sample ID: 180-71625-2

Client ID: HD-MW-20D-0/1-0

Operator ID: 034635

ALS Bottle#: 10

Worklist Smp#: 10

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

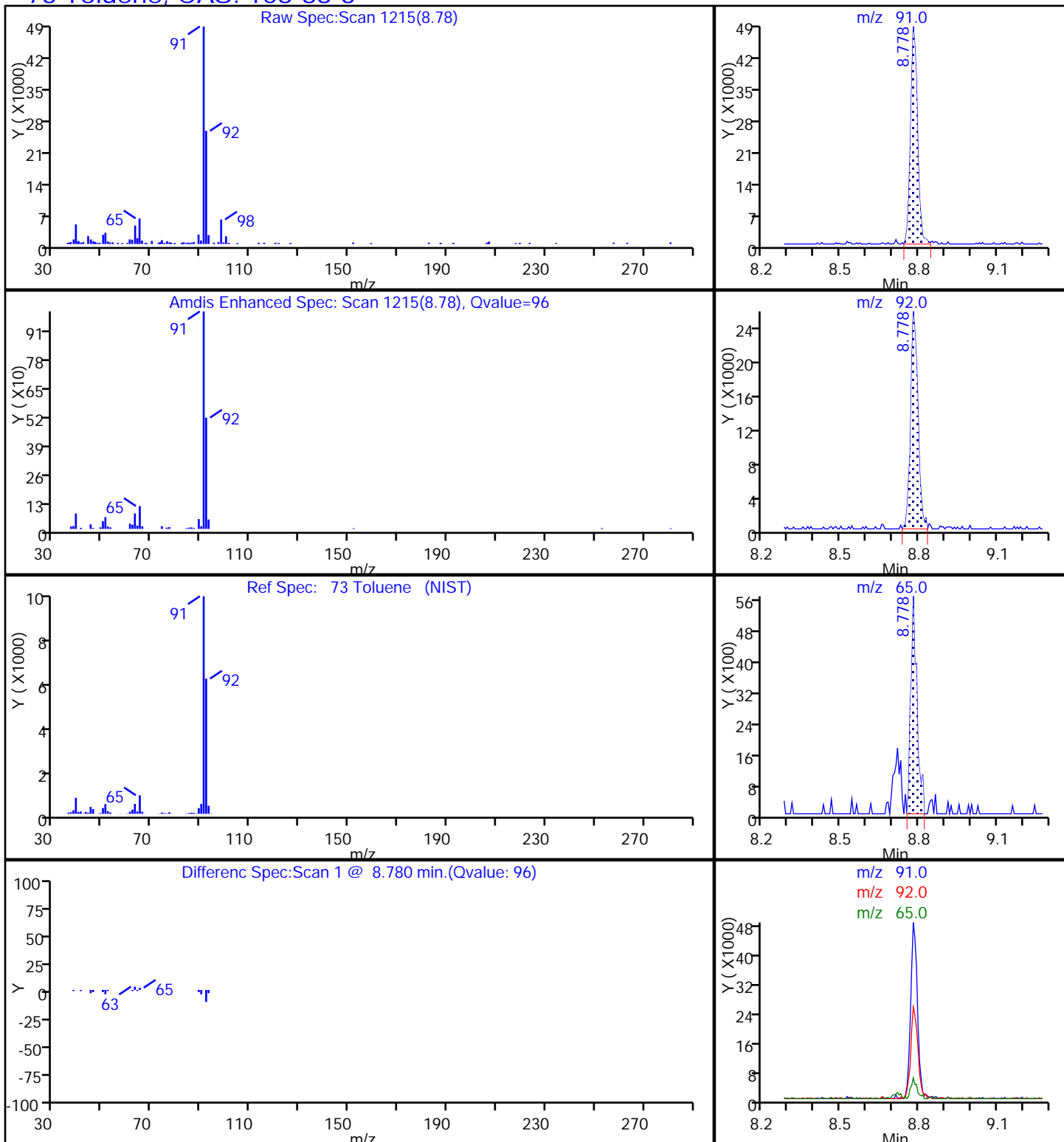
Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

73 Toluene, CAS: 108-88-3



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Client Sample ID: HD-MW-9-0/1-0 Lab Sample ID: 180-71625-3
 Matrix: Water Lab File ID: 6102514N.D
 Analysis Method: 8260C Date Collected: 10/20/2017 13:55
 Sample wt/vol: 5 (mL) Date Analyzed: 10/26/2017 16:02
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 227028 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.90
75-01-4	Vinyl chloride	3.7		1.0	0.88
74-83-9	Bromomethane	1.0	U ^c	1.0	0.89
75-00-3	Chloroethane	1.0	U	1.0	0.90
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.55
67-64-1	Acetone	5.0	U	5.0	3.4
75-15-0	Carbon disulfide	1.0	U	1.0	0.88
75-09-2	Methylene Chloride	1.0	U	1.0	0.36
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.67
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.59
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.63
156-59-2	cis-1,2-Dichloroethene	27		1.0	0.71
74-97-5	Bromochloromethane	1.0	U	1.0	0.63
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.60
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.60
56-23-5	Carbon tetrachloride	1.0	U ^c	1.0	0.88
71-43-2	Benzene	1.0	U	1.0	0.60
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.57
79-01-6	Trichloroethene	20		1.0	0.69
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.66
75-27-4	Bromodichloromethane	1.0	U	1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1
108-88-3	Toluene	1.0	U	1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.58
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.45
127-18-4	Tetrachloroethene	1.0	U	1.0	0.47
591-78-6	2-Hexanone	5.0	U	5.0	3.3
124-48-1	Dibromochloromethane	1.0	U	1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50
108-90-7	Chlorobenzene	1.0	U	1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U ^c	1.0	0.57
100-41-4	Ethylbenzene	1.0	U	1.0	0.51
1330-20-7	Xylenes, Total	2.0	U	2.0	0.89
100-42-5	Styrene	1.0	U	1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Client Sample ID: HD-MW-9-0/1-0 Lab Sample ID: 180-71625-3
 Matrix: Water Lab File ID: 6102514N.D
 Analysis Method: 8260C Date Collected: 10/20/2017 13:55
 Sample wt/vol: 5 (mL) Date Analyzed: 10/26/2017 16:02
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 227028 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U ^c *	1.0	0.60
107-13-1	Acrylonitrile	20	U ^c	20	7.8
123-91-1	1,4-Dioxane	200	U ^c	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	66		65-121
2037-26-5	Toluene-d8 (Surr)	89		73-120
460-00-4	4-Bromofluorobenzene (Surr)	84		80-120
1868-53-7	Dibromofluoromethane (Surr)	87		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102514N.D
 Lims ID: 180-71625-B-3
 Client ID: HD-MW-9-0/1-0
 Sample Type: Client
 Inject. Date: 26-Oct-2017 16:02:30 ALS Bottle#: 14 Worklist Smp#: 14
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019043-014
 Misc. Info.: 180-71625-B-3
 Operator ID: 034635 Instrument ID: CHHP6
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 26-Oct-2017 21:02:42 Calib Date: 28-Sep-2017 15:13:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK030

First Level Reviewer: bungardf

Date: 26-Oct-2017 20:56:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	3.952	3.950	0.002	93	130657	1000.0	
* 2 Fluorobenzene (IS)	96	7.048	7.046	0.002	99	852993	50.0	
* 3 Chlorobenzene-d5	119	10.169	10.167	0.002	86	239114	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.505	12.509	-0.004	96	359853	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.318	6.310	0.008	92	191947	43.3	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.690	6.687	0.003	69	209533	33.1	
\$ 7 Toluene-d8 (Surr)	98	8.715	8.713	0.002	93	856859	44.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.356	11.353	0.003	87	345079	41.8	
12 Chloromethane	50		1.626				ND	
13 Vinyl chloride	62	1.744	1.741	0.003	97	95007	18.5	
15 Bromomethane	94		2.076				ND	
16 Chloroethane	64		2.198				ND	
22 1,1-Dichloroethene	96		3.098				ND	
24 Acetone	43	3.192	3.177	0.015	71	5079	2.78	
26 Carbon disulfide	76		3.360				ND	
31 Methylene Chloride	84		3.834				ND	
33 Acrylonitrile	53		4.236				ND	
34 trans-1,2-Dichloroethene	96		4.278				ND	
35 Methyl tert-butyl ether	73		4.284				ND	
37 1,1-Dichloroethane	63		4.923				ND	
43 cis-1,2-Dichloroethene	96	5.692	5.690	0.002	76	801876	136.5	
44 2-Butanone (MEK)	43		5.702				ND	
48 Chlorobromomethane	128		5.975				ND	
50 Chloroform	83		6.128				ND	
51 1,1,1-Trichloroethane	97		6.280				ND	
53 Carbon tetrachloride	117		6.456				ND	
56 Benzene	78		6.693				ND	
57 1,2-Dichloroethane	62		6.772				ND	
61 Trichloroethene	130	7.444	7.442	0.002	98	477841	100.0	
64 1,2-Dichloropropane	63		7.715				ND	
65 1,4-Dioxane	88		7.807				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.001				ND	
71 cis-1,3-Dichloropropene	75		8.451				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.610				ND	
73 Toluene	91	8.782	8.780	0.002	89	3448	0.1463	
74 trans-1,3-Dichloropropene	75		9.042				ND	
76 1,1,2-Trichloroethane	97		9.230				ND	
77 Tetrachloroethene	164		9.291				ND	
79 2-Hexanone	43		9.449				ND	
81 Chlorodibromomethane	129		9.595				ND	
82 Ethylene Dibromide	107		9.705				ND	
84 Chlorobenzene	112		10.197				ND	
86 1,1,1,2-Tetrachloroethane	131		10.295				ND	
87 Ethylbenzene	106		10.301				ND	
88 m-Xylene & p-Xylene	106		10.435				ND	
89 o-Xylene	106		10.812				ND	
90 Styrene	104		10.836				ND	
91 Bromoform	173		11.006				ND	
96 1,1,2,2-Tetrachloroethane	83		11.499				ND	
S 131 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00075

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00074

Amount Added: 2.00

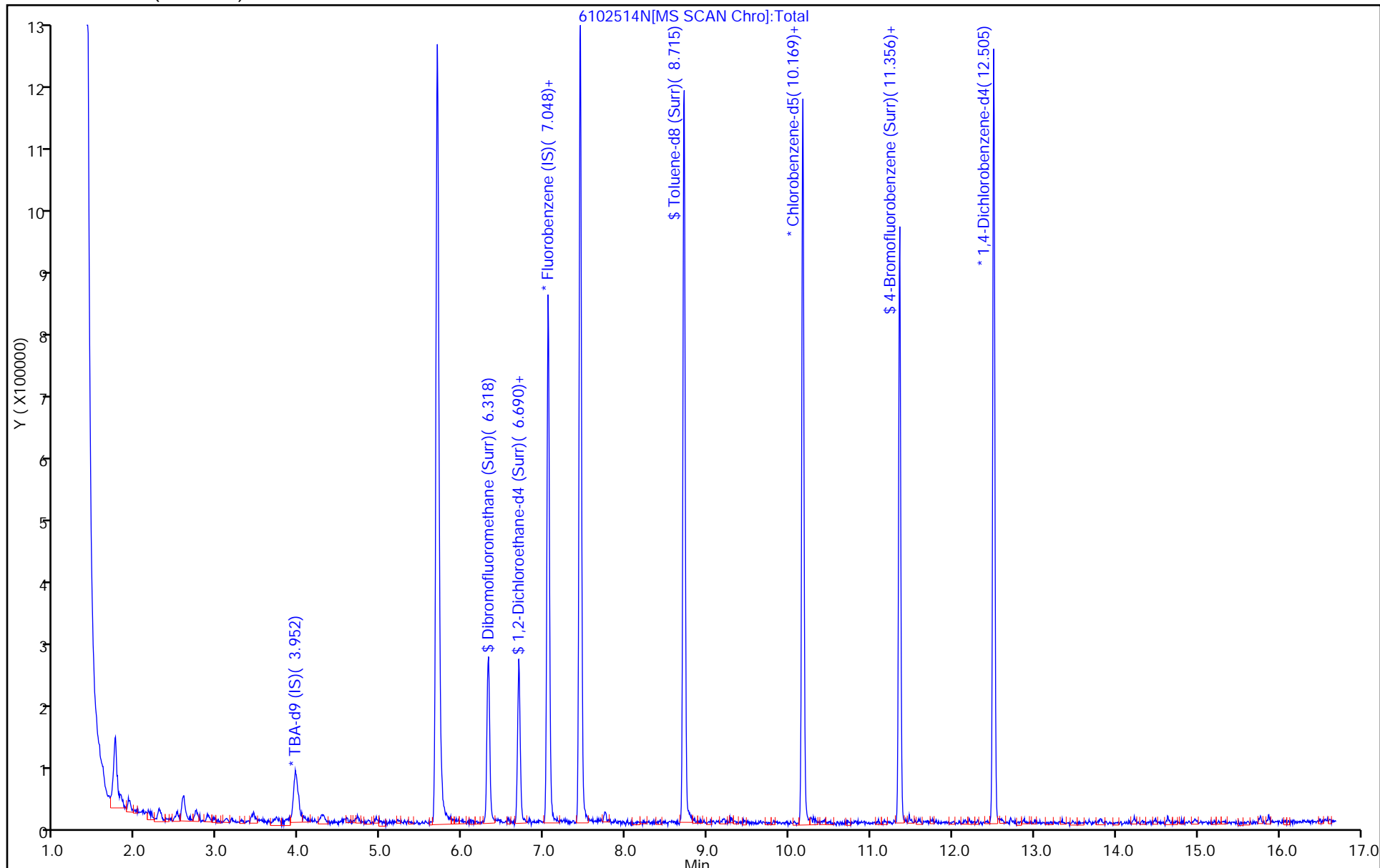
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Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102514N.D
Injection Date: 26-Oct-2017 16:02:30 Instrument ID: CHHP6
Lims ID: 180-71625-B-3 Lab Sample ID: 180-71625-3
Client ID: HD-MW-9-0/1-0
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm)

Operator ID: 034635
Worklist Smp#: 14
ALS Bottle#: 14



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102514N.D
 Lims ID: 180-71625-B-3
 Client ID: HD-MW-9-0/1-0
 Sample Type: Client
 Inject. Date: 26-Oct-2017 16:02:30 ALS Bottle#: 14 Worklist Smp#: 14
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019043-014
 Misc. Info.: 180-71625-B-3
 Operator ID: 034635 Instrument ID: CHHP6
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 26-Oct-2017 21:02:42 Calib Date: 28-Sep-2017 15:13:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK030

First Level Reviewer: bungardf Date: 26-Oct-2017 20:56:48

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	43.3	86.61
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	33.1	66.15
\$ 7 Toluene-d8 (Surr)	50.0	44.4	88.70
\$ 8 4-Bromofluorobenzene (Surr)	50.0	41.8	83.59

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102514N.D

Injection Date: 26-Oct-2017 16:02:30

Instrument ID: CHHP6

Lims ID: 180-71625-B-3

Lab Sample ID: 180-71625-3

Client ID: HD-MW-9-0/1-0

Operator ID: 034635

ALS Bottle#: 14

Worklist Smp#: 14

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

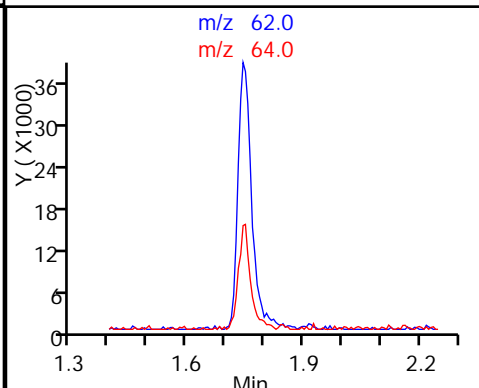
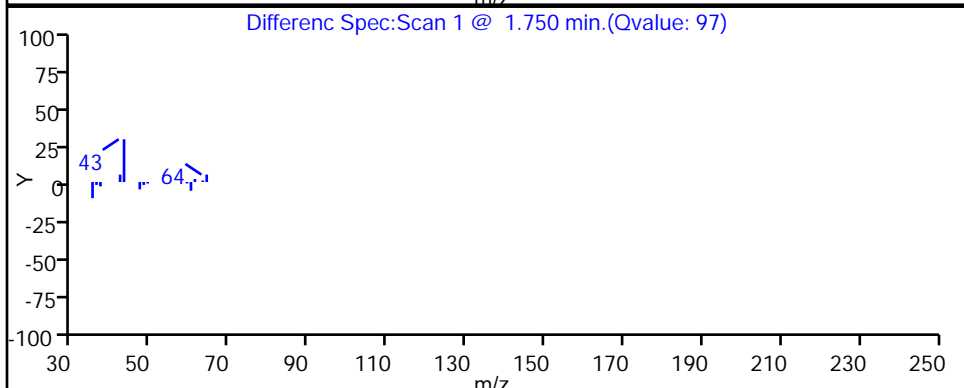
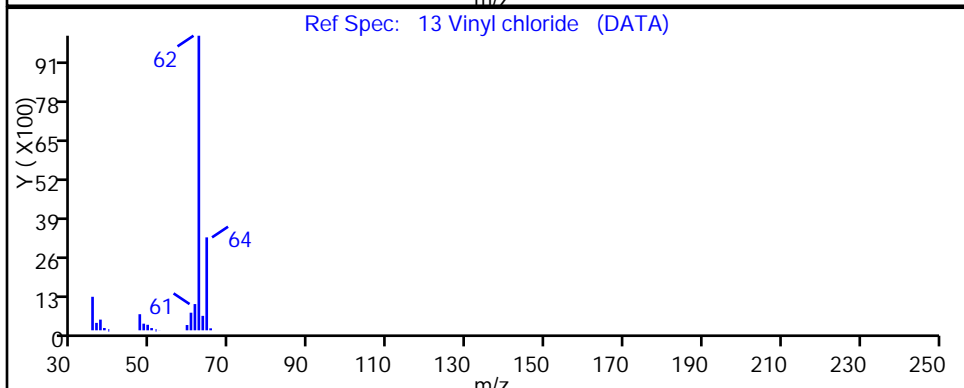
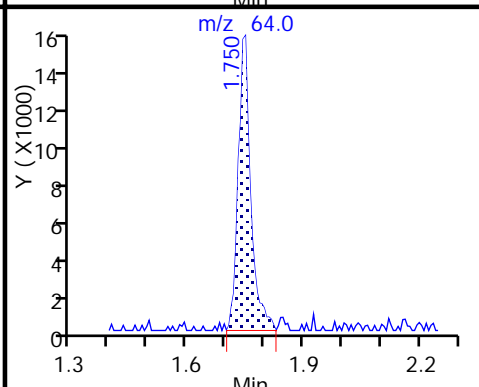
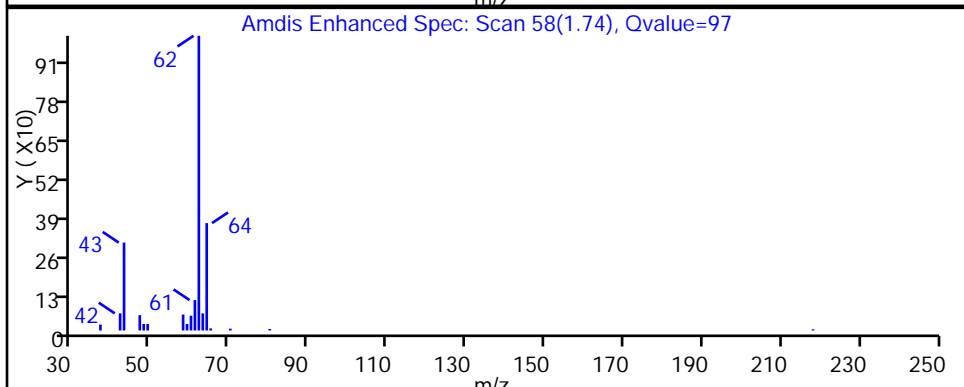
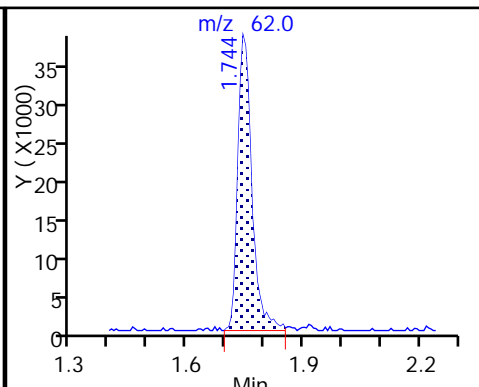
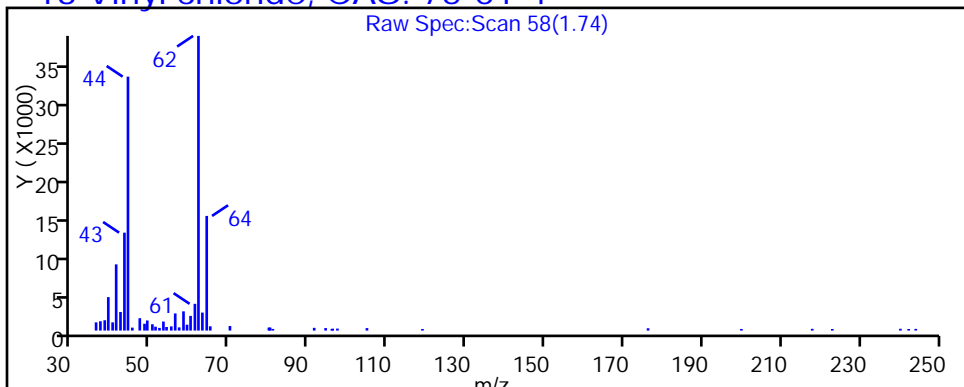
Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

13 Vinyl chloride, CAS: 75-01-4



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102514N.D

Injection Date: 26-Oct-2017 16:02:30

Instrument ID: CHHP6

Lims ID: 180-71625-B-3

Lab Sample ID: 180-71625-3

Client ID: HD-MW-9-0/1-0

Operator ID: 034635

ALS Bottle#: 14

Worklist Smp#: 14

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

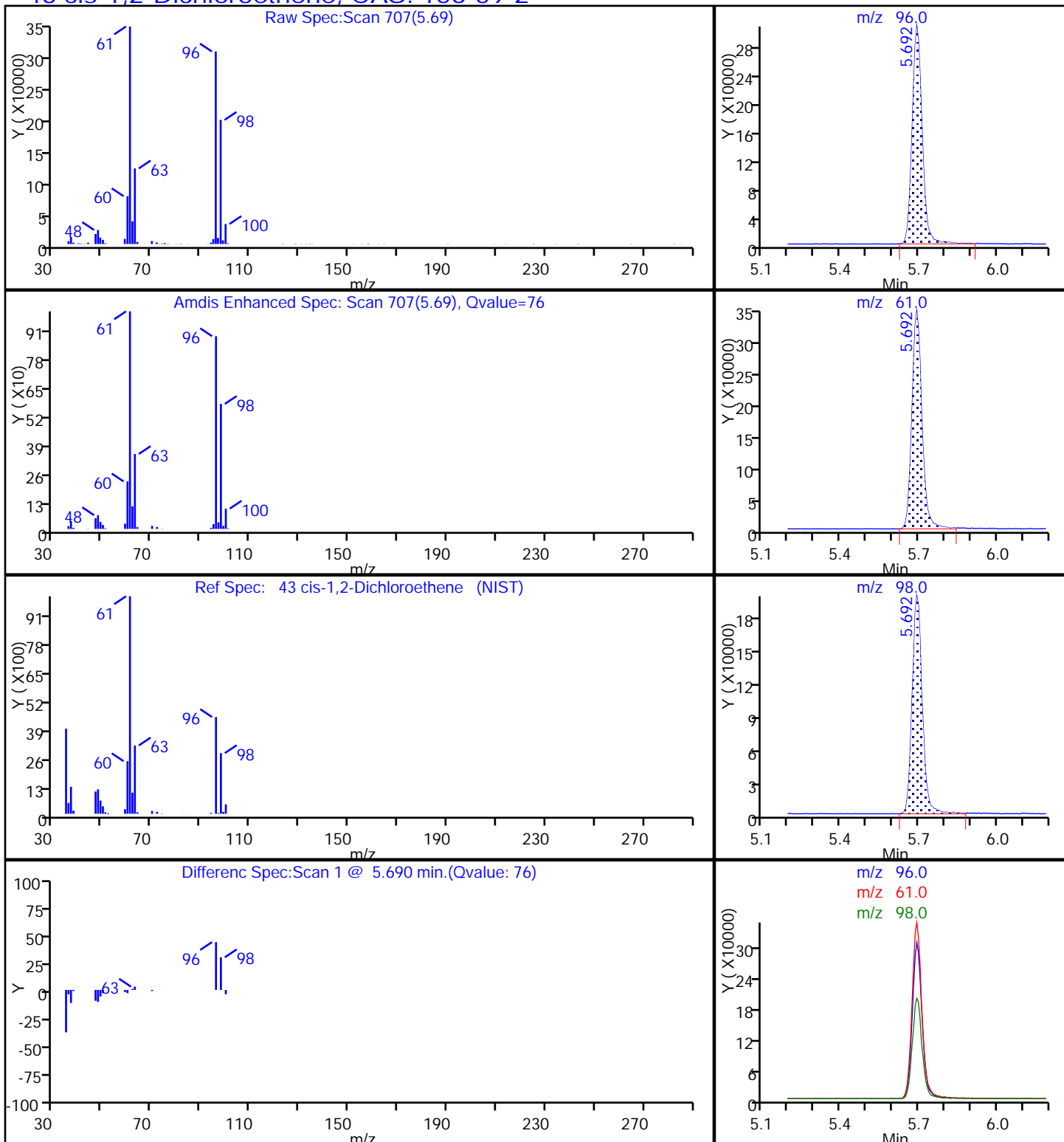
Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

43 cis-1,2-Dichloroethene, CAS: 156-59-2



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102514N.D

Injection Date: 26-Oct-2017 16:02:30

Instrument ID: CHHP6

Lims ID: 180-71625-B-3

Lab Sample ID: 180-71625-3

Client ID: HD-MW-9-0/1-0

Operator ID: 034635

ALS Bottle#: 14

Worklist Smp#: 14

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

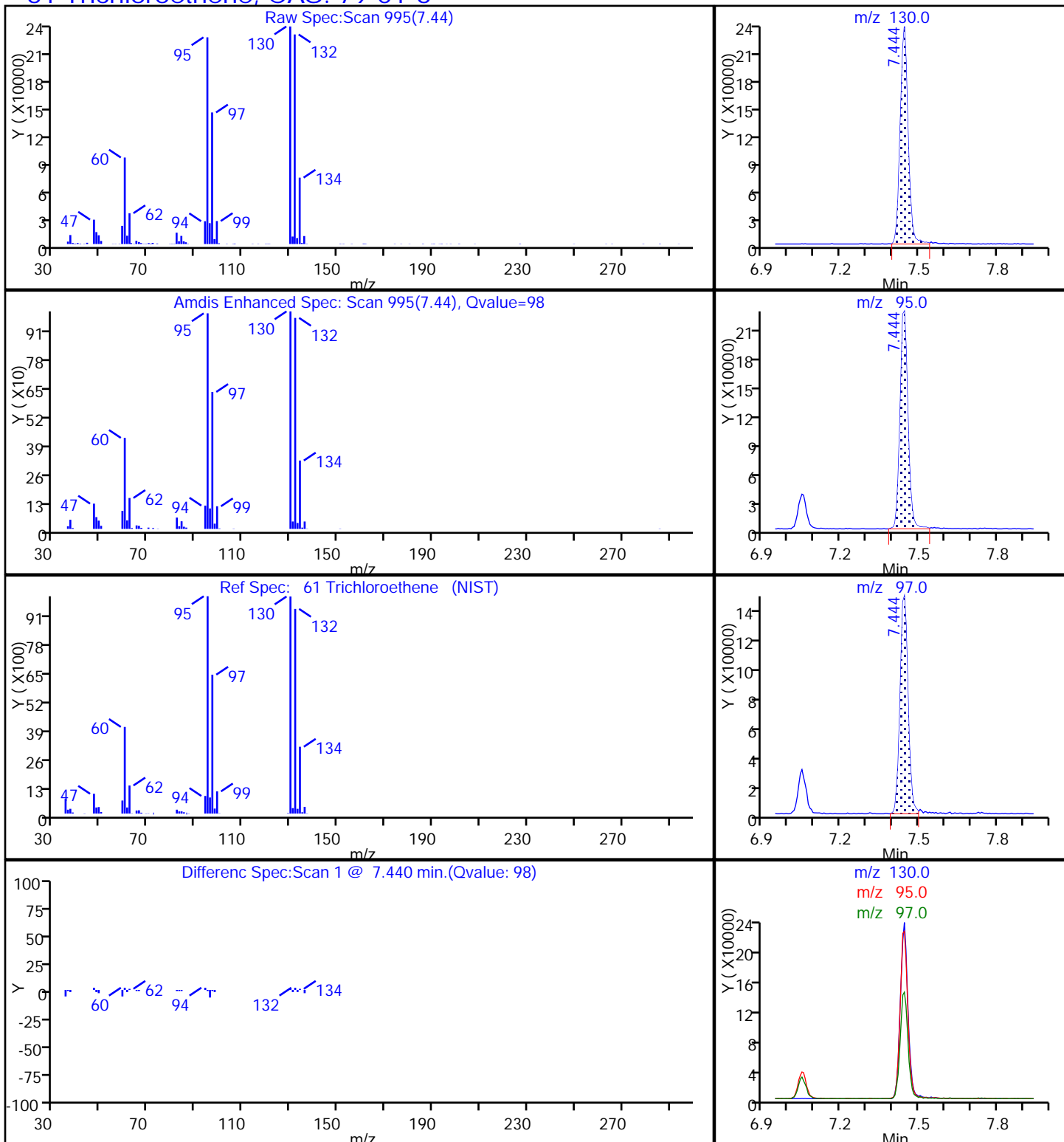
Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

61 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Client Sample ID: HD-MW-88-0/1-0 Lab Sample ID: 180-71625-4
 Matrix: Water Lab File ID: 6102516N.D
 Analysis Method: 8260C Date Collected: 10/20/2017 14:00
 Sample wt/vol: 5 (mL) Date Analyzed: 10/26/2017 16:56
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 227028 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.90
75-01-4	Vinyl chloride	1.0	U	1.0	0.88
74-83-9	Bromomethane	1.0	U ^c	1.0	0.89
75-00-3	Chloroethane	1.0	U	1.0	0.90
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.55
67-64-1	Acetone	5.0	U	5.0	3.4
75-15-0	Carbon disulfide	1.0	U	1.0	0.88
75-09-2	Methylene Chloride	1.0	U	1.0	0.36
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.67
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.59
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.63
156-59-2	cis-1,2-Dichloroethene	0.91	J	1.0	0.71
74-97-5	Bromochloromethane	1.0	U	1.0	0.63
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.60
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.60
56-23-5	Carbon tetrachloride	1.0	U ^c	1.0	0.88
71-43-2	Benzene	1.0	U	1.0	0.60
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.57
79-01-6	Trichloroethene	2.7		1.0	0.69
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.66
75-27-4	Bromodichloromethane	1.0	U	1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1
108-88-3	Toluene	1.0	U	1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.58
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.45
127-18-4	Tetrachloroethene	2.9		1.0	0.47
591-78-6	2-Hexanone	5.0	U	5.0	3.3
124-48-1	Dibromochloromethane	1.0	U	1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50
108-90-7	Chlorobenzene	1.0	U	1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U ^c	1.0	0.57
100-41-4	Ethylbenzene	1.0	U	1.0	0.51
1330-20-7	Xylenes, Total	2.0	U	2.0	0.89
100-42-5	Styrene	1.0	U	1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Client Sample ID: HD-MW-88-0/1-0 Lab Sample ID: 180-71625-4
 Matrix: Water Lab File ID: 6102516N.D
 Analysis Method: 8260C Date Collected: 10/20/2017 14:00
 Sample wt/vol: 5 (mL) Date Analyzed: 10/26/2017 16:56
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 227028 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U ^c *	1.0	0.60
107-13-1	Acrylonitrile	20	U ^c	20	7.8
123-91-1	1,4-Dioxane	200	U ^c	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	66		65-121
2037-26-5	Toluene-d8 (Surr)	87		73-120
460-00-4	4-Bromofluorobenzene (Surr)	82		80-120
1868-53-7	Dibromofluoromethane (Surr)	86		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102516N.D
 Lims ID: 180-71625-A-4
 Client ID: HD-MW-88-0/1-0
 Sample Type: Client
 Inject. Date: 26-Oct-2017 16:56:30 ALS Bottle#: 16 Worklist Smp#: 16
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019043-016
 Misc. Info.: 180-71625-A-4
 Operator ID: 034635 Instrument ID: CHHP6
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 26-Oct-2017 21:02:42 Calib Date: 28-Sep-2017 15:13:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK030

First Level Reviewer: bungardf

Date: 26-Oct-2017 20:58:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	3.952	3.950	0.002	91	127512	1000.0	
* 2 Fluorobenzene (IS)	96	7.049	7.046	0.003	99	848675	50.0	
* 3 Chlorobenzene-d5	119	10.169	10.167	0.002	85	240034	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.506	12.509	-0.003	96	350327	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.313	6.310	0.003	92	188548	42.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.690	6.687	0.003	70	209477	33.2	M
\$ 7 Toluene-d8 (Surr)	98	8.709	8.713	-0.004	94	840695	43.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.356	11.353	0.003	89	337770	40.8	
12 Chloromethane	50		1.626				ND	
13 Vinyl chloride	62		1.741				ND	
15 Bromomethane	94		2.076				ND	
16 Chloroethane	64		2.198				ND	
22 1,1-Dichloroethene	96	3.113	3.098	0.015	60	3746	0.8492	
24 Acetone	43		3.177				ND	
26 Carbon disulfide	76		3.360				ND	
31 Methylene Chloride	84		3.834				ND	
33 Acrylonitrile	53		4.236				ND	
34 trans-1,2-Dichloroethene	96		4.278				ND	
35 Methyl tert-butyl ether	73		4.284				ND	
37 1,1-Dichloroethane	63		4.923				ND	
43 cis-1,2-Dichloroethene	96	5.686	5.690	-0.004	80	26649	4.56	
44 2-Butanone (MEK)	43		5.702				ND	
48 Chlorobromomethane	128		5.975				ND	
50 Chloroform	83	6.130	6.128	0.002	24	3928	0.4474	
51 1,1,1-Trichloroethane	97		6.280				ND	
53 Carbon tetrachloride	117		6.456				ND	
56 Benzene	78		6.693				ND	
57 1,2-Dichloroethane	62		6.772				ND	
61 Trichloroethene	130	7.444	7.442	0.002	98	63136	13.3	
64 1,2-Dichloropropane	63		7.715				ND	
65 1,4-Dioxane	88		7.807				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.001				ND	
71 cis-1,3-Dichloropropene	75		8.451				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.610				ND	
73 Toluene	91	8.789	8.780	0.009	49	4323	0.1828	
74 trans-1,3-Dichloropropene	75		9.042				ND	
76 1,1,2-Trichloroethane	97		9.230				ND	
77 Tetrachloroethene	164	9.300	9.291	0.009	96	61851	14.6	
79 2-Hexanone	43		9.449				ND	
81 Chlorodibromomethane	129		9.595				ND	
82 Ethylene Dibromide	107		9.705				ND	
84 Chlorobenzene	112		10.197				ND	
86 1,1,1,2-Tetrachloroethane	131		10.295				ND	
87 Ethylbenzene	106		10.301				ND	
88 m-Xylene & p-Xylene	106	10.431	10.435	-0.004	9	1322	0.1226	
89 o-Xylene	106		10.812				ND	
90 Styrene	104		10.836				ND	
91 Bromoform	173		11.006				ND	
96 1,1,2,2-Tetrachloroethane	83		11.499				ND	
S 131 Xylenes, Total	106				0		0.1226	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00075

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00074

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102516N.D

Injection Date: 26-Oct-2017 16:56:30

Instrument ID: CHHP6

Operator ID: 034635

Lims ID: 180-71625-A-4

Lab Sample ID: 180-71625-4

Worklist Smp#: 16

Client ID: HD-MW-88-0/1-0

Purge Vol: 5.000 mL

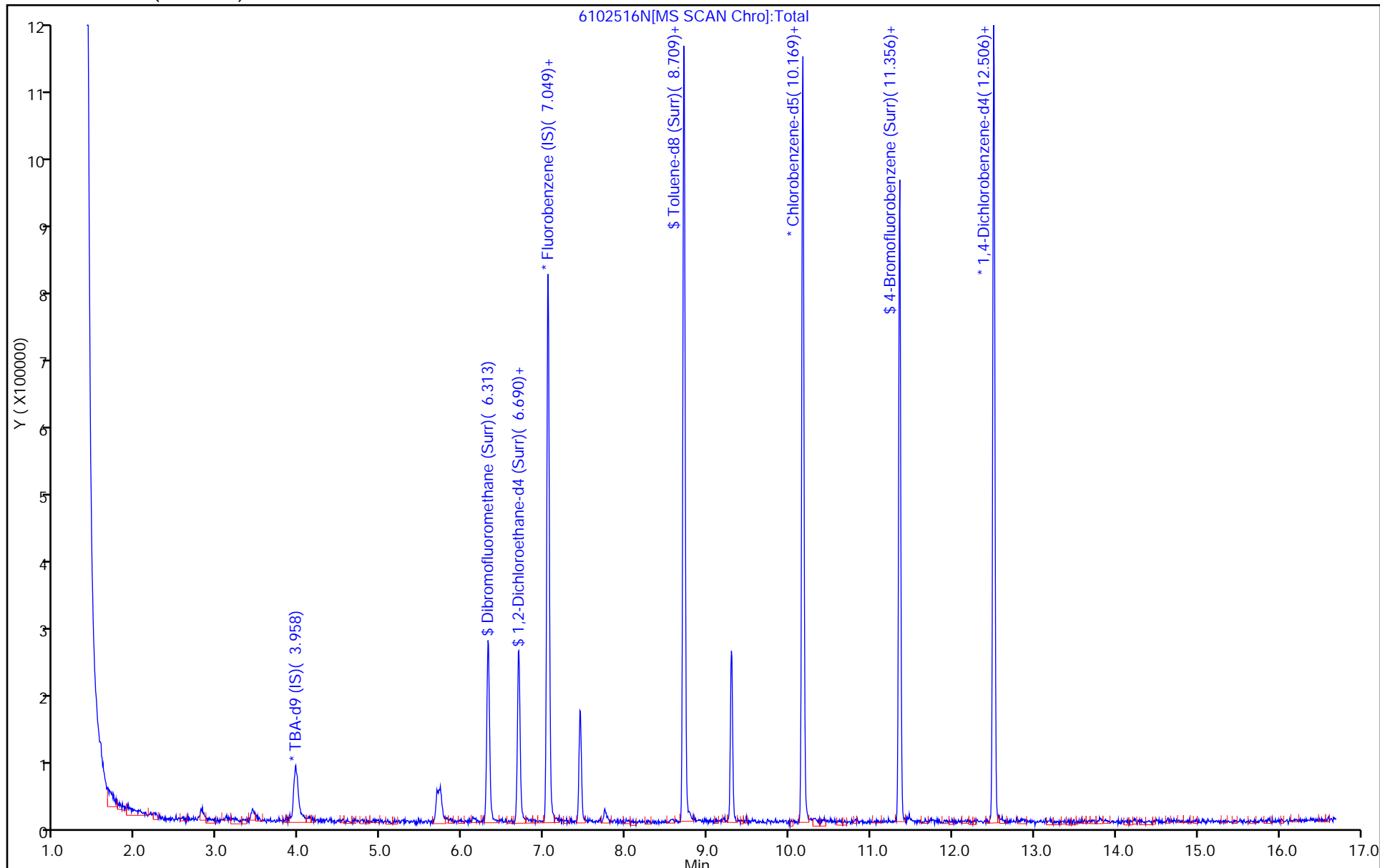
Dil. Factor: 1.0000

ALS Bottle#: 16

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102516N.D
 Lims ID: 180-71625-A-4
 Client ID: HD-MW-88-0/1-0
 Sample Type: Client
 Inject. Date: 26-Oct-2017 16:56:30 ALS Bottle#: 16 Worklist Smp#: 16
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019043-016
 Misc. Info.: 180-71625-A-4
 Operator ID: 034635 Instrument ID: CHHP6
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 26-Oct-2017 21:02:42 Calib Date: 28-Sep-2017 15:13:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK030

First Level Reviewer: bungardf

Date: 26-Oct-2017 20:58:06

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	42.8	85.51
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	33.2	66.47
\$ 7 Toluene-d8 (Surr)	50.0	43.3	86.56
\$ 8 4-Bromofluorobenzene (Surr)	50.0	40.8	81.51

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102516N.D

Injection Date: 26-Oct-2017 16:56:30

Instrument ID: CHHP6

Lims ID: 180-71625-A-4

Lab Sample ID: 180-71625-4

Client ID: HD-MW-88-0/1-0

Operator ID: 034635

ALS Bottle#: 16

Worklist Smp#: 16

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

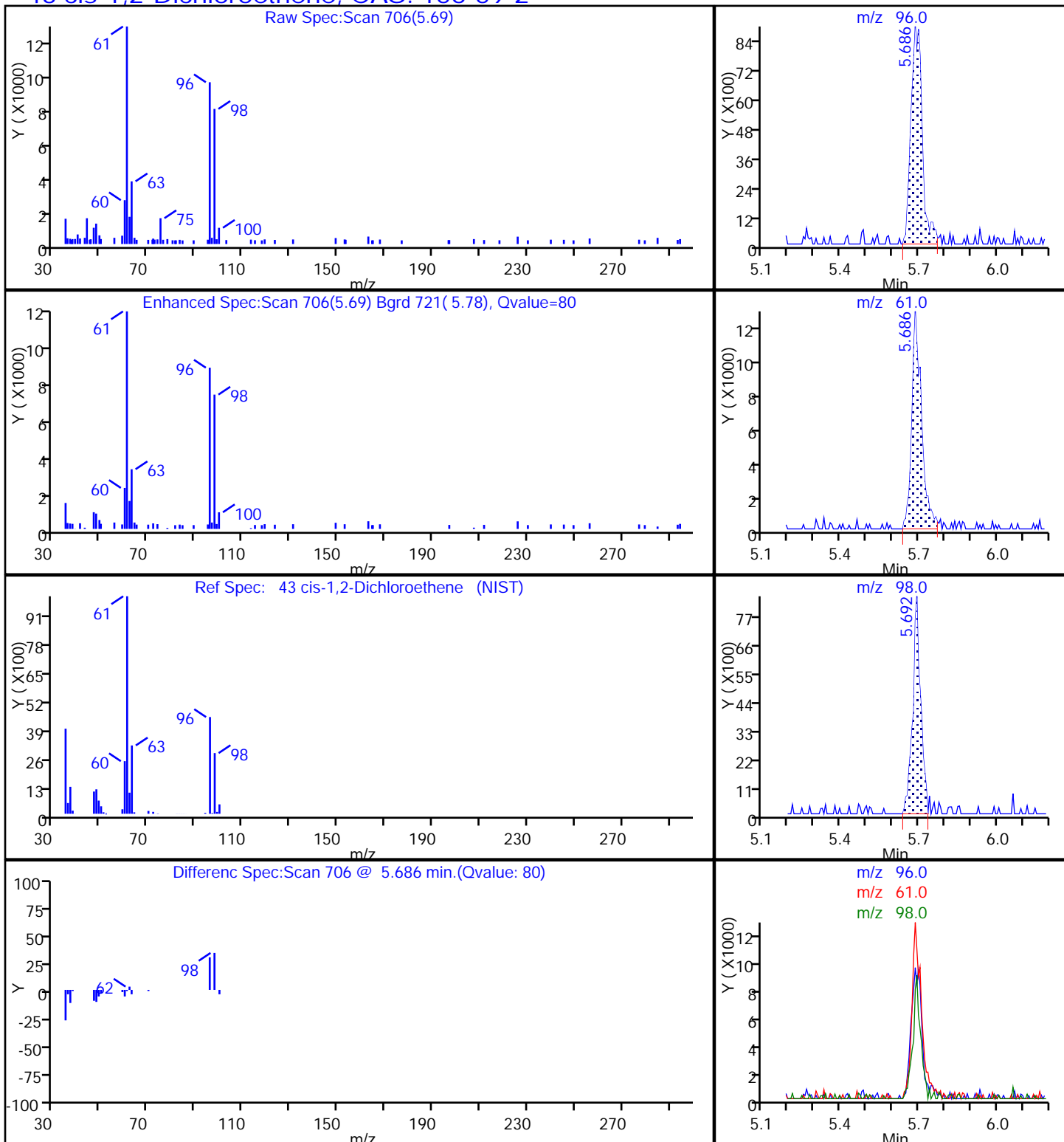
Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

43 cis-1,2-Dichloroethene, CAS: 156-59-2



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102516N.D

Injection Date: 26-Oct-2017 16:56:30

Instrument ID: CHHP6

Lims ID: 180-71625-A-4

Lab Sample ID: 180-71625-4

Client ID: HD-MW-88-0/1-0

Operator ID: 034635

ALS Bottle#: 16

Worklist Smp#: 16

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

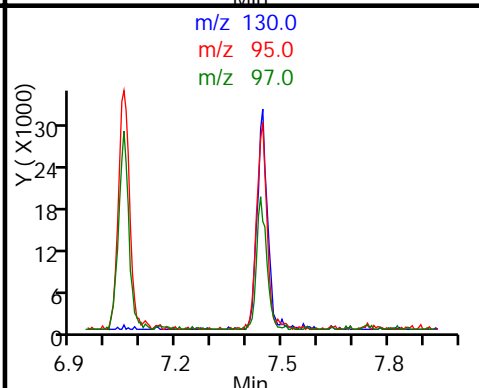
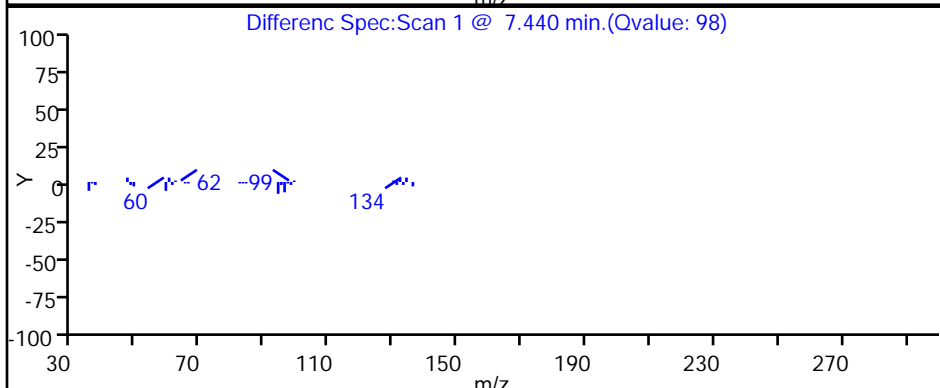
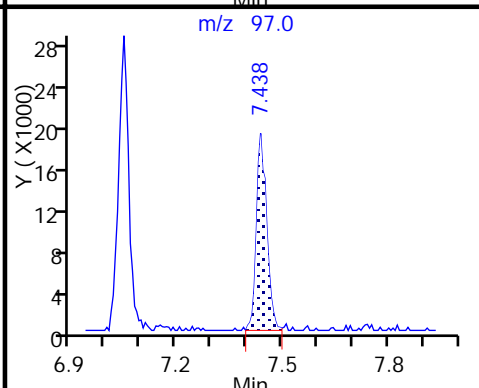
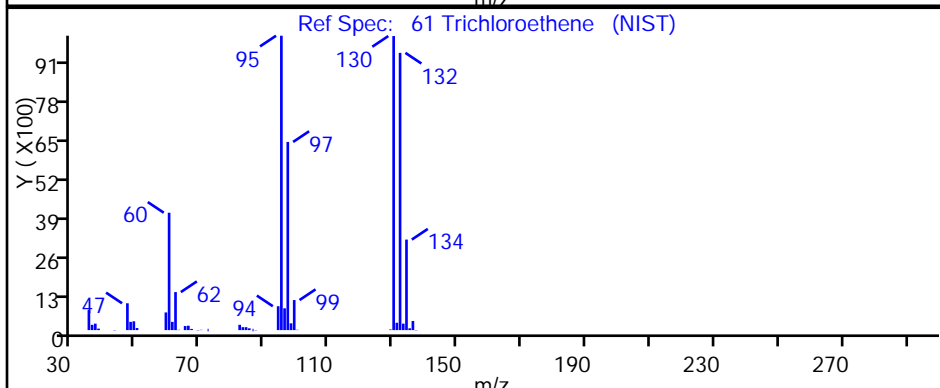
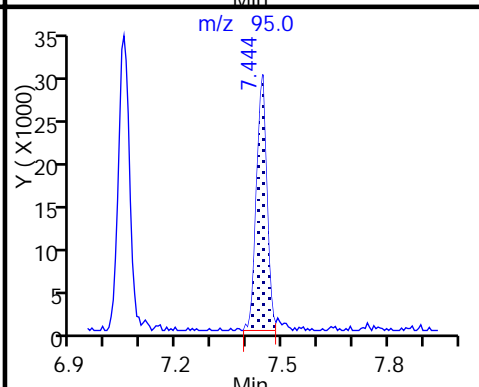
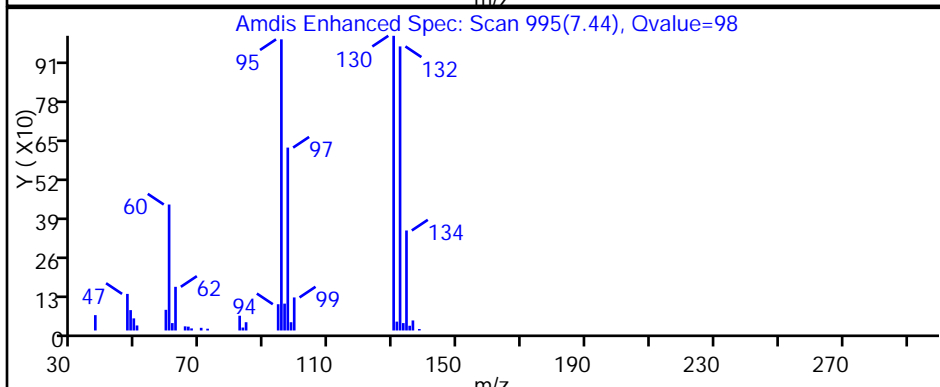
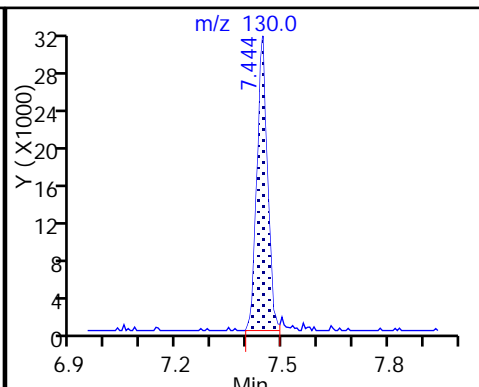
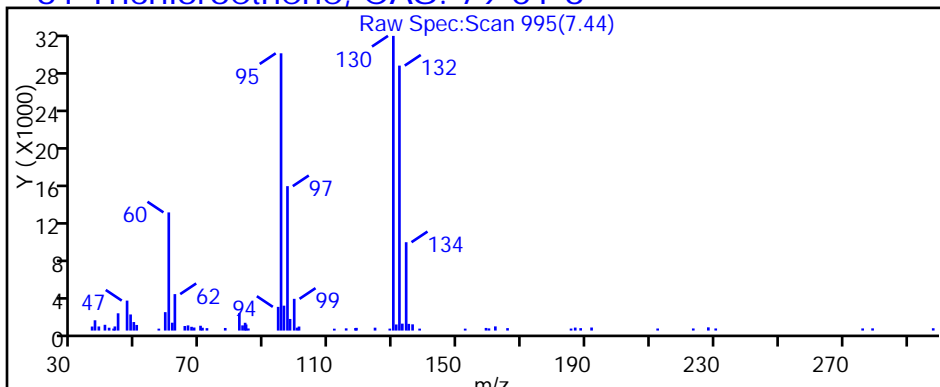
Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

61 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102516N.D

Injection Date: 26-Oct-2017 16:56:30

Instrument ID: CHHP6

Lims ID: 180-71625-A-4

Lab Sample ID: 180-71625-4

Client ID: HD-MW-88-0/1-0

Operator ID: 034635

ALS Bottle#: 16

Worklist Smp#: 16

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

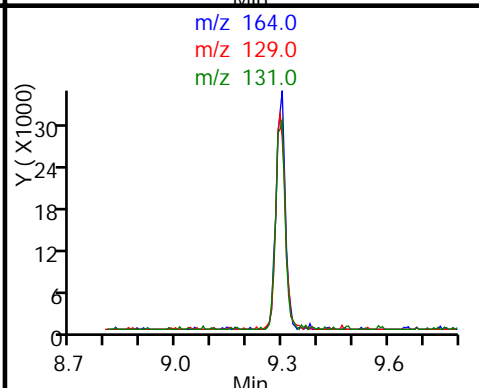
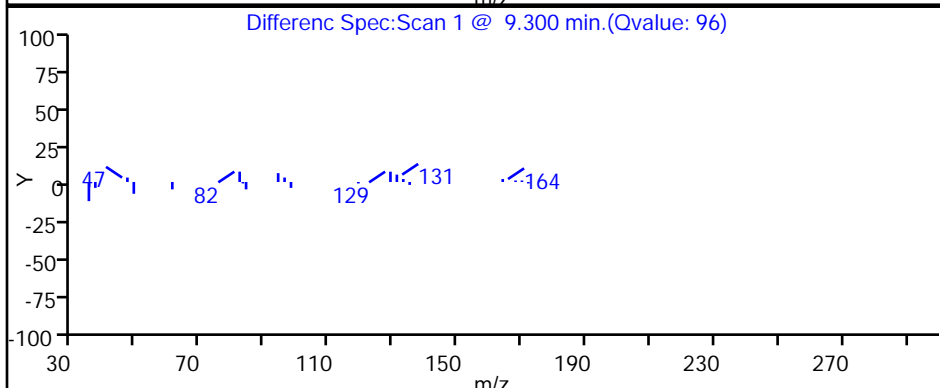
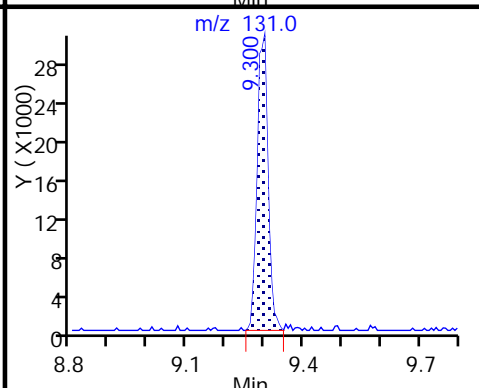
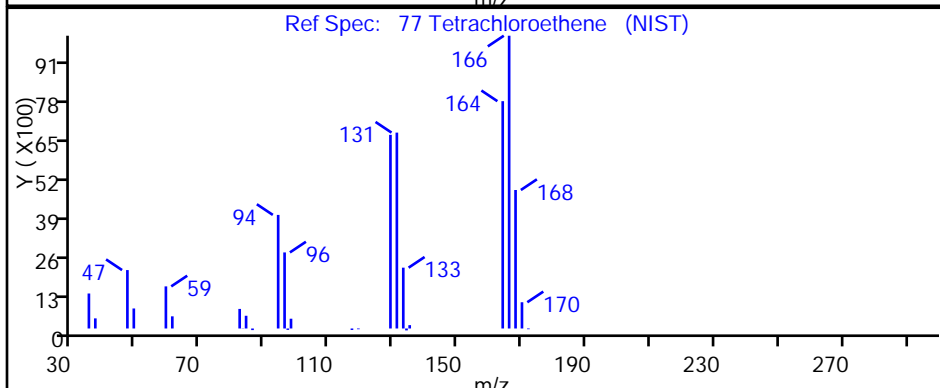
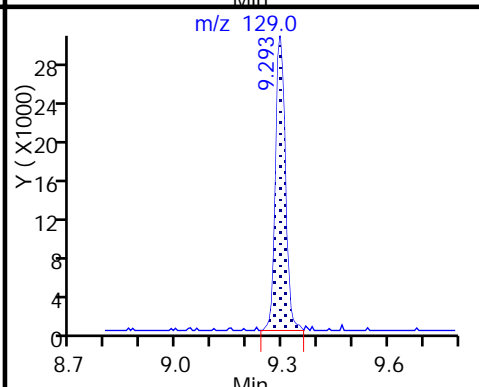
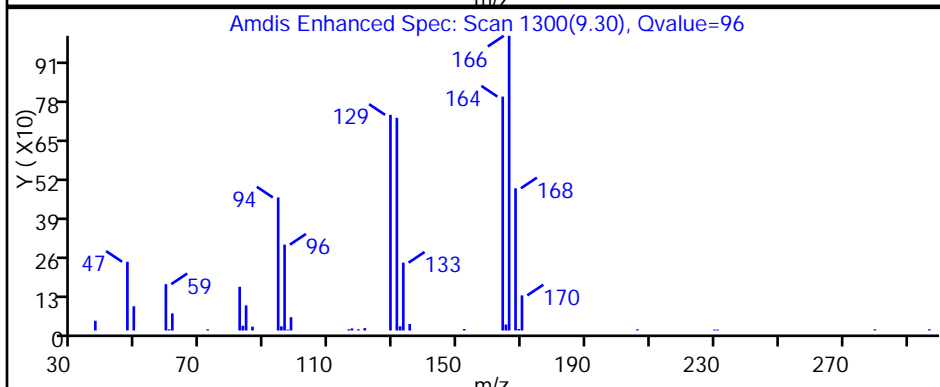
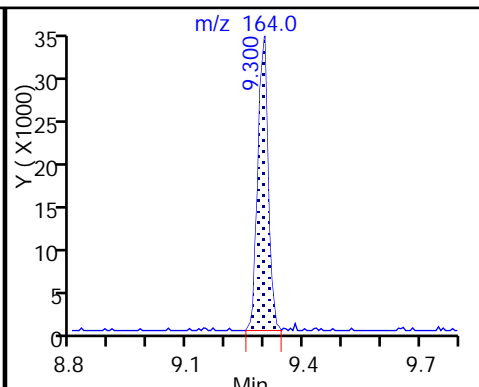
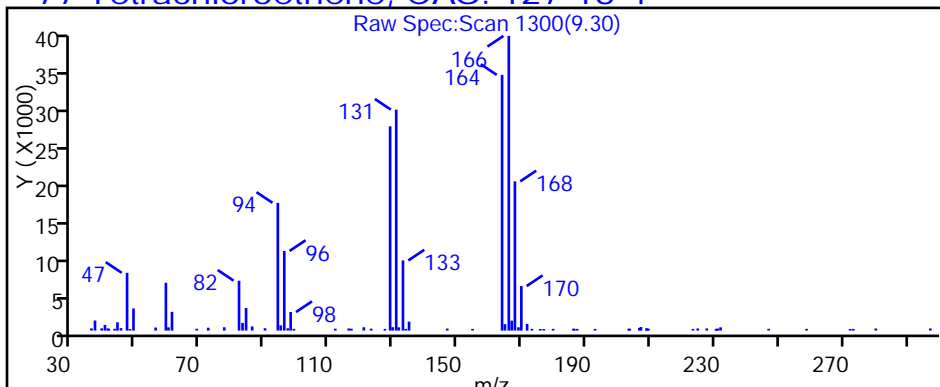
Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

77 Tetrachloroethene, CAS: 127-18-4



TestAmerica Pittsburgh

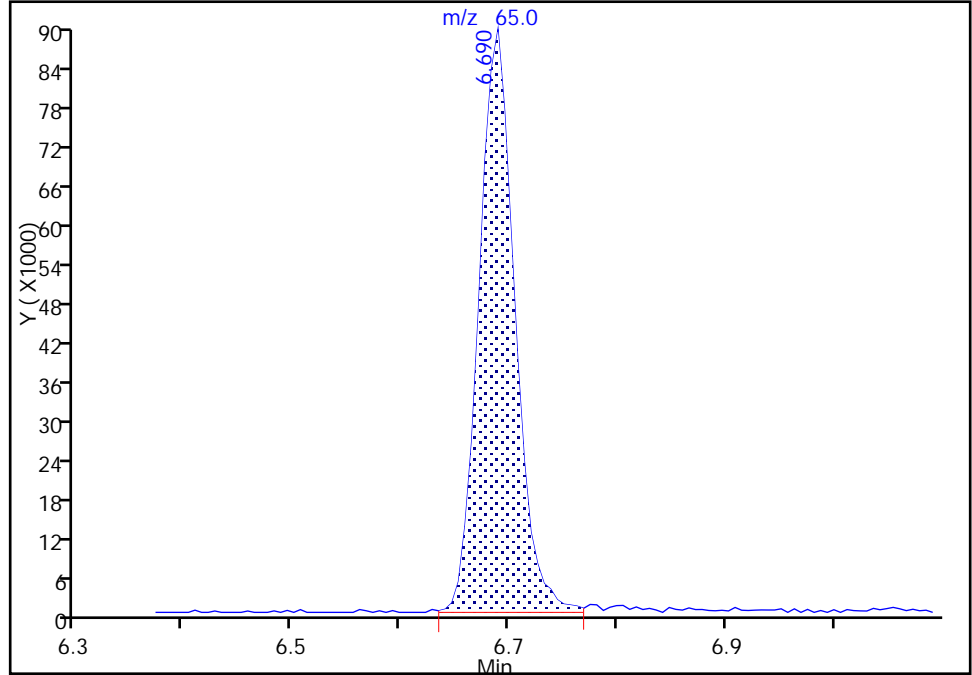
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102516N.D
Injection Date: 26-Oct-2017 16:56:30 Instrument ID: CHHP6
Lims ID: 180-71625-A-4 Lab Sample ID: 180-71625-4
Client ID: HD-MW-88-0/1-0
Operator ID: 034635 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

\$ 6 1,2-Dichloroethane-d4 (Surr), CAS: 17060-07-0

Signal: 1

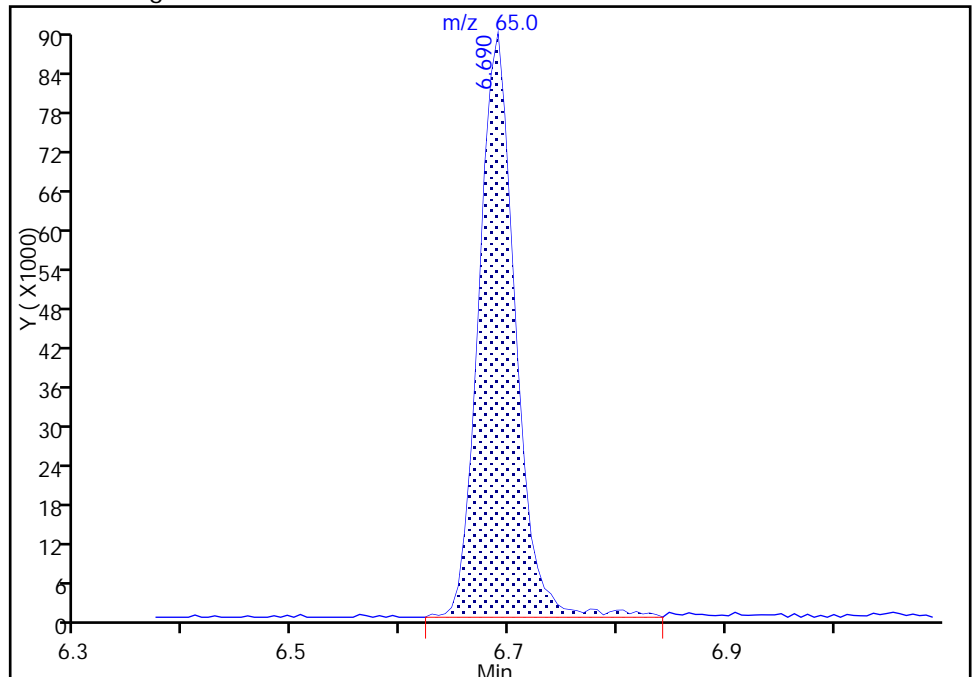
RT: 6.69
Area: 206287
Amount: 32.728071
Amount Units: ng

Processing Integration Results



RT: 6.69
Area: 209477
Amount: 33.234174
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 26-Oct-2017 20:57:13
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Client Sample ID: HD-QC3-0/1-2 Lab Sample ID: 180-71625-5
 Matrix: Water Lab File ID: 6102508N.D
 Analysis Method: 8260C Date Collected: 10/20/2017 12:00
 Sample wt/vol: 5 (mL) Date Analyzed: 10/26/2017 13:28
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 227028 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.90
75-01-4	Vinyl chloride	1.0	U	1.0	0.88
74-83-9	Bromomethane	1.0	U ^c	1.0	0.89
75-00-3	Chloroethane	1.0	U	1.0	0.90
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.55
67-64-1	Acetone	5.0	U	5.0	3.4
75-15-0	Carbon disulfide	1.0	U	1.0	0.88
75-09-2	Methylene Chloride	1.0	U	1.0	0.36
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.67
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.59
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.63
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.71
74-97-5	Bromochloromethane	1.0	U	1.0	0.63
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.60
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.60
56-23-5	Carbon tetrachloride	1.0	U ^c	1.0	0.88
71-43-2	Benzene	1.0	U	1.0	0.60
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.57
79-01-6	Trichloroethene	1.0	U	1.0	0.69
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.66
75-27-4	Bromodichloromethane	1.0	U	1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1
108-88-3	Toluene	1.0	U	1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.58
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.45
127-18-4	Tetrachloroethene	1.0	U	1.0	0.47
591-78-6	2-Hexanone	5.0	U	5.0	3.3
124-48-1	Dibromochloromethane	1.0	U	1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50
108-90-7	Chlorobenzene	1.0	U	1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U ^c	1.0	0.57
100-41-4	Ethylbenzene	1.0	U	1.0	0.51
1330-20-7	Xylenes, Total	2.0	U	2.0	0.89
100-42-5	Styrene	1.0	U	1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Client Sample ID: HD-QC3-0/1-2 Lab Sample ID: 180-71625-5
 Matrix: Water Lab File ID: 6102508N.D
 Analysis Method: 8260C Date Collected: 10/20/2017 12:00
 Sample wt/vol: 5 (mL) Date Analyzed: 10/26/2017 13:28
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 227028 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U ^c *	1.0	0.60
107-13-1	Acrylonitrile	20	U ^c	20	7.8
123-91-1	1,4-Dioxane	200	U ^c	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	68		65-121
2037-26-5	Toluene-d8 (Surr)	88		73-120
460-00-4	4-Bromofluorobenzene (Surr)	84		80-120
1868-53-7	Dibromofluoromethane (Surr)	84		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102508N.D
 Lims ID: 180-71625-B-5
 Client ID: HD-QC3-0/1-2
 Sample Type: Client
 Inject. Date: 26-Oct-2017 13:28:30 ALS Bottle#: 8 Worklist Smp#: 8
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019043-008
 Misc. Info.: 180-71625-B-5
 Operator ID: 034635 Instrument ID: CHHP6
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 26-Oct-2017 16:26:29 Calib Date: 28-Sep-2017 15:13:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK032

First Level Reviewer: journey

Date: 26-Oct-2017 13:54:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	3.957	3.950	0.007	96	171590	1000.0	
* 2 Fluorobenzene (IS)	96	7.048	7.046	0.002	99	888742	50.0	
* 3 Chlorobenzene-d5	119	10.169	10.167	0.002	86	245212	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.511	12.509	0.002	96	369386	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.312	6.310	0.002	93	194574	42.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.689	6.687	0.002	70	224237	34.0	
\$ 7 Toluene-d8 (Surr)	98	8.715	8.713	0.002	93	874238	44.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.355	11.353	0.002	89	354269	41.8	
12 Chloromethane	50		1.626				ND	
13 Vinyl chloride	62		1.741				ND	
15 Bromomethane	94		2.076				ND	
16 Chloroethane	64		2.198				ND	
22 1,1-Dichloroethene	96		3.098				ND	
24 Acetone	43		3.177				ND	
26 Carbon disulfide	76		3.360				ND	
31 Methylene Chloride	84		3.834				ND	
33 Acrylonitrile	53		4.236				ND	
34 trans-1,2-Dichloroethene	96		4.278				ND	
35 Methyl tert-butyl ether	73		4.284				ND	
37 1,1-Dichloroethane	63		4.923				ND	
43 cis-1,2-Dichloroethene	96		5.690				ND	
44 2-Butanone (MEK)	43		5.702				ND	
48 Chlorobromomethane	128		5.975				ND	
50 Chloroform	83	6.123	6.128	-0.005	47	3948	0.4294	
51 1,1,1-Trichloroethane	97		6.280				ND	
53 Carbon tetrachloride	117		6.456				ND	
56 Benzene	78		6.693				ND	
57 1,2-Dichloroethane	62		6.772				ND	
61 Trichloroethene	130		7.442				ND	
64 1,2-Dichloropropane	63		7.715				ND	
65 1,4-Dioxane	88		7.807				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.001				ND	
71 cis-1,3-Dichloropropene	75		8.451				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.610				ND	
73 Toluene	91		8.780				ND	
74 trans-1,3-Dichloropropene	75		9.042				ND	
76 1,1,2-Trichloroethane	97		9.230				ND	
77 Tetrachloroethene	164		9.291				ND	
79 2-Hexanone	43		9.449				ND	
81 Chlorodibromomethane	129		9.595				ND	
82 Ethylene Dibromide	107		9.705				ND	
84 Chlorobenzene	112		10.197				ND	
86 1,1,1,2-Tetrachloroethane	131		10.295				ND	
87 Ethylbenzene	106		10.301				ND	
88 m-Xylene & p-Xylene	106		10.435				ND	
89 o-Xylene	106		10.812				ND	
90 Styrene	104		10.836				ND	
91 Bromoform	173		11.006				ND	
96 1,1,2,2-Tetrachloroethane	83		11.499				ND	
S 131 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00075

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00074

Amount Added: 2.00

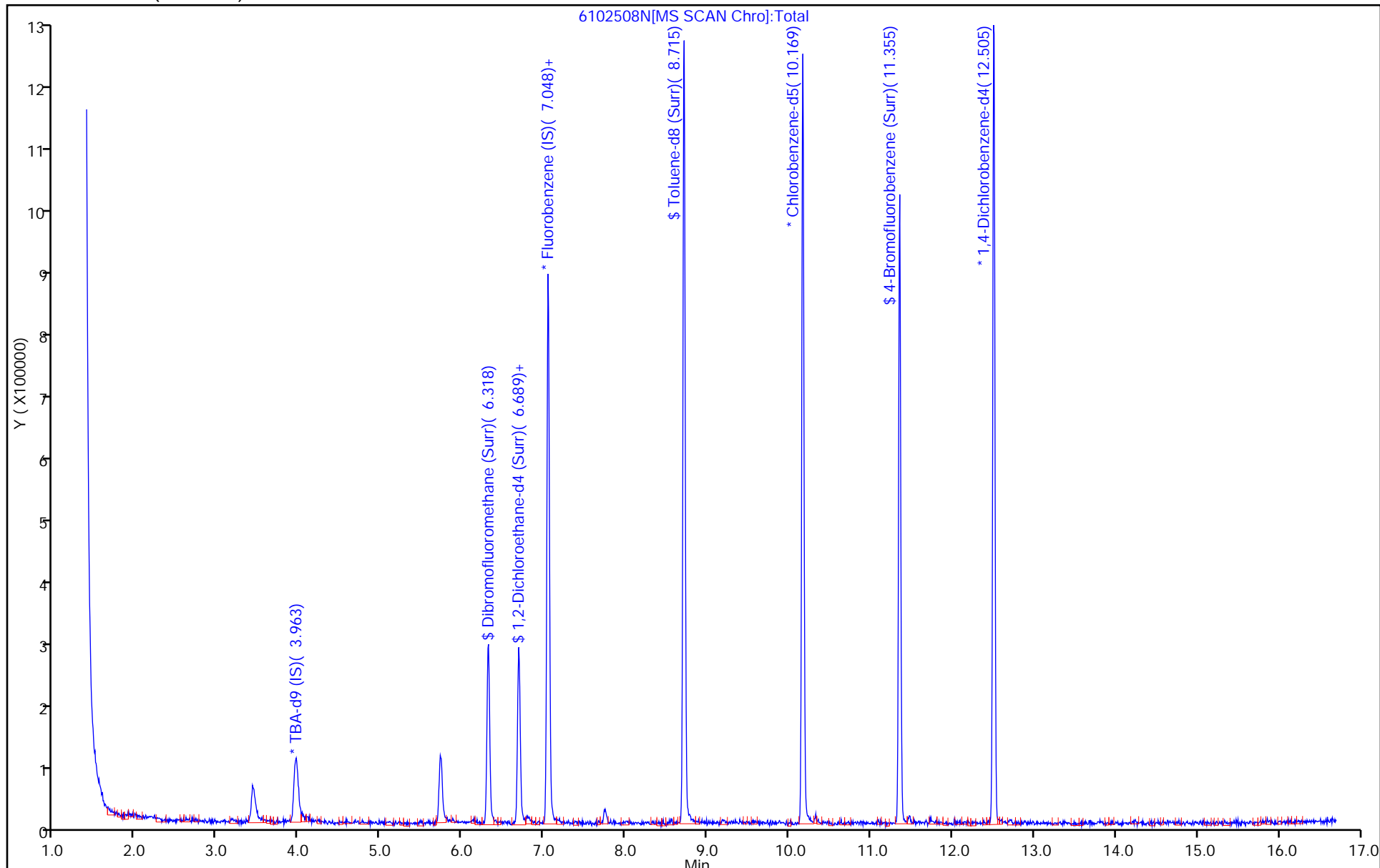
Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102508N.D
Injection Date: 26-Oct-2017 13:28:30 Instrument ID: CHHP6
Lims ID: 180-71625-B-5 Lab Sample ID: 180-71625-5
Client ID: HD-QC3-0/1-2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm)

Operator ID: 034635
Worklist Smp#: 8
ALS Bottle#: 8



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102508N.D
 Lims ID: 180-71625-B-5
 Client ID: HD-QC3-0/1-2
 Sample Type: Client
 Inject. Date: 26-Oct-2017 13:28:30 ALS Bottle#: 8 Worklist Smp#: 8
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019043-008
 Misc. Info.: 180-71625-B-5
 Operator ID: 034635 Instrument ID: CHHP6
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 26-Oct-2017 16:26:29 Calib Date: 28-Sep-2017 15:13:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK032

First Level Reviewer: journey Date: 26-Oct-2017 13:54:54

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	42.1	84.26
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	34.0	67.94
\$ 7 Toluene-d8 (Surr)	50.0	44.1	88.22
\$ 8 4-Bromofluorobenzene (Surr)	50.0	41.8	83.69

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1 Analy Batch No.: 217861

SDG No.: _____

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2017 06:39 Calibration End Date: 07/24/2017 09:28 Calibration ID: 35029

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-217861/3	60724D03.D
Level 2	IC 180-217861/4	60724D04.D
Level 3	ICIS 180-217861/5	60724D05.D
Level 4	IC 180-217861/6	60724D06.D
Level 5	IC 180-217861/7	60724D07.D
Level 6	IC 180-217861/8	60724D08.D
Level 7	IC 180-217861/9	60724D09.D
Level 8	IC 180-217861/10	60724D10.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Dichlorodifluoromethane	0.3450 0.3059	0.3450 0.2869	0.3353 0.3121	0.3123	0.3101	Ave		0.3191		0.1000	6.5		20.0				
Chloromethane	0.3003 0.2886	0.3121 0.2599	0.2915 0.2724	0.2904	0.2802	Ave		0.2869		0.1000	5.6		20.0				
Vinyl chloride	0.3294 0.2874	0.3184 0.2708	0.3073 0.2897	0.3106	0.2927	Ave		0.3008		0.1000	6.3		20.0				
1,3-Butadiene	0.3092 0.2283	0.2618 0.2122	0.2620 0.2355	0.2508	0.2350	Ave		0.2494		0.0100	11.9		20.0				
Bromomethane	0.1553 0.1421	0.1665 0.1212	0.1437 0.1124	0.1420	0.1381	Ave		0.1402		0.0500	12.3		20.0				
Chloroethane	0.1804 0.1621	0.1823 0.1426	0.1613 0.1385	0.1692	0.1635	Ave		0.1625		0.0500	9.7		20.0				
Trichlorofluoromethane	0.3064 0.2991	0.3069 0.2753	0.2862 0.2942	0.3037	0.2975	Ave		0.2961		0.1000	3.7		20.0				
Ethyl ether	0.2704 0.2624	0.2948 0.2348	0.2431 0.2337	0.2503	0.2380	Ave		0.2534		0.0100	8.4		20.0				
Acrolein	0.0585 0.0578	0.0586 0.0511	0.0493 0.0540	0.0552	0.0498	Ave		0.0543		0.0100	7.2		20.0				
1,1-Dichloroethene	0.2867 0.2623	0.2569 0.2445	0.2480 0.2685	0.2599	0.2523	Ave		0.2599		0.1000	5.1		20.0				
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2563 0.2479	0.2553 0.2297	0.2505 0.2557	0.2551	0.2415	Ave		0.2490		0.1000	3.7		20.0				
Acetone	0.1203 0.1200	0.1188 0.0908	0.1059 0.0850	0.1178	0.0996	Ave		0.1073		0.0500	13.2		20.0				
Iodomethane	0.3702 0.3809	0.3779 0.3532	0.3472 0.3674	0.3706	0.3553	Ave		0.3654		0.0100	3.3		20.0				
Carbon disulfide	0.5160 0.6411	0.5084 0.6051	0.5286 0.6607	0.5745	0.5948	Ave		0.5787		0.1000	9.9		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1 Analy Batch No.: 217861

SDG No.: _____

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2017 06:39 Calibration End Date: 07/24/2017 09:28 Calibration ID: 35029

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 5													
Allyl chloride	0.1400 0.1667	0.1427 0.1552	0.1408 0.1669	0.1545	0.1506	Ave		0.1522			0.0100	7.1	20.0				
Methyl acetate	0.2511 0.2511	0.2629 0.2169	0.2237 0.2238	0.2281	0.2235	Ave		0.2351			0.1000	7.3	20.0				
Methylene Chloride	0.4304 0.3426	0.3720 0.3106	0.3253 0.3196	0.3333	0.3214	Ave		0.3444			0.1000	11.5	20.0				
tert-Butyl alcohol	1.1832 1.1169	1.0643 1.1780	1.0783 1.0503	1.0936	1.0903	Ave		1.1069			0.0100	4.5	20.0				
Acrylonitrile	0.1433 0.1282	0.1504 0.1099	0.1193 0.1099	0.1260	0.1177	Ave		0.1256			0.0100	11.8	20.0				
trans-1,2-Dichloroethene	0.3079 0.2977	0.3084 0.2782	0.2262 0.2973	0.2967	0.2863	Ave		0.2948			0.1000	3.6	20.0				
Methyl tert-butyl ether	0.9852 0.9798	1.0649 0.8774	0.9152 0.8866	0.9403	0.8941	Ave		0.9429			0.1000	6.8	20.0				
Hexane	0.3830 0.3427	0.3628 0.3171	0.3558 0.3531	0.3486	0.3306	Ave		0.3492			0.0100	5.7	20.0				
1,1-Dichloroethane	0.3424 0.5206	0.5334 0.4688	0.4893 0.4858	0.5109	0.4862	Ave		0.4797			0.2000	12.4	20.0				
Vinyl acetate	0.5164 0.5873	0.6180 0.5638	0.5095 0.5801	0.5598	0.5341	Ave		0.5586			0.0100	6.6	20.0				
2,2-Dichloropropane	0.0453 0.0537	0.0486 0.0484	0.0465 0.0533	0.0511	0.0505	Ave		0.0497			0.0100	6.1	20.0				
cis-1,2-Dichloroethene	0.3357 0.3634	0.3627 0.3286	0.3396 0.3403	0.3473	0.3378	Ave		0.3444			0.1000	3.7	20.0				
2-Butanone (MEK)	0.1549 0.1656	0.1778 0.1399	0.1558 0.1417	0.1537	0.1408	Ave		0.1538			0.0500	8.6	20.0				
Bromochloromethane	0.1516 0.1607	0.1622 0.1458	0.1383 0.1496	0.1503	0.1438	Ave		0.1503			0.0100	5.4	20.0				
Tetrahydrofuran	0.1403 0.1029	0.1208 0.0905	0.0949 0.0946	0.0965	0.0924	Ave		0.1041			0.0100	16.8	20.0				
Chloroform	0.5046 0.5414	0.5408 0.4888	0.5225 0.5010	0.5258	0.5131	Ave		0.5173			0.2000	3.6	20.0				
1,1,1-Trichloroethane	0.3059 0.3476	0.3251 0.3197	0.3211 0.3440	0.3302	0.3364	Ave		0.3287			0.1000	4.2	20.0				
Cyclohexane	0.5176 0.4515	0.4846 0.4234	0.4744 0.4585	0.4759	0.4508	Ave		0.4671			0.1000	6.0	20.0				
Carbon tetrachloride	0.1966 0.2579	0.2202 0.2439	0.2226 0.2730	0.2389	0.2388	Ave		0.2365			0.1000	10.0	20.0				
1,1-Dichloropropene	0.3981 0.4024	0.4008 0.3732	0.3987 0.3992	0.4036	0.3921	Ave		0.3960			0.0100	2.5	20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71625-1

Analy Batch No.: 217861

SDG No.: _____

Instrument ID: CHHP6

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2017 06:39

Calibration End Date: 07/24/2017 09:28

Calibration ID: 35029

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Benzene	1.2659 1.1411	1.3110 1.0204	1.1612 1.0175	1.1979	1.1046	Ave		1.1524			0.5000	9.2	20.0				
Isobutyl alcohol	0.0068 0.0078	0.0074 0.0073	0.0062 0.0074	0.0067	0.0061	Ave		0.0069		*	0.0100	9.0	20.0				
1,2-Dichloroethane	0.4414 0.4413	0.4873 0.3948	0.4087 0.4001	0.4303	0.4024	Ave		0.4258			0.1000	7.3	20.0				
n-Heptane	0.3046 0.2655	0.2715 0.2397	0.2583 0.2675	0.2685	0.2506	Ave		0.2658			0.0100	7.1	20.0				
Trichloroethene	0.2857 0.2913	0.2895 0.2663	0.2730 0.2779	0.2828	0.2736	Ave		0.2800			0.2000	3.1	20.0				
Methylcyclohexane	0.5506 0.4736	0.5082 0.4397	0.4903 0.4745	0.5019	0.4725	Ave		0.4889			0.1000	6.7	20.0				
1,2-Dichloropropane	0.2899 0.3108	0.2949 0.2788	0.2747 0.2913	0.2876	0.2769	Ave		0.2881			0.1000	4.1	20.0				
1,4-Dioxane	0.0030 0.0026	0.0033 0.0022	0.0027 0.0024	0.0026	0.0023	Ave		0.0026		*	0.0100	13.6	20.0				
Dibromomethane	0.1974 0.2025	0.1996 0.1829	0.1756 0.1868	0.1860	0.1767	Ave		0.1884			0.0100	5.5	20.0				
Bromodichloromethane	0.2608 0.3692	0.3120 0.3396	0.2889 0.3543	0.3275	0.3140	Ave		0.3208			0.2000	10.9	20.0				
2-Chloroethyl vinyl ether	0.1868 0.2074	0.2167 0.1868	0.1781 0.1938	0.1904	0.1674	Ave		0.1909			0.0100	8.2	20.0				
cis-1,3-Dichloropropene	0.2705 0.4410	0.3316 0.3997	0.3266 0.4142	0.3665	0.3611	Ave		0.3639			0.2000	15.0	20.0				
4-Methyl-2-pentanone (MIBK)	1.3134 1.2837	1.4428 1.1619	1.3220 1.0694	1.3558	1.2661	Ave		1.2769			0.1000	9.1	20.0				
Toluene	6.0508 4.5624	5.5576 4.1666	5.1577 3.8337	5.2430	4.8472	Ave		4.9274			0.4000	14.8	20.0				
trans-1,3-Dichloropropene	1.0419 1.5300	1.2118 1.4618	1.1943 1.4145	1.3692	1.3334	Ave		1.3196			0.1000	12.2	20.0				
Ethyl methacrylate	1.5098 1.7677	1.7528 1.6625	1.6297 1.5641	1.7656	1.6495	Ave		1.6627			0.0100	5.8	20.0				
1,1,2-Trichloroethane	1.1786 1.1625	1.2819 1.0786	1.1275 1.0374	1.1670	1.0865	Ave		1.1400			0.1000	6.6	20.0				
Tetrachloroethene	1.0463 0.8489	0.8922 0.8062	0.8845 0.7981	0.9220	0.8591	Ave		0.8822			0.2000	8.9	20.0				
1,3-Dichloropropane	2.2848 2.0510	2.3788 1.8937	2.0325 1.7922	2.1291	1.9759	Ave		2.0672			0.0100	9.4	20.0				
2-Hexanone	0.8467 0.8290	0.9552 0.7643	0.8185 0.7213	0.8612	0.7781	Ave		0.8218			0.1000	8.6	20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71625-1

Analy Batch No.: 217861

SDG No.: _____

Instrument ID: CHHP6

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2017 06:39

Calibration End Date: 07/24/2017 09:28

Calibration ID: 35029

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Dibromochloromethane	0.6235 0.9071	0.7065 0.8567	0.6998 0.8436	0.7772	0.7651	Ave		0.7724			0.1000	12.2		20.0			
1,2-Dibromoethane (EDB)	1.0866 1.1527	1.1708 1.0816	1.0670 1.0267	1.1262	1.0622	Ave		1.0967			0.1000	4.5		20.0			
3-Chlorobenzotrifluoride	1.5158 1.3678	1.5396 1.3015	1.4427 1.2972	1.5937	1.3990	Ave		1.4322			0.0100	7.7		20.0			
Chlorobenzene	3.8282 3.0865	3.6360 2.8090	3.2721 2.6244	3.3129	3.0652	Ave		3.2043			0.5000	12.5		20.0			
4-Chlorobenzotrifluoride	1.3979 1.2982	1.3616 1.2351	1.3127 1.2373	1.5001	1.2773	Ave		1.3275			0.0100	6.7		20.0			
1,1,1,2-Tetrachloroethane	0.7632 1.0328	0.8610 0.9619	0.8342 0.9319	0.9709	0.9327	Ave		0.9111			0.0100	9.5		20.0			
Ethylbenzene	2.0557 1.8003	1.9366 1.6726	1.8780 1.5959	1.9373	1.7866	Ave		1.8329			0.1000	8.2		20.0			
m-Xylene & p-Xylene	2.5501 2.2147	2.4209 2.0393	2.2209 1.9570	2.3806	2.1868	Ave		2.2463			0.1000	8.8		20.0			
o-Xylene	2.4843 2.2465	2.4921 2.0108	2.2993 1.9118	2.3599	2.2034	Ave		2.2510			0.3000	9.2		20.0			
Styrene	4.0891 3.5907	4.0950 3.2108	3.7484 2.9710	3.9219	3.4981	Ave		3.6406			0.3000	11.2		20.0			
Bromoform	0.3370 0.5330	0.3789 0.5010	0.3818 0.4964	0.4305	0.4190	Ave		0.4347			0.1000	15.9		20.0			
2-Chlorobenzotrifluoride	1.4533 1.4424	1.6153 1.3223	1.4179 1.3036	1.6403	1.4193	Ave		1.4518			0.0100	8.4		20.0			
Isopropylbenzene	6.3984 4.6371	5.8487 4.0713	5.3090 3.7512	5.4219	4.8709	Ave		5.0386			0.1000	17.6		20.0			
Bromobenzene	0.9410 0.9394	0.9810 0.9122	0.9383 0.9038	0.9005	0.9180	Ave		0.9293			0.0100	2.8		20.0			
1,1,2,2-Tetrachloroethane	1.6867 1.6395	1.8800 1.4633	1.6064 1.3686	1.6823	1.5069	Ave		1.6042			0.3000	9.9		20.0			
trans-1,4-Dichloro-2-butene	0.2724 0.2884	0.2827 0.2833	0.2498 0.2904	0.2507	0.2582	Ave		0.2720			0.0100	6.2		20.0			
1,2,3-Trichloropropane	0.3844 0.3903	0.4180 0.3743	0.3879 0.3799	0.3764	0.3765	Ave		0.3860			0.0100	3.7		20.0			
N-Propylbenzene	1.0896 0.9901	1.0404 0.9508	1.0060 0.9746	1.0147	1.0247	Ave		1.0114			0.0100	4.2		20.0			
2-Chlorotoluene	0.9244 0.8870	0.8858 0.8323	0.8682 0.8579	0.8757	0.8785	Ave		0.8762			0.0100	3.0		20.0			
3-Chlorotoluene	0.9488 0.9026	0.9481 0.8733	0.9020 0.9002	0.9547	0.9252	Ave		0.9194			0.0100	3.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1 Analy Batch No.: 217861

SDG No.: _____

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2017 06:39 Calibration End Date: 07/24/2017 09:28 Calibration ID: 35029

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
1,3,5-Trimethylbenzene	3.2098 2.7572	3.1610 2.5370	2.9762 2.4836	2.9682	2.8830	Ave		2.8720			0.0100	9.3	20.0				
4-Chlorotoluene	1.0814 0.9671	0.9434 0.9047	0.9555 0.9161	0.9436	0.9398	Ave		0.9565			0.0100	5.7	20.0				
tert-Butylbenzene	2.5322 2.2077	2.3962 2.0211	2.3742 2.0481	2.3326	2.3286	Ave		2.2801			0.0100	7.7	20.0				
1,2,4-Trimethylbenzene	3.5127 2.8439	3.3123 2.5942	3.1049 2.5435	3.0350	3.0086	Ave		2.9944			0.0100	11.1	20.0				
3,4-Dichlorobenzotrifluoride	0.7362 0.6508	0.6581 0.6193	0.6198 0.6784	0.6940	0.6587	Ave		0.6644			0.0100	5.8	20.0				
sec-Butylbenzene	3.9837 2.9724	3.4720 2.6959	3.2967 2.6895	3.2643	3.2125	Ave		3.1984			0.0100	13.3	20.0				
1,3-Dichlorobenzene	1.9656 1.6199	1.7934 1.5145	1.6495 1.5107	1.6503	1.6466	Ave		1.6688			0.6000	8.9	20.0				
4-Isopropyltoluene	3.0764 2.5117	2.9764 2.2679	2.6994 2.2836	2.6864	2.6251	Ave		2.6409			0.0100	11.0	20.0				
1,4-Dichlorobenzene	1.9865 1.6860	1.8621 1.5565	1.7487 1.5598	1.7034	1.7043	Ave		1.7259			0.5000	8.4	20.0				
2,4-Dichlorobenzotrifluoride	0.6454 0.6171	0.6327 0.5625	0.6090 0.6636	0.6702	0.6085	Ave		0.6261			0.0100	5.6	20.0				
2,5-Dichlorobenzotrifluoride	0.6732 0.7026	0.7481 0.6866	0.6523 0.6767	0.7060	0.6830	Ave		0.6911			0.0100	4.1	20.0				
n-Butylbenzene	2.8298 2.2864	2.6464 2.0727	2.4207 2.1235	2.4803	2.4098	Ave		2.4087			0.0100	10.5	20.0				
1,2-Dichlorobenzene	1.7708 1.5647	1.7956 1.4356	1.5665 1.4544	1.5674	1.5442	Ave		1.5874			0.4000	8.3	20.0				
1,2-Dibromo-3-Chloropropane	0.1216 0.1606	0.1391 0.1568	0.1266 0.1669	0.1326	0.1278	Ave		0.1415			0.0500	12.4	20.0				
2,4- & 2,5- & 2,6- Dichlorotoluene	1.0715 0.9570	1.1692 0.9265	0.9793 0.9637	1.0382	0.9824	Ave		1.0110			0.0100	7.8	20.0				
2,3- & 3,4- Dichlorotoluene	1.1353 1.0683	1.2293 1.0765	1.0355 1.1269	1.0901	1.0726	Ave		1.1043			0.0100	5.4	20.0				
1,2,4-Trichlorobenzene	0.8306 0.8182	0.9355 0.8486	0.7503 0.8953	0.7691	0.7875	Ave		0.8294			0.2000	7.6	20.0				
Hexachlorobutadiene	0.3307 0.2462	0.2635 0.2582	0.2213 0.2957	0.2402	0.2448	Ave		0.2626			0.0100	13.3	20.0				
Naphthalene	3.1019 2.3472	2.8951 2.4151	2.3638 2.3957	2.3524	2.3536	Ave		2.5281			0.0100	11.7	20.0				
1,2,3-Trichlorobenzene	0.7804 0.7270	0.8087 0.8154	0.6385 0.8565	0.6517	0.6792	Ave		0.7447			0.0100	11.0	20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1 Analy Batch No.: 217861

SDG No.: _____

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2017 06:39 Calibration End Date: 07/24/2017 09:28 Calibration ID: 35029

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
2,4,5-Trichlorotoluene	0.4043 0.4250	0.4160 0.5255	0.3407 0.5717	0.3454	0.3978	Ave		0.4283			0.0100	19.0		20.0			
2,3,6-Trichlorotoluene	0.3645 0.3663	0.3955 0.4558	0.3167 0.5003	0.3075	0.3648	Ave		0.3839			0.0100	17.1		20.0			
Dibromofluoromethane (Surr)	0.3105 0.2657	0.2699 0.2422	0.2388 0.2506	0.2560	0.2449	Ave		0.2598				8.9		20.0			
1,2-Dichloroethane-d4 (Surr)	0.4947 0.3692	0.4116 0.3263	0.3458 0.3341	0.3589	0.3302	Ave		0.3713				15.4		20.0			
Toluene-d8 (Surr)	5.9733 3.6566	4.7106 3.3970	4.0457 ++++	4.1808	3.8728	Lin2	11.440	3.7819							0.9930		0.9900
4-Bromofluorobenzene (Surr)	2.3906 1.6487	1.9549 1.4705	1.6323 1.4101	1.7133	1.5905	Ave		1.7264				18.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1 Analy Batch No.: 217861

SDG No.: _____

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2017 06:39 Calibration End Date: 07/24/2017 09:28 Calibration ID: 35029

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-217861/3	60724D03.D
Level 2	IC 180-217861/4	60724D04.D
Level 3	ICIS 180-217861/5	60724D05.D
Level 4	IC 180-217861/6	60724D06.D
Level 5	IC 180-217861/7	60724D07.D
Level 6	IC 180-217861/8	60724D08.D
Level 7	IC 180-217861/9	60724D09.D
Level 8	IC 180-217861/10	60724D10.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	27479 839726	121547 998454	286699 1341098	392309	537841	5.00 175	25.0 200	50.0 250	75.0	100
Chloromethane	FB	Ave	23920 792135	109949 904618	249199 1170186	364709	485997	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl chloride	FB	Ave	26240 788826	112168 942517	262771 1244722	390082	507676	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Butadiene	FB	Ave	24629 626705	92248 738623	223993 1011679	315046	407662	5.00 175	25.0 200	50.0 250	75.0	100
Bromomethane	FB	Ave	12374 390167	58670 421777	122895 482936	178416	239488	5.00 175	25.0 200	50.0 250	75.0	100
Chloroethane	FB	Ave	14369 445022	64213 496292	137952 595090	212582	283541	5.00 175	25.0 200	50.0 250	75.0	100
Trichlorofluoromethane	FB	Ave	24407 820933	108123 958134	244680 1263842	381467	515987	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl ether	FB	Ave	21539 720418	103875 817030	207890 1004152	314417	412759	5.00 175	25.0 200	50.0 250	75.0	100
Acrolein	FB	Ave	93239 203936	103236 222222	126353 255428	161845	172660	100 225	125 250	150 275	175	200
1,1-Dichloroethene	FB	Ave	22840 719926	90501 850942	212019 1153420	326499	437661	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	20417 680574	89949 799492	214148 1098540	320427	418931	5.00 175	25.0 200	50.0 250	75.0	100
Acetone	FB	Ave	47909 658887	83742 631699	181114 730103	295809	345529	25.0 350	50.0 400	100 500	150	200
Iodomethane	FB	Ave	29488 1045605	133154 1229211	296892 1578693	465530	616342	5.00 175	25.0 200	50.0 250	75.0	100
Carbon disulfide	FB	Ave	41100 1759930	179135 2106147	451961 2838844	721571	1031794	5.00 175	25.0 200	50.0 250	75.0	100
Allyl chloride	FB	Ave	11154 457646	50272 540192	120354 717090	194002	261163	5.00 175	25.0 200	50.0 250	75.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1 Analy Batch No.: 217861

SDG No.: _____

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2017 06:39 Calibration End Date: 07/24/2017 09:28 Calibration ID: 35029

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Methyl acetate	FB	Ave	40003 1378375	185280 1509491	382502 1923255	572896	775230	10.0 350	50.0 400	100 500	150	200
Methylene Chloride	FB	Ave	34286 940505	131057 1081026	278118 1372983	418660	557470	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butyl alcohol	TBAd 9	Ave	20227 572173	71644 544523	151604 673044	251071	297303	50.0 1750	250 2000	500 2500	750	1000
Acrylonitrile	FB	Ave	114140 3519987	530059 3825550	1020211 4723140	1582844	2040960	5.00 1750	250 2000	500 2500	750	1000
trans-1,2-Dichloroethene	FB	Ave	24529 817284	108647 968185	244707 1277192	372663	496677	5.00 175	25.0 200	50.0 250	75.0	100
Methyl tert-butyl ether	FB	Ave	78478 2689634	375187 3053893	782498 3809189	1181045	1550808	5.00 175	25.0 200	50.0 250	75.0	100
Hexane	FB	Ave	30509 940765	127818 1103506	304164 1517069	437873	573395	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethane	FB	Ave	27271 1429058	187923 1631648	418314 2087088	641771	843415	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl acetate	FB	Ave	41136 1612184	217747 1962237	435645 2492452	703120	926426	5.00 175	25.0 200	50.0 250	75.0	100
2,2-Dichloropropane	FB	Ave	3609 147487	17106 168555	39797 228817	64241	87515	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,2-Dichloroethene	FB	Ave	26745 997518	127777 1143732	290355 1462208	436220	585924	5.00 175	25.0 200	50.0 250	75.0	100
2-Butanone (MEK)	FB	Ave	61711 909301	125277 973759	266460 1217733	385993	488342	25.0 350	50.0 400	100 500	150	200
Bromochloromethane	FB	Ave	12079 441109	57129 507483	118276 642539	188762	249508	5.00 175	25.0 200	50.0 250	75.0	100
Tetrahydrofuran	FB	Ave	22350 565011	85090 629732	162324 812537	242295	320475	10.0 350	50.0 400	100 500	150	200
Chloroform	FB	Ave	40199 1486297	190538 1701079	446745 2152497	660420	889966	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1-Trichloroethane	FB	Ave	24367 954279	114539 1112586	274535 1477890	414781	583435	5.00 175	25.0 200	50.0 250	75.0	100
Cyclohexane	FB	Ave	41233 1239342	170750 1473582	405642 1969875	597815	781868	5.00 175	25.0 200	50.0 250	75.0	100
Carbon tetrachloride	FB	Ave	15662 707925	77574 848801	190304 1172757	300016	414150	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloropropene	FB	Ave	31712 1104618	141227 1298950	340889 1715254	506906	680030	5.00 175	25.0 200	50.0 250	75.0	100
Benzene	FB	Ave	100837 3132477	461882 3551507	992835 4371437	1504594	1915947	5.00 175	25.0 200	50.0 250	75.0	100
Isobutyl alcohol	FB	Ave	13528 537905	64845 631529	132080 789622	208868	262400	125 4375	625 5000	1250 6250	1875	2500

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1 Analy Batch No.: 217861

SDG No.: _____

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2017 06:39 Calibration End Date: 07/24/2017 09:28 Calibration ID: 35029

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	35160 1211453	171694 1374193	349409 1719102	540487	697923	5.00 175	25.0 200	50.0 250	75.0	100
n-Heptane	FB	Ave	24265 728795	95666 834225	220812 1149322	337209	434669	5.00 175	25.0 200	50.0 250	75.0	100
Trichloroethene	FB	Ave	22756 799778	102011 926685	233389 1194165	355153	474544	5.00 175	25.0 200	50.0 250	75.0	100
Methylcyclohexane	FB	Ave	43857 1300055	179050 1530213	419227 2038808	630450	819514	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloropropane	FB	Ave	23091 853109	103896 970394	234878 1251517	361293	480287	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dioxane	FB	Ave	4766 141286	23040 152489	45919 203123	65610	80878	100 3500	500 4000	1000 5000	1500	2000
Dibromomethane	FB	Ave	15724 555898	70312 636427	150124 802657	233620	306535	5.00 175	25.0 200	50.0 250	75.0	100
Bromodichloromethane	FB	Ave	20777 1013623	109927 1181877	246980 1522204	411363	544627	5.00 175	25.0 200	50.0 250	75.0	100
2-Chloroethyl vinyl ether	FB	Ave	29761 1138561	152667 1300177	304468 1665721	478201	580737	10.0 350	50.0 400	100 500	150	200
cis-1,3-Dichloropropene	FB	Ave	21547 1210517	116838 1391254	279255 1779441	460333	626305	5.00 175	25.0 200	50.0 250	75.0	100
4-Methyl-2-pentanone (MIBK)	CBNZ d5	Ave	113074 1737974	233783 1932325	495598 2362456	755882	970750	25.0 350	50.0 400	100 500	150	200
Toluene	CBNZ d5	Ave	104189 3088570	450260 3464609	966776 4234419	1461492	1858285	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,3-Dichloropropene	CBNZ d5	Ave	17940 1035772	98174 1215519	223869 1562404	381658	511188	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl methacrylate	CBNZ d5	Ave	25997 1196636	142004 1382390	305467 1727540	492154	632371	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloroethane	CBNZ d5	Ave	20294 786936	103854 896840	211345 1145832	325307	416541	5.00 175	25.0 200	50.0 250	75.0	100
Tetrachloroethene	CBNZ d5	Ave	18016 574638	72287 670325	165794 881532	257015	329342	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichloropropane	CBNZ d5	Ave	39343 1388403	192724 1574600	380984 1979514	593488	757496	5.00 175	25.0 200	50.0 250	75.0	100
2-Hexanone	CBNZ d5	Ave	72896 1122326	154768 1271094	306856 1593297	480105	596567	25.0 350	50.0 400	100 500	150	200
Dibromochloromethane	CBNZ d5	Ave	10736 614068	57240 712324	131179 931753	216633	293309	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromoethane (EDB)	CBNZ d5	Ave	18711 780325	94851 899338	200005 1134020	313940	407201	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorobenzotrifluoride	CBNZ d5	Ave	26101 925971	124733 1082251	270429 1432766	444234	536353	5.00 175	25.0 200	50.0 250	75.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1 Analy Batch No.: 217861

SDG No.: _____

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2017 06:39 Calibration End Date: 07/24/2017 09:28 Calibration ID: 35029

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Chlorobenzene	CBNZ d5	Ave	65919 2089428	294577 2335758	613324 2898680	923461	1175123	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorobenzotrifluoride	CBNZ d5	Ave	24071 878791	110312 1026977	246049 1366587	418159	489696	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	13142 699176	69755 799872	156373 1029362	270626	357566	5.00 175	25.0 200	50.0 250	75.0	100
Ethylbenzene	CBNZ d5	Ave	35398 1218751	156900 1390812	352019 1762716	540015	684943	5.00 175	25.0 200	50.0 250	75.0	100
m-Xylene & p-Xylene	CBNZ d5	Ave	43910 1499275	196132 1695741	416283 2161557	663604	838371	5.00 175	25.0 200	50.0 250	75.0	100
o-Xylene	CBNZ d5	Ave	42778 1520782	201906 1672026	430994 2111655	657817	844701	5.00 175	25.0 200	50.0 250	75.0	100
Styrene	CBNZ d5	Ave	70410 2430770	331761 2669824	702614 3281557	1093228	1341052	5.00 175	25.0 200	50.0 250	75.0	100
Bromoform	CBNZ d5	Ave	5803 360803	30696 416604	71560 548248	120009	160632	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorobenzotrifluoride	CBNZ d5	Ave	25025 976474	130865 1099473	265784 1439864	457223	544128	5.00 175	25.0 200	50.0 250	75.0	100
Isopropylbenzene	CBNZ d5	Ave	110174 3139141	473843 3385367	995129 4143279	1511361	1867348	5.00 175	25.0 200	50.0 250	75.0	100
Bromobenzene	DCBd 4	Ave	25122 913147	122999 1008153	249243 1259105	380643	474286	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2,2-Tetrachloroethane	CBNZ d5	Ave	29044 1109880	152313 1216769	301111 1511708	468952	577708	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	7272 280292	35451 313051	66355 404523	105972	133396	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichloropropane	DCBd 4	Ave	10261 379404	52406 413676	103048 529322	159086	194531	5.00 175	25.0 200	50.0 250	75.0	100
N-Propylbenzene	DCBd 4	Ave	29088 962443	130443 1050858	267230 1357847	428911	529403	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorotoluene	DCBd 4	Ave	24679 862193	111064 919859	230624 1195161	370145	453885	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorotoluene	DCBd 4	Ave	25329 877299	118876 965183	239610 1254125	403537	478005	5.00 175	25.0 200	50.0 250	75.0	100
1,3,5-Trimethylbenzene	DCBd 4	Ave	85688 2680034	396334 2803848	790599 3460126	1254643	1489442	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorotoluene	DCBd 4	Ave	28869 940075	118288 999834	253826 1276343	398838	485508	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butylbenzene	DCBd 4	Ave	67600 2145902	300432 2233746	630674 2853353	985989	1203013	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trimethylbenzene	DCBd 4	Ave	93775 2764298	415297 2867121	824782 3543615	1282863	1554360	5.00 175	25.0 200	50.0 250	75.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1 Analy Batch No.: 217861

SDG No.: _____

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2017 06:39 Calibration End Date: 07/24/2017 09:28 Calibration ID: 35029

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
3,4-Dichlorobenzotrifluoride	DCBd 4	Ave	19655 632603	82510 684446	164643 945109	293347	340323	5.00 175	25.0 200	50.0 250	75.0	100
sec-Butylbenzene	DCBd 4	Ave	106349 2889256	435324 2979536	875734 3747062	1379795	1659704	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichlorobenzene	DCBd 4	Ave	52474 1574554	224858 1673821	438172 2104721	697551	850676	5.00 175	25.0 200	50.0 250	75.0	100
4-Isopropyltoluene	DCBd 4	Ave	82129 2441419	373177 2506437	717050 3181497	1135538	1356230	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dichlorobenzene	DCBd 4	Ave	53033 1638813	233465 1720245	464508 2173124	720028	880492	5.00 175	25.0 200	50.0 250	75.0	100
2,4-Dichlorobenzotrifluoride	DCBd 4	Ave	17229 599851	79327 621645	161786 924522	283275	314370	5.00 175	25.0 200	50.0 250	75.0	100
2,5-Dichlorobenzotrifluoride	DCBd 4	Ave	17972 682948	93800 758780	173267 942783	298436	352876	5.00 175	25.0 200	50.0 250	75.0	100
n-Butylbenzene	DCBd 4	Ave	75545 2222409	331802 2290785	643029 2958420	1048415	1244987	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichlorobenzene	DCBd 4	Ave	47273 1520936	225127 1586590	416117 2026312	662537	797769	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	3245 156142	17440 173322	33625 232535	56051	66004	5.00 175	25.0 200	50.0 250	75.0	100
2,4- & 2,5- & 2,6- Dichlorotoluene	DCBd 4	Ave	85812 2790747	439793 3071993	780454 4027755	1316529	1522613	15.0 525	75.0 600	150 750	225	300
2,3- & 3,4- Dichlorotoluene	DCBd 4	Ave	60616 2076832	308264 2379503	550121 3139946	921595	1108272	10.0 350	50.0 400	100 500	150	200
1,2,4-Trichlorobenzene	DCBd 4	Ave	22175 795349	117288 937825	199297 1247374	325076	406868	5.00 175	25.0 200	50.0 250	75.0	100
Hexachlorobutadiene	DCBd 4	Ave	8829 239351	33039 285364	58792 411971	101525	126465	5.00 175	25.0 200	50.0 250	75.0	100
Naphthalene	DCBd 4	Ave	82809 2281539	362983 2669188	627907 3337709	994327	1215966	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichlorobenzene	DCBd 4	Ave	20833 706689	101393 901210	169607 1193234	275471	350907	5.00 175	25.0 200	50.0 250	75.0	100
2,4,5-Trichlorotoluene	DCBd 4	Ave	10792 413111	52163 580730	90501 796492	146009	205495	5.00 175	25.0 200	50.0 250	75.0	100
2,3,6-Trichlorotoluene	DCBd 4	Ave	9731 356014	49582 503740	84129 697018	129996	188457	5.00 175	25.0 200	50.0 250	75.0	100
Dibromofluoromethane (Surr)	FB	Ave	24732 729396	95101 842973	204197 1076618	321543	424756	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	39405 1013596	145003 1135703	295614 1435595	450831	572691	5.00 175	25.0 200	50.0 250	75.0	100
Toluene-d8 (Surr)	CBNZ d5	Lin2	102855 2475360	381639 2824683	758339 +++++	1165400	1484720	5.00 175	25.0 200	50.0 +++++	75.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1 Analy Batch No.: 217861

SDG No.: _____

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2017 06:39 Calibration End Date: 07/24/2017 09:28 Calibration ID: 35029

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8			LVL 6	LVL 7	LVL 8		
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	41164 1116127	158379 1222775	305961 1557524	477594	609762	5.00 175	25.0 200	50.0 250	75.0	100

Curve Type Legend:

Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1 Analy Batch No.: 217861

SDG No.: _____

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2017 06:39 Calibration End Date: 07/24/2017 09:28 Calibration ID: 35029

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-217861/3	60724D03.D
Level 2	IC 180-217861/4	60724D04.D
Level 3	ICIS 180-217861/5	60724D05.D
Level 4	IC 180-217861/6	60724D06.D
Level 5	IC 180-217861/7	60724D07.D
Level 6	IC 180-217861/8	60724D08.D
Level 7	IC 180-217861/9	60724D09.D
Level 8	IC 180-217861/10	60724D10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
Dichlorodifluoromethane	8.1 -10.1	8.1 -2.2	5.1	-2.1	-2.8	-4.1	50 30	30	30	30	30	30
Chloromethane	4.7 -9.4	8.8 -5.1	1.6	1.2	-2.3	0.6	50 30	30	30	30	30	30
Vinyl chloride	9.5 -10.0	5.8 -3.7	2.2	3.3	-2.7	-4.5	50 30	30	30	30	30	30
1,3-Butadiene	24.0 -14.9	5.0 -5.6	5.1	0.6	-5.7	-8.4	50 30	30	30	30	30	30
Bromomethane	10.8 -13.5	18.8 -19.8	2.5	1.3	-1.5	1.4	50 30	30	30	30	30	30
Chloroethane	11.0 -12.2	12.2 -14.8	-0.7	4.2	0.6	-0.2	50 30	30	30	30	30	30
Trichlorofluoromethane	3.5 -7.0	3.6 -0.7	-3.4	2.6	0.4	1.0	50 30	30	30	30	30	30
Ethyl ether	6.7 -7.4	16.3 -7.8	-4.1	-1.2	-6.1	3.5	50 30	30	30	30	30	30
Acrolein	7.8 -5.9	8.0 -0.4	-9.3	1.7	-8.3	6.4	50 30	30	30	30	30	30
1,1-Dichloroethene	10.3 -5.9	-1.2 3.3	-4.6	0.0	-2.9	0.9	50 30	30	30	30	30	30
1,1,2-Trichloro-1,2,2-trifluoroethane	2.9 -7.7	2.5 2.7	0.6	2.5	-3.0	-0.4	50 30	30	30	30	30	30
Acetone	12.1 -15.4	10.8 -20.8	-1.3	9.8	-7.1	11.9	50 30	30	30	30	30	30
Iodomethane	1.3 -3.3	3.4 0.6	-5.0	1.4	-2.7	4.3	50 30	30	30	30	30	30
Carbon disulfide	-10.8 4.6	-12.1 14.2	-8.6	-0.7	2.8	10.8	50 30	30	30	30	30	30
Allyl chloride	-8.0 2.0	-6.2 9.7	-7.5	1.5	-1.1	9.6	50 30	30	30	30	30	30

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71625-1

Analy Batch No.: 217861

SDG No.: _____

Instrument ID: CHHP6

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2017 06:39

Calibration End Date: 07/24/2017 09:28

Calibration ID: 35029

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
Methyl acetate	6.8	11.8	-4.9	-3.0	-5.0	6.8	50	30	30	30	30	30
	-7.8	-4.8					30	30				
Methylene Chloride	25.0	8.0	-5.5	-3.2	-6.7	-0.5	50	30	30	30	30	30
	-9.8	-7.2					30	30				
tert-Butyl alcohol	6.9	-3.8	-2.6	-1.2	-1.5	0.9	50	30	30	30	30	30
	6.4	-5.1					30	30				
Acrylonitrile	14.1	19.8	-5.0	0.3	-6.3	2.1	50	30	30	30	30	30
	-12.5	-12.5					30	30				
trans-1,2-Dichloroethene	4.4	4.6	-2.9	0.6	-2.9	1.0	50	30	30	30	30	30
	-5.7	0.8					30	30				
Methyl tert-butyl ether	4.5	12.9	-2.9	-0.3	-5.2	3.9	50	30	30	30	30	30
	-6.9	-6.0					30	30				
Hexane	9.7	3.9	1.9	-0.2	-5.3	-1.9	50	30	30	30	30	30
	-9.2	1.1					30	30				
1,1-Dichloroethane	-28.6	11.2	2.0	6.5	1.4	8.5	50	30	30	30	30	30
	-2.3	1.3					30	30				
Vinyl acetate	-7.6	10.6	-8.8	0.2	-4.4	5.1	50	30	30	30	30	30
	0.9	3.8					30	30				
2,2-Dichloropropane	-8.8	-2.3	-6.3	3.0	1.6	8.2	50	30	30	30	30	30
	-2.5	7.2					30	30				
cis-1,2-Dichloroethene	-2.5	5.3	-1.4	0.8	-1.9	5.5	50	30	30	30	30	30
	-4.6	-1.2					30	30				
2-Butanone (MEK)	0.8	15.6	1.3	-0.1	-8.5	7.7	50	30	30	30	30	30
	-9.0	-7.8					30	30				
Bromochloromethane	0.9	7.9	-8.0	0.0	-4.3	6.9	50	30	30	30	30	30
	-3.0	-0.5					30	30				
Tetrahydrofuran	34.8	16.0	-8.8	-7.3	-11.3	-1.1	50	30	30	30	30	30
	-13.1	-9.2					30	30				
Chloroform	-2.4	4.6	1.0	1.7	-0.8	4.7	50	30	30	30	30	30
	-5.5	-3.1					30	30				
1,1,1-Trichloroethane	-7.0	-1.1	-2.3	0.5	2.3	5.7	50	30	30	30	30	30
	-2.8	4.6					30	30				
Cyclohexane	10.8	3.8	1.6	1.9	-3.5	-3.3	50	30	30	30	30	30
	-9.4	-1.8					30	30				
Carbon tetrachloride	-16.9	-6.9	-5.9	1.0	1.0	9.1	50	30	30	30	30	30
	3.1	15.4					30	30				
1,1-Dichloropropene	0.5	1.2	0.7	1.9	-1.0	1.6	50	30	30	30	30	30
	-5.8	0.8					30	30				
Benzene	9.8	13.8	0.8	3.9	-4.2	-1.0	50	30	30	30	30	30
	-11.5	-11.7					30	30				
Isobutyl alcohol	-2.1	6.1	-10.9	-4.1	-12.8	13.0	50	30	30	30	30	30
	4.6	6.0					30	30				

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71625-1

Analy Batch No.: 217861

SDG No.: _____

Instrument ID: CHHP6

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2017 06:39

Calibration End Date: 07/24/2017 09:28

Calibration ID: 35029

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
1,2-Dichloroethane	3.7	14.5	-4.0	1.1	-5.5	3.6	50	30	30	30	30	30
	-7.3	-6.0					30	30				
n-Heptane	14.6	2.2	-2.8	1.0	-5.7	-0.1	50	30	30	30	30	30
	-9.8	0.7					30	30				
Trichloroethene	2.0	3.4	-2.5	1.0	-2.3	4.0	50	30	30	30	30	30
	-4.9	-0.7					30	30				
Methylcyclohexane	12.6	3.9	0.3	2.7	-3.4	-3.1	50	30	30	30	30	30
	-10.1	-2.9					30	30				
1,2-Dichloropropane	0.6	2.4	-4.7	-0.2	-3.9	7.9	50	30	30	30	30	30
	-3.2	1.1					30	30				
1,4-Dioxane	13.9	24.5	2.2	-0.6	-11.3	-2.0	50	30	30	30	30	30
	-16.6	-10.0					30	30				
Dibromomethane	4.8	5.9	-6.8	-1.3	-6.2	7.5	50	30	30	30	30	30
	-3.0	-0.9					30	30				
Bromodichloromethane	-18.7	-2.7	-10.0	2.1	-2.1	15.1	50	30	30	30	30	30
	5.9	10.4					30	30				
2-Chloroethyl vinyl ether	-2.2	13.5	-6.7	-0.3	-12.3	8.6	50	30	30	30	30	30
	-2.2	1.5					30	30				
cis-1,3-Dichloropropene	-25.7	-8.9	-10.2	0.7	-0.8	21.2	50	30	30	30	30	30
	9.8	13.8					30	30				
4-Methyl-2-pentanone (MIBK)	2.9	13.0	3.5	6.2	-0.8	0.5	50	30	30	30	30	30
	-9.0	-16.2					30	30				
Toluene	22.8	12.8	4.7	6.4	-1.6	-7.4	50	30	30	30	30	30
	-15.4	-22.2					30	30				
trans-1,3-Dichloropropene	-21.0	-8.2	-9.5	3.8	1.0	15.9	50	30	30	30	30	30
	10.8	7.2					30	30				
Ethyl methacrylate	-9.2	5.4	-2.0	6.2	-0.8	6.3	50	30	30	30	30	30
	0.0	-5.9					30	30				
1,1,2-Trichloroethane	3.4	12.4	-1.1	2.4	-4.7	2.0	50	30	30	30	30	30
	-5.4	-9.0					30	30				
Tetrachloroethene	18.6	1.1	0.3	4.5	-2.6	-3.8	50	30	30	30	30	30
	-8.6	-9.5					30	30				
1,3-Dichloropropane	10.5	15.1	-1.7	3.0	-4.4	-0.8	50	30	30	30	30	30
	-8.4	-13.3					30	30				
2-Hexanone	3.0	16.2	-0.4	4.8	-5.3	0.9	50	30	30	30	30	30
	-7.0	-12.2					30	30				
Dibromochloromethane	-19.3	-8.5	-9.4	0.6	-1.0	17.4	50	30	30	30	30	30
	10.9	9.2					30	30				
1,2-Dibromoethane (EDB)	-0.9	6.8	-2.7	2.7	-3.2	5.1	50	30	30	30	30	30
	-1.4	-6.4					30	30				
3-Chlorobenzotrifluoride	5.8	7.5	0.7	11.3	-2.3	-4.5	50	30	30	30	30	30
	-9.1	-9.4					30	30				

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71625-1

Analy Batch No.: 217861

SDG No.: _____

Instrument ID: CHHP6

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2017 06:39

Calibration End Date: 07/24/2017 09:28

Calibration ID: 35029

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
Chlorobenzene	19.5	13.5	2.1	3.4	-4.3	-3.7	50	30	30	30	30	30
	-12.3	-18.1					30	30				
4-Chlorobenzotrifluoride	5.3	2.6	-1.1	13.0	-3.8	-2.2	50	30	30	30	30	30
	-7.0	-6.8					30	30				
1,1,1,2-Tetrachloroethane	-16.2	-5.5	-8.4	6.6	2.4	13.4	50	30	30	30	30	30
	5.6	2.3					30	30				
Ethylbenzene	12.2	5.7	2.5	5.7	-2.5	-1.8	50	30	30	30	30	30
	-8.7	-12.9					30	30				
m-Xylene & p-Xylene	13.5	7.8	-1.1	6.0	-2.6	-1.4	50	30	30	30	30	30
	-9.2	-12.9					30	30				
o-Xylene	10.4	10.7	2.1	4.8	-2.1	-0.2	50	30	30	30	30	30
	-10.7	-15.1					30	30				
Styrene	12.3	12.5	3.0	7.7	-3.9	-1.4	50	30	30	30	30	30
	-11.8	-18.4					30	30				
Bromoform	-22.5	-12.8	-12.2	-1.0	-3.6	22.6	50	30	30	30	30	30
	15.3	14.2					30	30				
2-Chlorobenzotrifluoride	0.1	11.3	-2.3	13.0	-2.2	-0.6	50	30	30	30	30	30
	-8.9	-10.2					30	30				
Isopropylbenzene	27.0	16.1	5.4	7.6	-3.3	-8.0	50	30	30	30	30	30
	-19.2	-25.6					30	30				
Bromobenzene	1.3	5.6	1.0	-3.1	-1.2	1.1	50	30	30	30	30	30
	-1.8	-2.7					30	30				
1,1,2,2-Tetrachloroethane	5.1	17.2	0.1	4.9	-6.1	2.2	50	30	30	30	30	30
	-8.8	-14.7					30	30				
trans-1,4-Dichloro-2-butene	0.2	4.0	-8.2	-7.8	-5.1	6.0	50	30	30	30	30	30
	4.1	6.8					30	30				
1,2,3-Trichloropropane	-0.4	8.3	0.5	-2.5	-2.4	1.1	50	30	30	30	30	30
	-3.0	-1.6					30	30				
N-Propylbenzene	7.7	2.9	-0.5	0.3	1.3	-2.1	50	30	30	30	30	30
	-6.0	-3.6					30	30				
2-Chlorotoluene	5.5	1.1	-0.9	-0.1	0.3	1.2	50	30	30	30	30	30
	-5.0	-2.1					30	30				
3-Chlorotoluene	3.2	3.1	-1.9	3.8	0.6	-1.8	50	30	30	30	30	30
	-5.0	-2.1					30	30				
1,3,5-Trimethylbenzene	11.8	10.1	3.6	3.4	0.4	-4.0	50	30	30	30	30	30
	-11.7	-13.5					30	30				
4-Chlorotoluene	13.1	-1.4	-0.1	-1.3	-1.7	1.1	50	30	30	30	30	30
	-5.4	-4.2					30	30				
tert-Butylbenzene	11.1	5.1	4.1	2.3	2.1	-3.2	50	30	30	30	30	30
	-11.4	-10.2					30	30				
1,2,4-Trimethylbenzene	17.3	10.6	3.7	1.4	0.5	-5.0	50	30	30	30	30	30
	-13.4	-15.1					30	30				

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh

Job No.: 180-71625-1

Analy Batch No.: 217861

SDG No.: _____

Instrument ID: CHHP6

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2017 06:39

Calibration End Date: 07/24/2017 09:28

Calibration ID: 35029

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
3,4-Dichlorobenzotrifluoride	10.8	-1.0	-6.7	4.5	-0.9	-2.0	50	30	30	30	30	30
	-6.8	2.1					30	30				
sec-Butylbenzene	24.6	8.6	3.1	2.1	0.4	-7.1	50	30	30	30	30	30
	-15.7	-15.9					30	30				
1,3-Dichlorobenzene	17.8	7.5	-1.2	-1.1	-1.3	-2.9	50	30	30	30	30	30
	-9.2	-9.5					30	30				
4-Isopropyltoluene	16.5	12.7	2.2	1.7	-0.6	-4.9	50	30	30	30	30	30
	-14.1	-13.5					30	30				
1,4-Dichlorobenzene	15.1	7.9	1.3	-1.3	-1.3	-2.3	50	30	30	30	30	30
	-9.8	-9.6					30	30				
2,4-Dichlorobenzotrifluoride	3.1	1.0	-2.7	7.0	-2.8	-1.4	50	30	30	30	30	30
	-10.2	6.0					30	30				
2,5-Dichlorobenzotrifluoride	-2.6	8.3	-5.6	2.2	-1.2	1.7	50	30	30	30	30	30
	-0.7	-2.1					30	30				
n-Butylbenzene	17.5	9.9	0.5	3.0	0.0	-5.1	50	30	30	30	30	30
	-13.9	-11.8					30	30				
1,2-Dichlorobenzene	11.6	13.1	-1.3	-1.3	-2.7	-1.4	50	30	30	30	30	30
	-9.6	-8.4					30	30				
1,2-Dibromo-3-Chloropropane	-14.1	-1.7	-10.5	-6.3	-9.7	13.5	50	30	30	30	30	30
	10.8	18.0					30	30				
2,4- & 2,5- & 2,6- Dichlorotoluene	6.0	15.7	-3.1	2.7	-2.8	-5.3	50	30	30	30	30	30
	-8.4	-4.7					30	30				
2,3- & 3,4- Dichlorotoluene	2.8	11.3	-6.2	-1.3	-2.9	-3.3	50	30	30	30	30	30
	-2.5	2.0					30	30				
1,2,4-Trichlorobenzene	0.2	12.8	-9.5	-7.3	-5.0	-1.3	50	30	30	30	30	30
	2.3	8.0					30	30				
Hexachlorobutadiene	25.9	0.4	-15.7	-8.5	-6.8	-6.2	50	30	30	30	30	30
	-1.7	12.6					30	30				
Naphthalene	22.7	14.5	-6.5	-7.0	-6.9	-7.2	50	30	30	30	30	30
	-4.5	-5.2					30	30				
1,2,3-Trichlorobenzene	4.8	8.6	-14.3	-12.5	-8.8	-2.4	50	30	30	30	30	30
	9.5	15.0					30	30				
2,4,5-Trichlorotoluene	-5.6	-2.9	-20.5	-19.3	-7.1	-0.8	50	30	30	30	30	30
	22.7	33.5 *					30	30				
2,3,6-Trichlorotoluene	-5.1	3.0	-17.5	-19.9	-5.0	-4.6	50	30	30	30	30	30
	18.7	30.3 *					30	30				
Dibromofluoromethane (Surr)	19.5	3.9	-8.1	-1.5	-5.8	2.3	50	30	30	30	30	30
	-6.8	-3.6					30	30				
1,2-Dichloroethane-d4 (Surr)	33.2	10.8	-6.9	-3.3	-11.1	-0.6	50	30	30	30	30	30
	-12.1	-10.0					30	30				
Toluene-d8 (Surr)	-2.6	12.5	0.9	6.5	-0.6	-5.0	50	30	30	30	30	30
	-11.7	++++					30					

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1 Analy Batch No.: 217861

SDG No.: _____

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2017 06:39 Calibration End Date: 07/24/2017 09:28 Calibration ID: 35029

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
4-Bromofluorobenzene (Surr)	38.5	13.2	-5.5	-0.8	-7.9	-4.5	50	30	30	30	30	30
	-14.8	-18.3					30	30				

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D03.D
 Lims ID: IC VSTD1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 24-Jul-2017 06:39:30 ALS Bottle#: 3 Worklist Smp#: 3
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017705-003
 Misc. Info.: IC VSTD1
 Operator ID: 034635 Instrument ID: CHHP6
 Sublist: chrom-MSVOA_LL_CHHP6*sub10
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 25-Jul-2017 01:44:30 Calib Date: 24-Jul-2017 09:28:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D10.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bungardf Date: 24-Jul-2017 07:18:57

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	3.968	3.973	-0.005	93	341897	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.052	7.052	0.000	98	796580	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.173	10.172	0.001	88	172191	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.515	12.515	0.001	97	266961	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.316	6.315	0.001	92	24732	5.00	5.97	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.693	6.693	0.000	62	39405	5.00	6.66	
\$ 7 Toluene-d8 (Surr)	98	8.719	8.712	0.007	93	102855	5.00	4.87	
\$ 8 4-Bromofluorobenzene (Surr	95	11.353	11.353	0.000	84	41164	5.00	6.92	
11 Dichlorodifluoromethane	85	1.486	1.479	0.007	98	27479	5.00	5.41	
12 Chloromethane	50	1.632	1.631	0.001	97	23920	5.00	5.23	
13 Vinyl chloride	62	1.747	1.753	-0.006	96	26240	5.00	5.48	
14 Butadiene	39	1.790	1.789	0.001	89	24629	5.00	6.20	
15 Bromomethane	94	2.076	2.075	0.001	72	12374	5.00	5.54	
16 Chloroethane	64	2.210	2.203	0.007	82	14369	5.00	5.55	
17 Dichlorofluoromethane	67	2.459	2.459	0.000	95	29354	5.00	5.26	
18 Trichlorofluoromethane	101	2.496	2.501	-0.005	85	24407	5.00	5.17	M
20 Ethyl ether	59	2.818	2.824	-0.006	87	21539	5.00	5.33	
21 Acrolein	56	2.989	2.994	-0.005	100	93239	100.0	107.8	
22 1,1-Dichloroethene	96	3.110	3.109	0.001	96	22840	5.00	5.52	
23 1,1,2-Trichloro-1,2,2-trif	101	3.153	3.158	-0.005	88	20417	5.00	5.15	
24 Acetone	43	3.183	3.195	-0.012	99	47909	25.0	28.0	
25 Iodomethane	142	3.287	3.292	-0.005	92	29488	5.00	5.07	
26 Carbon disulfide	76	3.360	3.365	-0.005	98	41100	5.00	4.46	
29 3-Chloro-1-propene	76	3.633	3.633	0.000	80	11154	5.00	4.60	
30 Methyl acetate	43	3.646	3.651	-0.005	95	40003	10.0	10.7	
31 Methylene Chloride	84	3.828	3.846	-0.018	93	34286	5.00	6.25	
32 2-Methyl-2-propanol	59	4.108	4.113	-0.005	89	20227	50.0	53.4	
33 Acrylonitrile	53	4.236	4.235	0.001	99	114140	50.0	57.0	
34 trans-1,2-Dichloroethene	96	4.272	4.271	0.001	96	24529	5.00	5.22	
35 Methyl tert-butyl ether	73	4.284	4.290	-0.006	95	78478	5.00	5.22	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.704	4.709	-0.005	88	30509	5.00	5.48	
37 1,1-Dichloroethane	63	4.923	4.922	0.001	73	27271	5.00	3.57	
38 Vinyl acetate	43	4.978	4.983	-0.005	97	41136	5.00	4.62	
42 2,2-Dichloropropane	97	5.683	5.689	-0.006	51	3609	5.00	4.56	
43 cis-1,2-Dichloroethene	96	5.690	5.695	-0.005	75	26745	5.00	4.87	
44 2-Butanone (MEK)	43	5.708	5.713	-0.005	98	61711	25.0	25.2	
48 Chlorobromomethane	128	5.982	5.981	0.001	98	12079	5.00	5.04	
49 Tetrahydrofuran	42	5.994	5.987	0.007	91	22350	10.0	13.5	
50 Chloroform	83	6.140	6.133	0.007	92	40199	5.00	4.88	
51 1,1,1-Trichloroethane	97	6.280	6.285	-0.005	95	24367	5.00	4.65	
52 Cyclohexane	56	6.359	6.364	-0.005	91	41233	5.00	5.54	
53 Carbon tetrachloride	117	6.468	6.468	0.000	93	15662	5.00	4.16	
54 1,1-Dichloropropene	75	6.480	6.486	-0.006	96	31712	5.00	5.03	
56 Benzene	78	6.693	6.699	-0.006	96	100837	5.00	5.49	
55 Isobutyl alcohol	41	6.693	7.076	-0.383	37	13528	125.0	122.4	
57 1,2-Dichloroethane	62	6.779	6.778	0.001	97	35160	5.00	5.18	
59 n-Heptane	43	7.077	7.076	0.001	48	24265	5.00	5.73	
61 Trichloroethene	130	7.442	7.447	-0.005	98	22756	5.00	5.10	
63 Methylcyclohexane	83	7.679	7.678	0.001	84	43857	5.00	5.63	
64 1,2-Dichloropropane	63	7.715	7.715	0.000	89	23091	5.00	5.03	
65 1,4-Dioxane	88	7.807	7.885	-0.078	42	4766	100.0	113.9	
67 Dibromomethane	93	7.801	7.806	-0.005	93	15724	5.00	5.24	
68 Dichlorobromomethane	83	8.001	8.007	-0.006	94	20777	5.00	4.07	
70 2-Chloroethyl vinyl ether	63	8.312	8.311	0.001	91	29761	10.0	9.78	
71 cis-1,3-Dichloropropene	75	8.451	8.457	-0.006	94	21547	5.00	3.72	
72 4-Methyl-2-pentanone (MIBK)	43	8.616	8.615	0.001	94	113074	25.0	25.7	
73 Toluene	91	8.786	8.779	0.007	99	104189	5.00	6.14	
74 trans-1,3-Dichloropropene	75	9.035	9.035	0.000	93	17940	5.00	3.95	
75 Ethyl methacrylate	69	9.102	9.102	0.000	90	25997	5.00	4.54	
76 1,1,2-Trichloroethane	97	9.230	9.229	0.001	90	20294	5.00	5.17	
77 Tetrachloroethene	164	9.291	9.296	-0.005	96	18016	5.00	5.93	
78 1,3-Dichloropropane	76	9.382	9.388	-0.006	88	39343	5.00	5.53	
79 2-Hexanone	43	9.449	9.448	0.001	95	72896	25.0	25.8	
81 Chlorodibromomethane	129	9.607	9.601	0.006	90	10736	5.00	4.04	
82 Ethylene Dibromide	107	9.705	9.710	-0.005	97	18711	5.00	4.95	
83 3-Chlorobenzotrifluoride	180	10.185	10.185	0.000	61	26101	5.00	5.29	
84 Chlorobenzene	112	10.204	10.197	0.007	95	65919	5.00	5.97	
85 4-Chlorobenzotrifluoride	180	10.270	10.270	0.000	95	24071	5.00	5.27	
86 1,1,1,2-Tetrachloroethane	131	10.289	10.294	-0.005	40	13142	5.00	4.19	
87 Ethylbenzene	106	10.301	10.300	0.001	98	35398	5.00	5.61	
88 m-Xylene & p-Xylene	106	10.435	10.434	0.001	99	43910	5.00	5.68	
89 o-Xylene	106	10.812	10.811	0.001	97	42778	5.00	5.52	
90 Styrene	104	10.836	10.835	0.001	95	70410	5.00	5.62	
91 Bromoform	173	11.007	11.018	-0.011	82	5803	5.00	3.88	
92 2-Chlorobenzotrifluoride	180	11.092	11.091	0.001	94	25025	5.00	5.01	
93 Isopropylbenzene	105	11.183	11.182	0.001	95	110174	5.00	6.35	
95 Bromobenzene	156	11.493	11.492	0.001	94	25122	5.00	5.06	
96 1,1,2,2-Tetrachloroethane	83	11.499	11.499	0.000	94	29044	5.00	5.26	
97 trans-1,4-Dichloro-2-buten	53	11.530	11.535	-0.005	70	7272	5.00	5.01	
98 1,2,3-Trichloropropane	110	11.548	11.553	-0.005	88	10261	5.00	4.98	
99 N-Propylbenzene	120	11.597	11.596	0.001	99	29088	5.00	5.39	
100 2-Chlorotoluene	126	11.682	11.681	0.001	95	24679	5.00	5.28	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
101 3-Chlorotoluene	126	11.749	11.748	0.001	97	25329	5.00	5.16	
102 1,3,5-Trimethylbenzene	105	11.785	11.784	0.001	92	85688	5.00	5.59	
103 4-Chlorotoluene	126	11.810	11.809	0.001	97	28869	5.00	5.65	
104 tert-Butylbenzene	119	12.095	12.095	0.000	90	67600	5.00	5.55	
106 1,2,4-Trimethylbenzene	105	12.156	12.156	0.000	95	93775	5.00	5.87	
107 1,2-dichloro-4-(trifluorom	214	12.199	12.204	-0.005	96	19655	5.00	5.54	
108 sec-Butylbenzene	105	12.321	12.320	0.001	94	106349	5.00	6.23	
109 1,3-Dichlorobenzene	146	12.436	12.435	0.001	95	52474	5.00	5.89	
110 4-Isopropyltoluene	119	12.473	12.478	-0.005	95	82129	5.00	5.82	
111 1,4-Dichlorobenzene	146	12.533	12.539	-0.006	93	53033	5.00	5.76	
113 2,4-Dichloro-1-(trifluorom	214	12.570	12.569	0.001	94	17229	5.00	5.15	
114 2,5-Dichlorobenzotrifluori	214	12.613	12.612	0.001	96	17972	5.00	4.87	
116 n-Butylbenzene	91	12.880	12.886	-0.006	98	75545	5.00	5.87	
117 1,2-Dichlorobenzene	146	12.892	12.892	0.000	94	47273	5.00	5.58	
118 1,2-Dibromo-3-Chloropropan	75	13.677	13.683	-0.006	66	3245	5.00	4.30	
119 2,4- & 2,5- & 2,6- Dichlor	125	13.823	13.816	0.007	99	85812	15.0	15.9	
121 2,3- & 3,4- Dichlorotoluen	125	14.237	14.236	0.001	98	60616	10.0	10.3	
122 1,2,4-Trichlorobenzene	180	14.505	14.498	0.007	92	22175	5.00	5.01	
123 Hexachlorobutadiene	225	14.644	14.650	-0.006	89	8829	5.00	6.30	
124 Naphthalene	128	14.760	14.759	0.001	97	82809	5.00	6.13	
125 1,2,3-Trichlorobenzene	180	14.985	14.984	0.001	94	20833	5.00	5.24	
126 2,4,5-Trichlorotoluene	159	15.776	15.775	0.001	0	10792	5.00	4.72	
127 2,3,6-Trichlorotoluene	159	15.879	15.885	-0.006	91	9731	5.00	4.75	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 131 Xylenes, Total	106				0		10.0	11.2	
S 130 1,2-Dichloroethene, Total	96				0		10.0	10.1	
S 132 1,3-Dichloropropene, Total	1				0		10.0	7.66	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWEEmix1stR_00009	Amount Added: 0.20	Units: uL
voaWKetmix1st_00004	Amount Added: 0.80	Units: uL
VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260SURR_00071	Amount Added: 0.20	Units: uL
voaWVA1stRest_00016	Amount Added: 0.20	Units: uL
voaWAcro1stRe_00016	Amount Added: 4.00	Units: uL
VOA8260VOAPRI_00263	Amount Added: 0.20	Units: uL
voaW2clev1stR_00013	Amount Added: 0.20	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D03.D

Injection Date: 24-Jul-2017 06:39:30

Instrument ID: CHHP6

Operator ID: 034635

Lims ID: IC VSTD1

Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL

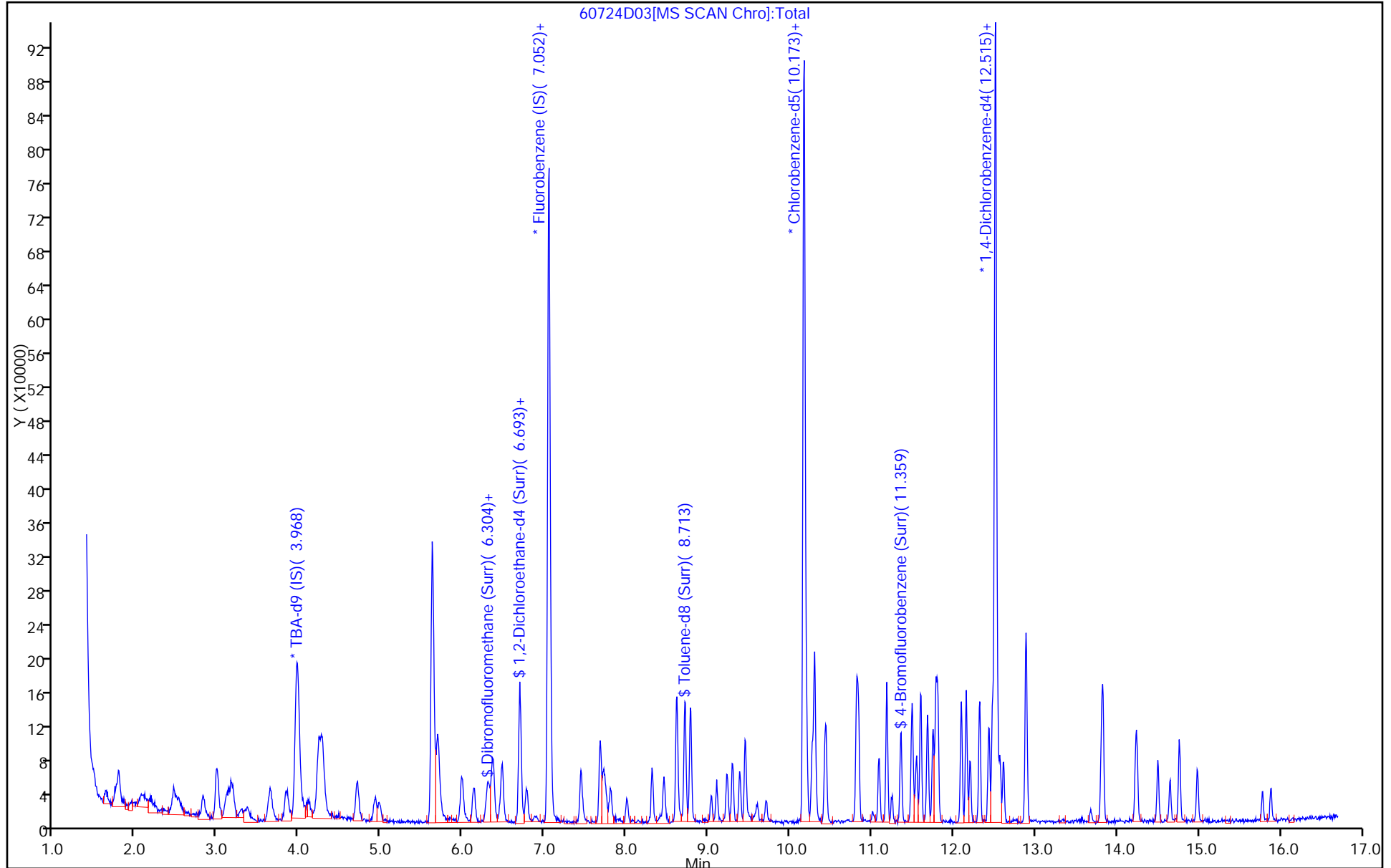
Dil. Factor: 1.0000

ALS Bottle#: 3

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

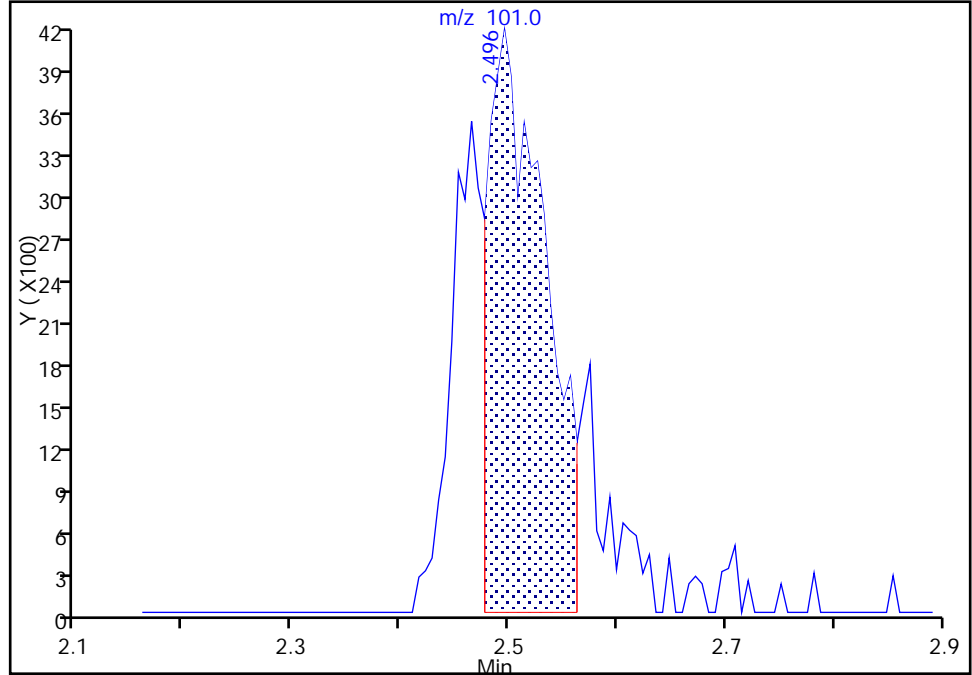
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Injection Date: 24-Jul-2017 06:39:30 Instrument ID: CHHP6
Lims ID: IC VSTD1
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

18 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

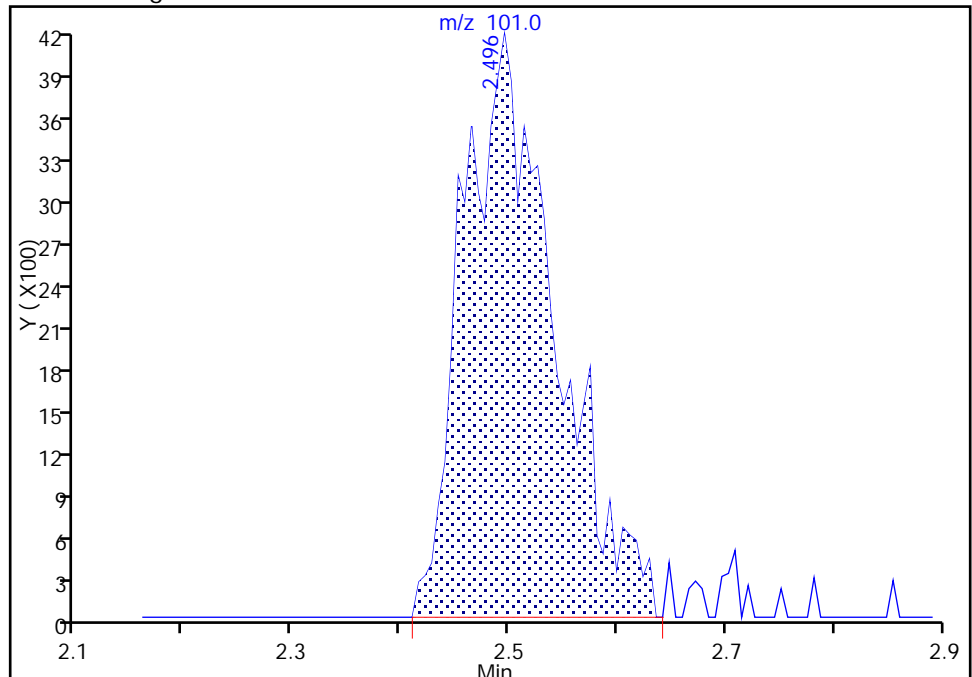
RT: 2.50
Area: 15241
Amount: 5.000000
Amount Units: ng

Processing Integration Results



RT: 2.50
Area: 24407
Amount: 5.173113
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 24-Jul-2017 07:17:36
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D04.D
 Lims ID: IC VSTD5
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 24-Jul-2017 07:03:30 ALS Bottle#: 4 Worklist Smp#: 4
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017705-004
 Misc. Info.: IC VSTD5
 Operator ID: 034635 Instrument ID: CHHP6
 Sublist: chrom-MSVOA_LL_CHHP6*sub10
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 25-Jul-2017 01:44:32 Calib Date: 24-Jul-2017 09:28:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D10.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bungardf

Date: 24-Jul-2017 07:25:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	3.968	3.973	-0.005	93	269256	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.052	7.052	0.000	98	704642	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.173	10.172	0.001	88	162034	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.509	12.515	-0.005	97	250761	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.316	6.315	0.001	93	95101	25.0	26.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.693	6.693	0.000	59	145003	25.0	27.7	
\$ 7 Toluene-d8 (Surr)	98	8.713	8.712	0.001	93	381639	25.0	28.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.353	11.353	0.000	83	158379	25.0	28.3	
11 Dichlorodifluoromethane	85	1.480	1.479	0.001	98	121547	25.0	27.0	
12 Chloromethane	50	1.626	1.631	-0.005	99	109949	25.0	27.2	
13 Vinyl chloride	62	1.753	1.753	0.000	97	112168	25.0	26.5	
14 Butadiene	39	1.790	1.789	0.001	89	92248	25.0	26.3	
15 Bromomethane	94	2.082	2.075	0.007	88	58670	25.0	29.7	
16 Chloroethane	64	2.204	2.203	0.001	98	64213	25.0	28.0	
17 Dichlorofluoromethane	67	2.459	2.459	0.000	97	133871	25.0	27.1	
18 Trichlorofluoromethane	101	2.489	2.501	-0.012	98	108123	25.0	25.9	
20 Ethyl ether	59	2.824	2.824	0.000	88	103875	25.0	29.1	
21 Acrolein	56	3.000	2.994	0.006	98	103236	125.0	134.9	
22 1,1-Dichloroethene	96	3.104	3.109	-0.005	98	90501	25.0	24.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.159	3.158	0.001	94	89949	25.0	25.6	
24 Acetone	43	3.183	3.195	-0.012	100	83742	50.0	55.4	
25 Iodomethane	142	3.286	3.292	-0.006	96	133154	25.0	25.9	
26 Carbon disulfide	76	3.372	3.365	0.007	98	179135	25.0	22.0	
29 3-Chloro-1-propene	76	3.639	3.633	0.006	90	50272	25.0	23.4	
30 Methyl acetate	43	3.651	3.651	0.000	96	185280	50.0	55.9	
31 Methylene Chloride	84	3.846	3.846	0.000	90	131057	25.0	27.0	
32 2-Methyl-2-propanol	59	4.108	4.113	-0.005	91	71644	250.0	240.4	
33 Acrylonitrile	53	4.235	4.235	0.000	100	530059	250.0	299.5	
34 trans-1,2-Dichloroethene	96	4.272	4.271	0.001	96	108647	25.0	26.1	
35 Methyl tert-butyl ether	73	4.284	4.290	-0.006	96	375187	25.0	28.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.704	4.709	-0.005	90	127818	25.0	26.0	
37 1,1-Dichloroethane	63	4.929	4.922	0.007	96	187923	25.0	27.8	
38 Vinyl acetate	43	4.984	4.983	0.001	97	217747	25.0	27.7	
42 2,2-Dichloropropane	97	5.683	5.689	-0.006	54	17106	25.0	24.4	
43 cis-1,2-Dichloroethene	96	5.689	5.695	-0.006	80	127777	25.0	26.3	
44 2-Butanone (MEK)	43	5.702	5.713	-0.011	73	125277	50.0	57.8	
48 Chlorobromomethane	128	5.981	5.981	0.000	98	57129	25.0	27.0	
49 Tetrahydrofuran	42	5.994	5.987	0.007	87	85090	50.0	58.0	
50 Chloroform	83	6.133	6.133	0.000	93	190538	25.0	26.1	
51 1,1,1-Trichloroethane	97	6.292	6.285	0.007	97	114539	25.0	24.7	
52 Cyclohexane	56	6.359	6.364	-0.005	91	170750	25.0	25.9	
53 Carbon tetrachloride	117	6.468	6.468	0.000	95	77574	25.0	23.3	
54 1,1-Dichloropropene	75	6.480	6.486	-0.006	96	141227	25.0	25.3	
56 Benzene	78	6.699	6.699	0.000	97	461882	25.0	28.4	
57 1,2-Dichloroethane	62	6.778	6.778	0.000	98	171694	25.0	28.6	
55 Isobutyl alcohol	41	6.699	7.076	-0.377	40	64845	625.0	663.4	
59 n-Heptane	43	7.076	7.076	0.000	80	95666	25.0	25.5	
61 Trichloroethene	130	7.447	7.447	0.000	98	102011	25.0	25.9	
63 Methylcyclohexane	83	7.679	7.678	0.001	87	179050	25.0	26.0	
64 1,2-Dichloropropane	63	7.715	7.715	0.000	92	103896	25.0	25.6	
67 Dibromomethane	93	7.806	7.806	0.000	96	70312	25.0	26.5	
65 1,4-Dioxane	88	7.800	7.885	-0.085	38	23040	500.0	622.3	M
68 Dichlorobromomethane	83	8.007	8.007	0.000	98	109927	25.0	24.3	
70 2-Chloroethyl vinyl ether	63	8.317	8.311	0.006	92	152667	50.0	56.7	
71 cis-1,3-Dichloropropene	75	8.457	8.457	0.000	95	116838	25.0	22.8	
72 4-Methyl-2-pentanone (MIBK)	43	8.615	8.615	0.000	96	233783	50.0	56.5	
73 Toluene	91	8.786	8.779	0.007	99	450260	25.0	28.2	
74 trans-1,3-Dichloropropene	75	9.035	9.035	0.000	92	98174	25.0	23.0	
75 Ethyl methacrylate	69	9.102	9.102	0.000	87	142004	25.0	26.4	
76 1,1,2-Trichloroethane	97	9.230	9.229	0.001	92	103854	25.0	28.1	
77 Tetrachloroethene	164	9.297	9.296	0.001	96	72287	25.0	25.3	
78 1,3-Dichloropropane	76	9.388	9.388	0.000	88	192724	25.0	28.8	
79 2-Hexanone	43	9.449	9.448	0.001	95	154768	50.0	58.1	
81 Chlorodibromomethane	129	9.601	9.601	0.000	87	57240	25.0	22.9	
82 Ethylene Dibromide	107	9.711	9.710	0.000	98	94851	25.0	26.7	
83 3-Chlorobenzotrifluoride	180	10.185	10.185	0.000	91	124733	25.0	26.9	
84 Chlorobenzene	112	10.203	10.197	0.006	94	294577	25.0	28.4	
85 4-Chlorobenzotrifluoride	180	10.270	10.270	0.000	96	110312	25.0	25.6	
86 1,1,1,2-Tetrachloroethane	131	10.295	10.294	0.001	87	69755	25.0	23.6	
87 Ethylbenzene	106	10.301	10.300	0.001	98	156900	25.0	26.4	
88 m-Xylene & p-Xylene	106	10.434	10.434	0.000	99	196132	25.0	26.9	
89 o-Xylene	106	10.818	10.811	0.007	96	201906	25.0	27.7	
90 Styrene	104	10.836	10.835	0.001	94	331761	25.0	28.1	
91 Bromoform	173	11.012	11.018	-0.006	94	30696	25.0	21.8	
92 2-Chlorobenzotrifluoride	180	11.091	11.091	0.000	97	130865	25.0	27.8	
93 Isopropylbenzene	105	11.183	11.182	0.001	96	473843	25.0	29.0	
95 Bromobenzene	156	11.487	11.492	-0.005	97	122999	25.0	26.4	
96 1,1,2,2-Tetrachloroethane	83	11.499	11.499	0.000	95	152313	25.0	29.3	
97 trans-1,4-Dichloro-2-buten	53	11.536	11.535	0.001	69	35451	25.0	26.0	
98 1,2,3-Trichloropropane	110	11.548	11.553	-0.005	86	52406	25.0	27.1	
99 N-Propylbenzene	120	11.596	11.596	0.000	98	130443	25.0	25.7	
100 2-Chlorotoluene	126	11.682	11.681	0.001	95	111064	25.0	25.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
101 3-Chlorotoluene	126	11.748	11.748	0.000	97	118876	25.0	25.8	
102 1,3,5-Trimethylbenzene	105	11.785	11.784	0.001	93	396334	25.0	27.5	
103 4-Chlorotoluene	126	11.809	11.809	0.000	99	118288	25.0	24.7	
104 tert-Butylbenzene	119	12.095	12.095	0.000	91	300432	25.0	26.3	
106 1,2,4-Trimethylbenzene	105	12.156	12.156	0.000	98	415297	25.0	27.7	
107 1,2-dichloro-4-(trifluorom	214	12.205	12.204	0.001	96	82510	25.0	24.8	
108 sec-Butylbenzene	105	12.320	12.320	0.000	94	435324	25.0	27.1	
109 1,3-Dichlorobenzene	146	12.430	12.435	-0.005	96	224858	25.0	26.9	
110 4-Isopropyltoluene	119	12.478	12.478	0.000	96	373177	25.0	28.2	
111 1,4-Dichlorobenzene	146	12.539	12.539	0.000	95	233465	25.0	27.0	
113 2,4-Dichloro-1-(trifluorom	214	12.570	12.569	0.001	97	79327	25.0	25.3	
114 2,5-Dichlorobenzotrifluori	214	12.612	12.612	0.000	98	93800	25.0	27.1	
116 n-Butylbenzene	91	12.886	12.886	0.000	98	331802	25.0	27.5	
117 1,2-Dichlorobenzene	146	12.892	12.892	0.000	96	225127	25.0	28.3	
118 1,2-Dibromo-3-Chloropropan	75	13.677	13.683	-0.006	73	17440	25.0	24.6	
119 2,4- & 2,5- & 2,6- Dichlor	125	13.823	13.816	0.007	99	439793	75.0	86.7	
121 2,3- & 3,4- Dichlorotoluen	125	14.237	14.236	0.001	99	308264	50.0	55.7	
122 1,2,4-Trichlorobenzene	180	14.498	14.498	0.000	95	117288	25.0	28.2	
123 Hexachlorobutadiene	225	14.644	14.650	-0.006	93	33039	25.0	25.1	
124 Naphthalene	128	14.760	14.759	0.001	98	362983	25.0	28.6	
125 1,2,3-Trichlorobenzene	180	14.985	14.984	0.001	96	101393	25.0	27.1	
126 2,4,5-Trichlorotoluene	159	15.776	15.775	0.001	0	52163	25.0	24.3	
127 2,3,6-Trichlorotoluene	159	15.879	15.885	-0.006	98	49582	25.0	25.8	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		50.0	52.5	
S 131 Xylenes, Total	106				0		50.0	54.6	
S 132 1,3-Dichloropropene, Total	1				0		50.0	45.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWEEmix1stR_00009	Amount Added: 1.00	Units: uL
voaWKetmix1st_00004	Amount Added: 1.00	Units: uL
VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260SURR_00071	Amount Added: 1.00	Units: uL
voaWVA1stRest_00016	Amount Added: 1.00	Units: uL
voaWAcro1stRe_00016	Amount Added: 5.00	Units: uL
VOA8260VOAPRI_00263	Amount Added: 1.00	Units: uL
voaW2clev1stR_00013	Amount Added: 1.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D04.D

Injection Date: 24-Jul-2017 07:03:30

Instrument ID: CHHP6

Operator ID: 034635

Lims ID: IC VSTD5

Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL

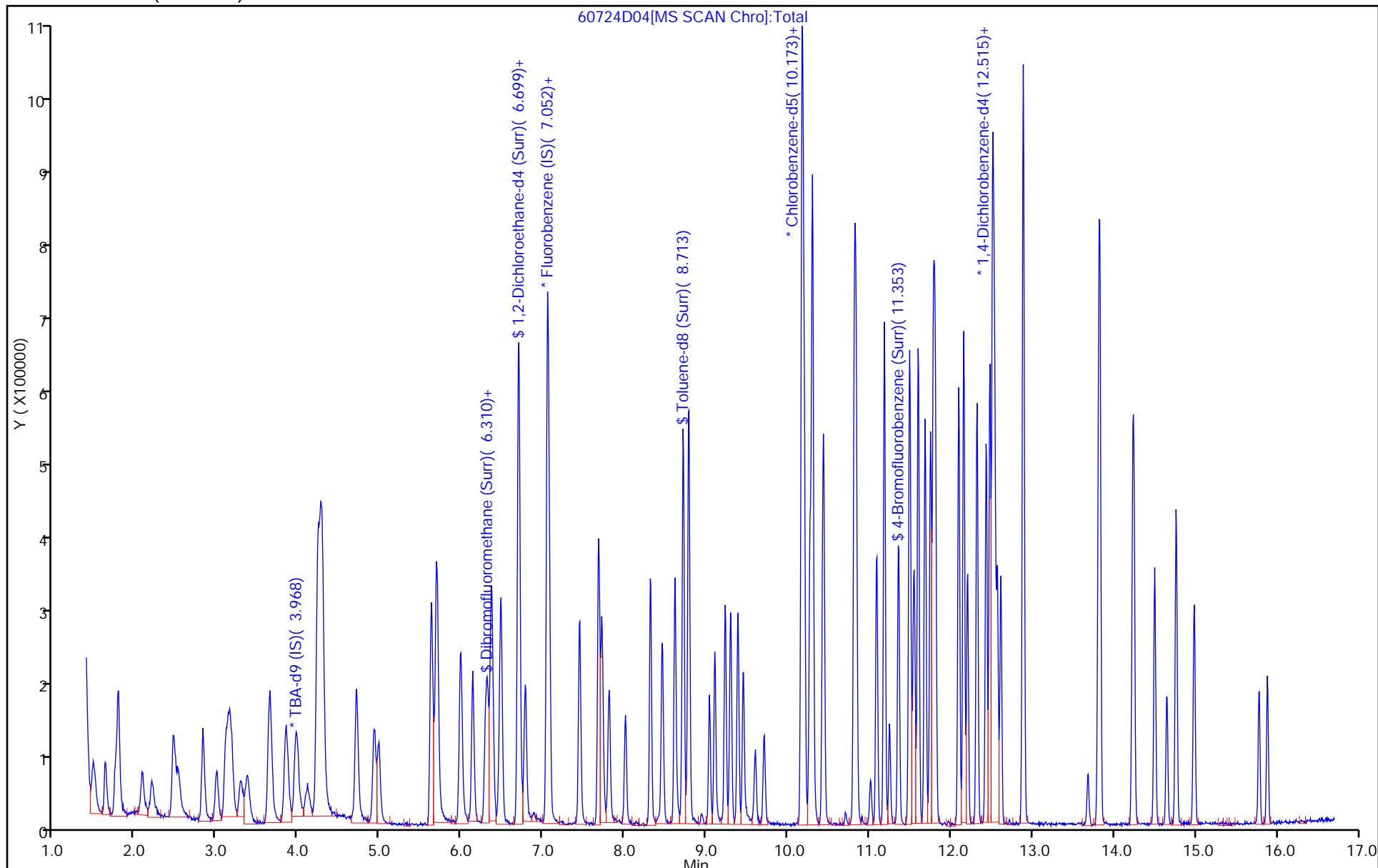
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

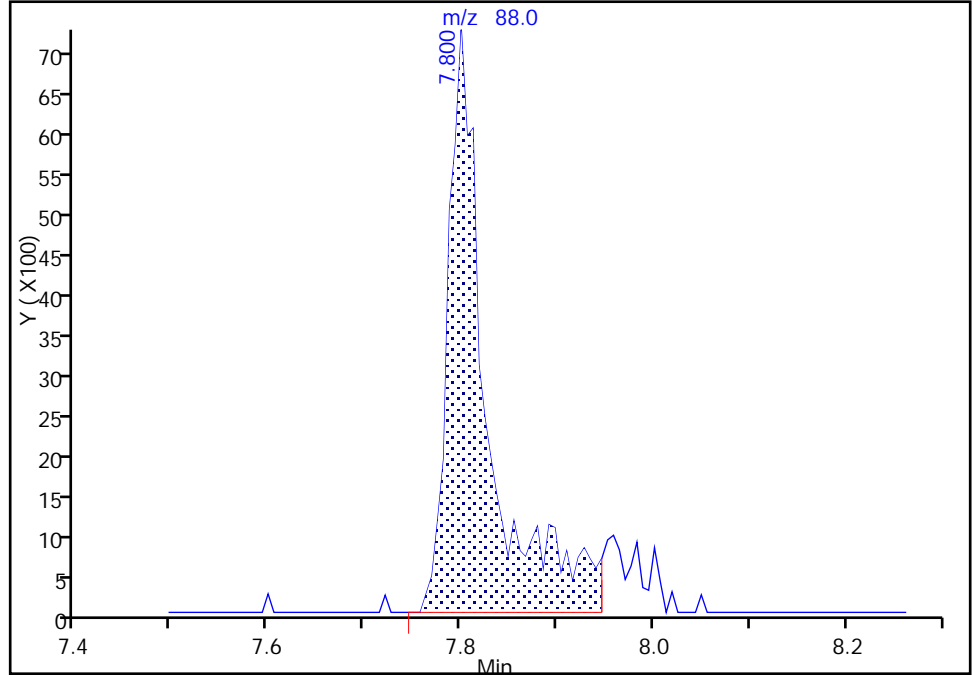
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D04.D
Injection Date: 24-Jul-2017 07:03:30 Instrument ID: CHHP6
Lims ID: IC VSTD5
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

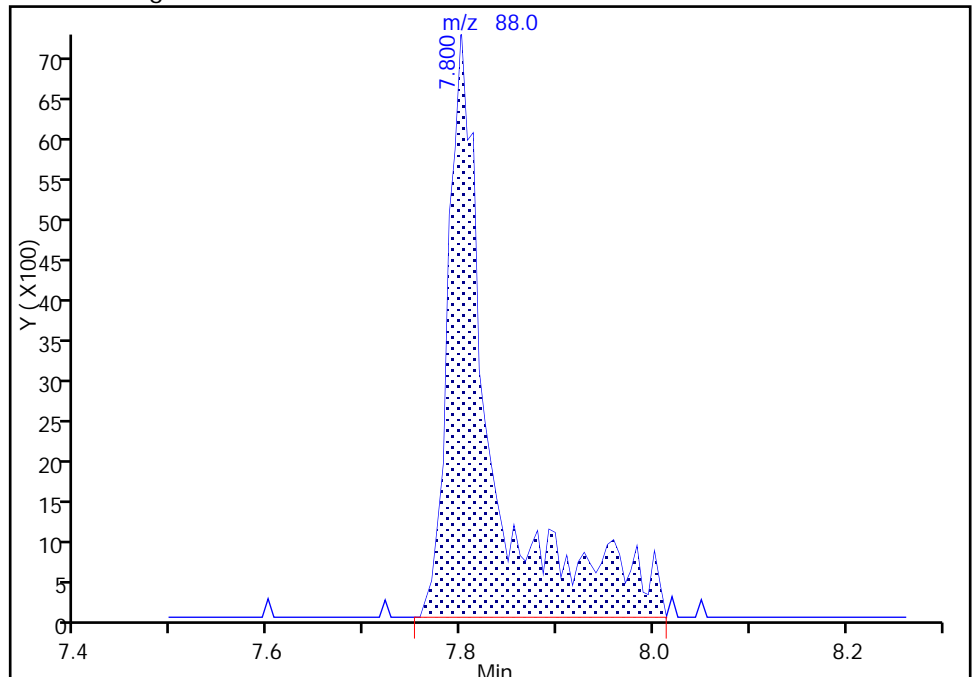
RT: 7.80
Area: 20744
Amount: 495.9874
Amount Units: ng

Processing Integration Results



RT: 7.80
Area: 23040
Amount: 622.2830
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 24-Jul-2017 07:27:10
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D05.D
 Lims ID: ICIS VSTD10
 Client ID:
 Sample Type: ICIS Calib Level: 3
 Inject. Date: 24-Jul-2017 07:27:30 ALS Bottle#: 5 Worklist Smp#: 5
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017705-005
 Misc. Info.: ICIS VSTD10
 Operator ID: 034635 Instrument ID: CHHP6
 Sublist: chrom-MSVOA_LL_CHHP6*sub10
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 25-Jul-2017 02:13:16 Calib Date: 24-Jul-2017 09:28:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D10.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bungardf

Date: 25-Jul-2017 01:51:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	3.978	3.978	0.000	95	281180	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.050	7.050	0.000	99	854988	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.171	10.171	0.000	87	187443	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.513	12.513	0.000	94	265638	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.314	6.314	0.000	93	204197	50.0	46.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.691	6.691	0.000	69	295614	50.0	46.6	
\$ 7 Toluene-d8 (Surr)	98	8.717	8.717	0.000	92	758339	50.0	50.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.357	11.357	0.000	84	305961	50.0	47.3	
11 Dichlorodifluoromethane	85	1.484	1.484	0.000	99	286699	50.0	52.5	
12 Chloromethane	50	1.630	1.630	0.000	100	249199	50.0	50.8	
13 Vinyl chloride	62	1.758	1.758	0.000	98	262771	50.0	51.1	
14 Butadiene	39	1.788	1.788	0.000	92	223993	50.0	52.5	
15 Bromomethane	94	2.086	2.086	0.000	87	122895	50.0	51.3	
16 Chloroethane	64	2.202	2.202	0.000	98	137952	50.0	49.6	
17 Dichlorofluoromethane	67	2.463	2.463	0.000	96	297904	50.0	49.7	
18 Trichlorofluoromethane	101	2.506	2.506	0.000	95	244680	50.0	48.3	
20 Ethyl ether	59	2.822	2.822	0.000	88	207890	50.0	48.0	
21 Acrolein	56	2.993	2.993	0.000	100	126353	150.0	136.1	
22 1,1-Dichloroethene	96	3.114	3.114	0.000	98	212019	50.0	47.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.157	3.157	0.000	94	214148	50.0	50.3	
24 Acetone	43	3.187	3.187	0.000	100	181114	100.0	98.7	
25 Iodomethane	142	3.291	3.291	0.000	99	296892	50.0	47.5	
26 Carbon disulfide	76	3.370	3.370	0.000	98	451961	50.0	45.7	
29 3-Chloro-1-propene	76	3.644	3.644	0.000	92	120354	50.0	46.3	
30 Methyl acetate	43	3.656	3.656	0.000	96	382502	100.0	95.1	
31 Methylene Chloride	84	3.844	3.844	0.000	89	278118	50.0	47.2	
32 2-Methyl-2-propanol	59	4.112	4.112	0.000	93	151604	500.0	487.1	
33 Acrylonitrile	53	4.234	4.234	0.000	100	1020211	500.0	475.0	
34 trans-1,2-Dichloroethene	96	4.276	4.276	0.000	99	244707	50.0	48.5	
35 Methyl tert-butyl ether	73	4.295	4.295	0.000	95	782498	50.0	48.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.708	4.708	0.000	91	304164	50.0	50.9	
37 1,1-Dichloroethane	63	4.933	4.933	0.000	97	418314	50.0	51.0	
38 Vinyl acetate	43	4.982	4.982	0.000	97	435645	50.0	45.6	
42 2,2-Dichloropropane	97	5.688	5.688	0.000	61	39797	50.0	46.8	
43 cis-1,2-Dichloroethene	96	5.694	5.694	0.000	79	290355	50.0	49.3	
44 2-Butanone (MEK)	43	5.712	5.712	0.000	99	266460	100.0	101.3	
48 Chlorobromomethane	128	5.986	5.986	0.000	98	118276	50.0	46.0	
49 Tetrahydrofuran	42	5.998	5.998	0.000	90	162324	100.0	91.2	
50 Chloroform	83	6.138	6.138	0.000	93	446745	50.0	50.5	
51 1,1,1-Trichloroethane	97	6.296	6.296	0.000	97	274535	50.0	48.8	
52 Cyclohexane	56	6.363	6.363	0.000	90	405642	50.0	50.8	
53 Carbon tetrachloride	117	6.466	6.466	0.000	95	190304	50.0	47.1	
54 1,1-Dichloropropene	75	6.485	6.485	0.000	98	340889	50.0	50.3	
56 Benzene	78	6.698	6.698	0.000	97	992835	50.0	50.4	
55 Isobutyl alcohol	41	6.704	6.704	0.000	41	132080	1250.0	1113.7	
57 1,2-Dichloroethane	62	6.777	6.777	0.000	98	349409	50.0	48.0	
59 n-Heptane	43	7.075	7.075	0.000	86	220812	50.0	48.6	
61 Trichloroethene	130	7.446	7.446	0.000	97	233389	50.0	48.7	
63 Methylcyclohexane	83	7.677	7.677	0.000	86	419227	50.0	50.1	
64 1,2-Dichloropropane	63	7.720	7.720	0.000	95	234878	50.0	47.7	
65 1,4-Dioxane	88	7.805	7.805	0.000	31	45919	1000.0	1022.1	M
67 Dibromomethane	93	7.811	7.811	0.000	95	150124	50.0	46.6	
68 Dichlorobromomethane	83	8.005	8.005	0.000	99	246980	50.0	45.0	
70 2-Chloroethyl vinyl ether	63	8.316	8.316	0.000	91	304468	100.0	93.3	
71 cis-1,3-Dichloropropene	75	8.456	8.456	0.000	95	279255	50.0	44.9	
72 4-Methyl-2-pentanone (MIBK)	43	8.614	8.614	0.000	94	495598	100.0	103.5	
73 Toluene	91	8.784	8.784	0.000	99	966776	50.0	52.3	
74 trans-1,3-Dichloropropene	75	9.040	9.040	0.000	92	223869	50.0	45.3	
75 Ethyl methacrylate	69	9.107	9.107	0.000	88	305467	50.0	49.0	
76 1,1,2-Trichloroethane	97	9.228	9.228	0.000	91	211345	50.0	49.5	
77 Tetrachloroethene	164	9.295	9.295	0.000	95	165794	50.0	50.1	
78 1,3-Dichloropropane	76	9.386	9.386	0.000	89	380984	50.0	49.2	
79 2-Hexanone	43	9.453	9.453	0.000	94	306856	100.0	99.6	
81 Chlorodibromomethane	129	9.599	9.599	0.000	89	131179	50.0	45.3	
82 Ethylene Dibromide	107	9.709	9.709	0.000	99	200005	50.0	48.6	
83 3-Chlorobenzotrifluoride	180	10.183	10.183	0.000	93	270429	50.0	50.4	
84 Chlorobenzene	112	10.202	10.202	0.000	94	613324	50.0	51.1	
85 4-Chlorobenzotrifluoride	180	10.269	10.269	0.000	97	246049	50.0	49.4	
86 1,1,1,2-Tetrachloroethane	131	10.293	10.293	0.000	87	156373	50.0	45.8	
87 Ethylbenzene	106	10.305	10.305	0.000	98	352019	50.0	51.2	
88 m-Xylene & p-Xylene	106	10.433	10.433	0.000	100	416283	50.0	49.4	
89 o-Xylene	106	10.816	10.816	0.000	96	430994	50.0	51.1	
90 Styrene	104	10.834	10.834	0.000	94	702614	50.0	51.5	
91 Bromoform	173	11.017	11.017	0.000	94	71560	50.0	43.9	
92 2-Chlorobenzotrifluoride	180	11.090	11.090	0.000	95	265784	50.0	48.8	
93 Isopropylbenzene	105	11.181	11.181	0.000	96	995129	50.0	52.7	
95 Bromobenzene	156	11.491	11.491	0.000	95	249243	50.0	50.5	
96 1,1,2,2-Tetrachloroethane	83	11.497	11.497	0.000	95	301111	50.0	50.1	
97 trans-1,4-Dichloro-2-buten	53	11.534	11.534	0.000	75	66355	50.0	45.9	
98 1,2,3-Trichloropropane	110	11.552	11.552	0.000	89	103048	50.0	50.3	
99 N-Propylbenzene	120	11.601	11.601	0.000	98	267230	50.0	49.7	
100 2-Chlorotoluene	126	11.680	11.680	0.000	95	230624	50.0	49.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
101 3-Chlorotoluene	126	11.747	11.747	0.000	96	239610	50.0	49.1	
102 1,3,5-Trimethylbenzene	105	11.783	11.783	0.000	93	790599	50.0	51.8	
103 4-Chlorotoluene	126	11.808	11.808	0.000	99	253826	50.0	50.0	
104 tert-Butylbenzene	119	12.094	12.094	0.000	91	630674	50.0	52.1	
106 1,2,4-Trimethylbenzene	105	12.154	12.154	0.000	98	824782	50.0	51.8	
107 1,2-dichloro-4-(trifluorom	214	12.209	12.209	0.000	97	164643	50.0	46.6	
108 sec-Butylbenzene	105	12.319	12.319	0.000	95	875734	50.0	51.5	
109 1,3-Dichlorobenzene	146	12.434	12.434	0.000	96	438172	50.0	49.4	
110 4-Isopropyltoluene	119	12.477	12.477	0.000	96	717050	50.0	51.1	
111 1,4-Dichlorobenzene	146	12.538	12.538	0.000	94	464508	50.0	50.7	
113 2,4-Dichloro-1-(trifluorom	214	12.568	12.568	0.000	95	161786	50.0	48.6	
114 2,5-Dichlorobenzotrifluori	214	12.611	12.611	0.000	97	173267	50.0	47.2	
116 n-Butylbenzene	91	12.884	12.884	0.000	97	643029	50.0	50.2	
117 1,2-Dichlorobenzene	146	12.890	12.890	0.000	96	416117	50.0	49.3	
118 1,2-Dibromo-3-Chloropropan	75	13.681	13.681	0.000	77	33625	50.0	44.7	
119 2,4- & 2,5- & 2,6- Dichlor	125	13.821	13.821	0.000	99	780454	150.0	145.3	
121 2,3- & 3,4- Dichlorotoluen	125	14.235	14.235	0.000	99	550121	100.0	93.8	
122 1,2,4-Trichlorobenzene	180	14.497	14.497	0.000	94	199297	50.0	45.2	
123 Hexachlorobutadiene	225	14.649	14.649	0.000	97	58792	50.0	42.1	
124 Naphthalene	128	14.764	14.764	0.000	98	627907	50.0	46.7	
125 1,2,3-Trichlorobenzene	180	14.983	14.983	0.000	95	169607	50.0	42.9	
126 2,4,5-Trichlorotoluene	159	15.774	15.774	0.000	0	90501	50.0	39.8	
127 2,3,6-Trichlorotoluene	159	15.884	15.884	0.000	96	84129	50.0	41.2	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	97.8	
S 131 Xylenes, Total	106				0		100.0	100.5	
S 132 1,3-Dichloropropene, Total	1				0		100.0	90.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWEEmix1stR_00009	Amount Added: 2.00	Units: uL
voaWKetmix1st_00004	Amount Added: 2.00	Units: uL
VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260SURR_00071	Amount Added: 2.00	Units: uL
voaWVA1stRest_00016	Amount Added: 2.00	Units: uL
voaWAcro1stRe_00016	Amount Added: 6.00	Units: uL
VOA8260VOAPRI_00263	Amount Added: 2.00	Units: uL
voaW2clev1stR_00013	Amount Added: 2.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D05.D

Injection Date: 24-Jul-2017 07:27:30

Instrument ID: CHHP6

Operator ID: 034635

Lims ID: ICIS VSTD10

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

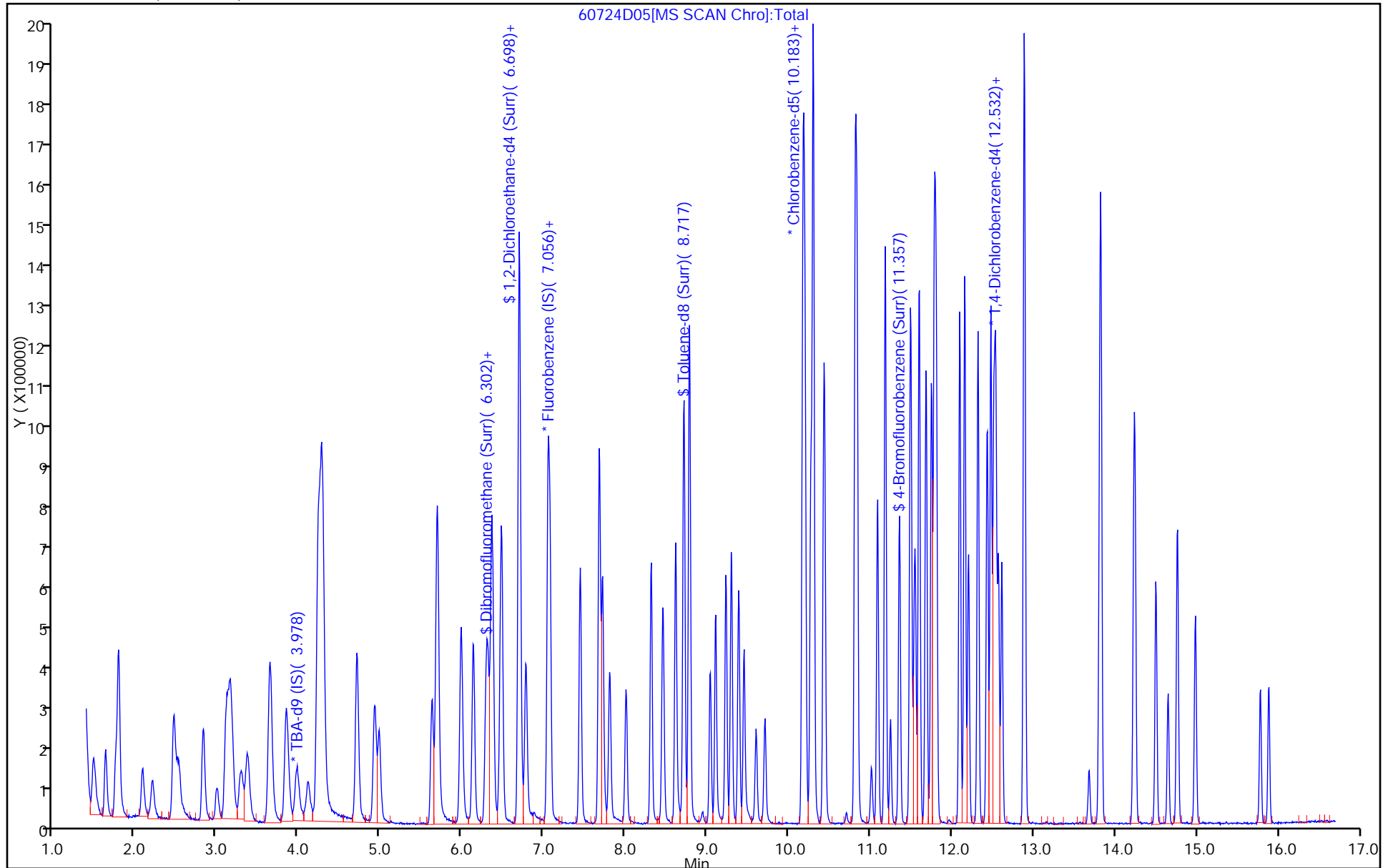
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

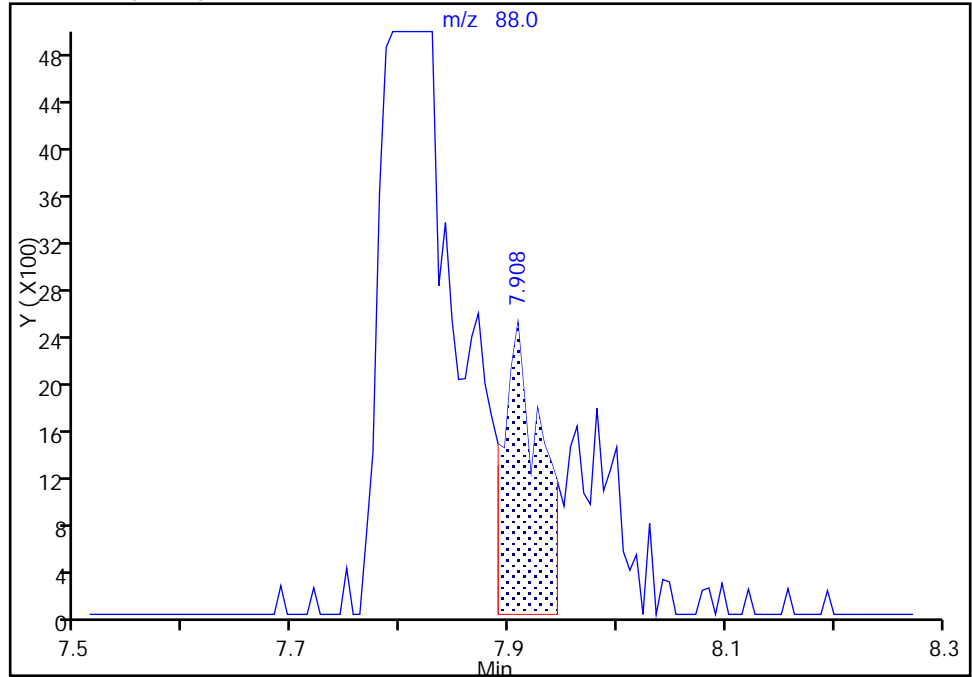
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Injection Date: 24-Jul-2017 07:27:30 Instrument ID: CHHP6
Lims ID: ICIS VSTD10
Client ID:
Operator ID: 034635 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

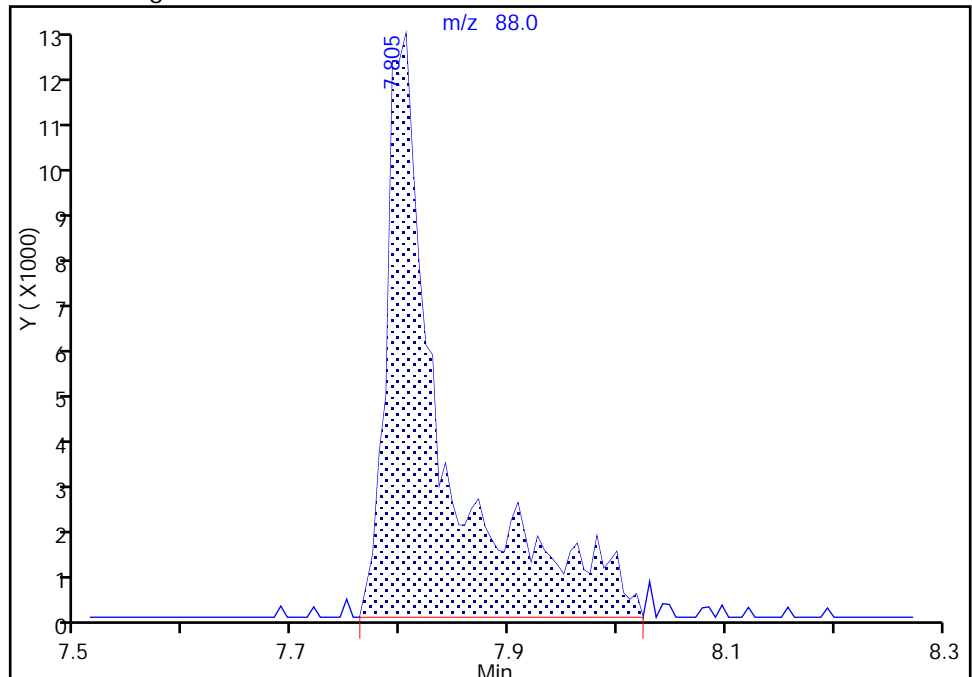
RT: 7.91
Area: 5831
Amount: 154.9459
Amount Units: ng

Processing Integration Results



RT: 7.80
Area: 45919
Amount: 1022.1306
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 24-Jul-2017 07:58:04
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D06.D
 Lims ID: IC VSTD15
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 24-Jul-2017 07:52:30 ALS Bottle#: 6 Worklist Smp#: 6
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017705-006
 Misc. Info.: IC VSTD15
 Operator ID: 034635 Instrument ID: CHHP6
 Sublist: chrom-MSVOA_LL_CHHP6*sub10
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 25-Jul-2017 01:44:34 Calib Date: 24-Jul-2017 09:28:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D10.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bungardf

Date: 24-Jul-2017 08:44:01

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	3.972	3.972	0.000	94	306123	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.051	7.051	0.000	98	837369	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.172	10.172	0.000	87	185833	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.514	12.514	0.000	93	281796	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.315	6.315	0.000	93	321543	75.0	73.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.692	6.692	0.000	69	450831	75.0	72.5	
\$ 7 Toluene-d8 (Surr)	98	8.718	8.718	0.000	93	1165400	75.0	79.9	
\$ 8 4-Bromofluorobenzene (Surr	95	11.352	11.352	0.000	85	477594	75.0	74.4	
11 Dichlorodifluoromethane	85	1.484	1.484	0.000	98	392309	75.0	73.4	
12 Chloromethane	50	1.630	1.630	0.000	98	364709	75.0	75.9	
13 Vinyl chloride	62	1.758	1.758	0.000	98	390082	75.0	77.4	
14 Butadiene	39	1.788	1.788	0.000	89	315046	75.0	75.4	
15 Bromomethane	94	2.087	2.087	0.000	90	178416	75.0	76.0	
16 Chloroethane	64	2.202	2.202	0.000	98	212582	75.0	78.1	
17 Dichlorofluoromethane	67	2.470	2.470	0.000	96	452413	75.0	77.1	
18 Trichlorofluoromethane	101	2.506	2.506	0.000	98	381467	75.0	76.9	
20 Ethyl ether	59	2.823	2.823	0.000	87	314417	75.0	74.1	
21 Acrolein	56	2.999	2.999	0.000	100	161845	175.0	178.0	
22 1,1-Dichloroethene	96	3.115	3.115	0.000	98	326499	75.0	75.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.157	3.157	0.000	95	320427	75.0	76.8	
24 Acetone	43	3.194	3.194	0.000	100	295809	150.0	164.7	
25 Iodomethane	142	3.291	3.291	0.000	98	465530	75.0	76.1	
26 Carbon disulfide	76	3.364	3.364	0.000	99	721571	75.0	74.5	
29 3-Chloro-1-propene	76	3.638	3.638	0.000	92	194002	75.0	76.1	
30 Methyl acetate	43	3.662	3.662	0.000	97	572896	150.0	145.5	
31 Methylene Chloride	84	3.839	3.839	0.000	89	418660	75.0	72.6	
32 2-Methyl-2-propanol	59	4.112	4.112	0.000	93	251071	750.0	741.0	
33 Acrylonitrile	53	4.240	4.240	0.000	99	1582844	750.0	752.5	
34 trans-1,2-Dichloroethene	96	4.277	4.277	0.000	98	372663	75.0	75.5	
35 Methyl tert-butyl ether	73	4.295	4.295	0.000	95	1181045	75.0	74.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.709	4.709	0.000	91	437873	75.0	74.9	
37 1,1-Dichloroethane	63	4.928	4.928	0.000	95	641771	75.0	79.9	
38 Vinyl acetate	43	4.982	4.982	0.000	97	703120	75.0	75.2	
42 2,2-Dichloropropane	97	5.682	5.682	0.000	56	64241	75.0	77.2	
43 cis-1,2-Dichloroethene	96	5.694	5.694	0.000	80	436220	75.0	75.6	
44 2-Butanone (MEK)	43	5.706	5.706	0.000	97	385993	150.0	149.9	
48 Chlorobromomethane	128	5.986	5.986	0.000	98	188762	75.0	75.0	
49 Tetrahydrofuran	42	5.992	5.992	0.000	85	242295	150.0	139.0	
50 Chloroform	83	6.138	6.138	0.000	93	660420	75.0	76.2	
51 1,1,1-Trichloroethane	97	6.290	6.290	0.000	98	414781	75.0	75.3	
52 Cyclohexane	56	6.363	6.363	0.000	90	597815	75.0	76.4	
53 Carbon tetrachloride	117	6.467	6.467	0.000	96	300016	75.0	75.8	
54 1,1-Dichloropropene	75	6.485	6.485	0.000	98	506906	75.0	76.4	
56 Benzene	78	6.704	6.704	0.000	97	1504594	75.0	78.0	
57 1,2-Dichloroethane	62	6.783	6.783	0.000	97	540487	75.0	75.8	
59 n-Heptane	43	7.075	7.075	0.000	89	337209	75.0	75.8	
55 Isobutyl alcohol	41	6.698	6.698	0.000	42	208868	1875.0	1798.2	
61 Trichloroethene	130	7.446	7.446	0.000	98	355153	75.0	75.7	
63 Methylcyclohexane	83	7.677	7.677	0.000	87	630450	75.0	77.0	
64 1,2-Dichloropropane	63	7.720	7.720	0.000	93	361293	75.0	74.9	
67 Dibromomethane	93	7.811	7.811	0.000	96	233620	75.0	74.0	
65 1,4-Dioxane	88	7.805	7.805	0.000	61	65610	1500.0	1491.2	M
68 Dichlorobromomethane	83	8.006	8.006	0.000	100	411363	75.0	76.6	
70 2-Chloroethyl vinyl ether	63	8.316	8.316	0.000	92	478201	150.0	149.6	
71 cis-1,3-Dichloropropene	75	8.456	8.456	0.000	96	460333	75.0	75.5	
72 4-Methyl-2-pentanone (MIBK)	43	8.614	8.614	0.000	94	755882	150.0	159.3	
73 Toluene	91	8.784	8.784	0.000	98	1461492	75.0	79.8	
74 trans-1,3-Dichloropropene	75	9.040	9.040	0.000	92	381658	75.0	77.8	
75 Ethyl methacrylate	69	9.101	9.101	0.000	87	492154	75.0	79.6	
76 1,1,2-Trichloroethane	97	9.229	9.229	0.000	91	325307	75.0	76.8	
77 Tetrachloroethene	164	9.295	9.295	0.000	97	257015	75.0	78.4	
78 1,3-Dichloropropane	76	9.387	9.387	0.000	89	593488	75.0	77.2	
79 2-Hexanone	43	9.454	9.454	0.000	94	480105	150.0	157.2	
81 Chlorodibromomethane	129	9.600	9.600	0.000	89	216633	75.0	75.5	
82 Ethylene Dibromide	107	9.709	9.709	0.000	98	313940	75.0	77.0	
83 3-Chlorobenzotrifluoride	180	10.184	10.184	0.000	92	444234	75.0	83.5	
84 Chlorobenzene	112	10.202	10.202	0.000	95	923461	75.0	77.5	
85 4-Chlorobenzotrifluoride	180	10.269	10.269	0.000	97	418159	75.0	84.8	
86 1,1,1,2-Tetrachloroethane	131	10.293	10.293	0.000	88	270626	75.0	79.9	
87 Ethylbenzene	106	10.299	10.299	0.000	98	540015	75.0	79.3	
88 m-Xylene & p-Xylene	106	10.433	10.433	0.000	99	663604	75.0	79.5	
89 o-Xylene	106	10.816	10.816	0.000	95	657817	75.0	78.6	
90 Styrene	104	10.835	10.835	0.000	94	1093228	75.0	80.8	
91 Bromoform	173	11.017	11.017	0.000	94	120009	75.0	74.3	
92 2-Chlorobenzotrifluoride	180	11.090	11.090	0.000	96	457223	75.0	84.7	
93 Isopropylbenzene	105	11.181	11.181	0.000	97	1511361	75.0	80.7	
95 Bromobenzene	156	11.492	11.492	0.000	95	380643	75.0	72.7	
96 1,1,2,2-Tetrachloroethane	83	11.498	11.498	0.000	95	468952	75.0	78.7	
97 trans-1,4-Dichloro-2-buten	53	11.534	11.534	0.000	76	105972	75.0	69.1	
98 1,2,3-Trichloropropane	110	11.552	11.552	0.000	87	159086	75.0	73.1	
99 N-Propylbenzene	120	11.601	11.601	0.000	98	428911	75.0	75.2	
100 2-Chlorotoluene	126	11.680	11.680	0.000	95	370145	75.0	75.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
101 3-Chlorotoluene	126	11.747	11.747	0.000	95	403537	75.0	77.9	
102 1,3,5-Trimethylbenzene	105	11.784	11.784	0.000	94	1254643	75.0	77.5	
103 4-Chlorotoluene	126	11.808	11.808	0.000	99	398838	75.0	74.0	
104 tert-Butylbenzene	119	12.094	12.094	0.000	91	985989	75.0	76.7	
106 1,2,4-Trimethylbenzene	105	12.155	12.155	0.000	98	1282863	75.0	76.0	
107 1,2-dichloro-4-(trifluorom	214	12.203	12.203	0.000	96	293347	75.0	78.3	
108 sec-Butylbenzene	105	12.319	12.319	0.000	95	1379795	75.0	76.5	
109 1,3-Dichlorobenzene	146	12.435	12.435	0.000	95	697551	75.0	74.2	
110 4-Isopropyltoluene	119	12.477	12.477	0.000	96	1135538	75.0	76.3	
111 1,4-Dichlorobenzene	146	12.538	12.538	0.000	93	720028	75.0	74.0	
113 2,4-Dichloro-1-(trifluorom	214	12.568	12.568	0.000	97	283275	75.0	80.3	
114 2,5-Dichlorobenzotrifluori	214	12.611	12.611	0.000	97	298436	75.0	76.6	
116 n-Butylbenzene	91	12.885	12.885	0.000	97	1048415	75.0	77.2	
117 1,2-Dichlorobenzene	146	12.891	12.891	0.000	96	662537	75.0	74.1	
118 1,2-Dibromo-3-Chloropropan	75	13.682	13.682	0.000	79	56051	75.0	70.3	
119 2,4- & 2,5- & 2,6- Dichlor	125	13.822	13.822	0.000	99	1316529	225.0	231.1	
121 2,3- & 3,4- Dichlorotoluen	125	14.235	14.235	0.000	98	921595	150.0	148.1	
122 1,2,4-Trichlorobenzene	180	14.503	14.503	0.000	93	325076	75.0	69.5	
123 Hexachlorobutadiene	225	14.649	14.649	0.000	96	101525	75.0	68.6	
124 Naphthalene	128	14.765	14.765	0.000	97	994327	75.0	69.8	
125 1,2,3-Trichlorobenzene	180	14.984	14.984	0.000	95	275471	75.0	65.6	
126 2,4,5-Trichlorotoluene	159	15.780	15.780	0.000	0	146009	75.0	60.5	
127 2,3,6-Trichlorotoluene	159	15.884	15.884	0.000	96	129996	75.0	60.1	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 131 Xylenes, Total	106				0		150.0	158.1	
S 130 1,2-Dichloroethene, Total	96				0		150.0	151.1	
S 132 1,3-Dichloropropene, Total	1				0		150.0	153.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWEEmix1stR_00009	Amount Added: 3.00	Units: uL
voaWKetmix1st_00004	Amount Added: 3.00	Units: uL
VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260SURR_00071	Amount Added: 3.00	Units: uL
voaWVA1stRest_00016	Amount Added: 3.00	Units: uL
voaWAcro1stRe_00016	Amount Added: 7.00	Units: uL
VOA8260VOAPRI_00263	Amount Added: 3.00	Units: uL
voaW2clev1stR_00013	Amount Added: 3.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D06.D

Injection Date: 24-Jul-2017 07:52:30

Instrument ID: CHHP6

Operator ID: 034635

Lims ID: IC VSTD15

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

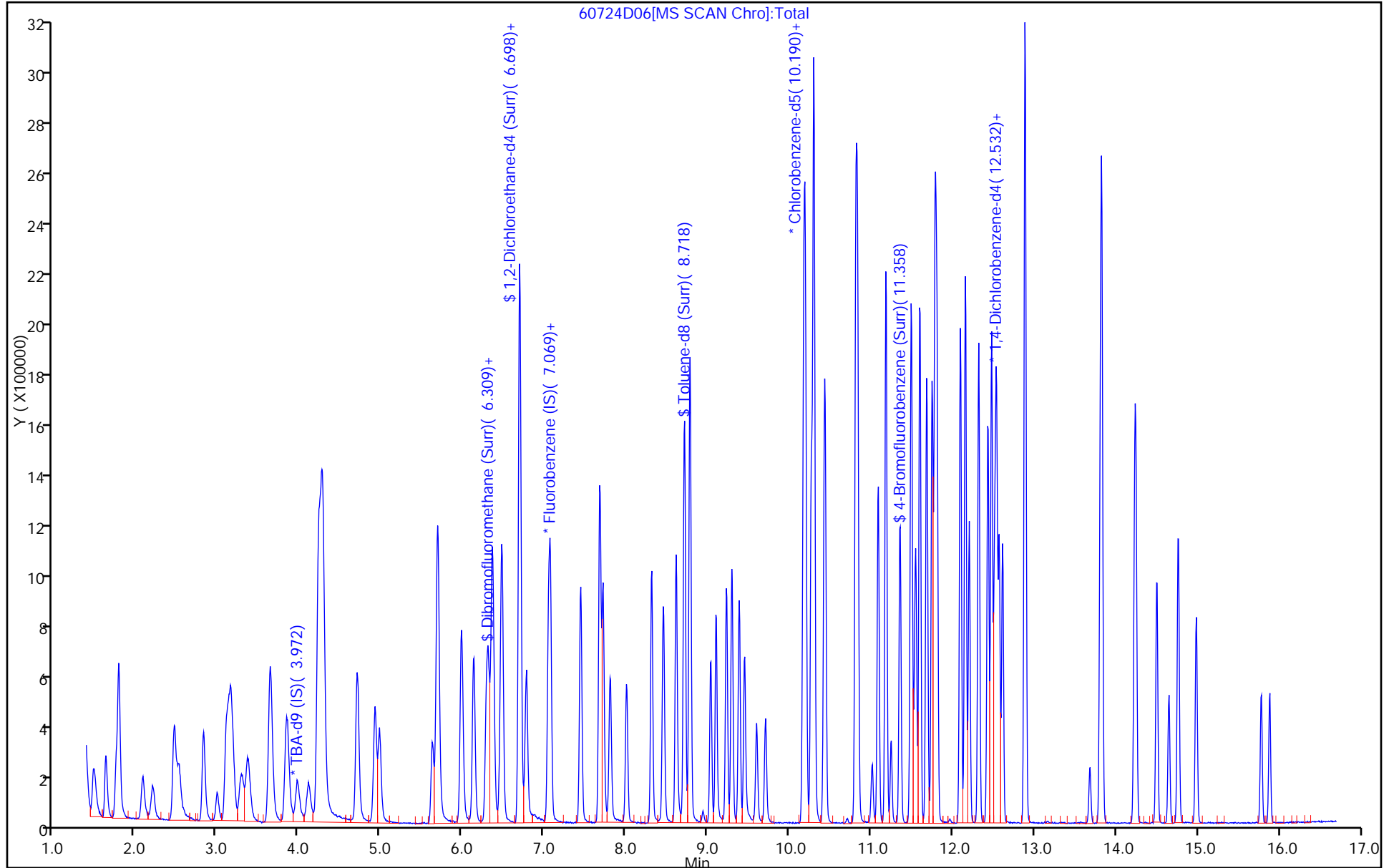
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

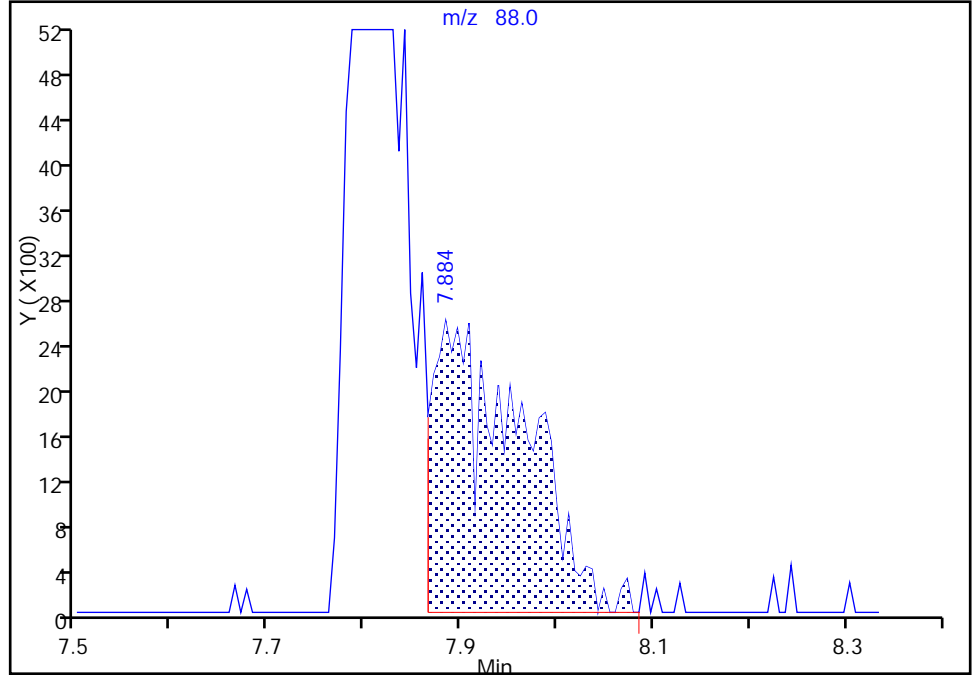
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Injection Date: 24-Jul-2017 07:52:30 Instrument ID: CHHP6
Lims ID: IC VSTD15
Client ID:
Operator ID: 034635 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

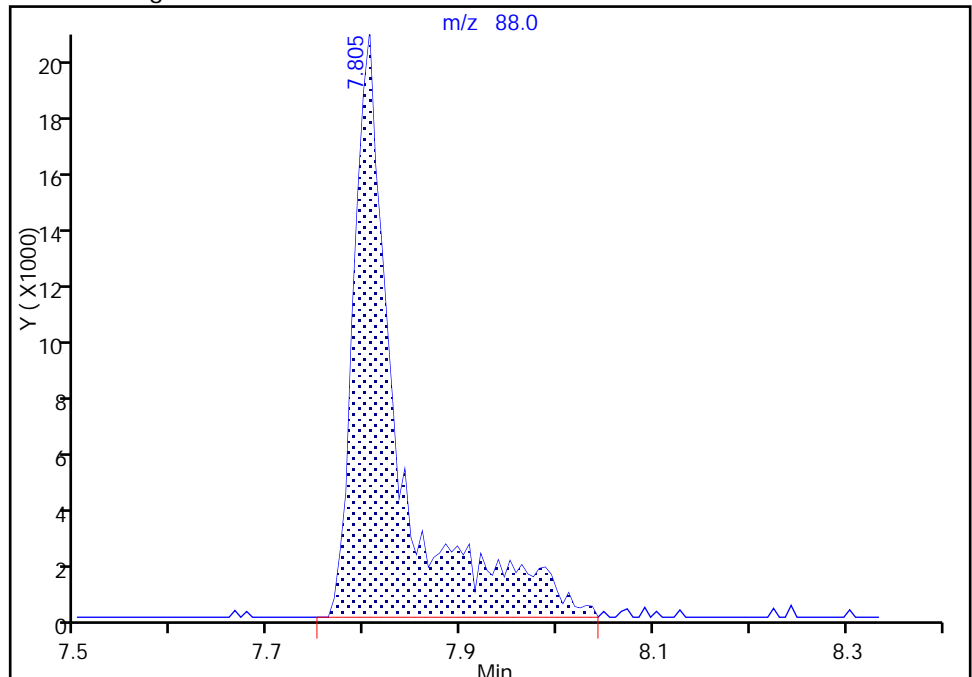
RT: 7.88
Area: 16500
Amount: 410.3640
Amount Units: ng

Processing Integration Results



RT: 7.81
Area: 65610
Amount: 1491.1699
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 24-Jul-2017 08:11:32
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D07.D
 Lims ID: IC VSTD20
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 24-Jul-2017 08:16:30 ALS Bottle#: 7 Worklist Smp#: 7
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017705-007
 Misc. Info.: IC VSTD20
 Operator ID: 034635 Instrument ID: CHHP6
 Sublist: chrom-MSVOA_LL_CHHP6*sub10
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 25-Jul-2017 01:44:36 Calib Date: 24-Jul-2017 09:28:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D10.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bungardf

Date: 24-Jul-2017 08:52:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	3.976	3.972	0.004	94	272680	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.048	7.051	-0.003	99	867274	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.169	10.172	-0.003	87	191685	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.511	12.514	-0.003	96	258316	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.318	6.315	0.003	93	424756	100.0	94.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.689	6.692	-0.003	70	572691	100.0	88.9	
\$ 7 Toluene-d8 (Surr)	98	8.715	8.718	-0.003	93	1484720	100.0	99.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.355	11.352	0.003	83	609762	100.0	92.1	
11 Dichlorodifluoromethane	85	1.482	1.484	-0.002	98	537841	100.0	97.2	
12 Chloromethane	50	1.628	1.630	-0.002	99	485997	100.0	97.7	
13 Vinyl chloride	62	1.755	1.758	-0.003	98	507676	100.0	97.3	
14 Butadiene	39	1.786	1.788	-0.002	89	407662	100.0	94.3	
15 Bromomethane	94	2.084	2.087	-0.003	90	239488	100.0	98.5	
16 Chloroethane	64	2.199	2.202	-0.003	98	283541	100.0	100.6	
17 Dichlorofluoromethane	67	2.467	2.470	-0.003	97	601770	100.0	99.1	
18 Trichlorofluoromethane	101	2.498	2.506	-0.008	99	515987	100.0	100.4	
20 Ethyl ether	59	2.820	2.823	-0.003	88	412759	100.0	93.9	
21 Acrolein	56	2.990	2.999	-0.009	100	172660	200.0	183.4	
22 1,1-Dichloroethene	96	3.112	3.115	-0.003	97	437661	100.0	97.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.155	3.157	-0.002	95	418931	100.0	97.0	
24 Acetone	43	3.191	3.194	-0.003	100	345529	200.0	185.7	
25 Iodomethane	142	3.282	3.291	-0.009	99	616342	100.0	97.3	
26 Carbon disulfide	76	3.361	3.364	-0.003	99	1031794	100.0	102.8	
29 3-Chloro-1-propene	76	3.635	3.638	-0.003	93	261163	100.0	98.9	
30 Methyl acetate	43	3.653	3.662	-0.009	97	775230	200.0	190.1	
31 Methylene Chloride	84	3.842	3.839	0.003	88	557470	100.0	93.3	
32 2-Methyl-2-propanol	59	4.104	4.112	-0.008	94	297303	1000.0	985.0	
33 Acrylonitrile	53	4.231	4.240	-0.009	98	2040960	1000.0	936.8	
34 trans-1,2-Dichloroethene	96	4.274	4.277	-0.003	99	496677	100.0	97.1	
35 Methyl tert-butyl ether	73	4.286	4.295	-0.009	96	1550808	100.0	94.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.706	4.709	-0.003	90	573395	100.0	94.7	
37 1,1-Dichloroethane	63	4.925	4.928	-0.003	95	843415	100.0	101.4	
38 Vinyl acetate	43	4.980	4.982	-0.002	97	926426	100.0	95.6	
42 2,2-Dichloropropane	97	5.691	5.682	0.009	90	87515	100.0	101.6	
43 cis-1,2-Dichloroethene	96	5.691	5.694	-0.003	80	585924	100.0	98.1	
44 2-Butanone (MEK)	43	5.704	5.706	-0.002	98	488342	200.0	183.1	
48 Chlorobromomethane	128	5.983	5.986	-0.003	97	249508	100.0	95.7	
49 Tetrahydrofuran	42	5.989	5.992	-0.003	87	320475	200.0	177.5	
50 Chloroform	83	6.135	6.138	-0.003	93	889966	100.0	99.2	
51 1,1,1-Trichloroethane	97	6.294	6.290	0.004	98	583435	100.0	102.3	
52 Cyclohexane	56	6.367	6.363	0.004	89	781868	100.0	96.5	
53 Carbon tetrachloride	117	6.470	6.467	0.003	96	414150	100.0	101.0	
54 1,1-Dichloropropene	75	6.482	6.485	-0.003	98	680030	100.0	99.0	
56 Benzene	78	6.701	6.704	-0.003	98	1915947	100.0	95.8	
57 1,2-Dichloroethane	62	6.780	6.783	-0.003	97	697923	100.0	94.5	
55 Isobutyl alcohol	41	6.695	6.698	-0.003	42	262400	2500.0	2181.2	
59 n-Heptane	43	7.072	7.075	-0.003	90	434669	100.0	94.3	
61 Trichloroethene	130	7.443	7.446	-0.003	98	474544	100.0	97.7	
63 Methylcyclohexane	83	7.681	7.677	0.004	86	819514	100.0	96.6	
64 1,2-Dichloropropane	63	7.717	7.720	-0.003	94	480287	100.0	96.1	
67 Dibromomethane	93	7.808	7.811	-0.003	96	306535	100.0	93.8	
65 1,4-Dioxane	88	7.802	7.805	-0.003	36	80878	2000.0	1774.8	M
68 Dichlorobromomethane	83	8.009	8.006	0.003	100	544627	100.0	97.9	
70 2-Chloroethyl vinyl ether	63	8.313	8.316	-0.003	93	580737	200.0	175.4	
71 cis-1,3-Dichloropropene	75	8.453	8.456	-0.003	96	626305	100.0	99.2	
72 4-Methyl-2-pentanone (MIBK)	43	8.611	8.614	-0.003	93	970750	200.0	198.3	
73 Toluene	91	8.782	8.784	-0.002	98	1858285	100.0	98.4	
74 trans-1,3-Dichloropropene	75	9.037	9.040	-0.003	92	511188	100.0	101.0	
75 Ethyl methacrylate	69	9.104	9.101	0.003	88	632371	100.0	99.2	
76 1,1,2-Trichloroethane	97	9.232	9.229	0.003	91	416541	100.0	95.3	
77 Tetrachloroethene	164	9.299	9.295	0.004	96	329342	100.0	97.4	
78 1,3-Dichloropropane	76	9.384	9.387	-0.003	89	757496	100.0	95.6	
79 2-Hexanone	43	9.451	9.454	-0.003	94	596567	200.0	189.4	
81 Chlorodibromomethane	129	9.597	9.600	-0.003	91	293309	100.0	99.0	
82 Ethylene Dibromide	107	9.706	9.709	-0.003	97	407201	100.0	96.8	
83 3-Chlorobenzotrifluoride	180	10.181	10.184	-0.003	91	536353	100.0	97.7	
84 Chlorobenzene	112	10.199	10.202	-0.003	92	1175123	100.0	95.7	
85 4-Chlorobenzotrifluoride	180	10.266	10.269	-0.003	97	489696	100.0	96.2	
86 1,1,1,2-Tetrachloroethane	131	10.297	10.293	0.004	89	357566	100.0	102.4	
87 Ethylbenzene	106	10.303	10.299	0.004	98	684943	100.0	97.5	
88 m-Xylene & p-Xylene	106	10.430	10.433	-0.003	99	838371	100.0	97.4	
89 o-Xylene	106	10.814	10.816	-0.002	95	844701	100.0	97.9	
90 Styrene	104	10.838	10.835	0.003	94	1341052	100.0	96.1	
91 Bromoform	173	11.014	11.017	-0.003	95	160632	100.0	96.4	
92 2-Chlorobenzotrifluoride	180	11.087	11.090	-0.003	95	544128	100.0	97.8	
93 Isopropylbenzene	105	11.185	11.181	0.004	97	1867348	100.0	96.7	
95 Bromobenzene	156	11.489	11.492	-0.003	96	474286	100.0	98.8	
96 1,1,2,2-Tetrachloroethane	83	11.495	11.498	-0.003	95	577708	100.0	93.9	
97 trans-1,4-Dichloro-2-buten	53	11.531	11.534	-0.003	78	133396	100.0	94.9	
98 1,2,3-Trichloropropane	110	11.550	11.552	-0.002	85	194531	100.0	97.6	
99 N-Propylbenzene	120	11.598	11.601	-0.003	97	529403	100.0	101.3	
100 2-Chlorotoluene	126	11.684	11.680	0.004	96	453885	100.0	100.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
101 3-Chlorotoluene	126	11.750	11.747	0.003	96	478005	100.0	100.6	
102 1,3,5-Trimethylbenzene	105	11.787	11.784	0.003	95	1489442	100.0	100.4	
103 4-Chlorotoluene	126	11.805	11.808	-0.003	99	485508	100.0	98.3	
104 tert-Butylbenzene	119	12.097	12.094	0.003	91	1203013	100.0	102.1	
106 1,2,4-Trimethylbenzene	105	12.152	12.155	-0.003	98	1554360	100.0	100.5	
107 1,2-dichloro-4-(trifluorom	214	12.201	12.203	-0.002	97	340323	100.0	99.1	
108 sec-Butylbenzene	105	12.316	12.319	-0.003	95	1659704	100.0	100.4	
109 1,3-Dichlorobenzene	146	12.432	12.435	-0.003	96	850676	100.0	98.7	
110 4-Isopropyltoluene	119	12.474	12.477	-0.003	95	1356230	100.0	99.4	
111 1,4-Dichlorobenzene	146	12.535	12.538	-0.003	93	880492	100.0	98.7	
113 2,4-Dichloro-1-(trifluorom	214	12.572	12.568	0.004	96	314370	100.0	97.2	
114 2,5-Dichlorobenzotrifluori	214	12.614	12.611	0.003	97	352876	100.0	98.8	
116 n-Butylbenzene	91	12.882	12.885	-0.003	96	1244987	100.0	100.0	
117 1,2-Dichlorobenzene	146	12.894	12.891	0.003	96	797769	100.0	97.3	
118 1,2-Dibromo-3-Chloropropan	75	13.679	13.682	-0.003	82	66004	100.0	90.3	
119 2,4- & 2,5- & 2,6- Dichlor	125	13.819	13.822	-0.003	99	1522613	300.0	291.5	
121 2,3- & 3,4- Dichlorotoluen	125	14.239	14.235	0.004	99	1108272	200.0	194.3	
122 1,2,4-Trichlorobenzene	180	14.500	14.503	-0.003	93	406868	100.0	95.0	
123 Hexachlorobutadiene	225	14.646	14.649	-0.003	97	126465	100.0	93.2	
124 Naphthalene	128	14.762	14.765	-0.003	98	1215966	100.0	93.1	
125 1,2,3-Trichlorobenzene	180	14.981	14.984	-0.003	95	350907	100.0	91.2	
126 2,4,5-Trichlorotoluene	159	15.778	15.780	-0.002	0	205495	100.0	92.9	
127 2,3,6-Trichlorotoluene	159	15.881	15.884	-0.003	97	188457	100.0	95.0	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		200.0	195.2	
S 131 Xylenes, Total	106				0		200.0	195.2	
S 132 1,3-Dichloropropene, Total	1				0		200.0	200.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWEEmix1stR_00009	Amount Added: 4.00	Units: uL
voaWKetmix1st_00004	Amount Added: 4.00	Units: uL
VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260SURR_00071	Amount Added: 4.00	Units: uL
voaWVA1stRest_00016	Amount Added: 4.00	Units: uL
voaWAcro1stRe_00016	Amount Added: 8.00	Units: uL
VOA8260VOAPRI_00263	Amount Added: 4.00	Units: uL
voaW2clev1stR_00013	Amount Added: 4.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D07.D

Injection Date: 24-Jul-2017 08:16:30

Instrument ID: CHHP6

Operator ID: 034635

Lims ID: IC VSTD20

Worklist Smp#: 7

Client ID:

Purge Vol: 5.000 mL

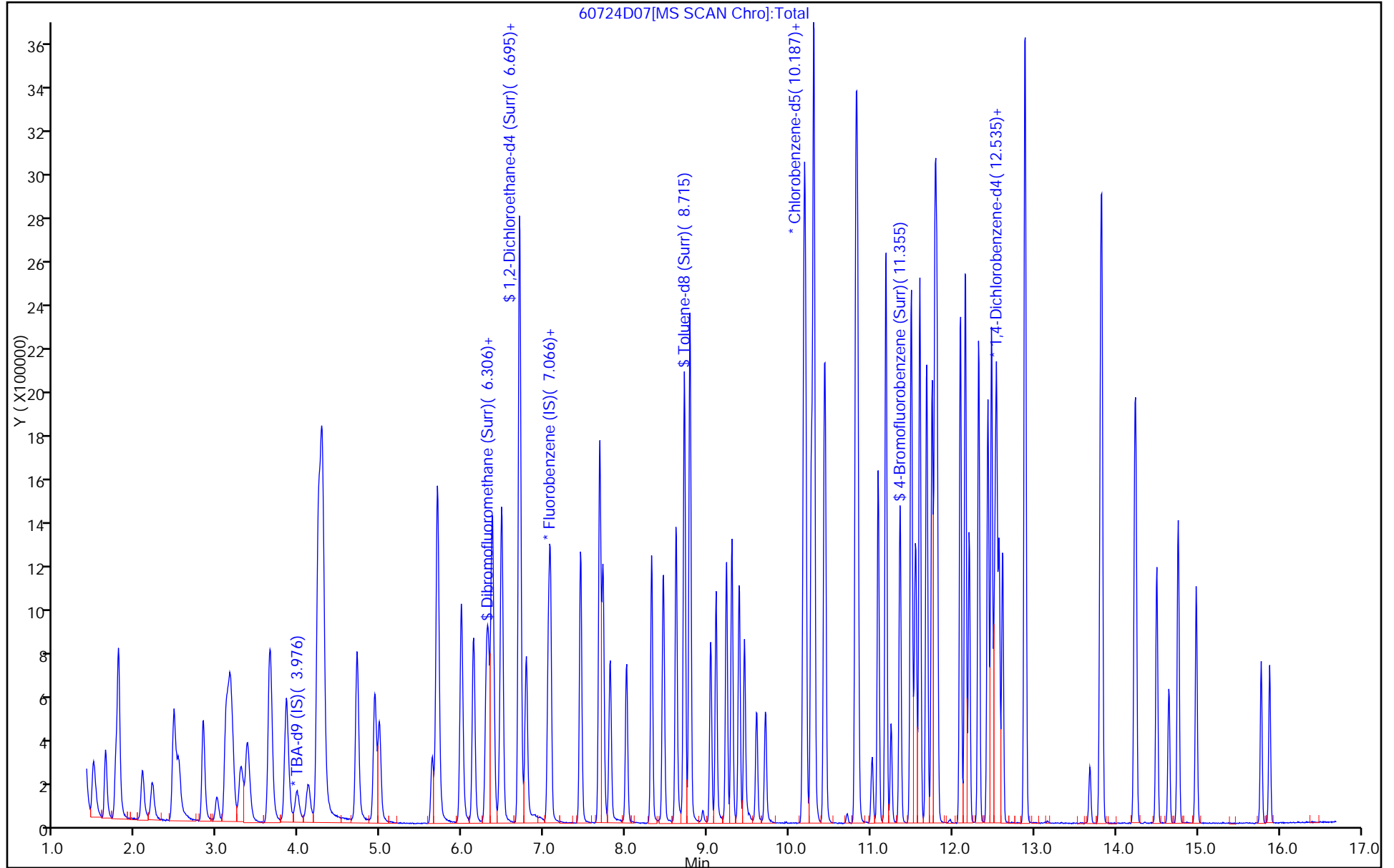
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

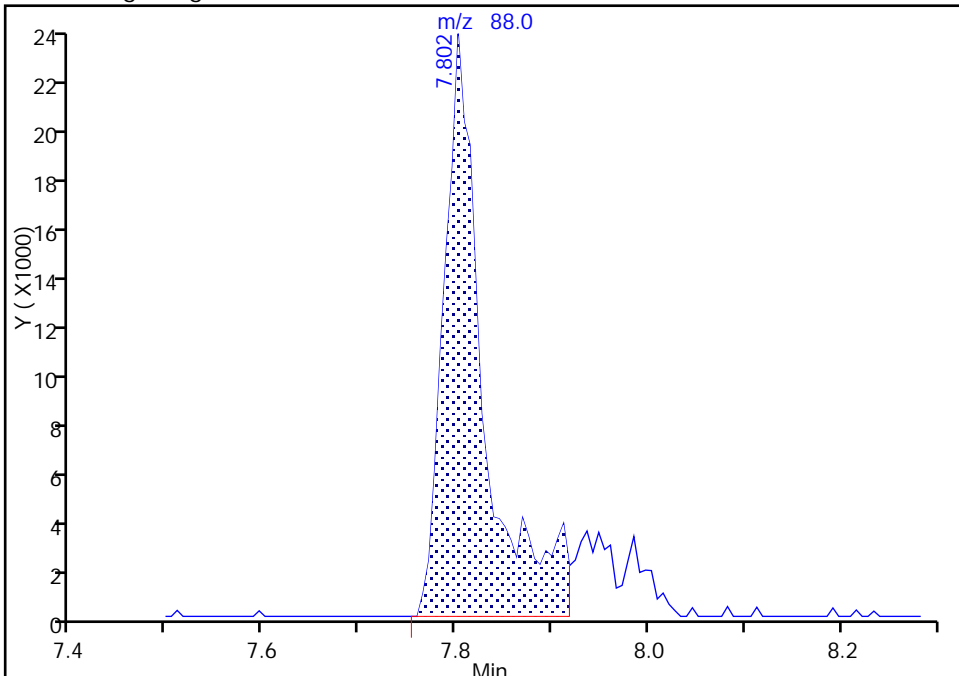
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D07.D
Injection Date: 24-Jul-2017 08:16:30 Instrument ID: CHHP6
Lims ID: IC VSTD20
Client ID:
Operator ID: 034635 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

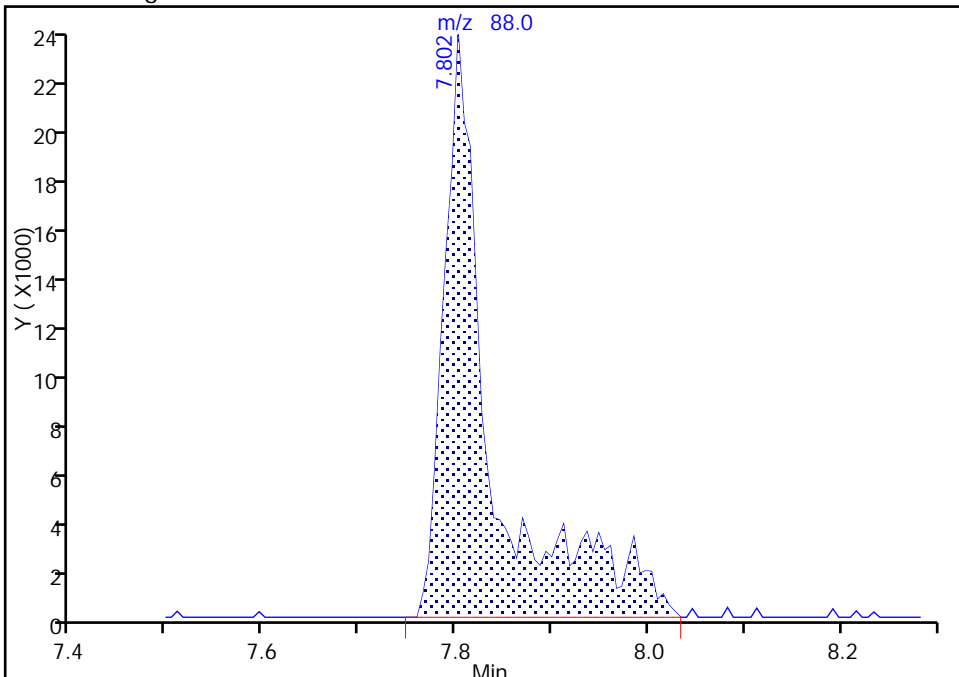
RT: 7.80
Area: 67754
Amount: 1445.4932
Amount Units: ng

Processing Integration Results



RT: 7.80
Area: 80878
Amount: 1774.7944
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 24-Jul-2017 08:44:40
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D08.D
 Lims ID: IC VSTD35
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 24-Jul-2017 08:40:30 ALS Bottle#: 8 Worklist Smp#: 8
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017705-008
 Misc. Info.: IC VSTD35
 Operator ID: 034635 Instrument ID: CHHP6
 Sublist: chrom-MSVOA_LL_CHHP6*sub10
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 25-Jul-2017 01:44:38 Calib Date: 24-Jul-2017 09:28:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D10.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bungardf

Date: 24-Jul-2017 09:10:27

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	3.976	3.972	0.004	94	292725	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.048	7.051	-0.003	99	784312	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.169	10.172	-0.003	86	193416	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.511	12.514	-0.003	96	277720	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.318	6.315	0.003	94	729396	175.0	179.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.689	6.692	-0.003	70	1013596	175.0	174.0	
\$ 7 Toluene-d8 (Surr)	98	8.715	8.718	-0.003	93	2475360	175.0	166.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.355	11.352	0.003	84	1116127	175.0	167.1	
11 Dichlorodifluoromethane	85	1.488	1.484	0.004	99	839726	175.0	167.8	
12 Chloromethane	50	1.634	1.630	0.004	98	792135	175.0	176.0	
13 Vinyl chloride	62	1.762	1.758	0.004	97	788826	175.0	167.2	
14 Butadiene	39	1.792	1.788	0.004	88	626705	175.0	160.2	
15 Bromomethane	94	2.084	2.087	-0.003	90	390167	175.0	177.4	
16 Chloroethane	64	2.212	2.202	0.010	98	445022	175.0	174.6	
17 Dichlorofluoromethane	67	2.473	2.470	0.003	96	986869	175.0	179.6	
18 Trichlorofluoromethane	101	2.516	2.506	0.010	98	820933	175.0	176.7	
20 Ethyl ether	59	2.826	2.823	0.003	87	720418	175.0	181.2	
21 Acrolein	56	2.997	2.999	-0.002	99	203936	225.0	239.5	
22 1,1-Dichloroethene	96	3.118	3.115	0.003	98	719926	175.0	176.6	
23 1,1,2-Trichloro-1,2,2-trif	101	3.161	3.157	0.004	95	680574	175.0	174.2	
24 Acetone	43	3.191	3.194	-0.003	100	658887	350.0	391.6	
25 Iodomethane	142	3.289	3.291	-0.002	98	1045605	175.0	182.4	
26 Carbon disulfide	76	3.368	3.364	0.004	99	1759930	175.0	193.9	
29 3-Chloro-1-propene	76	3.635	3.638	-0.003	91	457646	175.0	191.7	
30 Methyl acetate	43	3.654	3.662	-0.008	96	1378375	350.0	373.7	
31 Methylene Chloride	84	3.842	3.839	0.003	88	940505	175.0	174.1	
32 2-Methyl-2-propanol	59	4.116	4.112	0.004	94	572173	1750.0	1765.9	
33 Acrylonitrile	53	4.238	4.240	-0.002	97	3519987	1750.0	1786.6	
34 trans-1,2-Dichloroethene	96	4.274	4.277	-0.003	99	817284	175.0	176.7	
35 Methyl tert-butyl ether	73	4.286	4.295	-0.009	96	2689634	175.0	181.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.712	4.709	0.003	91	940765	175.0	171.7	
37 1,1-Dichloroethane	63	4.931	4.928	0.003	95	1429058	175.0	189.9	
38 Vinyl acetate	43	4.980	4.982	-0.002	97	1612184	175.0	184.0	
42 2,2-Dichloropropane	97	5.692	5.682	0.010	92	147487	175.0	189.3	
43 cis-1,2-Dichloroethene	96	5.692	5.694	-0.002	80	997518	175.0	184.6	
44 2-Butanone (MEK)	43	5.704	5.706	-0.002	98	909301	350.0	377.0	
48 Chlorobromomethane	128	5.984	5.986	-0.002	97	441109	175.0	187.1	
49 Tetrahydrofuran	42	5.990	5.992	-0.002	87	565011	350.0	346.0	
50 Chloroform	83	6.136	6.138	-0.002	93	1486297	175.0	183.2	
51 1,1,1-Trichloroethane	97	6.294	6.290	0.004	97	954279	175.0	185.1	
52 Cyclohexane	56	6.361	6.363	-0.002	89	1239342	175.0	169.1	
53 Carbon tetrachloride	117	6.464	6.467	-0.003	96	707925	175.0	190.9	
54 1,1-Dichloropropene	75	6.482	6.485	-0.003	97	1104618	175.0	177.8	
55 Isobutyl alcohol	41	6.701	6.698	0.003	46	537905	4375.0	4944.3	
56 Benzene	78	6.701	6.704	-0.003	98	3132477	175.0	173.3	
57 1,2-Dichloroethane	62	6.781	6.783	-0.002	97	1211453	175.0	181.4	
59 n-Heptane	43	7.073	7.075	-0.002	89	728795	175.0	174.8	
61 Trichloroethene	130	7.444	7.446	-0.002	98	799778	175.0	182.1	
63 Methylcyclohexane	83	7.681	7.677	0.004	87	1300055	175.0	169.5	
64 1,2-Dichloropropane	63	7.717	7.720	-0.003	94	853109	175.0	188.8	
65 1,4-Dioxane	88	7.796	7.805	-0.009	39	141286	3500.0	3428.3	
67 Dibromomethane	93	7.803	7.811	-0.008	97	555898	175.0	188.1	
68 Dichlorobromomethane	83	8.003	8.006	-0.003	99	1013623	175.0	201.4	
70 2-Chloroethyl vinyl ether	63	8.314	8.316	-0.002	93	1138561	350.0	380.2	
71 cis-1,3-Dichloropropene	75	8.453	8.456	-0.003	96	1210517	175.0	212.1	
72 4-Methyl-2-pentanone (MIBK)	43	8.612	8.614	-0.002	92	1737974	350.0	351.9	
73 Toluene	91	8.782	8.784	-0.002	96	3088570	175.0	162.0	
74 trans-1,3-Dichloropropene	75	9.037	9.040	-0.003	92	1035772	175.0	202.9	
75 Ethyl methacrylate	69	9.104	9.101	0.003	88	1196636	175.0	186.0	
76 1,1,2-Trichloroethane	97	9.232	9.229	0.003	91	786936	175.0	178.4	
77 Tetrachloroethene	164	9.299	9.295	0.004	96	574638	175.0	168.4	
78 1,3-Dichloropropane	76	9.384	9.387	-0.003	89	1388403	175.0	173.6	
79 2-Hexanone	43	9.451	9.454	-0.003	91	1122326	350.0	353.1	
81 Chlorodibromomethane	129	9.597	9.600	-0.003	91	614068	175.0	205.5	
82 Ethylene Dibromide	107	9.707	9.709	-0.002	98	780325	175.0	183.9	
83 3-Chlorobenzotrifluoride	180	10.181	10.184	-0.003	92	925971	175.0	167.1	
84 Chlorobenzene	112	10.199	10.202	-0.003	92	2089428	175.0	168.6	
85 4-Chlorobenzotrifluoride	180	10.272	10.269	0.003	96	878791	175.0	171.1	
86 1,1,1,2-Tetrachloroethane	131	10.297	10.293	0.004	92	699176	175.0	198.4	
87 Ethylbenzene	106	10.303	10.299	0.004	97	1218751	175.0	171.9	
88 m-Xylene & p-Xylene	106	10.437	10.433	0.004	97	1499275	175.0	172.5	
89 o-Xylene	106	10.814	10.816	-0.002	94	1520782	175.0	174.6	
90 Styrene	104	10.838	10.835	0.003	93	2430770	175.0	172.6	
91 Bromoform	173	11.015	11.017	-0.002	95	360803	175.0	214.6	
92 2-Chlorobenzotrifluoride	180	11.088	11.090	-0.002	94	976474	175.0	173.9	
93 Isopropylbenzene	105	11.185	11.181	0.004	97	3139141	175.0	161.1	
95 Bromobenzene	156	11.489	11.492	-0.003	96	913147	175.0	176.9	
96 1,1,2,2-Tetrachloroethane	83	11.501	11.498	0.003	95	1109880	175.0	178.8	
97 trans-1,4-Dichloro-2-buten	53	11.538	11.534	0.004	80	280292	175.0	185.5	
98 1,2,3-Trichloropropane	110	11.550	11.552	-0.002	87	379404	175.0	177.0	
99 N-Propylbenzene	120	11.599	11.601	-0.002	96	962443	175.0	171.3	
100 2-Chlorotoluene	126	11.684	11.680	0.004	96	862193	175.0	177.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
101 3-Chlorotoluene	126	11.751	11.747	0.004	95	877299	175.0	171.8	
102 1,3,5-Trimethylbenzene	105	11.787	11.784	0.003	96	2680034	175.0	168.0	
103 4-Chlorotoluene	126	11.805	11.808	-0.003	98	940075	175.0	177.0	
104 tert-Butylbenzene	119	12.097	12.094	0.003	91	2145902	175.0	169.4	
106 1,2,4-Trimethylbenzene	105	12.158	12.155	0.003	97	2764298	175.0	166.2	
107 1,2-dichloro-4-(trifluorom	214	12.207	12.203	0.004	95	632603	175.0	171.4	
108 sec-Butylbenzene	105	12.316	12.319	-0.003	95	2889256	175.0	162.6	
109 1,3-Dichlorobenzene	146	12.432	12.435	-0.003	94	1574554	175.0	169.9	
110 4-Isopropyltoluene	119	12.475	12.477	-0.002	93	2441419	175.0	166.4	
111 1,4-Dichlorobenzene	146	12.535	12.538	-0.003	91	1638813	175.0	171.0	
113 2,4-Dichloro-1-(trifluorom	214	12.572	12.568	0.004	95	599851	175.0	172.5	
114 2,5-Dichlorobenzotrifluori	214	12.615	12.611	0.004	97	682948	175.0	177.9	
116 n-Butylbenzene	91	12.882	12.885	-0.003	96	2222409	175.0	166.1	
117 1,2-Dichlorobenzene	146	12.888	12.891	-0.003	94	1520936	175.0	172.5	
118 1,2-Dibromo-3-Chloropropan	75	13.679	13.682	-0.003	81	156142	175.0	198.7	
119 2,4- & 2,5- & 2,6- Dichlor	125	13.819	13.822	-0.003	97	2790747	525.0	497.0	
121 2,3- & 3,4- Dichlorotoluen	125	14.239	14.235	0.004	98	2076832	350.0	338.6	
122 1,2,4-Trichlorobenzene	180	14.500	14.503	-0.003	94	795349	175.0	172.6	
123 Hexachlorobutadiene	225	14.646	14.649	-0.003	97	239351	175.0	164.1	
124 Naphthalene	128	14.762	14.765	-0.003	99	2281539	175.0	162.5	
125 1,2,3-Trichlorobenzene	180	14.981	14.984	-0.003	95	706689	175.0	170.9	
126 2,4,5-Trichlorotoluene	159	15.778	15.780	-0.002	0	413111	175.0	173.7	
127 2,3,6-Trichlorotoluene	159	15.881	15.884	-0.003	96	356014	175.0	167.0	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 131 Xylenes, Total	106				0		350.0	347.2	
S 130 1,2-Dichloroethene, Total	96				0		350.0	361.3	
S 132 1,3-Dichloropropene, Total	1				0		350.0	415.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWEEmix1stR_00009	Amount Added: 7.00	Units: uL
voaWKetmix1st_00004	Amount Added: 7.00	Units: uL
VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260SURR_00071	Amount Added: 7.00	Units: uL
voaWVA1stRest_00016	Amount Added: 7.00	Units: uL
voaWAcro1stRe_00016	Amount Added: 9.00	Units: uL
VOA8260VOAPRI_00263	Amount Added: 7.00	Units: uL
voaW2clev1stR_00013	Amount Added: 7.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D08.D

Injection Date: 24-Jul-2017 08:40:30

Instrument ID: CHHP6

Operator ID: 034635

Lims ID: IC VSTD35

Worklist Smp#: 8

Client ID:

Purge Vol: 5.000 mL

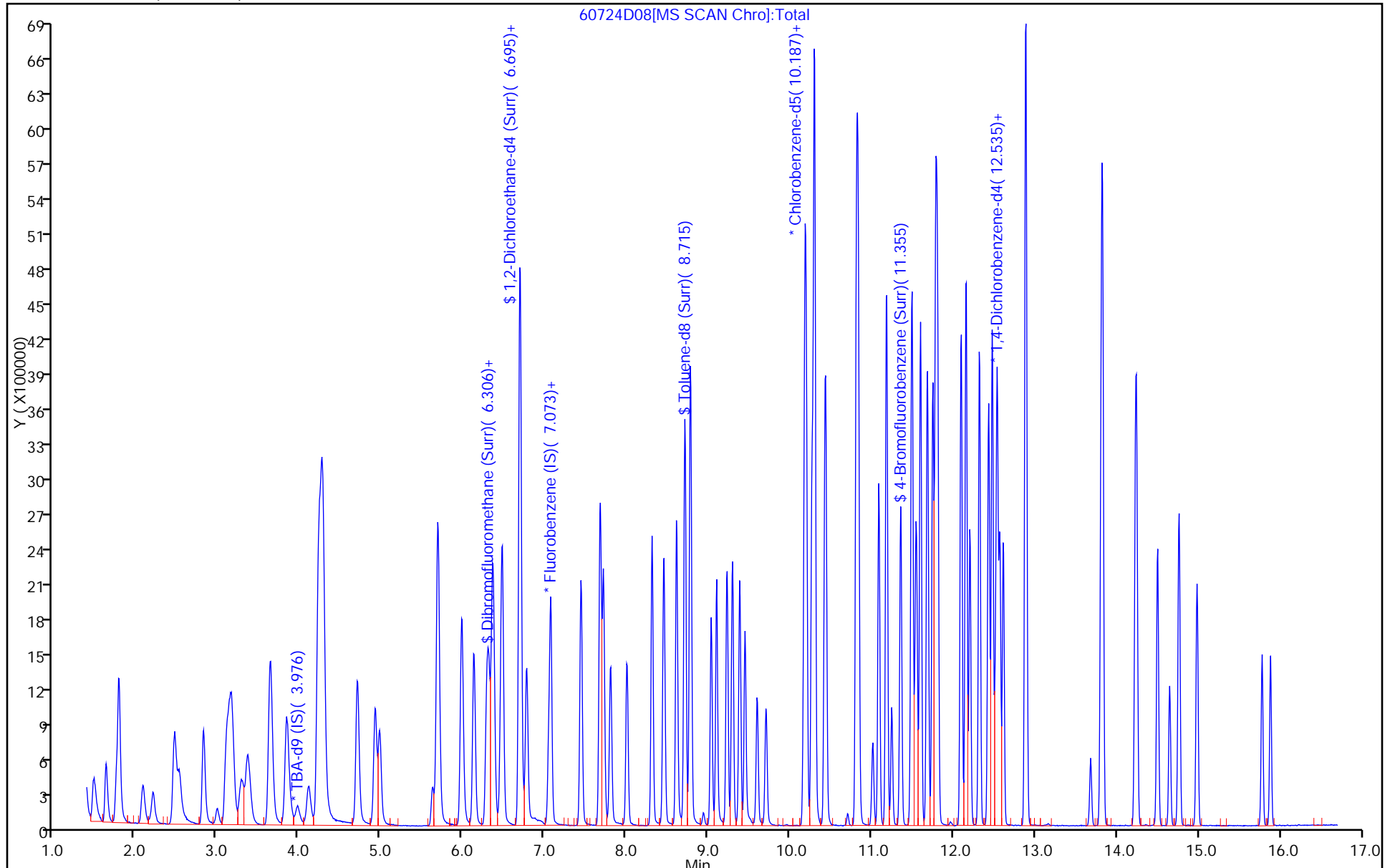
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D09.D
 Lims ID: IC VSTD40
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 24-Jul-2017 09:04:30 ALS Bottle#: 9 Worklist Smp#: 9
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017705-009
 Misc. Info.: IC VSTD40
 Operator ID: 034635 Instrument ID: CHHP6
 Sublist: chrom-MSVOA_LL_CHHP6*sub10
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 25-Jul-2017 01:44:40 Calib Date: 24-Jul-2017 09:28:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D10.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bungardf

Date: 24-Jul-2017 09:37:55

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	3.979	3.972	0.007	97	231119	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.051	7.051	0.000	98	870105	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.172	10.172	0.000	88	207878	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.514	12.514	0.000	97	276299	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.321	6.315	0.006	94	842973	200.0	186.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.692	6.692	0.000	70	1135703	200.0	175.7	
\$ 7 Toluene-d8 (Surr)	98	8.718	8.718	0.000	93	2824683	200.0	176.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.358	11.352	0.006	88	1222775	200.0	170.4	
11 Dichlorodifluoromethane	85	1.484	1.484	0.000	99	998454	200.0	179.8	
12 Chloromethane	50	1.630	1.630	0.000	98	904618	200.0	181.2	
13 Vinyl chloride	62	1.764	1.758	0.006	98	942517	200.0	180.1	
14 Butadiene	39	1.789	1.788	0.001	88	738623	200.0	170.2	
15 Bromomethane	94	2.081	2.087	-0.006	90	421777	200.0	172.9	
16 Chloroethane	64	2.202	2.202	0.000	98	496292	200.0	175.5	
17 Dichlorofluoromethane	67	2.464	2.470	-0.006	96	1112294	200.0	182.5	
18 Trichlorofluoromethane	101	2.506	2.506	0.000	97	958134	200.0	185.9	
20 Ethyl ether	59	2.829	2.823	0.006	87	817030	200.0	185.2	
21 Acrolein	56	2.993	2.999	-0.006	98	222222	250.0	235.2	
22 1,1-Dichloroethene	96	3.109	3.115	-0.006	97	850942	200.0	188.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.157	3.157	0.000	95	799492	200.0	184.5	
24 Acetone	43	3.194	3.194	0.000	98	631699	400.0	338.4	
25 Iodomethane	142	3.285	3.291	-0.006	98	1229211	200.0	193.3	
26 Carbon disulfide	76	3.370	3.364	0.006	99	2106147	200.0	209.1	
29 3-Chloro-1-propene	76	3.632	3.638	-0.006	92	540192	200.0	204.0	
30 Methyl acetate	43	3.650	3.662	-0.012	96	1509491	400.0	368.9	
31 Methylene Chloride	84	3.845	3.839	0.006	88	1081026	200.0	180.4	
32 2-Methyl-2-propanol	59	4.119	4.112	0.006	94	544523	2000.0	2128.5	
33 Acrylonitrile	53	4.234	4.240	-0.006	97	3825550	2000.0	1750.2	
34 trans-1,2-Dichloroethene	96	4.277	4.277	0.000	98	968185	200.0	188.7	
35 Methyl tert-butyl ether	73	4.295	4.295	0.000	96	3053893	200.0	186.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.709	4.709	0.000	90	1103506	200.0	181.6	
37 1,1-Dichloroethane	63	4.928	4.928	0.000	95	1631648	200.0	195.5	
38 Vinyl acetate	43	4.982	4.982	0.000	97	1962237	200.0	201.8	
42 2,2-Dichloropropane	97	5.694	5.682	0.012	87	168555	200.0	195.0	
43 cis-1,2-Dichloroethene	96	5.694	5.694	0.000	80	1143732	200.0	190.8	
44 2-Butanone (MEK)	43	5.706	5.706	0.000	98	973759	400.0	363.9	
48 Chlorobromomethane	128	5.980	5.986	-0.006	98	507483	200.0	194.0	
49 Tetrahydrofuran	42	5.992	5.992	0.000	84	629732	400.0	347.6	
50 Chloroform	83	6.132	6.138	-0.006	92	1701079	200.0	189.0	
51 1,1,1-Trichloroethane	97	6.296	6.290	0.006	98	1112586	200.0	194.5	
52 Cyclohexane	56	6.363	6.363	0.000	89	1473582	200.0	181.3	
53 Carbon tetrachloride	117	6.467	6.467	0.000	96	848801	200.0	206.3	
54 1,1-Dichloropropene	75	6.485	6.485	0.000	97	1298950	200.0	188.5	
55 Isobutyl alcohol	41	6.698	6.698	0.000	88	631529	5000.0	5232.5	
56 Benzene	78	6.698	6.704	-0.006	98	3551507	200.0	177.1	
57 1,2-Dichloroethane	62	6.783	6.783	0.000	97	1374193	200.0	185.5	
59 n-Heptane	43	7.075	7.075	0.000	89	834225	200.0	180.4	
61 Trichloroethene	130	7.446	7.446	0.000	98	926685	200.0	190.2	
63 Methylcyclohexane	83	7.677	7.677	0.000	87	1530213	200.0	179.9	
64 1,2-Dichloropropane	63	7.720	7.720	0.000	94	970394	200.0	193.5	
65 1,4-Dioxane	88	7.805	7.805	0.000	56	152489	4000.0	3335.3	M
67 Dibromomethane	93	7.805	7.811	-0.006	97	636427	200.0	194.1	
68 Dichlorobromomethane	83	8.006	8.006	0.000	99	1181877	200.0	211.7	
70 2-Chloroethyl vinyl ether	63	8.316	8.316	0.000	93	1300177	400.0	391.4	
71 cis-1,3-Dichloropropene	75	8.456	8.456	0.000	96	1391254	200.0	219.7	
72 4-Methyl-2-pentanone (MIBK)	43	8.614	8.614	0.000	91	1932325	400.0	364.0	
73 Toluene	91	8.785	8.784	0.001	95	3464609	200.0	169.1	
74 trans-1,3-Dichloropropene	75	9.040	9.040	0.000	92	1215519	200.0	221.6	
75 Ethyl methacrylate	69	9.101	9.101	0.000	88	1382390	200.0	200.0	
76 1,1,2-Trichloroethane	97	9.229	9.229	0.000	91	896840	200.0	189.2	
77 Tetrachloroethene	164	9.296	9.295	0.001	95	670325	200.0	182.8	
78 1,3-Dichloropropane	76	9.387	9.387	0.000	89	1574600	200.0	183.2	
79 2-Hexanone	43	9.448	9.454	-0.006	92	1271094	400.0	372.0	
81 Chlorodibromomethane	129	9.600	9.600	0.000	93	712324	200.0	221.8	
82 Ethylene Dibromide	107	9.709	9.709	0.000	98	899338	200.0	197.2	
83 3-Chlorobenzotrifluoride	180	10.184	10.184	0.000	91	1082251	200.0	181.8	
84 Chlorobenzene	112	10.202	10.202	0.000	91	2335758	200.0	175.3	
85 4-Chlorobenzotrifluoride	180	10.269	10.269	0.000	96	1026977	200.0	186.1	
86 1,1,1,2-Tetrachloroethane	131	10.299	10.293	0.006	92	799872	200.0	211.2	
87 Ethylbenzene	106	10.305	10.299	0.006	96	1390812	200.0	182.5	
88 m-Xylene & p-Xylene	106	10.433	10.433	0.000	96	1695741	200.0	181.6	
89 o-Xylene	106	10.816	10.816	0.000	94	1672026	200.0	178.7	
90 Styrene	104	10.835	10.835	0.000	93	2669824	200.0	176.4	
91 Bromoform	173	11.011	11.017	-0.006	95	416604	200.0	230.5	
92 2-Chlorobenzotrifluoride	180	11.090	11.090	0.000	94	1099473	200.0	182.2	
93 Isopropylbenzene	105	11.181	11.181	0.000	97	3385367	200.0	161.6	
95 Bromobenzene	156	11.492	11.492	0.000	97	1008153	200.0	196.3	
96 1,1,2,2-Tetrachloroethane	83	11.498	11.498	0.000	95	1216769	200.0	182.4	
97 trans-1,4-Dichloro-2-buten	53	11.534	11.534	0.000	80	313051	200.0	208.3	
98 1,2,3-Trichloropropane	110	11.553	11.552	0.000	85	413676	200.0	194.0	
99 N-Propylbenzene	120	11.601	11.601	0.000	95	1050858	200.0	188.0	
100 2-Chlorotoluene	126	11.680	11.680	0.000	96	919859	200.0	190.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
101 3-Chlorotoluene	126	11.747	11.747	0.000	94	965183	200.0	190.0	
102 1,3,5-Trimethylbenzene	105	11.784	11.784	0.000	94	2803848	200.0	176.7	
103 4-Chlorotoluene	126	11.808	11.808	0.000	98	999834	200.0	189.2	
104 tert-Butylbenzene	119	12.094	12.094	0.000	91	2233746	200.0	177.3	
106 1,2,4-Trimethylbenzene	105	12.155	12.155	0.000	97	2867121	200.0	173.3	
107 1,2-dichloro-4-(trifluorom	214	12.203	12.203	0.000	96	684446	200.0	186.4	
108 sec-Butylbenzene	105	12.319	12.319	0.000	95	2979536	200.0	168.6	
109 1,3-Dichlorobenzene	146	12.435	12.435	0.000	94	1673821	200.0	181.5	
110 4-Isopropyltoluene	119	12.477	12.477	0.000	94	2506437	200.0	171.8	
111 1,4-Dichlorobenzene	146	12.538	12.538	0.000	91	1720245	200.0	180.4	
113 2,4-Dichloro-1-(trifluorom	214	12.568	12.568	0.000	94	621645	200.0	179.7	
114 2,5-Dichlorobenzotrifluori	214	12.611	12.611	0.000	97	758780	200.0	198.7	
116 n-Butylbenzene	91	12.885	12.885	0.000	94	2290785	200.0	172.1	
117 1,2-Dichlorobenzene	146	12.891	12.891	0.000	95	1586590	200.0	180.9	
118 1,2-Dibromo-3-Chloropropan	75	13.682	13.682	0.000	88	173322	200.0	221.7	
119 2,4- & 2,5- & 2,6- Dichlor	125	13.822	13.822	0.000	96	3071993	600.0	549.9	
121 2,3- & 3,4- Dichlorotoluen	125	14.235	14.235	0.000	97	2379503	400.0	389.9	
122 1,2,4-Trichlorobenzene	180	14.503	14.503	0.000	94	937825	200.0	204.6	
123 Hexachlorobutadiene	225	14.649	14.649	0.000	97	285364	200.0	196.7	
124 Naphthalene	128	14.758	14.765	-0.007	99	2669188	200.0	191.1	
125 1,2,3-Trichlorobenzene	180	14.984	14.984	0.000	95	901210	200.0	219.0	
126 2,4,5-Trichlorotoluene	159	15.781	15.780	0.000	0	580730	200.0	245.4	
127 2,3,6-Trichlorotoluene	159	15.884	15.884	0.000	95	503740	200.0	237.4	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		400.0	379.5	
S 131 Xylenes, Total	106				0		400.0	360.2	
S 132 1,3-Dichloropropene, Total	1				0		400.0	441.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWEEmix1stR_00009	Amount Added: 8.00	Units: uL
voaWKetmix1st_00004	Amount Added: 8.00	Units: uL
VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260SURR_00071	Amount Added: 8.00	Units: uL
voaWVA1stRest_00016	Amount Added: 8.00	Units: uL
voaWAcro1stRe_00016	Amount Added: 10.00	Units: uL
VOA8260VOAPRI_00263	Amount Added: 8.00	Units: uL
voaW2clev1stR_00013	Amount Added: 8.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D09.D

Injection Date: 24-Jul-2017 09:04:30

Instrument ID: CHHP6

Operator ID: 034635

Lims ID: IC VSTD40

Worklist Smp#: 9

Client ID:

Purge Vol: 5.000 mL

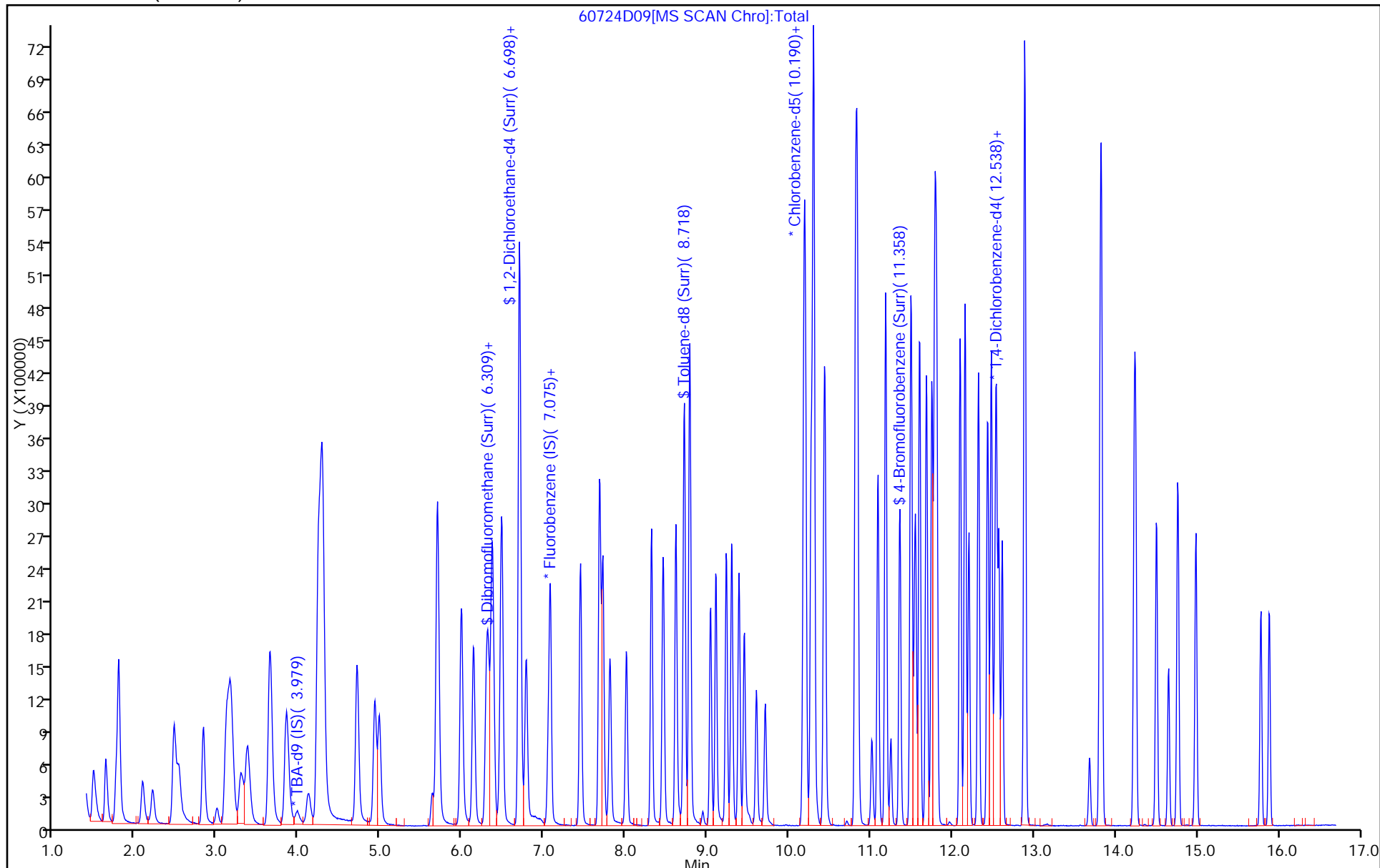
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

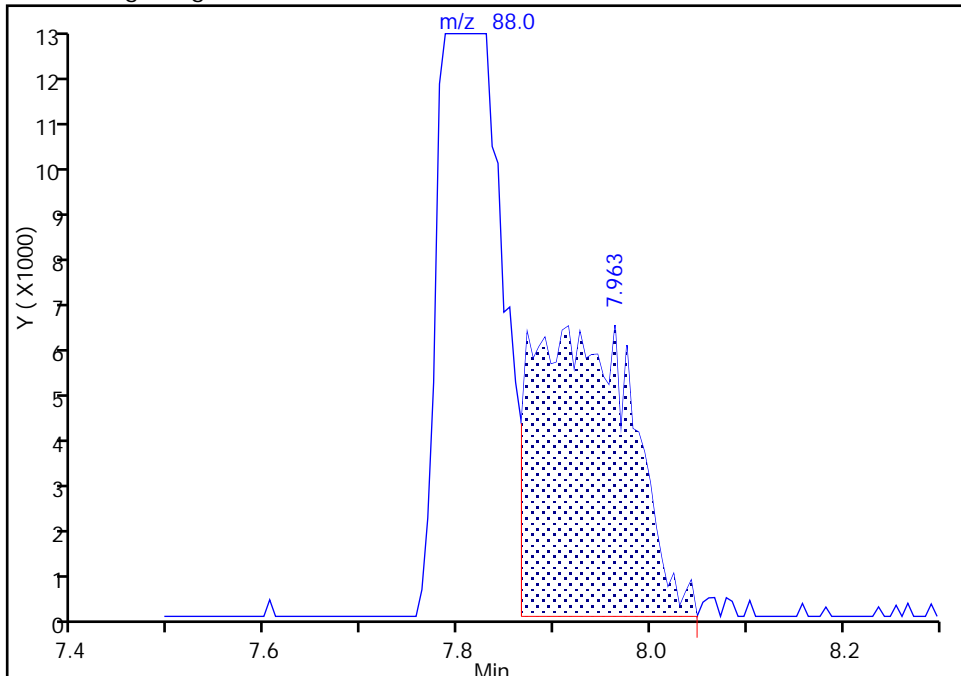
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D09.D
Injection Date: 24-Jul-2017 09:04:30 Instrument ID: CHHP6
Lims ID: IC VSTD40
Client ID:
Operator ID: 034635 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

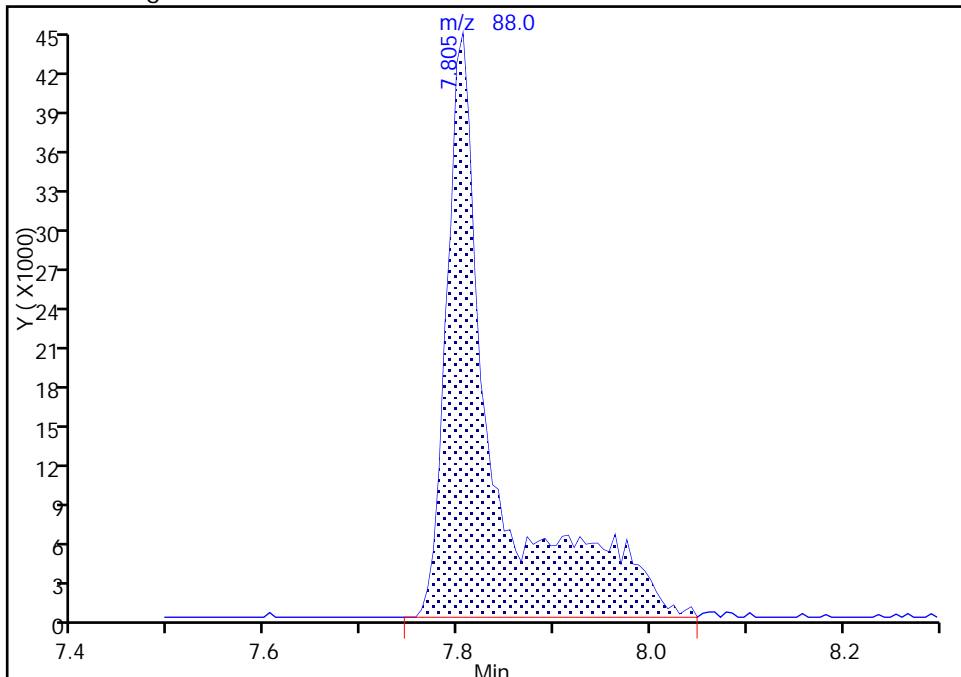
RT: 7.96
Area: 45805
Amount: 1076.1525
Amount Units: ng

Processing Integration Results



RT: 7.81
Area: 152489
Amount: 3335.3454
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 24-Jul-2017 09:26:43
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D10.D
 Lims ID: IC VSTD50
 Client ID:
 Sample Type: IC Calib Level: 8
 Inject. Date: 24-Jul-2017 09:28:30 ALS Bottle#: 10 Worklist Smp#: 10
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017705-010
 Misc. Info.: IC VSTD50
 Operator ID: 034635 Instrument ID: CHHP6
 Sublist: chrom-MSVOA_LL_CHHP6*sub10
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 25-Jul-2017 01:44:43 Calib Date: 24-Jul-2017 09:28:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D10.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK021

First Level Reviewer: bungardf

Date: 24-Jul-2017 09:58:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	3.992	3.972	0.020	94	256331	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.052	7.051	0.001	99	859285	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.172	10.172	0.000	86	220905	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.515	12.514	0.001	96	278640	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.316	6.315	0.001	94	1076618	250.0	241.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.693	6.692	0.001	68	1435595	250.0	224.9	
\$ 7 Toluene-d8 (Surr)	98	8.718	8.718	0.000	93	3487645	250.0	205.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.353	11.352	0.001	84	1557524	250.0	204.2	
11 Dichlorodifluoromethane	85	1.485	1.484	0.001	99	1341098	250.0	244.6	
12 Chloromethane	50	1.637	1.630	0.007	98	1170186	250.0	237.3	
13 Vinyl chloride	62	1.765	1.758	0.007	97	1244722	250.0	240.8	
14 Butadiene	39	1.796	1.788	0.008	88	1011679	250.0	236.1	
15 Bromomethane	94	2.081	2.087	-0.006	90	482936	250.0	200.5	
16 Chloroethane	64	2.209	2.202	0.007	99	595090	250.0	213.1	
17 Dichlorofluoromethane	67	2.471	2.470	0.001	96	1369610	250.0	227.5	
18 Trichlorofluoromethane	101	2.495	2.506	-0.011	99	1263842	250.0	248.3	
20 Ethyl ether	59	2.830	2.823	0.007	86	1004152	250.0	230.5	
21 Acrolein	56	2.994	2.999	-0.005	100	255428	275.0	273.8	
22 1,1-Dichloroethene	96	3.116	3.115	0.001	97	1153420	250.0	258.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.158	3.157	0.001	95	1098540	250.0	256.7	
24 Acetone	43	3.189	3.194	-0.005	100	730103	500.0	396.1	
25 Iodomethane	142	3.292	3.291	0.001	98	1578693	250.0	251.4	
26 Carbon disulfide	76	3.371	3.364	0.007	99	2838844	250.0	285.5	
29 3-Chloro-1-propene	76	3.633	3.638	-0.005	91	717090	250.0	274.2	
30 Methyl acetate	43	3.657	3.662	-0.005	96	1923255	500.0	476.0	
31 Methylene Chloride	84	3.846	3.839	0.007	87	1372983	250.0	232.0	
32 2-Methyl-2-propanol	59	4.113	4.112	0.001	94	673044	2500.0	2372.2	
33 Acrylonitrile	53	4.241	4.240	0.001	96	4723140	2500.0	2188.1	
34 trans-1,2-Dichloroethene	96	4.278	4.277	0.001	98	1277192	250.0	252.1	
35 Methyl tert-butyl ether	73	4.290	4.295	-0.005	97	3809189	250.0	235.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.703	4.709	-0.006	90	1517069	250.0	252.8	
37 1,1-Dichloroethane	63	4.928	4.928	0.000	95	2087088	250.0	253.2	
38 Vinyl acetate	43	4.983	4.982	0.001	97	2492452	250.0	259.6	
42 2,2-Dichloropropane	97	5.683	5.682	0.001	89	228817	250.0	268.0	
43 cis-1,2-Dichloroethene	96	5.695	5.694	0.001	78	1462208	250.0	247.0	
44 2-Butanone (MEK)	43	5.707	5.706	0.001	97	1217733	500.0	460.8	
48 Chlorobromomethane	128	5.981	5.986	-0.005	96	642539	250.0	248.8	
49 Tetrahydrofuran	42	5.993	5.992	0.001	84	812537	500.0	454.2	
50 Chloroform	83	6.139	6.138	0.001	92	2152497	250.0	242.1	
51 1,1,1-Trichloroethane	97	6.291	6.290	0.001	97	1477890	250.0	261.6	
52 Cyclohexane	56	6.364	6.363	0.001	87	1969875	250.0	245.4	
53 Carbon tetrachloride	117	6.468	6.467	0.001	96	1172757	250.0	288.6	
54 1,1-Dichloropropene	75	6.480	6.485	-0.005	96	1715254	250.0	252.0	
55 Isobutyl alcohol	41	6.705	6.698	0.007	81	789622	6250.0	6624.7	
56 Benzene	78	6.699	6.704	-0.005	97	4371437	250.0	220.7	
57 1,2-Dichloroethane	62	6.778	6.783	-0.005	96	1719102	250.0	234.9	
59 n-Heptane	43	7.076	7.075	0.001	87	1149322	250.0	251.6	
61 Trichloroethene	130	7.447	7.446	0.001	98	1194165	250.0	248.2	
63 Methylcyclohexane	83	7.678	7.677	0.001	90	2038808	250.0	242.6	
64 1,2-Dichloropropane	63	7.721	7.720	0.001	94	1251517	250.0	252.8	
65 1,4-Dioxane	88	7.800	7.805	-0.005	37	203123	5000.0	4498.8	
67 Dibromomethane	93	7.806	7.811	-0.005	97	802657	250.0	247.9	
68 Dichlorobromomethane	83	8.007	8.006	0.001	99	1522204	250.0	276.1	
70 2-Chloroethyl vinyl ether	63	8.317	8.316	0.001	93	1665721	500.0	507.7	
71 cis-1,3-Dichloropropene	75	8.457	8.456	0.001	96	1779441	250.0	284.5	
72 4-Methyl-2-pentanone (MIBK)	43	8.615	8.614	0.001	90	2362456	500.0	418.8	
73 Toluene	91	8.785	8.784	0.001	94	4234419	250.0	194.5	
74 trans-1,3-Dichloropropene	75	9.035	9.040	-0.005	92	1562404	250.0	268.0	
75 Ethyl methacrylate	69	9.102	9.101	0.001	88	1727540	250.0	235.2	
76 1,1,2-Trichloroethane	97	9.230	9.229	0.001	92	1145832	250.0	227.5	
77 Tetrachloroethene	164	9.296	9.295	0.001	95	881532	250.0	226.2	
78 1,3-Dichloropropane	76	9.388	9.387	0.001	89	1979514	250.0	216.7	
79 2-Hexanone	43	9.449	9.454	-0.006	91	1593297	500.0	438.8	
81 Chlorodibromomethane	129	9.601	9.600	0.001	91	931753	250.0	273.0	
82 Ethylene Dibromide	107	9.710	9.709	0.001	98	1134020	250.0	234.0	
83 3-Chlorobenzotrifluoride	180	10.185	10.184	0.001	91	1432766	250.0	226.4	
84 Chlorobenzene	112	10.197	10.202	-0.005	90	2898680	250.0	204.8	
85 4-Chlorobenzotrifluoride	180	10.270	10.269	0.001	96	1366587	250.0	233.0	
86 1,1,1,2-Tetrachloroethane	131	10.294	10.293	0.001	92	1029362	250.0	255.7	
87 Ethylbenzene	106	10.300	10.299	0.001	95	1762716	250.0	217.7	
88 m-Xylene & p-Xylene	106	10.434	10.433	0.001	95	2161557	250.0	217.8	
89 o-Xylene	106	10.817	10.816	0.001	93	2111655	250.0	212.3	
90 Styrene	104	10.836	10.835	0.001	90	3281557	250.0	204.0	
91 Bromoform	173	11.012	11.017	-0.005	94	548248	250.0	285.5	
92 2-Chlorobenzotrifluoride	180	11.091	11.090	0.001	92	1439864	250.0	224.5	
93 Isopropylbenzene	105	11.182	11.181	0.001	97	4143279	250.0	186.1	
95 Bromobenzene	156	11.493	11.492	0.001	96	1259105	250.0	243.1	
96 1,1,2,2-Tetrachloroethane	83	11.499	11.498	0.001	96	1511708	250.0	213.3	
97 trans-1,4-Dichloro-2-buten	53	11.535	11.534	0.001	83	404523	250.0	266.9	
98 1,2,3-Trichloropropane	110	11.553	11.552	0.001	86	529322	250.0	246.1	
99 N-Propylbenzene	120	11.602	11.601	0.001	94	1357847	250.0	240.9	
100 2-Chlorotoluene	126	11.681	11.680	0.001	96	1195161	250.0	244.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
101 3-Chlorotoluene	126	11.748	11.747	0.001	93	1254125	250.0	244.8	
102 1,3,5-Trimethylbenzene	105	11.785	11.784	0.001	95	3460126	250.0	216.2	
103 4-Chlorotoluene	126	11.809	11.808	0.001	98	1276343	250.0	239.5	
104 tert-Butylbenzene	119	12.095	12.094	0.001	90	2853353	250.0	224.6	
106 1,2,4-Trimethylbenzene	105	12.156	12.155	0.001	96	3543615	250.0	212.4	
107 1,2-dichloro-4-(trifluorom	214	12.204	12.203	0.001	95	945109	250.0	255.3	
108 sec-Butylbenzene	105	12.320	12.319	0.001	95	3747062	250.0	210.2	
109 1,3-Dichlorobenzene	146	12.435	12.435	0.000	93	2104721	250.0	226.3	
110 4-Isopropyltoluene	119	12.478	12.477	0.001	92	3181497	250.0	216.2	
111 1,4-Dichlorobenzene	146	12.539	12.538	0.001	90	2173124	250.0	225.9	
113 2,4-Dichloro-1-(trifluorom	214	12.569	12.568	0.001	94	924522	250.0	265.0	
114 2,5-Dichlorobenzotrifluori	214	12.612	12.611	0.001	96	942783	250.0	244.8	
116 n-Butylbenzene	91	12.886	12.885	0.001	93	2958420	250.0	220.4	
117 1,2-Dichlorobenzene	146	12.892	12.891	0.001	93	2026312	250.0	229.1	
118 1,2-Dibromo-3-Chloropropan	75	13.683	13.682	0.001	82	232535	250.0	294.9	
119 2,4- & 2,5- & 2,6- Dichlor	125	13.823	13.822	0.000	94	4027755	750.0	714.9	
121 2,3- & 3,4- Dichlorotoluen	125	14.236	14.235	0.001	96	3139946	500.0	510.2	
122 1,2,4-Trichlorobenzene	180	14.498	14.503	-0.005	95	1247374	250.0	269.9	
123 Hexachlorobutadiene	225	14.650	14.649	0.001	95	411971	250.0	281.5	
124 Naphthalene	128	14.759	14.765	-0.006	99	3337709	250.0	236.9	
125 1,2,3-Trichlorobenzene	180	14.984	14.984	0.000	94	1193234	250.0	287.5	
126 2,4,5-Trichlorotoluene	159	15.781	15.780	0.001	0	796492	250.0	333.7	
127 2,3,6-Trichlorotoluene	159	15.885	15.884	0.001	96	697018	250.0	325.8	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 131 Xylenes, Total	106				0		500.0	430.1	
S 130 1,2-Dichloroethene, Total	96				0		500.0	499.1	
S 132 1,3-Dichloropropene, Total	1				0		500.0	552.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWEEmix1stR_00009	Amount Added: 10.00	Units: uL
voaWKetmix1st_00004	Amount Added: 10.00	Units: uL
voaWVA1stRest_00016	Amount Added: 10.00	Units: uL
voaWAcro1stRe_00016	Amount Added: 11.00	Units: uL
VOA8260VOAPRI_00263	Amount Added: 10.00	Units: uL
voaW2clev1stR_00013	Amount Added: 10.00	Units: uL
VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260SURR_00071	Amount Added: 10.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D10.D

Injection Date: 24-Jul-2017 09:28:30

Instrument ID: CHHP6

Operator ID: 034635

Lims ID: IC VSTD50

Worklist Smp#: 10

Client ID:

Purge Vol: 5.000 mL

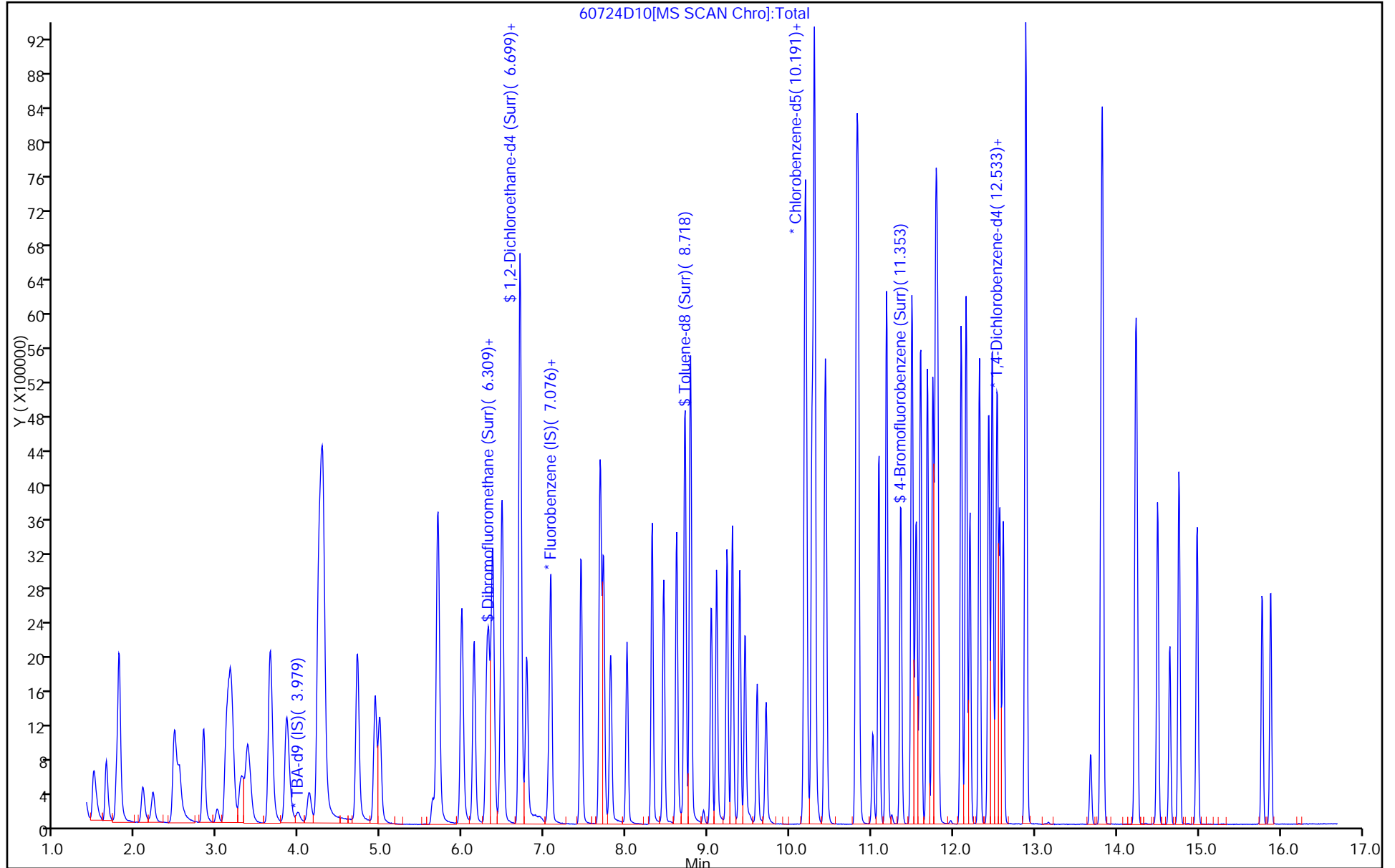
Dil. Factor: 1.0000

ALS Bottle#: 10

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-227028/3 Calibration Date: 10/26/2017 10:50
 Instrument ID: CHHP6 Calib Start Date: 07/24/2017 06:39
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/24/2017 09:28
 Lab File ID: 6102503N.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3191	0.2736	0.1000	8.58	10.0	-14.2	20.0
Chloromethane	Ave	0.2869	0.2817	0.1000	9.82	10.0	-1.8	20.0
Vinyl chloride	Ave	0.3008	0.2506	0.1000	8.33	10.0	-16.7	20.0
1,3-Butadiene	Ave	0.2494	0.2057	0.0100	8.25	10.0	-17.5	20.0
Bromomethane	Ave	0.1402	0.0837	0.0500	5.97	10.0	-40.3*	20.0
Chloroethane	Ave	0.1625	0.1596	0.0500	9.82	10.0	-1.8	20.0
Trichlorofluoromethane	Ave	0.2961	0.3998	0.1000	13.5	10.0	35.0*	20.0
Ethyl ether	Ave	0.2534	0.2710	0.0100	10.7	10.0	6.9	20.0
Acrolein	Ave	0.0543	0.0550	0.0100	30.4	30.0	1.3	20.0
1,1-Dichloroethene	Ave	0.2599	0.2534	0.1000	9.75	10.0	-2.5	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2490	0.2574	0.1000	10.3	10.0	3.4	20.0
Acetone	Ave	0.1073	0.1028	0.0500	19.2	20.0	-4.1	20.0
Iodomethane	Ave	0.3654	0.4758	0.0100	13.0	10.0	30.2*	20.0
Carbon disulfide	Ave	0.5787	0.5186	0.1000	8.96	10.0	-10.4	20.0
Allyl chloride	Ave	0.1522	0.1538	0.0100	10.1	10.0	1.1	20.0
Methyl acetate	Ave	0.2351	0.1628	0.1000	13.8	20.0	-30.8*	20.0
Methylene Chloride	Ave	0.3444	0.3667	0.1000	10.6	10.0	6.5	20.0
tert-Butyl alcohol	Ave	1.107	1.314	0.0100	119	100	18.7	20.0
Acrylonitrile	Ave	0.1256	0.0799	0.0100	63.6	100	-36.4*	20.0
trans-1,2-Dichloroethene	Ave	0.2948	0.3214	0.1000	10.9	10.0	9.0	20.0
Methyl tert-butyl ether	Ave	0.9429	0.8235	0.1000	8.73	10.0	-12.7	20.0
Hexane	Ave	0.3492	0.2685	0.0100	7.69	10.0	-23.1*	20.0
1,1-Dichloroethane	Ave	0.4797	0.5139	0.2000	10.7	10.0	7.1	20.0
Vinyl acetate	Ave	0.5586	0.5266	0.0100	9.43	10.0	-5.7	20.0
2,2-Dichloropropane	Ave	0.0497	0.0718	0.0100	14.5	10.0	44.5*	20.0
cis-1,2-Dichloroethene	Ave	0.3444	0.3820	0.1000	11.1	10.0	10.9	20.0
2-Butanone (MEK)	Ave	0.1538	0.1621	0.0500	21.1	20.0	5.4	20.0
Bromochloromethane	Ave	0.1503	0.1674	0.0100	11.1	10.0	11.4	20.0
Tetrahydrofuran	Ave	0.1041	0.0574	0.0100	11.0	20.0	-44.8*	20.0
Chloroform	Ave	0.5173	0.5664	0.2000	11.0	10.0	9.5	20.0
1,1,1-Trichloroethane	Ave	0.3287	0.3907	0.1000	11.9	10.0	18.8	20.0
Cyclohexane	Ave	0.4671	0.4148	0.1000	8.88	10.0	-11.2	20.0
Carbon tetrachloride	Ave	0.2365	0.2970	0.1000	12.6	10.0	25.6*	20.0
1,1-Dichloropropene	Ave	0.3960	0.3695	0.0100	9.33	10.0	-6.7	20.0
Benzene	Ave	1.152	1.223	0.5000	10.6	10.0	6.2	20.0
Isobutyl alcohol	Ave	0.0069	0.0051*	0.0100	184	250	-26.5*	20.0
1,2-Dichloroethane	Ave	0.4258	0.3877	0.1000	9.11	10.0	-8.9	20.0
n-Heptane	Ave	0.2658	0.1873	0.0100	7.05	10.0	-29.5*	20.0
Trichloroethene	Ave	0.2800	0.3094	0.2000	11.0	10.0	10.5	20.0
Methylcyclohexane	Ave	0.4889	0.3876	0.1000	7.93	10.0	-20.7*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-227028/3 Calibration Date: 10/26/2017 10:50
 Instrument ID: CHHP6 Calib Start Date: 07/24/2017 06:39
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/24/2017 09:28
 Lab File ID: 6102503N.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2881	0.2912	0.1000	10.1	10.0	1.1	20.0
1,4-Dioxane	Ave	0.0026	0.0021*	0.0100	158	200	-20.8*	20.0
Dibromomethane	Ave	0.1884	0.1642	0.0100	8.72	10.0	-12.8	20.0
Bromodichloromethane	Ave	0.3208	0.3220	0.2000	10.0	10.0	0.4	20.0
2-Chloroethyl vinyl ether	Ave	0.1909	0.2197	0.0100	23.0	20.0	15.1	20.0
cis-1,3-Dichloropropene	Ave	0.3639	0.3777	0.2000	10.4	10.0	3.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.277	1.382	0.1000	21.7	20.0	8.3	20.0
Toluene	Ave	4.927	5.057	0.4000	10.3	10.0	2.6	20.0
trans-1,3-Dichloropropene	Ave	1.320	1.242	0.1000	9.41	10.0	-5.9	20.0
Ethyl methacrylate	Ave	1.663	1.276	0.0100	7.67	10.0	-23.3*	20.0
1,1,2-Trichloroethane	Ave	1.140	0.9659	0.1000	8.47	10.0	-15.3	20.0
Tetrachloroethene	Ave	0.8822	0.8925	0.2000	10.1	10.0	1.2	20.0
1,3-Dichloropropane	Ave	2.067	1.726	0.0100	8.35	10.0	-16.5	20.0
2-Hexanone	Ave	0.8218	0.9529	0.1000	23.2	20.0	16.0	20.0
Dibromochloromethane	Ave	0.7724	0.7916	0.1000	10.2	10.0	2.5	20.0
1,2-Dibromoethane (EDB)	Ave	1.097	0.9240	0.1000	8.43	10.0	-15.7	20.0
3-Chlorobenzotrifluoride	Ave	1.432	1.684	0.0100	11.8	10.0	17.6	20.0
Chlorobenzene	Ave	3.204	3.541	0.5000	11.1	10.0	10.5	20.0
4-Chlorobenzotrifluoride	Ave	1.328	1.539	0.0100	11.6	10.0	15.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.9111	1.110	0.0100	12.2	10.0	21.8*	20.0
Ethylbenzene	Ave	1.833	1.901	0.1000	10.4	10.0	3.7	20.0
m-Xylene & p-Xylene	Ave	2.246	2.363	0.1000	10.5	10.0	5.2	20.0
o-Xylene	Ave	2.251	2.413	0.3000	10.7	10.0	7.2	20.0
Styrene	Ave	3.641	3.977	0.3000	10.9	10.0	9.2	20.0
Bromoform	Ave	0.4347	0.3693	0.1000	8.49	10.0	-15.1	20.0
2-Chlorobenzotrifluoride	Ave	1.452	1.795	0.0100	12.4	10.0	23.6*	20.0
Isopropylbenzene	Ave	5.039	5.170	0.1000	10.3	10.0	2.6	20.0
Bromobenzene	Ave	0.9293	0.9900	0.0100	10.7	10.0	6.5	20.0
1,1,2,2-Tetrachloroethane	Ave	1.604	1.121	0.3000	6.99	10.0	-30.1*	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2720	0.1617	0.0100	5.95	10.0	-40.5*	20.0
1,2,3-Trichloropropane	Ave	0.3860	0.2549	0.0100	6.60	10.0	-34.0*	20.0
N-Propylbenzene	Ave	1.011	0.9789	0.0100	9.68	10.0	-3.2	20.0
2-Chlorotoluene	Ave	0.8762	0.9144	0.0100	10.4	10.0	4.4	20.0
3-Chlorotoluene	Ave	0.9194	1.058	0.0100	11.5	10.0	15.1	20.0
1,3,5-Trimethylbenzene	Ave	2.872	2.841	0.0100	9.89	10.0	-1.1	20.0
4-Chlorotoluene	Ave	0.9565	0.9780	0.0100	10.2	10.0	2.3	20.0
tert-Butylbenzene	Ave	2.280	2.246	0.0100	9.85	10.0	-1.5	20.0
1,2,4-Trimethylbenzene	Ave	2.994	3.046	0.0100	10.2	10.0	1.7	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.6644	0.7058	0.0100	10.6	10.0	6.2	20.0
sec-Butylbenzene	Ave	3.198	2.969	0.0100	9.28	10.0	-7.2	20.0
1,3-Dichlorobenzene	Ave	1.669	1.809	0.6000	10.8	10.0	8.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-227028/3 Calibration Date: 10/26/2017 10:50
 Instrument ID: CHHP6 Calib Start Date: 07/24/2017 06:39
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/24/2017 09:28
 Lab File ID: 6102503N.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	2.641	2.666	0.0100	10.1	10.0	1.0	20.0
1,4-Dichlorobenzene	Ave	1.726	1.877	0.5000	10.9	10.0	8.7	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.6261	0.7054	0.0100	11.3	10.0	12.7	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.6911	0.7867	0.0100	11.4	10.0	13.8	20.0
n-Butylbenzene	Ave	2.409	2.112	0.0100	8.77	10.0	-12.3	20.0
1,2-Dichlorobenzene	Ave	1.587	1.747	0.4000	11.0	10.0	10.1	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1415	0.0723	0.0500	5.11	10.0	-48.9*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.011	1.199	0.0100	35.6	30.0	18.6	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.104	1.302	0.0100	23.6	20.0	17.9	20.0
1,2,4-Trichlorobenzene	Ave	0.8294	0.8655	0.2000	10.4	10.0	4.4	20.0
Hexachlorobutadiene	Ave	0.2626	0.2866	0.0100	10.9	10.0	9.1	20.0
Naphthalene	Ave	2.528	1.744	0.0100	6.90	10.0	-31.0*	20.0
1,2,3-Trichlorobenzene	Ave	0.7447	0.6932	0.0100	9.31	10.0	-6.9	20.0
2,4,5-Trichlorotoluene	Ave	0.4283	0.3903	0.0100	9.11	10.0	-8.9	20.0
2,3,6-Trichlorotoluene	Ave	0.3839	0.3778	0.0100	9.84	10.0	-1.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2598	0.2957		11.4	10.0	13.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3713	0.3311		8.92	10.0	-10.8	20.0
Toluene-d8 (Surr)	Lin2		4.310		10.8	10.0	7.9	20.0
4-Bromofluorobenzene (Surr)	Ave	1.726	1.789		10.4	10.0	3.6	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102503N.D
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 26-Oct-2017 10:50:30 ALS Bottle#: 3 Worklist Smp#: 3
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019043-003
 Misc. Info.: CCVIS
 Operator ID: 034635 Instrument ID: CHHP6
 Sublist: chrom-MSVOA_LL_CHHP6*sub10
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 26-Oct-2017 16:26:23 Calib Date: 28-Sep-2017 15:13:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK032

First Level Reviewer: journetp

Date: 26-Oct-2017 12:05:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	3.966	3.966	0.000	94	211248	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.045	7.045	0.000	99	911595	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.166	10.166	0.000	85	233174	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.508	12.508	0.000	92	365626	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.315	6.315	0.000	93	269578	50.0	56.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.686	6.686	0.000	70	301806	50.0	44.6	
\$ 7 Toluene-d8 (Surr)	98	8.712	8.712	0.000	93	1004976	50.0	54.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.352	11.352	0.000	89	417088	50.0	51.8	
11 Dichlorodifluoromethane	85	1.466	1.466	0.000	99	249422	50.0	42.9	
12 Chloromethane	50	1.624	1.624	0.000	99	256802	50.0	49.1	
13 Vinyl chloride	62	1.740	1.740	0.000	98	228418	50.0	41.7	
14 Butadiene	39	1.783	1.783	0.000	93	187473	50.0	41.2	
15 Bromomethane	94	2.056	2.056	0.000	88	76309	50.0	29.9	
16 Chloroethane	64	2.178	2.178	0.000	98	145504	50.0	49.1	
17 Dichlorofluoromethane	67	2.452	2.452	0.000	94	382732	50.0	59.9	
18 Trichlorofluoromethane	101	2.458	2.458	0.000	81	364450	50.0	67.5	
20 Ethyl ether	59	2.823	2.823	0.000	87	247036	50.0	53.5	
21 Acrolein	56	2.987	2.987	0.000	100	150394	150.0	152.0	
22 1,1-Dichloroethene	96	3.090	3.090	0.000	98	230993	50.0	48.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.151	3.151	0.000	92	234649	50.0	51.7	
24 Acetone	43	3.182	3.182	0.000	98	187491	100.0	95.9	
25 Iodomethane	142	3.273	3.273	0.000	98	433698	50.0	65.1	
26 Carbon disulfide	76	3.358	3.358	0.000	99	472790	50.0	44.8	
29 3-Chloro-1-propene	76	3.632	3.632	0.000	91	140218	50.0	50.5	
30 Methyl acetate	43	3.644	3.644	0.000	97	296840	100.0	69.2	
31 Methylene Chloride	84	3.833	3.833	0.000	89	334254	50.0	53.2	
32 2-Methyl-2-propanol	59	4.112	4.112	0.000	93	138741	500.0	593.4	
33 Acrylonitrile	53	4.228	4.228	0.000	99	728094	500.0	317.9	
34 trans-1,2-Dichloroethene	96	4.265	4.265	0.000	98	292971	50.0	54.5	
35 Methyl tert-butyl ether	73	4.283	4.283	0.000	95	750663	50.0	43.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.696	4.696	0.000	91	244779	50.0	38.4	
37 1,1-Dichloroethane	63	4.922	4.922	0.000	96	468455	50.0	53.6	
38 Vinyl acetate	43	4.970	4.970	0.000	97	480060	50.0	47.1	
43 cis-1,2-Dichloroethene	96	5.688	5.688	0.000	79	348207	50.0	55.5	
42 2,2-Dichloropropane	97	5.688	5.688	0.000	64	65438	50.0	72.3	
44 2-Butanone (MEK)	43	5.700	5.700	0.000	98	295501	100.0	105.4	
48 Chlorobromomethane	128	5.980	5.980	0.000	90	152602	50.0	55.7	
49 Tetrahydrofuran	42	5.986	5.986	0.000	77	104706	100.0	55.2	
50 Chloroform	83	6.126	6.126	0.000	93	516344	50.0	54.8	
51 1,1,1-Trichloroethane	97	6.284	6.284	0.000	97	356155	50.0	59.4	
52 Cyclohexane	56	6.351	6.351	0.000	87	378116	50.0	44.4	
53 Carbon tetrachloride	117	6.461	6.461	0.000	97	270773	50.0	62.8	
54 1,1-Dichloropropene	75	6.473	6.473	0.000	96	336827	50.0	46.7	
55 Isobutyl alcohol	41	6.692	6.692	0.000	40	116137	1250.0	918.5	
56 Benzene	78	6.692	6.692	0.000	97	1115331	50.0	53.1	
57 1,2-Dichloroethane	62	6.771	6.771	0.000	98	353463	50.0	45.5	
59 n-Heptane	43	7.069	7.069	0.000	86	170737	50.0	35.2	
61 Trichloroethene	130	7.440	7.440	0.000	98	282003	50.0	55.2	
63 Methylcyclohexane	83	7.677	7.677	0.000	86	353339	50.0	39.6	
64 1,2-Dichloropropane	63	7.714	7.714	0.000	94	265431	50.0	50.5	
67 Dibromomethane	93	7.799	7.799	0.000	94	149703	50.0	43.6	
65 1,4-Dioxane	88	7.799	7.799	0.000	40	37922	1000.0	791.7	
68 Dichlorobromomethane	83	8.000	8.000	0.000	99	293515	50.0	50.2	
70 2-Chloroethyl vinyl ether	63	8.310	8.310	0.000	93	400617	100.0	115.1	
71 cis-1,3-Dichloropropene	75	8.450	8.450	0.000	96	344287	50.0	51.9	
72 4-Methyl-2-pentanone (MIBK)	43	8.608	8.608	0.000	94	644680	100.0	108.3	
73 Toluene	91	8.778	8.778	0.000	99	1179102	50.0	51.3	
74 trans-1,3-Dichloropropene	75	9.034	9.034	0.000	92	289603	50.0	47.1	
75 Ethyl methacrylate	69	9.101	9.101	0.000	87	297544	50.0	38.4	
76 1,1,2-Trichloroethane	97	9.229	9.229	0.000	91	225213	50.0	42.4	
77 Tetrachloroethene	164	9.290	9.290	0.000	97	208095	50.0	50.6	
78 1,3-Dichloropropane	76	9.381	9.381	0.000	89	402438	50.0	41.7	
79 2-Hexanone	43	9.448	9.448	0.000	93	444397	100.0	116.0	
81 Chlorodibromomethane	129	9.600	9.600	0.000	89	184582	50.0	51.2	
82 Ethylene Dibromide	107	9.703	9.703	0.000	97	215459	50.0	42.1	
83 3-Chlorobenzotrifluoride	180	10.178	10.178	0.000	93	392688	50.0	58.8	
84 Chlorobenzene	112	10.196	10.196	0.000	95	825784	50.0	55.3	
85 4-Chlorobenzotrifluoride	180	10.269	10.269	0.000	96	358893	50.0	58.0	
86 1,1,1,2-Tetrachloroethane	131	10.293	10.293	0.000	92	258807	50.0	60.9	
87 Ethylbenzene	106	10.299	10.299	0.000	98	443211	50.0	51.9	
88 m-Xylene & p-Xylene	106	10.433	10.433	0.000	98	550978	50.0	52.6	
89 o-Xylene	106	10.810	10.810	0.000	95	562596	50.0	53.6	
90 Styrene	104	10.835	10.835	0.000	94	927390	50.0	54.6	
91 Bromoform	173	11.011	11.011	0.000	93	86101	50.0	42.5	
92 2-Chlorobenzotrifluoride	180	11.084	11.084	0.000	97	418494	50.0	61.8	
93 Isopropylbenzene	105	11.181	11.181	0.000	96	1205587	50.0	51.3	
95 Bromobenzene	156	11.486	11.486	0.000	93	361982	50.0	53.3	
96 1,1,2,2-Tetrachloroethane	83	11.498	11.498	0.000	95	261414	50.0	34.9	
97 trans-1,4-Dichloro-2-buten	53	11.528	11.528	0.000	75	59132	50.0	29.7	
98 1,2,3-Trichloropropane	110	11.546	11.546	0.000	84	93182	50.0	33.0	
99 N-Propylbenzene	120	11.595	11.595	0.000	97	357896	50.0	48.4	
100 2-Chlorotoluene	126	11.680	11.680	0.000	97	334340	50.0	52.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
101 3-Chlorotoluene	126	11.747	11.747	0.000	95	386889	50.0	57.5	
102 1,3,5-Trimethylbenzene	105	11.778	11.778	0.000	94	1038644	50.0	49.5	
103 4-Chlorotoluene	126	11.802	11.802	0.000	98	357579	50.0	51.1	
104 tert-Butylbenzene	119	12.094	12.094	0.000	92	821285	50.0	49.3	
106 1,2,4-Trimethylbenzene	105	12.149	12.149	0.000	97	1113738	50.0	50.9	
107 1,2-dichloro-4-(trifluorom	214	12.197	12.197	0.000	96	258071	50.0	53.1	
108 sec-Butylbenzene	105	12.313	12.313	0.000	94	1085591	50.0	46.4	
109 1,3-Dichlorobenzene	146	12.429	12.429	0.000	97	661568	50.0	54.2	
110 4-Isopropyltoluene	119	12.471	12.471	0.000	96	974854	50.0	50.5	
111 1,4-Dichlorobenzene	146	12.532	12.532	0.000	95	686226	50.0	54.4	
113 2,4-Dichloro-1-(trifluorom	214	12.562	12.562	0.000	96	257916	50.0	56.3	
114 2,5-Dichlorobenzotrifluori	214	12.605	12.605	0.000	98	287620	50.0	56.9	
116 n-Butylbenzene	91	12.879	12.879	0.000	97	772228	50.0	43.8	
117 1,2-Dichlorobenzene	146	12.885	12.885	0.000	96	638786	50.0	55.0	
118 1,2-Dibromo-3-Chloropropan	75	13.676	13.676	0.000	78	26449	50.0	25.6	
119 2,4- & 2,5- & 2,6- Dichlor	125	13.816	13.816	0.000	98	1315584	150.0	178.0	
121 2,3- & 3,4- Dichlorotoluen	125	14.229	14.229	0.000	98	952382	100.0	117.9	
122 1,2,4-Trichlorobenzene	180	14.497	14.497	0.000	94	316463	50.0	52.2	
123 Hexachlorobutadiene	225	14.643	14.643	0.000	96	104788	50.0	54.6	
124 Naphthalene	128	14.759	14.759	0.000	97	637583	50.0	34.5	
125 1,2,3-Trichlorobenzene	180	14.978	14.978	0.000	93	253464	50.0	46.5	
126 2,4,5-Trichlorotoluene	159	15.774	15.774	0.000	0	142708	50.0	45.6	
127 2,3,6-Trichlorotoluene	159	15.872	15.872	0.000	96	138119	50.0	49.2	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	110.0	
S 131 Xylenes, Total	106				0		100.0	106.2	
S 132 1,3-Dichloropropene, Total	1				0		100.0	99.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWKet2ndRes_00022	Amount Added: 2.00	Units: uL	
voaWVA1stRest_00021	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00021	Amount Added: 6.00	Units: uL	
voaWEEmix1stR_00014	Amount Added: 2.00	Units: uL	
VOA8260VOAPRI_00268	Amount Added: 2.00	Units: uL	
voaW2clev1stR_00023	Amount Added: 2.00	Units: uL	
VOA8260INT_00075	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102503N.D

Injection Date: 26-Oct-2017 10:50:30

Instrument ID: CHHP6

Operator ID: 034635

Lims ID: CCVIS

Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL

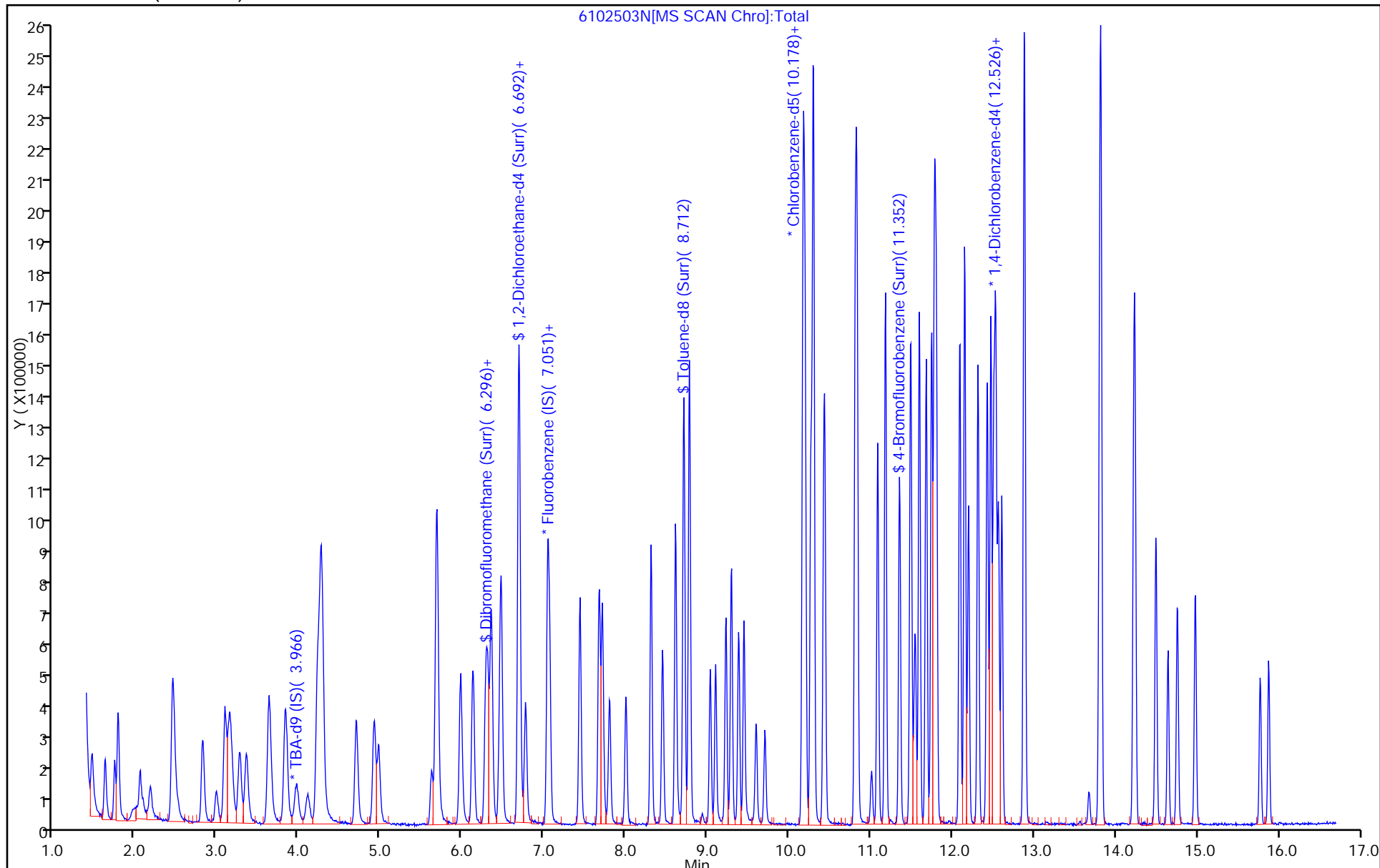
Dil. Factor: 1.0000

ALS Bottle#: 3

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D01.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 24-Jul-2017 04:58:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Sample Info: 180-0017705-001
 Misc. Info.: BFB
 Operator ID: 034635 Instrument ID: CHHP6
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 25-Jul-2017 01:44:23 Calib Date: 24-Jul-2017 09:28:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D10.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK021

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
\$ 10 BFB	95	8.182	8.182	0.000	0	80019	NR	NR	

QC Flag Legend

Processing Flags
 NR - Missing Quant Standard

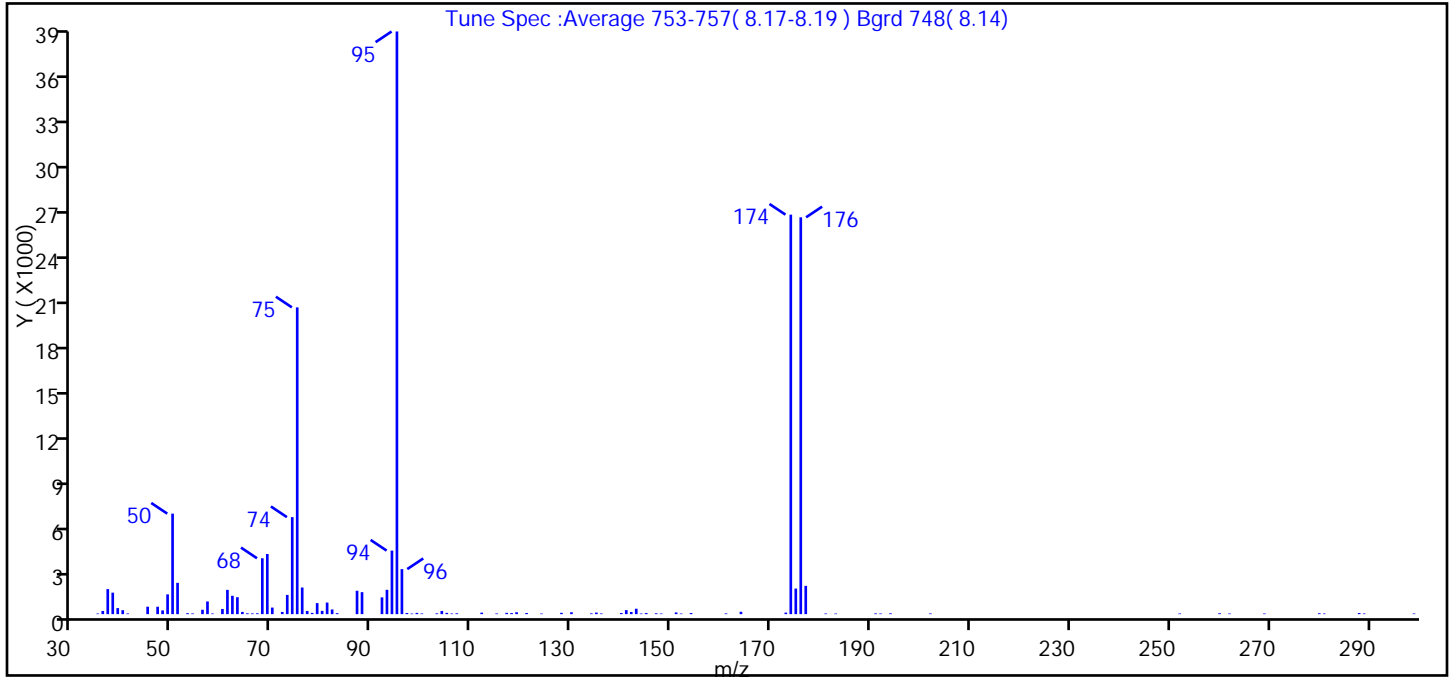
Reagents:

VOABFB25_00090 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D01.D
 Injection Date: 24-Jul-2017 04:58:30 Instrument ID: CHHP6
 Lims ID: BFB
 Client ID:
 Operator ID: 034635 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
 Tune Method: BFB Method 8260

\$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	17.3
75	30 to 60% of m/z 95	52.6
96	5 to 9% of m/z 95	7.7
173	Less than 2% of m/z 174	0.3 (0.4)
174	50 to 120% of m/z 95	68.6
175	5 to 9% of m/z 174	4.4 (6.4)
176	Greater than 95% but less than 101% of m/z 174	68.1 (99.3)
177	5 to 9% of m/z 176	4.9 (7.1)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D01.D\MSVOA_LL_CHHP6.rsl\spec
 Injection Date: 24-Jul-2017 04:58:30
 Spectrum: Tune Spec :Average 753-757(8.17-8.19) Bgrd 748(8.14)
 Base Peak: 95.00
 Minimum % Base Peak: 0
 Number of Points: 102

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	41	68.00	3693	103.00	52	152.00	40
36.00	211	69.00	3974	104.00	211	154.00	76
37.00	1655	70.00	433	105.00	85	161.00	49
38.00	1420	72.00	145	106.00	41	164.00	157
39.00	400	73.00	1271	107.00	54	173.00	103
40.00	262	74.00	6411	112.00	99	174.00	26400
41.00	45	75.00	20272	115.00	45	175.00	1689
45.00	492	76.00	1760	117.00	85	176.00	26224
47.00	490	77.00	205	118.00	72	177.00	1870
48.00	248	78.00	83	119.00	127	181.00	43
49.00	1307	79.00	730	121.00	74	183.00	41
50.00	6642	80.00	217	124.00	40	191.00	49
51.00	2068	81.00	766	128.00	87	192.00	42
53.00	63	82.00	309	130.00	124	194.00	54
54.00	47	83.00	65	134.00	50	202.00	45
56.00	292	87.00	1545	135.00	104	252.00	43
57.00	839	88.00	1453	136.00	44	260.00	58
58.00	42	92.00	1107	140.00	73	262.00	42
60.00	343	93.00	1608	141.00	265	269.00	42
61.00	1604	94.00	4199	142.00	143	280.00	58
62.00	1212	95.00	38504	143.00	358	281.00	40
63.00	1119	96.00	2976	144.00	40	288.00	73
64.00	149	97.00	76	145.00	73	289.00	43
65.00	56	98.00	40	147.00	56	299.00	42
66.00	47	99.00	82	148.00	40		
67.00	56	100.00	44	151.00	113		

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D01.D

Injection Date: 24-Jul-2017 04:58:30

Instrument ID: CHHP6

Operator ID: 034635

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

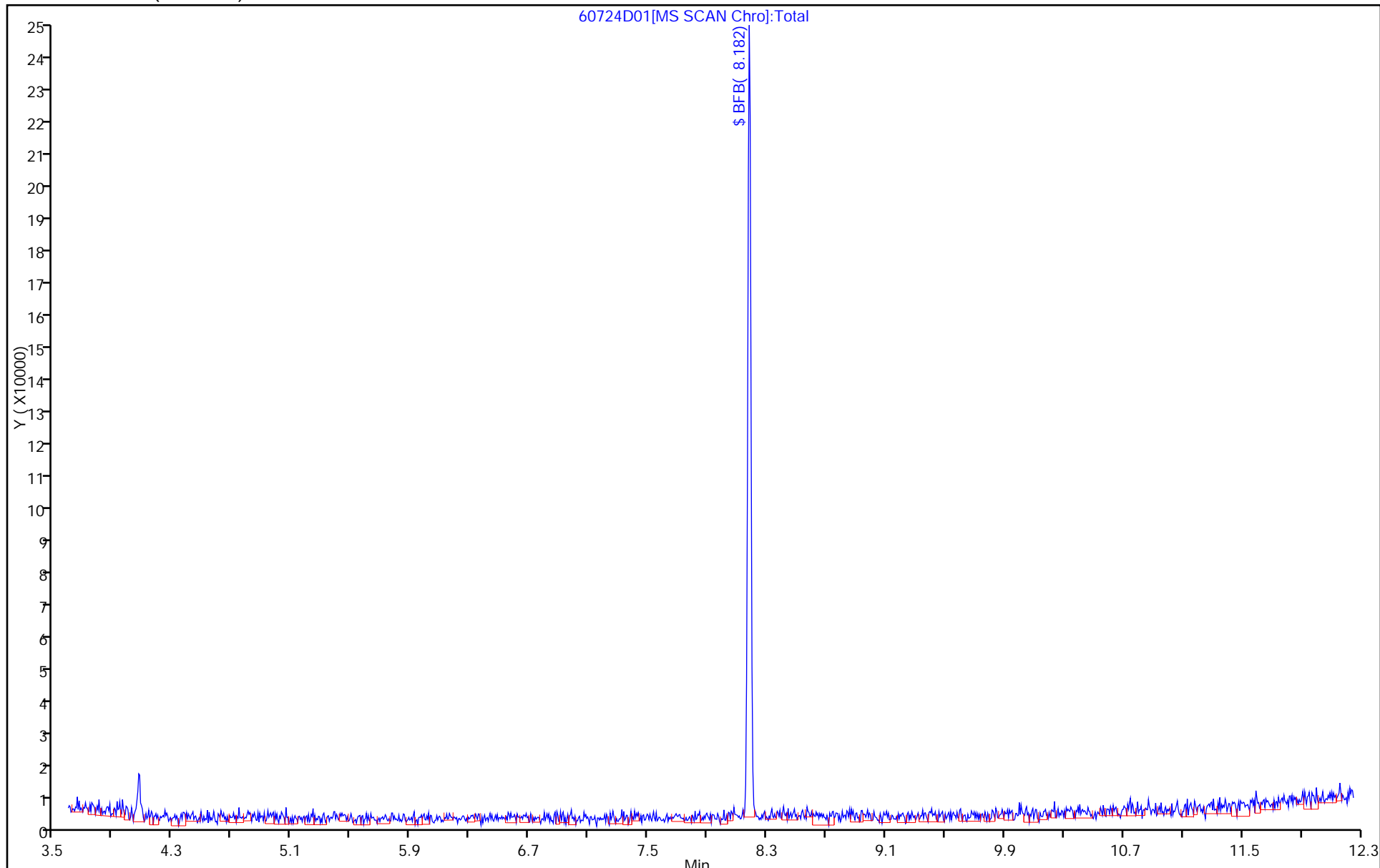
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102501N.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 26-Oct-2017 07:52:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Sample Info: 180-0019043-001
 Misc. Info.: BFB
 Operator ID: 034635 Instrument ID: CHHP6
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 26-Oct-2017 16:26:21 Calib Date: 28-Sep-2017 15:13:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK032

First Level Reviewer: journetp Date: 26-Oct-2017 08:28:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
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\$ 10 BFB	95	8.181	8.181	0.000	0	1010739	NR	NR	
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QC Flag Legend

Processing Flags

NR - Missing Quant Standard

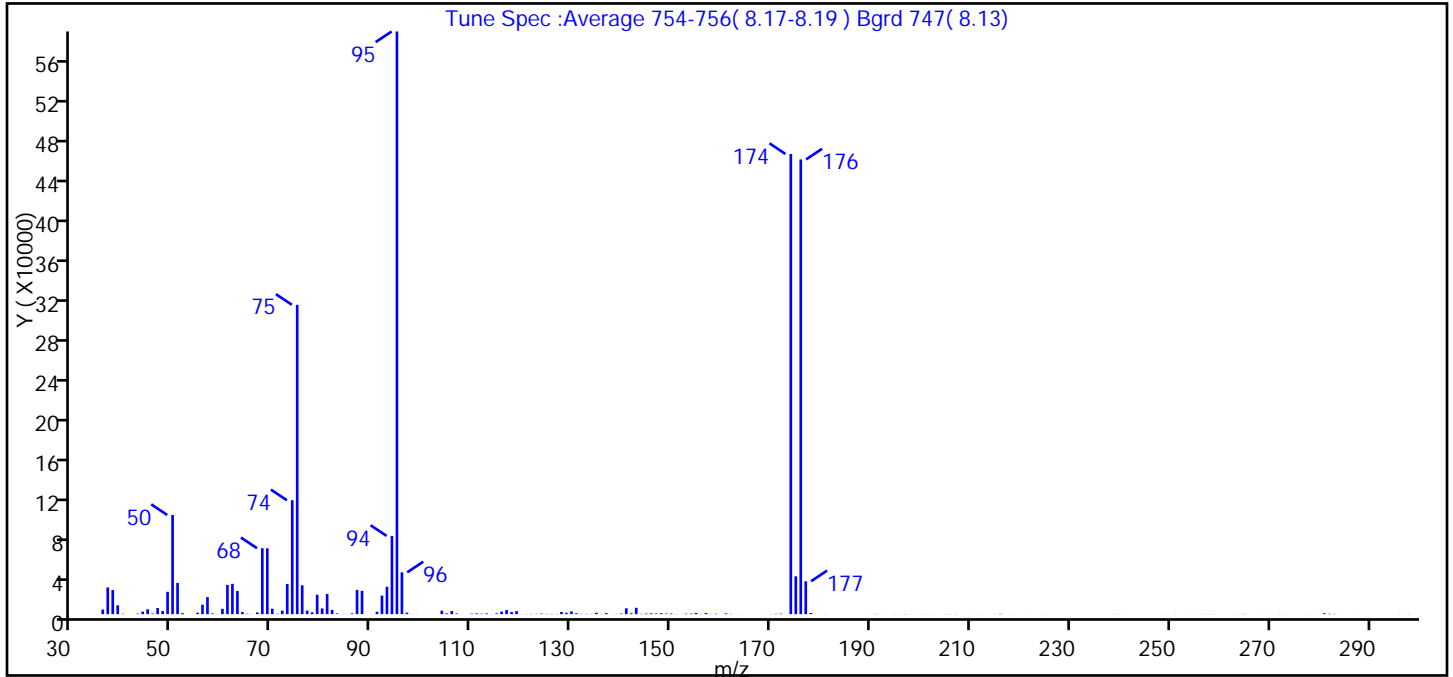
Reagents:

VOABFB25_00094 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102501N.D
 Injection Date: 26-Oct-2017 07:52:30 Instrument ID: CHHP6
 Lims ID: BFB
 Client ID:
 Operator ID: 034635 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
 Tune Method: BFB Method 8260

\$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	17.0
75	30 to 60% of m/z 95	53.1
96	5 to 9% of m/z 95	7.2
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	79.0
175	5 to 9% of m/z 174	6.5 (8.2)
176	Greater than 95% but less than 101% of m/z 174	78.0 (98.8)
177	5 to 9% of m/z 176	5.6 (7.2)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102501N.D\MSVOA_LL_CHHP6.rsl\spec
 Injection Date: 26-Oct-2017 07:52:30
 Spectrum: Tune Spec :Average 754-756(8.17-8.19) Bgrd 747(8.13)
 Base Peak: 95.00
 Minimum % Base Peak: 0
 Number of Points: 166

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	4626	82.00	4241	131.00	876	192.00	81
37.00	26680	83.00	715	132.00	281	195.00	109
38.00	24048	84.00	134	133.00	303	196.00	78
39.00	8845	85.00	99	134.00	153	197.00	137
40.00	396	86.00	777	135.00	1340	200.00	83
43.00	505	87.00	24224	136.00	144	201.00	74
44.00	2510	88.00	23248	137.00	1058	202.00	84
45.00	4851	90.00	73	138.00	71	205.00	78
46.00	579	91.00	2354	139.00	198	206.00	98
47.00	6118	92.00	18504	140.00	576	207.00	116
48.00	3082	93.00	27336	141.00	5823	209.00	33
49.00	22328	94.00	78088	142.00	855	211.00	76
50.00	98992	95.00	581760	143.00	6322	212.00	84
51.00	31192	96.00	41752	144.00	264	215.00	77
52.00	1028	97.00	1535	145.00	573	216.00	291
55.00	1504	98.00	85	146.00	820	218.00	73
56.00	9444	99.00	90	147.00	651	219.00	79
57.00	17016	104.00	3428	148.00	967	222.00	73
58.00	678	105.00	766	149.00	513	225.00	78
59.00	90	106.00	3047	150.00	645	239.00	100
60.00	5307	107.00	640	151.00	153	240.00	106
61.00	29176	110.00	465	153.00	471	249.00	82
62.00	30256	111.00	696	154.00	574	251.00	90
63.00	23072	112.00	450	155.00	1253	253.00	70
64.00	2071	113.00	749	156.00	146	256.00	97
65.00	388	114.00	85	157.00	1108	257.00	103
66.00	89	115.00	780	158.00	130	258.00	74
67.00	1668	116.00	2540	159.00	392	259.00	97
68.00	65824	117.00	4079	161.00	767	263.00	84
69.00	65728	118.00	2117	162.00	212	265.00	223
70.00	5398	119.00	2992	164.00	82	269.00	73
71.00	347	120.00	68	170.00	150	272.00	94
72.00	3503	121.00	161	171.00	397	273.00	72

Report Date: 26-Oct-2017 16:26:22

Chrom Revision: 2.2 16-Aug-2017 16:24:46

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102501N.D\MSVOA_LL_CHHP6.rsl\spec

Injection Date: 26-Oct-2017 07:52:30

Spectrum: Tune Spec :Average 754-756(8.17-8.19) Bgrd 747(8.13)

Base Peak: 95.00

Minimum % Base Peak: 0

Number of Points: 166

m/z	Y	m/z	Y	m/z	Y	m/z	Y
73.00	30128	122.00	251	172.00	501	278.00	72
74.00	113704	123.00	260	174.00	459456	281.00	862
75.00	308864	124.00	539	175.00	37752	282.00	363
76.00	28784	125.00	219	176.00	454016	283.00	266
77.00	3552	126.00	291	177.00	32840	288.00	71
78.00	1802	127.00	160	178.00	1203	296.00	76
79.00	19352	128.00	2245	179.00	81	298.00	153
80.00	5718	129.00	1359	181.00	81		
81.00	20168	130.00	2708	191.00	211		

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102501N.D

Injection Date: 26-Oct-2017 07:52:30

Instrument ID: CHHP6

Operator ID: 034635

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

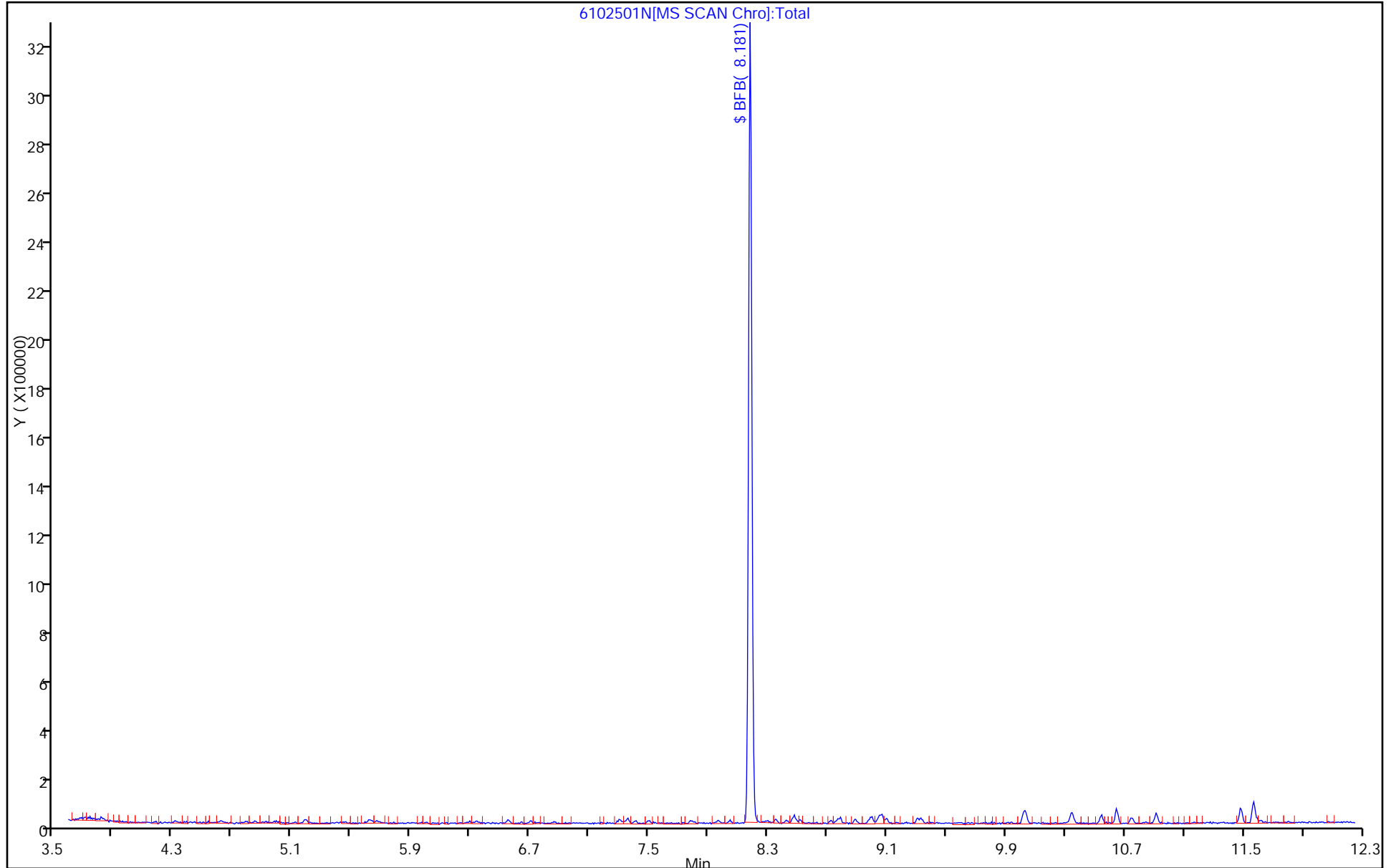
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 180-227028/7
 Matrix: Water Lab File ID: 6102507N.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/26/2017 13:04
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 227028 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.90
75-01-4	Vinyl chloride	1.0	U	1.0	0.88
74-83-9	Bromomethane	1.0	U	1.0	0.89
75-00-3	Chloroethane	1.0	U	1.0	0.90
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.55
67-64-1	Acetone	5.0	U	5.0	3.4
75-15-0	Carbon disulfide	1.0	U	1.0	0.88
75-09-2	Methylene Chloride	1.0	U	1.0	0.36
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.67
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.59
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.63
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.71
74-97-5	Bromochloromethane	1.0	U	1.0	0.63
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.60
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.60
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.88
71-43-2	Benzene	1.0	U	1.0	0.60
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.57
79-01-6	Trichloroethene	1.0	U	1.0	0.69
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.66
75-27-4	Bromodichloromethane	1.0	U	1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1
108-88-3	Toluene	1.0	U	1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.58
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.45
127-18-4	Tetrachloroethene	1.0	U	1.0	0.47
591-78-6	2-Hexanone	5.0	U	5.0	3.3
124-48-1	Dibromochloromethane	1.0	U	1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50
108-90-7	Chlorobenzene	1.0	U	1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57
100-41-4	Ethylbenzene	1.0	U	1.0	0.51
1330-20-7	Xylenes, Total	2.0	U	2.0	0.89
100-42-5	Styrene	1.0	U	1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 180-227028/7
 Matrix: Water Lab File ID: 6102507N.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/26/2017 13:04
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 227028 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60
107-13-1	Acrylonitrile	20	U	20	7.8
123-91-1	1,4-Dioxane	200	U	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	69		65-121
2037-26-5	Toluene-d8 (Surr)	87		73-120
460-00-4	4-Bromofluorobenzene (Surr)	83		80-120
1868-53-7	Dibromofluoromethane (Surr)	85		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102507N.D
 Lims ID: mb
 Client ID:
 Sample Type: MB
 Inject. Date: 26-Oct-2017 13:04:30 ALS Bottle#: 7 Worklist Smp#: 7
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019043-007
 Misc. Info.: mb
 Operator ID: 034635 Instrument ID: CHHP6
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 26-Oct-2017 16:26:29 Calib Date: 28-Sep-2017 15:13:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK032

First Level Reviewer: journey

Date: 26-Oct-2017 14:39:49

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	3.961	3.950	0.011	90	170459	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.046	7.046	0.000	99	907213	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.173	10.167	0.006	86	254067	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.509	12.509	0.000	96	376501	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.310	6.310	0.000	93	199879	50.0	42.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.693	6.687	0.006	70	231292	50.0	34.3	
\$ 7 Toluene-d8 (Surr)	98	8.713	8.713	0.000	93	889973	50.0	43.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.353	11.353	0.000	88	365317	50.0	41.6	
11 Dichlorodifluoromethane	85		1.468					ND	
12 Chloromethane	50		1.626					ND	
13 Vinyl chloride	62		1.741					ND	
14 Butadiene	39		1.790					ND	
15 Bromomethane	94		2.076					ND	
16 Chloroethane	64		2.198					ND	
17 Dichlorofluoromethane	67		2.459					ND	
18 Trichlorofluoromethane	101		2.471					ND	
20 Ethyl ether	59		2.818					ND	
19 Ethanol	45		2.823					ND	
21 Acrolein	56		2.982					ND	
22 1,1-Dichloroethene	96		3.098					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.153					ND	
24 Acetone	43		3.177					ND	
25 Iodomethane	142		3.274					ND	
26 Carbon disulfide	76		3.360					ND	
27 Isopropyl alcohol	45		3.433					ND	
28 Acetonitrile	41		3.573					ND	
29 3-Chloro-1-propene	76		3.633					ND	
30 Methyl acetate	43		3.645					ND	
31 Methylene Chloride	84		3.834					ND	
32 2-Methyl-2-propanol	59		4.102					ND	
33 Acrylonitrile	53		4.236					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.278					ND	
35 Methyl tert-butyl ether	73		4.284					ND	
36 Hexane	57		4.710					ND	
37 1,1-Dichloroethane	63		4.923					ND	
38 Vinyl acetate	43		4.972					ND	
39 2-Chloro-1,3-butadiene	53		5.021					ND	
40 Isopropyl ether	45		5.021					ND	
41 Tert-butyl ethyl ether	59		5.507					ND	
43 cis-1,2-Dichloroethene	96		5.690					ND	
42 2,2-Dichloropropane	97		5.696					ND	
44 2-Butanone (MEK)	43		5.702					ND	
45 Propionitrile	54		5.769					ND	
46 Ethyl acetate	43		5.775					ND	
47 Methacrylonitrile	41		5.952					ND	
48 Chlorobromomethane	128		5.975					ND	
49 Tetrahydrofuran	42		5.988					ND	
50 Chloroform	83		6.128					ND	
51 1,1,1-Trichloroethane	97		6.280					ND	
52 Cyclohexane	56		6.347					ND	
53 Carbon tetrachloride	117		6.456					ND	
54 1,1-Dichloropropene	75		6.480					ND	
55 Isobutyl alcohol	41		6.687					ND	
56 Benzene	78		6.693					ND	
57 1,2-Dichloroethane	62		6.772					ND	
148 Isooctane	57		6.852					ND	
58 Tert-amyl methyl ether	73		6.882					ND	
59 n-Heptane	43		7.070					ND	
60 n-Butanol	56		7.412					ND	
61 Trichloroethene	130		7.442					ND	
62 Ethyl acrylate	55		7.570					ND	
63 Methylcyclohexane	83		7.673					ND	
64 1,2-Dichloropropane	63		7.715					ND	
67 Dibromomethane	93		7.794					ND	
65 1,4-Dioxane	88		7.807					ND	
66 Methyl methacrylate	69		7.807					ND	
68 Dichlorobromomethane	83		8.001					ND	
70 2-Chloroethyl vinyl ether	63		8.305					ND	
71 cis-1,3-Dichloropropene	75		8.451					ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.610					ND	
73 Toluene	91		8.780					ND	
74 trans-1,3-Dichloropropene	75		9.042					ND	
75 Ethyl methacrylate	69		9.102					ND	
76 1,1,2-Trichloroethane	97		9.230					ND	
77 Tetrachloroethene	164		9.291					ND	
78 1,3-Dichloropropane	76		9.382					ND	
79 2-Hexanone	43		9.449					ND	
80 n-Butyl acetate	43		9.577					ND	
81 Chlorodibromomethane	129		9.595					ND	
82 Ethylene Dibromide	107		9.705					ND	
83 3-Chlorobenzotrifluoride	180		10.179					ND	
84 Chlorobenzene	112		10.197					ND	
85 4-Chlorobenzotrifluoride	180		10.270					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 1,1,1,2-Tetrachloroethane	131		10.295					ND	
87 Ethylbenzene	106		10.301					ND	
88 m-Xylene & p-Xylene	106		10.435					ND	
89 o-Xylene	106		10.812					ND	
90 Styrene	104		10.836					ND	
91 Bromoform	173		11.006					ND	
129 Cyclohexanol	57		11.037					ND	
92 2-Chlorobenzotrifluoride	180		11.086					ND	
93 Isopropylbenzene	105		11.183					ND	
94 Cyclohexanone	55		11.262					ND	
95 Bromobenzene	156		11.487					ND	
96 1,1,2,2-Tetrachloroethane	83		11.499					ND	
97 trans-1,4-Dichloro-2-buten	53		11.542					ND	
98 1,2,3-Trichloropropane	110		11.554					ND	
99 N-Propylbenzene	120		11.590					ND	
100 2-Chlorotoluene	126		11.676					ND	
101 3-Chlorotoluene	126		11.749					ND	
102 1,3,5-Trimethylbenzene	105		11.779					ND	
103 4-Chlorotoluene	126		11.803					ND	
104 tert-Butylbenzene	119		12.089					ND	
106 1,2,4-Trimethylbenzene	105		12.150					ND	
107 1,2-dichloro-4-(trifluorom	214		12.199					ND	
108 sec-Butylbenzene	105		12.314					ND	
109 1,3-Dichlorobenzene	146		12.424					ND	
110 4-Isopropyltoluene	119		12.473					ND	
111 1,4-Dichlorobenzene	146		12.533					ND	
113 2,4-Dichloro-1-(triflourom	214		12.564					ND	
112 1,2,3-Trimethylbenzene	105		12.564					ND	
114 2,5-Dichlorobenzotrifluori	214		12.606					ND	
115 Benzyl chloride	91		12.649					ND	
116 n-Butylbenzene	91		12.880					ND	
117 1,2-Dichlorobenzene	146		12.886					ND	
118 1,2-Dibromo-3-Chloropropan	75		13.671					ND	
119 2,4- & 2,5- & 2,6- Dichlor	125		13.817					ND	
120 1,3,5-Trichlorobenzene	180		13.866					ND	
121 2,3- & 3,4- Dichlorotoluen	125		14.231					ND	
122 1,2,4-Trichlorobenzene	180		14.492					ND	
123 Hexachlorobutadiene	225		14.644					ND	
124 Naphthalene	128		14.754					ND	
125 1,2,3-Trichlorobenzene	180		14.973					ND	
126 2,4,5-Trichlorotoluene	159		15.770					ND	
127 2,3,6-Trichlorotoluene	159		15.873					ND	
150 Tert-butyl ethyl ether (TI	1		0.000					ND	
153 1,2 Epoxybutane TIC	1		0.000					ND	
151 Tert-amyl methyl ether (TI	1		0.000					ND	
146 3,4-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
149 Isopropyl ether TIC	1		0.000					ND	
S 130 1,2-Dichloroethene, Total	96		1.000					ND	
S 131 Xylenes, Total	106		1.000					ND	
S 154 Total BTEX	1		0.000					ND	
S 132 1,3-Dichloropropene, Total	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
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T 134 Methyl n-amyl ketone TIC	43		0.000					ND	
T 135 Mesityl oxide TIC	83		0.000					ND	
T 133 Tetrahydrofuran TIC	42		0.000					ND	

Reagents:

VOA8260INT_00075	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102507N.D

Injection Date: 26-Oct-2017 13:04:30

Instrument ID: CHHP6

Operator ID: 034635

Lims ID: mb

Worklist Smp#: 7

Client ID:

Purge Vol: 5.000 mL

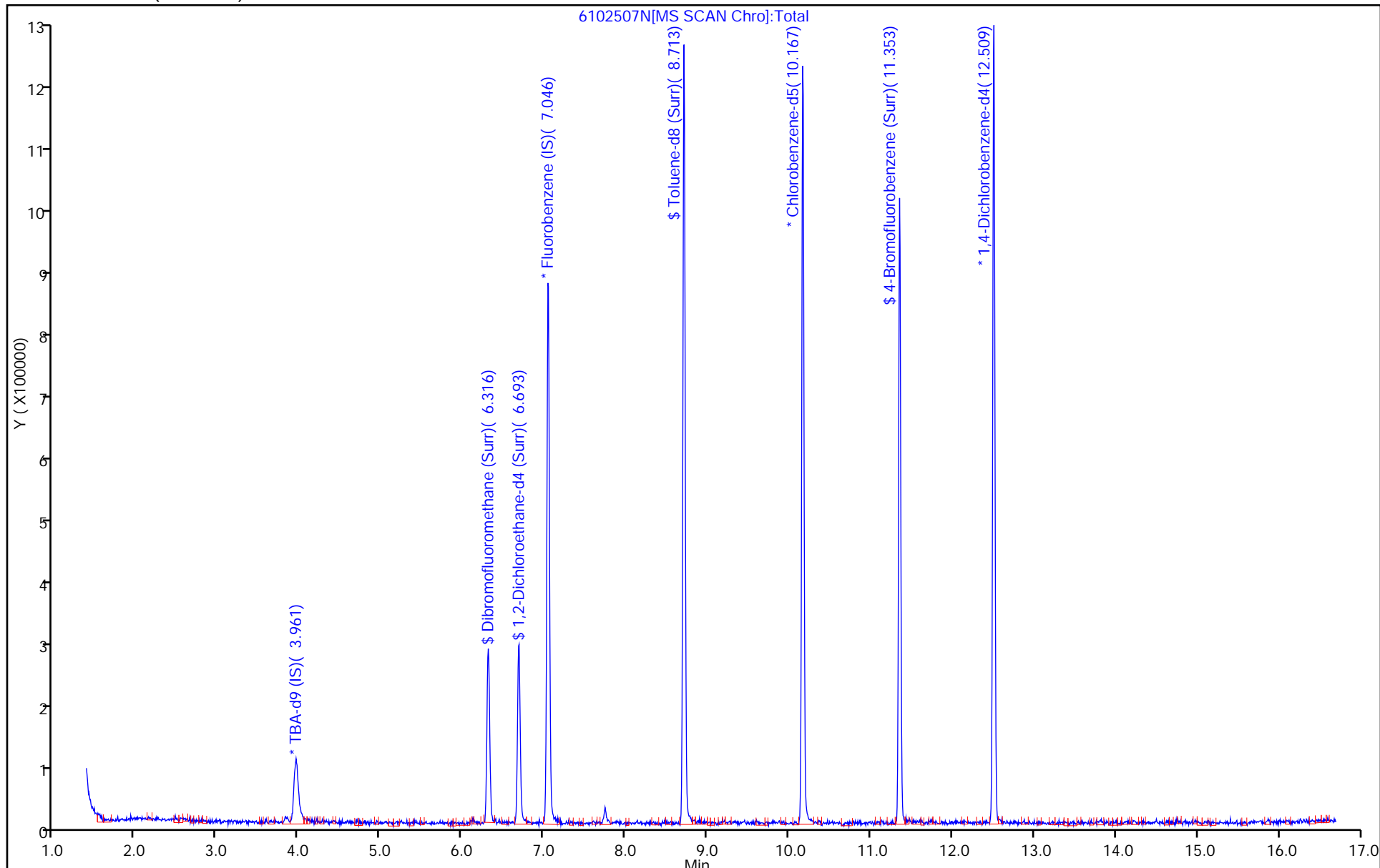
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102507N.D
 Lims ID: mb
 Client ID:
 Sample Type: MB
 Inject. Date: 26-Oct-2017 13:04:30 ALS Bottle#: 7 Worklist Smp#: 7
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019043-007
 Misc. Info.: mb
 Operator ID: 034635 Instrument ID: CHHP6
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 26-Oct-2017 16:26:29 Calib Date: 28-Sep-2017 15:13:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK032

First Level Reviewer: journetp Date: 26-Oct-2017 14:39:49

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	42.4	84.80
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	34.3	68.65
\$ 7 Toluene-d8 (Surr)	50.0	43.3	86.57
\$ 8 4-Bromofluorobenzene (Surr)	50.0	41.6	83.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 180-227028/4
 Matrix: Water Lab File ID: 6102504N.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/26/2017 11:31
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 227028 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	9.71		1.0	0.90
75-01-4	Vinyl chloride	8.33		1.0	0.88
74-83-9	Bromomethane	5.97		1.0	0.89
75-00-3	Chloroethane	9.59		1.0	0.90
75-35-4	1,1-Dichloroethene	9.82		1.0	0.55
67-64-1	Acetone	20.0		5.0	3.4
75-15-0	Carbon disulfide	8.93		1.0	0.88
75-09-2	Methylene Chloride	11.3		1.0	0.36
156-60-5	trans-1,2-Dichloroethene	11.3		1.0	0.67
1634-04-4	Methyl tert-butyl ether	9.28		1.0	0.59
75-34-3	1,1-Dichloroethane	11.0		1.0	0.63
156-59-2	cis-1,2-Dichloroethene	11.3		1.0	0.71
74-97-5	Bromochloromethane	11.4		1.0	0.63
78-93-3	2-Butanone (MEK)	21.9		5.0	2.6
67-66-3	Chloroform	11.0		1.0	0.60
71-55-6	1,1,1-Trichloroethane	12.2		1.0	0.60
56-23-5	Carbon tetrachloride	12.6		1.0	0.88
71-43-2	Benzene	10.7		1.0	0.60
107-06-2	1,2-Dichloroethane	9.29		1.0	0.57
79-01-6	Trichloroethene	11.5		1.0	0.69
78-87-5	1,2-Dichloropropane	10.5		1.0	0.66
75-27-4	Bromodichloromethane	10.1		1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	10.5		1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	22.1		5.0	3.1
108-88-3	Toluene	10.2		1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	9.24		1.0	0.58
79-00-5	1,1,2-Trichloroethane	8.68		1.0	0.45
127-18-4	Tetrachloroethene	10.2		1.0	0.47
591-78-6	2-Hexanone	23.9		5.0	3.3
124-48-1	Dibromochloromethane	10.0		1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	8.32		1.0	0.50
108-90-7	Chlorobenzene	11.2		1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	12.3		1.0	0.57
100-41-4	Ethylbenzene	10.3		1.0	0.51
1330-20-7	Xylenes, Total	21.3		2.0	0.89
100-42-5	Styrene	10.8		1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 180-227028/4
 Matrix: Water Lab File ID: 6102504N.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/26/2017 11:31
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 227028 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.35		1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	7.12		1.0	0.60
107-13-1	Acrylonitrile	67.0		20	7.8
123-91-1	1,4-Dioxane	169	J	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		65-121
2037-26-5	Toluene-d8 (Surr)	108		73-120
460-00-4	4-Bromofluorobenzene (Surr)	106		80-120
1868-53-7	Dibromofluoromethane (Surr)	115		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102504N.D
 Lims ID: lcs
 Client ID:
 Sample Type: LCS
 Inject. Date: 26-Oct-2017 11:31:30 ALS Bottle#: 4 Worklist Smp#: 4
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019043-004
 Misc. Info.: lcs
 Operator ID: 034635 Instrument ID: CHHP6
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 26-Oct-2017 16:26:23 Calib Date: 28-Sep-2017 15:13:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK032

First Level Reviewer: journey

Date: 26-Oct-2017 12:21:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	3.967	3.966	0.001	93	210768	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.045	7.045	0.000	99	866836	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.166	10.166	0.000	84	225934	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.508	12.508	0.000	93	349468	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.309	6.315	-0.006	92	259285	50.0	57.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.686	6.686	0.000	70	299337	50.0	46.5	
\$ 7 Toluene-d8 (Surr)	98	8.712	8.712	0.000	93	973118	50.0	53.9	
\$ 8 4-Bromofluorobenzene (Surr	95	11.352	11.352	0.000	87	414807	50.0	53.2	
11 Dichlorodifluoromethane	85	1.466	1.466	0.000	99	250934	50.0	45.4	
12 Chloromethane	50	1.631	1.624	0.007	99	241431	50.0	48.5	
13 Vinyl chloride	62	1.746	1.740	0.006	98	217297	50.0	41.7	
14 Butadiene	39	1.789	1.783	0.007	94	174372	50.0	40.3	
15 Bromomethane	94	2.057	2.056	0.001	91	72534	50.0	29.8	
16 Chloroethane	64	2.184	2.178	0.006	98	135053	50.0	47.9	
17 Dichlorofluoromethane	67	2.458	2.452	0.006	94	366570	50.0	60.4	
18 Trichlorofluoromethane	101	2.458	2.458	0.000	84	345898	50.0	67.4	
20 Ethyl ether	59	2.823	2.823	0.000	87	237858	50.0	54.1	
21 Acrolein	56	2.987	2.987	0.000	99	146092	150.0	155.2	
22 1,1-Dichloroethene	96	3.091	3.090	0.001	97	221214	50.0	49.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.152	3.151	0.001	92	227225	50.0	52.6	
24 Acetone	43	3.182	3.182	0.000	98	185500	100.0	99.8	
25 Iodomethane	142	3.273	3.273	0.000	99	419503	50.0	66.2	
26 Carbon disulfide	76	3.352	3.358	-0.006	100	447817	50.0	44.6	
29 3-Chloro-1-propene	76	3.626	3.632	-0.006	92	132948	50.0	50.4	
30 Methyl acetate	43	3.650	3.644	0.006	97	290475	100.0	71.3	
31 Methylene Chloride	84	3.827	3.833	-0.006	87	338026	50.0	56.6	
32 2-Methyl-2-propanol	59	4.107	4.112	-0.005	94	140023	500.0	600.2	
33 Acrylonitrile	53	4.228	4.228	0.000	99	729467	500.0	335.0	
34 trans-1,2-Dichloroethene	96	4.271	4.265	0.006	92	287643	50.0	56.3	
35 Methyl tert-butyl ether	73	4.277	4.283	-0.006	96	758577	50.0	46.4	
36 Hexane	57	4.703	4.696	0.007	90	231230	50.0	38.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	4.916	4.922	-0.006	96	457224	50.0	55.0	
38 Vinyl acetate	43	4.977	4.970	0.007	97	470456	50.0	48.6	
43 cis-1,2-Dichloroethene	96	5.682	5.688	-0.006	82	338127	50.0	56.6	
42 2,2-Dichloropropane	97	5.682	5.688	-0.006	64	68821	50.0	79.9	
44 2-Butanone (MEK)	43	5.701	5.700	0.001	98	292336	100.0	109.7	
48 Chlorobromomethane	128	5.974	5.980	-0.006	93	148661	50.0	57.1	
49 Tetrahydrofuran	42	5.986	5.986	0.000	85	102895	100.0	57.0	
50 Chloroform	83	6.126	6.126	0.000	94	494674	50.0	55.2	
51 1,1,1-Trichloroethane	97	6.291	6.284	0.007	98	347992	50.0	61.1	
52 Cyclohexane	56	6.351	6.351	0.000	87	361326	50.0	44.6	
53 Carbon tetrachloride	117	6.461	6.461	0.000	96	257280	50.0	62.8	
54 1,1-Dichloropropene	75	6.479	6.473	0.006	96	319968	50.0	46.6	
55 Isobutyl alcohol	41	6.692	6.692	0.000	41	114596	1250.0	953.1	
56 Benzene	78	6.692	6.692	0.000	97	1071738	50.0	53.6	
57 1,2-Dichloroethane	62	6.771	6.771	0.000	98	342773	50.0	46.4	
59 n-Heptane	43	7.069	7.069	0.000	88	156891	50.0	34.1	
61 Trichloroethene	130	7.440	7.440	0.000	98	278291	50.0	57.3	
63 Methylcyclohexane	83	7.678	7.677	0.001	86	340646	50.0	40.2	
64 1,2-Dichloropropane	63	7.714	7.714	0.000	93	262342	50.0	52.5	
67 Dibromomethane	93	7.799	7.799	0.000	96	148520	50.0	45.5	
65 1,4-Dioxane	88	7.799	7.799	0.000	41	38499	1000.0	845.3	
68 Dichlorobromomethane	83	8.000	8.000	0.000	99	281858	50.0	50.7	
70 2-Chloroethyl vinyl ether	63	8.310	8.310	0.000	93	392490	100.0	118.6	
71 cis-1,3-Dichloropropene	75	8.450	8.450	0.000	96	330193	50.0	52.3	
72 4-Methyl-2-pentanone (MIBK)	43	8.608	8.608	0.000	94	637506	100.0	110.5	
73 Toluene	91	8.779	8.778	0.001	99	1138185	50.0	51.1	
74 trans-1,3-Dichloropropene	75	9.034	9.034	0.000	92	275617	50.0	46.2	
75 Ethyl methacrylate	69	9.101	9.101	0.000	87	277564	50.0	36.9	
76 1,1,2-Trichloroethane	97	9.229	9.229	0.000	91	223594	50.0	43.4	
77 Tetrachloroethene	164	9.296	9.290	0.006	98	203048	50.0	50.9	
78 1,3-Dichloropropane	76	9.381	9.381	0.000	89	392871	50.0	42.1	
79 2-Hexanone	43	9.448	9.448	0.000	93	443621	100.0	119.5	
81 Chlorodibromomethane	129	9.594	9.600	-0.006	88	174489	50.0	50.0	
82 Ethylene Dibromide	107	9.703	9.703	0.000	98	206105	50.0	41.6	
83 3-Chlorobenzotrifluoride	180	10.178	10.178	0.000	94	381892	50.0	59.0	
84 Chlorobenzene	112	10.196	10.196	0.000	95	807802	50.0	55.8	
85 4-Chlorobenzotrifluoride	180	10.269	10.269	0.000	96	351650	50.0	58.6	
86 1,1,1,2-Tetrachloroethane	131	10.294	10.293	0.001	91	252714	50.0	61.4	
87 Ethylbenzene	106	10.300	10.299	0.001	98	425178	50.0	51.3	
88 m-Xylene & p-Xylene	106	10.433	10.433	0.000	98	535561	50.0	52.8	
89 o-Xylene	106	10.811	10.810	0.001	95	546325	50.0	53.7	
90 Styrene	104	10.835	10.835	0.000	94	889636	50.0	54.1	
91 Bromoform	173	11.011	11.011	0.000	93	81961	50.0	41.7	
92 2-Chlorobenzotrifluoride	180	11.084	11.084	0.000	95	401661	50.0	61.2	
93 Isopropylbenzene	105	11.182	11.181	0.001	96	1187119	50.0	52.1	
95 Bromobenzene	156	11.486	11.486	0.000	93	360217	50.0	55.5	
96 1,1,2,2-Tetrachloroethane	83	11.492	11.498	-0.006	96	258143	50.0	35.6	M
97 trans-1,4-Dichloro-2-buten	53	11.528	11.528	0.000	76	56502	50.0	29.7	
98 1,2,3-Trichloropropane	110	11.547	11.546	0.001	88	92618	50.0	34.3	
99 N-Propylbenzene	120	11.595	11.595	0.000	97	347681	50.0	49.2	
100 2-Chlorotoluene	126	11.681	11.680	0.001	97	321977	50.0	52.6	
101 3-Chlorotoluene	126	11.748	11.747	0.001	95	383144	50.0	59.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	11.778	11.778	0.000	95	1021910	50.0	50.9	
103 4-Chlorotoluene	126	11.802	11.802	0.000	98	353621	50.0	52.9	
104 tert-Butylbenzene	119	12.088	12.094	-0.006	92	812654	50.0	51.0	
106 1,2,4-Trimethylbenzene	105	12.149	12.149	0.000	98	1083427	50.0	51.8	
107 1,2-dichloro-4-(trifluorom	214	12.198	12.197	0.001	96	247632	50.0	53.3	
108 sec-Butylbenzene	105	12.313	12.313	0.000	94	1052127	50.0	47.1	
109 1,3-Dichlorobenzene	146	12.429	12.429	0.000	97	651087	50.0	55.8	
110 4-Isopropyltoluene	119	12.471	12.471	0.000	96	951992	50.0	51.6	
111 1,4-Dichlorobenzene	146	12.532	12.532	0.000	95	670152	50.0	55.6	
113 2,4-Dichloro-1-(trifluorom	214	12.563	12.562	0.001	96	257129	50.0	58.8	
114 2,5-Dichlorobenzotrifluori	214	12.605	12.605	0.000	98	276014	50.0	57.1	
116 n-Butylbenzene	91	12.879	12.879	0.000	97	752745	50.0	44.7	
117 1,2-Dichlorobenzene	146	12.885	12.885	0.000	97	624596	50.0	56.3	
118 1,2-Dibromo-3-Chloropropan	75	13.670	13.676	-0.006	83	25053	50.0	25.3	
119 2,4- & 2,5- & 2,6- Dichlor	125	13.816	13.816	0.000	98	1276790	150.0	180.7	
121 2,3- & 3,4- Dichlorotoluen	125	14.230	14.229	0.001	98	937933	100.0	121.5	
122 1,2,4-Trichlorobenzene	180	14.491	14.497	-0.006	95	314971	50.0	54.3	
123 Hexachlorobutadiene	225	14.643	14.643	0.000	96	99283	50.0	54.1	
124 Naphthalene	128	14.753	14.759	-0.006	97	638719	50.0	36.1	
125 1,2,3-Trichlorobenzene	180	14.978	14.978	0.000	96	251755	50.0	48.4	
126 2,4,5-Trichlorotoluene	159	15.775	15.774	0.001	0	138567	50.0	46.3	
127 2,3,6-Trichlorotoluene	159	15.872	15.872	0.000	97	134557	50.0	50.1	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	112.9	
S 131 Xylenes, Total	106				0		100.0	106.5	
S 132 1,3-Dichloropropene, Total	1				0		100.0	98.6	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWKet2ndRes_00022	Amount Added: 2.00	Units: uL	
voaWVA1stRest_00021	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00021	Amount Added: 6.00	Units: uL	
voaWEEmix1stR_00014	Amount Added: 2.00	Units: uL	
VOA8260VOAPRI_00268	Amount Added: 2.00	Units: uL	
voaW2clev1stR_00023	Amount Added: 2.00	Units: uL	
VOA8260INT_00075	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102504N.D

Injection Date: 26-Oct-2017 11:31:30

Instrument ID: CHHP6

Operator ID: 034635

Lims ID: lcs

Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL

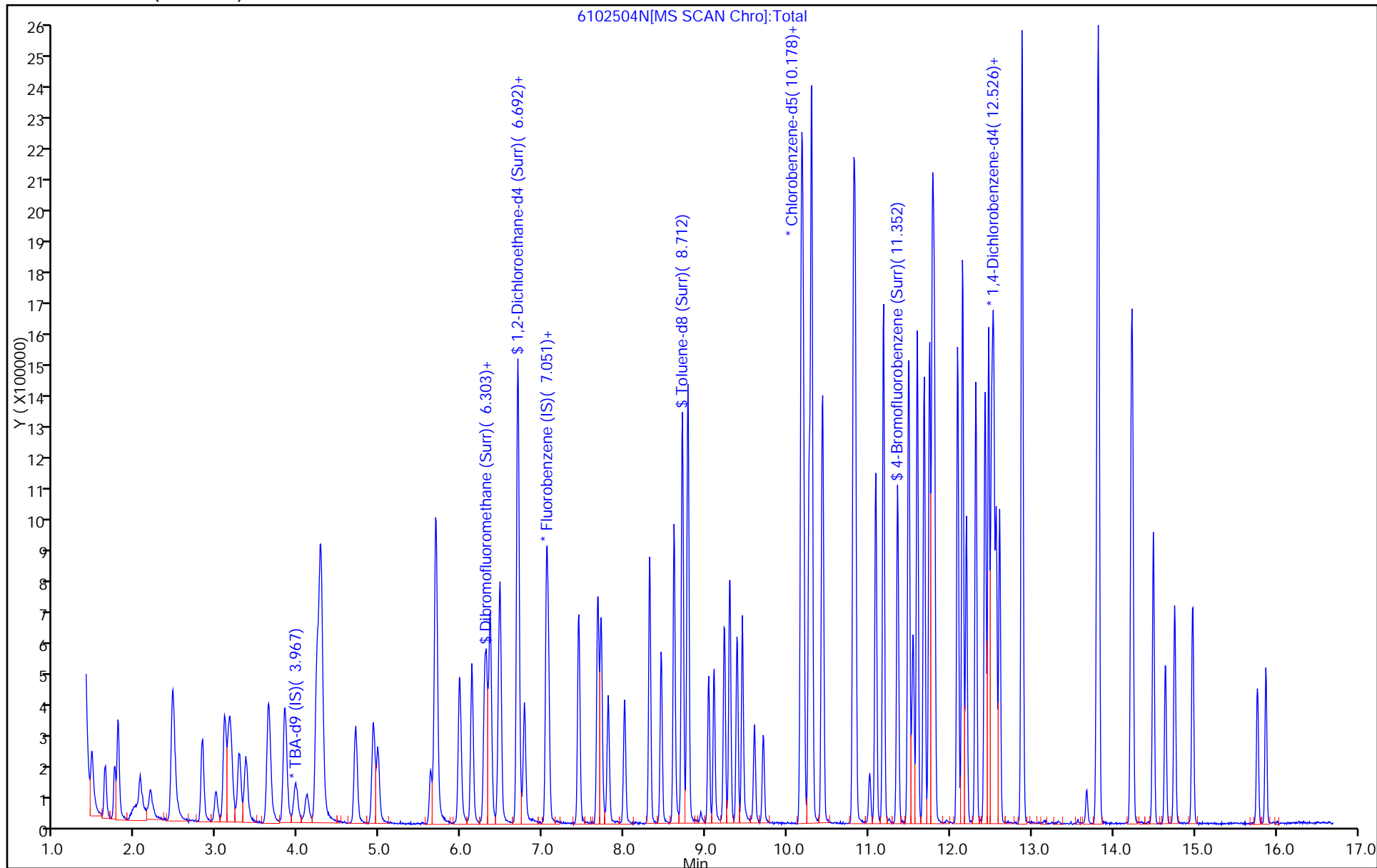
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102504N.D
 Lims ID: lcs
 Client ID:
 Sample Type: LCS
 Inject. Date: 26-Oct-2017 11:31:30 ALS Bottle#: 4 Worklist Smp#: 4
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019043-004
 Misc. Info.: lcs
 Operator ID: 034635 Instrument ID: CHHP6
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 26-Oct-2017 16:26:23 Calib Date: 28-Sep-2017 15:13:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK032

First Level Reviewer: journetp

Date: 26-Oct-2017 12:21:34

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	57.6	115.12
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	46.5	92.99
\$ 7 Toluene-d8 (Surr)	50.0	53.9	107.84
\$ 8 4-Bromofluorobenzene (Surr)	50.0	53.2	106.35

TestAmerica Pittsburgh

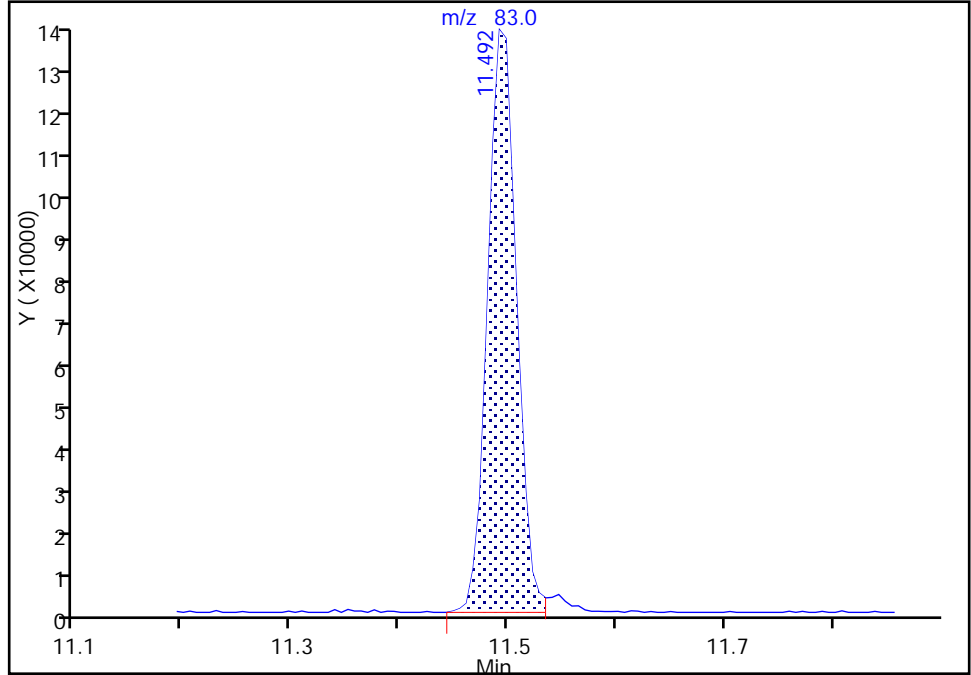
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102504N.D
Injection Date: 26-Oct-2017 11:31:30 Instrument ID: CHHP6
Lims ID: lcs
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

96 1,1,2,2-Tetrachloroethane, CAS: 79-34-5

Signal: 1

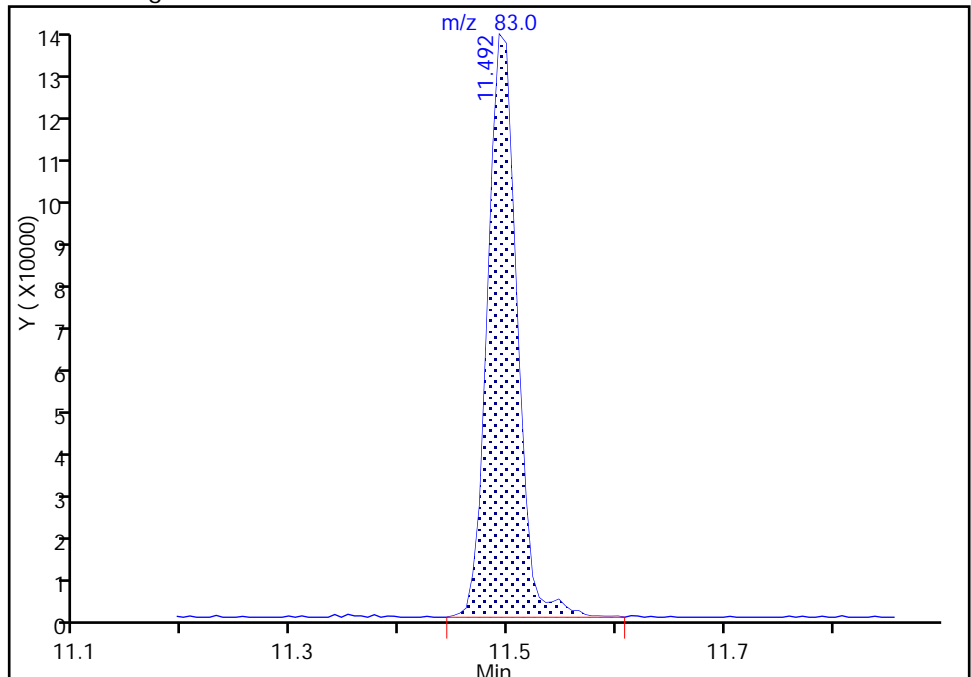
RT: 11.49
Area: 252571
Amount: 34.841994
Amount Units: ng

Processing Integration Results



RT: 11.49
Area: 258143
Amount: 35.610647
Amount Units: ng

Manual Integration Results



Reviewer: journetp, 26-Oct-2017 13:56:59
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Client Sample ID: HD-MW-20M-0/1-0 MS Lab Sample ID: 180-71625-1 MS
 Matrix: Water Lab File ID: 6102511N.D
 Analysis Method: 8260C Date Collected: 10/20/2017 09:04
 Sample wt/vol: 5 (mL) Date Analyzed: 10/26/2017 14:48
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 227028 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	8.86		1.0	0.90
75-01-4	Vinyl chloride	9.06		1.0	0.88
74-83-9	Bromomethane	6.75		1.0	0.89
75-00-3	Chloroethane	9.61		1.0	0.90
75-35-4	1,1-Dichloroethene	10.2		1.0	0.55
67-64-1	Acetone	9.65		5.0	3.4
75-15-0	Carbon disulfide	9.03		1.0	0.88
75-09-2	Methylene Chloride	8.69		1.0	0.36
156-60-5	trans-1,2-Dichloroethene	10.4		1.0	0.67
1634-04-4	Methyl tert-butyl ether	6.60		1.0	0.59
75-34-3	1,1-Dichloroethane	9.71		1.0	0.63
156-59-2	cis-1,2-Dichloroethene	10.0		1.0	0.71
74-97-5	Bromochloromethane	9.10		1.0	0.63
78-93-3	2-Butanone (MEK)	10.7		5.0	2.6
67-66-3	Chloroform	10.0		1.0	0.60
71-55-6	1,1,1-Trichloroethane	12.0		1.0	0.60
56-23-5	Carbon tetrachloride	13.3		1.0	0.88
71-43-2	Benzene	9.63		1.0	0.60
107-06-2	1,2-Dichloroethane	7.29		1.0	0.57
79-01-6	Trichloroethene	33.6		1.0	0.69
78-87-5	1,2-Dichloropropane	8.58		1.0	0.66
75-27-4	Bromodichloromethane	8.33		1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	8.39		1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	9.84		5.0	3.1
108-88-3	Toluene	9.42		1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	7.45		1.0	0.58
79-00-5	1,1,2-Trichloroethane	6.76		1.0	0.45
127-18-4	Tetrachloroethene	10.8		1.0	0.47
591-78-6	2-Hexanone	10.9		5.0	3.3
124-48-1	Dibromochloromethane	7.83		1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	6.39		1.0	0.50
108-90-7	Chlorobenzene	10.0		1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	10.6		1.0	0.57
100-41-4	Ethylbenzene	9.67		1.0	0.51
1330-20-7	Xylenes, Total	19.4		2.0	0.89
100-42-5	Styrene	9.61		1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Client Sample ID: HD-MW-20M-0/1-0 MS Lab Sample ID: 180-71625-1 MS
 Matrix: Water Lab File ID: 6102511N.D
 Analysis Method: 8260C Date Collected: 10/20/2017 09:04
 Sample wt/vol: 5 (mL) Date Analyzed: 10/26/2017 14:48
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 227028 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	6.43		1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	5.17		1.0	0.60
107-13-1	Acrylonitrile	45.5		20	7.8
123-91-1	1,4-Dioxane	86.3	J	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	75		65-121
2037-26-5	Toluene-d8 (Surr)	104		73-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	104		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102511N.D
 Lims ID: 180-71625-A-1 MS
 Client ID:
 Sample Type: MS
 Inject. Date: 26-Oct-2017 14:48:30 ALS Bottle#: 11 Worklist Smp#: 11
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019043-011
 Misc. Info.: 180-71625-A-1 MS
 Operator ID: 034635 Instrument ID: CHHP6
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 26-Oct-2017 16:26:29 Calib Date: 28-Sep-2017 15:13:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK032

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	3.957	3.950	0.007	92	184212	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.048	7.046	0.002	98	1167082	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.169	10.167	0.002	86	294585	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.505	12.509	-0.004	93	455488	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.312	6.310	0.002	93	316301	50.0	52.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.689	6.687	0.002	72	327173	50.0	37.7	
\$ 7 Toluene-d8 (Surr)	98	8.709	8.713	-0.004	92	1230765	50.0	52.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.349	11.353	-0.004	87	489413	50.0	48.1	
12 Chloromethane	50	1.621	1.626	-0.005	99	296567	50.0	44.3	
13 Vinyl chloride	62	1.743	1.741	0.002	99	317920	50.0	45.3	
15 Bromomethane	94	2.053	2.076	-0.023	92	110500	50.0	33.8	
16 Chloroethane	64	2.187	2.198	-0.011	98	182304	50.0	48.1	
22 1,1-Dichloroethene	96	3.094	3.098	-0.004	97	309657	50.0	51.0	
24 Acetone	43	3.179	3.177	0.002	92	120839	100.0	48.3	
26 Carbon disulfide	76	3.355	3.360	-0.005	99	609975	50.0	45.2	
31 Methylene Chloride	84	3.836	3.834	0.002	88	349155	50.0	43.4	
33 Acrylonitrile	53	4.225	4.236	-0.011	99	666257	500.0	227.3	
34 trans-1,2-Dichloroethene	96	4.262	4.278	-0.016	96	356887	50.0	51.9	
35 Methyl tert-butyl ether	73	4.274	4.284	-0.010	95	726142	50.0	33.0	
37 1,1-Dichloroethane	63	4.919	4.923	-0.004	97	543783	50.0	48.6	
43 cis-1,2-Dichloroethene	96	5.685	5.690	-0.005	79	401873	50.0	50.0	
44 2-Butanone (MEK)	43	5.697	5.702	-0.005	56	191780	100.0	53.4	
48 Chlorobromomethane	128	5.971	5.975	-0.004	94	159647	50.0	45.5	
50 Chloroform	83	6.129	6.128	0.001	93	606139	50.0	50.2	
51 1,1,1-Trichloroethane	97	6.281	6.280	0.001	98	461292	50.0	60.1	
53 Carbon tetrachloride	117	6.458	6.456	0.002	97	366897	50.0	66.5	
56 Benzene	78	6.695	6.693	0.002	98	1295481	50.0	48.2	
57 1,2-Dichloroethane	62	6.774	6.772	0.002	98	362285	50.0	36.5	
61 Trichloroethene	130	7.437	7.442	-0.005	98	1096897	50.0	167.8	
64 1,2-Dichloropropane	63	7.711	7.715	-0.004	92	288439	50.0	42.9	
65 1,4-Dioxane	88	7.796	7.807	-0.011	36	26465	1000.0	431.6	
68 Dichlorobromomethane	83	8.003	8.001	0.002	99	311839	50.0	41.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
71 cis-1,3-Dichloropropene	75	8.453	8.451	0.002	96	356332	50.0	42.0	
72 4-Methyl-2-pentanone (MIBK)	43	8.611	8.610	0.001	94	370002	100.0	49.2	
73 Toluene	91	8.782	8.780	0.002	99	1367101	50.0	47.1	
74 trans-1,3-Dichloropropene	75	9.031	9.042	-0.011	92	289733	50.0	37.3	
76 1,1,2-Trichloroethane	97	9.226	9.230	-0.004	91	226966	50.0	33.8	
77 Tetrachloroethene	164	9.293	9.291	0.002	97	281617	50.0	54.2	
79 2-Hexanone	43	9.445	9.449	-0.004	95	263222	100.0	54.4	
81 Chlorodibromomethane	129	9.597	9.595	0.002	90	178101	50.0	39.1	
82 Ethylene Dibromide	107	9.706	9.705	0.001	99	206542	50.0	32.0	
84 Chlorobenzene	112	10.193	10.197	-0.004	94	946047	50.0	50.1	
86 1,1,1,2-Tetrachloroethane	131	10.290	10.295	-0.005	92	283814	50.0	52.9	
87 Ethylbenzene	106	10.302	10.301	0.001	98	521882	50.0	48.3	
88 m-Xylene & p-Xylene	106	10.430	10.435	-0.005	99	645664		48.8	
89 o-Xylene	106	10.813	10.812	0.001	95	640488		48.3	
90 Styrene	104	10.832	10.836	-0.004	94	1030405	50.0	48.0	
91 Bromoform	173	11.014	11.006	0.008	94	82374	50.0	32.2	
96 1,1,2,2-Tetrachloroethane	83	11.495	11.499	-0.004	95	244315	50.0	25.8	
S 131 Xylenes, Total	106				0		100.0	97.1	

Reagents:

VOA8260VOA2ND_00270	Amount Added: 2.00	Units: uL	
voaW2clev1stR_00023	Amount Added: 2.00	Units: uL	
voaWEEmix1stR_00014	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00021	Amount Added: 6.00	Units: uL	
voaWVA1stRest_00021	Amount Added: 2.00	Units: uL	
voaWKet2ndRes_00022	Amount Added: 2.00	Units: uL	
VOA8260INT_00075	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102511N.D

Injection Date: 26-Oct-2017 14:48:30

Instrument ID: CHHP6

Operator ID: 034635

Lims ID: 180-71625-A-1 MS

Worklist Smp#: 11

Client ID:

Purge Vol: 5.000 mL

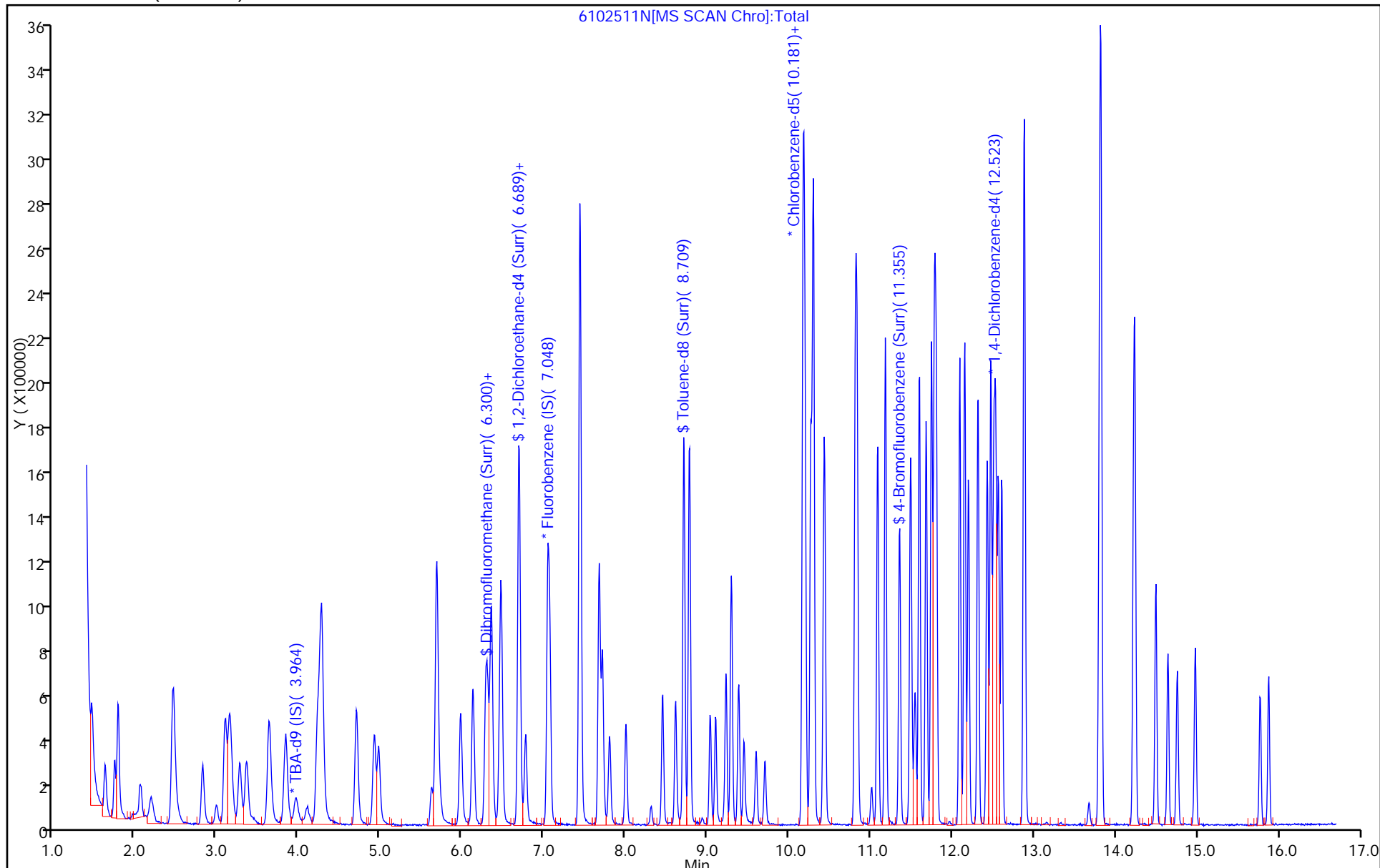
Dil. Factor: 1.0000

ALS Bottle#: 11

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102511N.D
 Lims ID: 180-71625-A-1 MS
 Client ID:
 Sample Type: MS
 Inject. Date: 26-Oct-2017 14:48:30 ALS Bottle#: 11 Worklist Smp#: 11
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019043-011
 Misc. Info.: 180-71625-A-1 MS
 Operator ID: 034635 Instrument ID: CHHP6
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 26-Oct-2017 16:26:29 Calib Date: 28-Sep-2017 15:13:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK032

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	52.2	104.31
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	37.7	75.49
\$ 7 Toluene-d8 (Surr)	50.0	52.2	104.42
\$ 8 4-Bromofluorobenzene (Surr)	50.0	48.1	96.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Client Sample ID: HD-MW-20M-0/1-0 MSD Lab Sample ID: 180-71625-1 MSD
 Matrix: Water Lab File ID: 6102512N.D
 Analysis Method: 8260C Date Collected: 10/20/2017 09:04
 Sample wt/vol: 5 (mL) Date Analyzed: 10/26/2017 15:13
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 227028 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	8.98		1.0	0.90
75-01-4	Vinyl chloride	9.13		1.0	0.88
74-83-9	Bromomethane	5.99		1.0	0.89
75-00-3	Chloroethane	9.95		1.0	0.90
75-35-4	1,1-Dichloroethene	10.1		1.0	0.55
67-64-1	Acetone	9.48		5.0	3.4
75-15-0	Carbon disulfide	8.91		1.0	0.88
75-09-2	Methylene Chloride	8.62		1.0	0.36
156-60-5	trans-1,2-Dichloroethene	10.3		1.0	0.67
1634-04-4	Methyl tert-butyl ether	6.56		1.0	0.59
75-34-3	1,1-Dichloroethane	9.64		1.0	0.63
156-59-2	cis-1,2-Dichloroethene	9.72		1.0	0.71
74-97-5	Bromochloromethane	8.93		1.0	0.63
78-93-3	2-Butanone (MEK)	10.2		5.0	2.6
67-66-3	Chloroform	9.94		1.0	0.60
71-55-6	1,1,1-Trichloroethane	11.6		1.0	0.60
56-23-5	Carbon tetrachloride	12.7		1.0	0.88
71-43-2	Benzene	9.49		1.0	0.60
107-06-2	1,2-Dichloroethane	7.10		1.0	0.57
79-01-6	Trichloroethene	33.4		1.0	0.69
78-87-5	1,2-Dichloropropane	8.56		1.0	0.66
75-27-4	Bromodichloromethane	8.20		1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	8.05		1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	9.83		5.0	3.1
108-88-3	Toluene	9.67		1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	7.53		1.0	0.58
79-00-5	1,1,2-Trichloroethane	6.95		1.0	0.45
127-18-4	Tetrachloroethene	10.9		1.0	0.47
591-78-6	2-Hexanone	10.9		5.0	3.3
124-48-1	Dibromochloromethane	7.83		1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	6.41		1.0	0.50
108-90-7	Chlorobenzene	10.1		1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	10.9		1.0	0.57
100-41-4	Ethylbenzene	9.99		1.0	0.51
1330-20-7	Xylenes, Total	20.0		2.0	0.89
100-42-5	Styrene	9.87		1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1
 SDG No.: _____
 Client Sample ID: HD-MW-20M-0/1-0 MSD Lab Sample ID: 180-71625-1 MSD
 Matrix: Water Lab File ID: 6102512N.D
 Analysis Method: 8260C Date Collected: 10/20/2017 09:04
 Sample wt/vol: 5 (mL) Date Analyzed: 10/26/2017 15:13
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 227028 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	6.17		1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	5.35		1.0	0.60
107-13-1	Acrylonitrile	44.4		20	7.8
123-91-1	1,4-Dioxane	115	J	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	74		65-121
2037-26-5	Toluene-d8 (Surr)	108		73-120
460-00-4	4-Bromofluorobenzene (Surr)	100		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102512N.D
 Lims ID: 180-71625-A-1 MSD
 Client ID:
 Sample Type: MSD
 Inject. Date: 26-Oct-2017 15:13:30 ALS Bottle#: 12 Worklist Smp#: 12
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019043-012
 Misc. Info.: 180-71625-A-1 MSd
 Operator ID: 034635 Instrument ID: CHHP6
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 26-Oct-2017 14:26:40 Calib Date: 28-Sep-2017 15:13:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK032

First Level Reviewer: journetp

Date: 26-Oct-2017 16:08:57

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	3.966	3.950	0.016	92	193006	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.045	7.046	-0.001	98	1202459	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.165	10.167	-0.002	86	292511	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.508	12.509	-0.001	92	462006	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.309	6.310	-0.001	92	321390	50.0	51.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.686	6.687	-0.001	54	330404	50.0	37.0	
\$ 7 Toluene-d8 (Surr)	98	8.712	8.713	-0.001	93	1261892	50.0	54.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.352	11.353	-0.001	87	503584	50.0	49.9	
12 Chloromethane	50	1.624	1.626	-0.002	99	309864	50.0	44.9	
13 Vinyl chloride	62	1.740	1.741	-0.001	98	330100	50.0	45.6	
15 Bromomethane	94	2.050	2.076	-0.026	91	101028	50.0	30.0	
16 Chloroethane	64	2.178	2.198	-0.020	98	194364	50.0	49.7	
22 1,1-Dichloroethene	96	3.090	3.098	-0.008	96	314528	50.0	50.3	
24 Acetone	43	3.188	3.177	0.011	99	122259	100.0	47.4	
26 Carbon disulfide	76	3.358	3.360	-0.002	99	620246	50.0	44.6	
31 Methylene Chloride	84	3.833	3.834	-0.001	88	357133	50.0	43.1	
33 Acrylonitrile	53	4.228	4.236	-0.008	98	670200	500.0	221.9	
34 trans-1,2-Dichloroethene	96	4.271	4.278	-0.007	96	365764	50.0	51.6	
35 Methyl tert-butyl ether	73	4.283	4.284	-0.001	95	743284	50.0	32.8	
37 1,1-Dichloroethane	63	4.915	4.923	-0.008	95	555791	50.0	48.2	
43 cis-1,2-Dichloroethene	96	5.688	5.690	-0.002	80	402696	50.0	48.6	
44 2-Butanone (MEK)	43	5.694	5.702	-0.008	97	189225	100.0	51.2	
48 Chlorobromomethane	128	5.980	5.975	0.005	90	161329	50.0	44.6	
50 Chloroform	83	6.126	6.128	-0.002	94	618460	50.0	49.7	
51 1,1,1-Trichloroethane	97	6.284	6.280	0.004	97	457429	50.0	57.9	
53 Carbon tetrachloride	117	6.461	6.456	0.005	97	361545	50.0	63.6	
56 Benzene	78	6.692	6.693	-0.001	98	1315548	50.0	47.5	
57 1,2-Dichloroethane	62	6.777	6.772	0.005	98	363349	50.0	35.5	
61 Trichloroethene	130	7.440	7.442	-0.002	98	1125086	50.0	167.1	
64 1,2-Dichloropropane	63	7.714	7.715	-0.001	93	296422	50.0	42.8	
65 1,4-Dioxane	88	7.793	7.807	-0.014	39	36238	1000.0	573.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
68 Dichlorobromomethane	83	8.000	8.001	-0.001	99	316173	50.0	41.0	
71 cis-1,3-Dichloropropene	75	8.450	8.451	-0.001	96	352156	50.0	40.2	
72 4-Methyl-2-pentanone (MIBK)	43	8.608	8.610	-0.002	95	367286	100.0	49.2	
73 Toluene	91	8.778	8.780	-0.002	99	1394356	50.0	48.4	
74 trans-1,3-Dichloropropene	75	9.034	9.042	-0.008	91	290723	50.0	37.7	
76 1,1,2-Trichloroethane	97	9.229	9.230	-0.001	92	231793	50.0	34.8	
77 Tetrachloroethene	164	9.296	9.291	0.005	97	279981	50.0	54.3	
79 2-Hexanone	43	9.448	9.449	-0.001	93	262617	100.0	54.6	
81 Chlorodibromomethane	129	9.600	9.595	0.005	90	176896	50.0	39.1	
82 Ethylene Dibromide	107	9.703	9.705	-0.002	99	205611	50.0	32.0	
84 Chlorobenzene	112	10.196	10.197	-0.001	95	951053	50.0	50.7	
86 1,1,1,2-Tetrachloroethane	131	10.293	10.295	-0.002	90	290717	50.0	54.5	
87 Ethylbenzene	106	10.299	10.301	-0.002	98	535588	50.0	49.9	
88 m-Xylene & p-Xylene	106	10.433	10.435	-0.002	98	661833		50.4	
89 o-Xylene	106	10.810	10.812	-0.002	96	648766		49.3	
90 Styrene	104	10.835	10.836	-0.001	95	1050724	50.0	49.3	
91 Bromoform	173	11.011	11.006	0.005	94	78429	50.0	30.8	
96 1,1,2,2-Tetrachloroethane	83	11.492	11.499	-0.007	97	250866	50.0	26.7	
S 131 Xylenes, Total	106				0		100.0	99.6	

Reagents:

VOA8260VOA2ND_00270	Amount Added: 2.00	Units: uL	
voaW2clev1stR_00023	Amount Added: 2.00	Units: uL	
voaWEEmix1stR_00014	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00021	Amount Added: 6.00	Units: uL	
voaWVA1stRest_00021	Amount Added: 2.00	Units: uL	
voaWKet2ndRes_00022	Amount Added: 2.00	Units: uL	
VOA8260INT_00075	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102512N.D

Injection Date: 26-Oct-2017 15:13:30

Instrument ID: CHHP6

Operator ID: 034635

Lims ID: 180-71625-A-1 MSD

Worklist Smp#: 12

Client ID:

Purge Vol: 5.000 mL

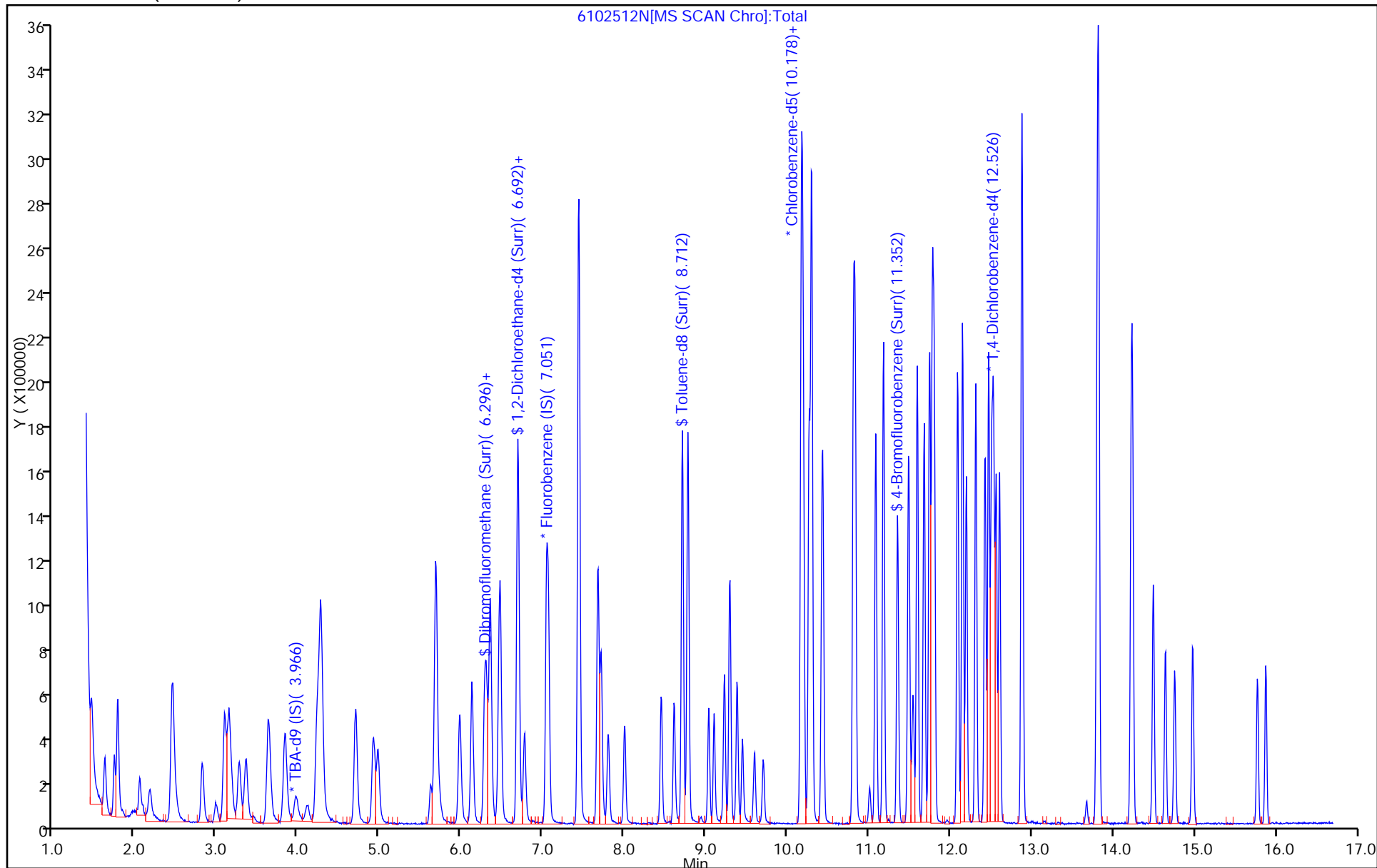
Dil. Factor: 1.0000

ALS Bottle#: 12

Method: MSVOA_LL_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\6102512N.D
 Lims ID: 180-71625-A-1 MSD
 Client ID:
 Sample Type: MSD
 Inject. Date: 26-Oct-2017 15:13:30 ALS Bottle#: 12 Worklist Smp#: 12
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019043-012
 Misc. Info.: 180-71625-A-1 MSd
 Operator ID: 034635 Instrument ID: CHHP6
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171026-19043.b\MSVOA_LL_CHHP6.m
 Limit Group: VOA 8260C ICAL
 Last Update: 26-Oct-2017 14:26:40 Calib Date: 28-Sep-2017 15:13:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK032

First Level Reviewer: journetp

Date: 26-Oct-2017 16:08:57

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	51.4	102.87
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	37.0	73.99
\$ 7 Toluene-d8 (Surr)	50.0	54.0	108.02
\$ 8 4-Bromofluorobenzene (Surr)	50.0	49.9	99.72

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1

SDG No.: _____

Instrument ID: CHHP6 Start Date: 07/24/2017 04:58

Analysis Batch Number: 217861 End Date: 07/24/2017 16:22

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-217861/1		07/24/2017 04:58	1	60724D01.D	DB-624 0.18 (mm)
ZZZZZ		07/24/2017 05:31	1		DB-624 0.18 (mm)
ZZZZZ		07/24/2017 05:31	1		DB-624 0.18 (mm)
IC 180-217861/3		07/24/2017 06:39	1	60724D03.D	DB-624 0.18 (mm)
IC 180-217861/4		07/24/2017 07:03	1	60724D04.D	DB-624 0.18 (mm)
ICIS 180-217861/5		07/24/2017 07:27	1	60724D05.D	DB-624 0.18 (mm)
IC 180-217861/6		07/24/2017 07:52	1	60724D06.D	DB-624 0.18 (mm)
IC 180-217861/7		07/24/2017 08:16	1	60724D07.D	DB-624 0.18 (mm)
IC 180-217861/8		07/24/2017 08:40	1	60724D08.D	DB-624 0.18 (mm)
IC 180-217861/9		07/24/2017 09:04	1	60724D09.D	DB-624 0.18 (mm)
IC 180-217861/10		07/24/2017 09:28	1	60724D10.D	DB-624 0.18 (mm)
ZZZZZ		07/24/2017 09:52	1		DB-624 0.18 (mm)
MDLV 180-217861/1011		07/24/2017 09:52	1		DB-624 0.18 (mm)
CCV 180-217861/12		07/24/2017 10:16	1		DB-624 0.18 (mm)
ICV 180-217861/13		07/24/2017 10:40	1		DB-624 0.18 (mm)
ZZZZZ		07/24/2017 11:04	1		DB-624 0.18 (mm)
ZZZZZ		07/24/2017 11:53	1		DB-624 0.18 (mm)
ZZZZZ		07/24/2017 12:17	1		DB-624 0.18 (mm)
ZZZZZ		07/24/2017 12:42	1		DB-624 0.18 (mm)
ZZZZZ		07/24/2017 13:37	1		DB-624 0.18 (mm)
ZZZZZ		07/24/2017 14:14	1		DB-624 0.18 (mm)
ZZZZZ		07/24/2017 14:45	1		DB-624 0.18 (mm)
ZZZZZ		07/24/2017 15:09	1		DB-624 0.18 (mm)
ZZZZZ		07/24/2017 15:33	1		DB-624 0.18 (mm)
ZZZZZ		07/24/2017 16:22	1		DB-624 0.18 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-71625-1

SDG No.: _____

Instrument ID: CHHP6 Start Date: 10/26/2017 07:52Analysis Batch Number: 227028 End Date: 10/26/2017 19:47

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-227028/1		10/26/2017 07:52	1	6102501N.D	DB-624 0.18 (mm)
CCVIS 180-227028/3		10/26/2017 10:50	1	6102503N.D	DB-624 0.18 (mm)
LCS 180-227028/4		10/26/2017 11:31	1	6102504N.D	DB-624 0.18 (mm)
ZZZZZ		10/26/2017 11:31	1		DB-624 0.18 (mm)
ZZZZZ		10/26/2017 12:14	1		DB-624 0.18 (mm)
MB 180-227028/7		10/26/2017 13:04	1	6102507N.D	DB-624 0.18 (mm)
180-71625-5		10/26/2017 13:28	1	6102508N.D	DB-624 0.18 (mm)
180-71625-1		10/26/2017 13:53	1	6102509N.D	DB-624 0.18 (mm)
180-71625-2		10/26/2017 14:18	1	6102510N.D	DB-624 0.18 (mm)
180-71625-1 MS		10/26/2017 14:48	1	6102511N.D	DB-624 0.18 (mm)
180-71625-1 MSD		10/26/2017 15:13	1	6102512N.D	DB-624 0.18 (mm)
180-71625-3		10/26/2017 16:02	1	6102514N.D	DB-624 0.18 (mm)
180-71625-4		10/26/2017 16:56	1	6102516N.D	DB-624 0.18 (mm)
ZZZZZ		10/26/2017 17:45	1		DB-624 0.18 (mm)
ZZZZZ		10/26/2017 18:34	12.5		DB-624 0.18 (mm)
ZZZZZ		10/26/2017 19:22	25		DB-624 0.18 (mm)
ZZZZZ		10/26/2017 19:47	25		DB-624 0.18 (mm)

Shipping and Receiving Documents

Chain of Custody Record

Project Manager: Christopher D. O'neil Tel/Fax: 717-901-8176 / (717) 657-1611 Client Contact: Groundwater Sciences Corporation 2601 Market Place St. Suite 310 Harrisburg, PA 17110 Phone: (717) 901-8180 FAX: (717) 657-1611 Project Name: 2017 Comprehensive Event Site: Harley-Davidson, York PA Quote # 18000557		Site Contact: Kaitlin B. Franssen Lab Contact: Carrie Gamber Date Submitted: 10/23/17 Carrier: FEDEX COC No.: TAP201702061 of COCs: 1 Job No.: 10012-32.0002 Container No.: SDG No.:			
Analysis Turnaround Time Calendar (C) or Work Days (W) <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 5 days <input type="checkbox"/> 1 day		VOCs (826C) 3 Select List Total Metals by ICP MS (SW846 6020/SW846 7470A) 3 Select List Dissolved Metals by ICP MS (SW846 6020/SW846 7470A) 3 1,4-Dioxane (SW846 8270D LL) 3 Total Cyanide (SW-846 9014) 3 Free Cyanide (EPA OIA-1677) 3			
Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Sample Specific Notes:
10/20/17	0900	GW	W	3	
10/20/17	0902	GW	W	3	
10/20/17	1355	GW	W	3	
10/20/17	1400	GW	W	3	
10/20/17	1200	Trip Blank	W	2	
Number of Containers: 3 Field Filter: N Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Unpreserved, 7= Zinc Acetate, & NaOH					Return To Client <input type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Months



Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Months

Special Instructions/QC Requirements & Comments: CLP Like Deliverables

Possible Hazard Identification:
 Non-Hazard
 Flammable
 Skin Irritant
 Poison B
 Unknown

Relinquished by: [Signature]	Company: GSC	Date/Time: 10/10/17 1430	Received by: [Signature]	Company: TAP	Date/Time: 10/23/17 1430
Relinquished by: [Signature]	Company: TA	Date/Time: 10/10/17 1617	Received by: Dulwe Watson	Company: TAP	Date/Time: 10-23-17 9:00
Relinquished by: [Signature]	Company:	Date/Time:	Received by:	Company:	Date/Time:

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: 20OCT17
ACTWGT: 31.00 LB
CAD: 8490299/INET3920

BILL RECIPIENT

TO **SAMPLE RECEIPT**
TEST AMERICA - PITTSBURGH
301 ALPHA DR

PITTSBURGH PA 15238

(412) 963-7058

REF:

INV:
PO:

DEPT:



FedEx
Express



J172117091381UV

TRK# 7705 5355 6032
0201

SATURDAY 12:00P
PRIORITY OVERNIGHT

AGCA

15238
PA-US PIT

uncorrected temp
thermometer ID

3.4 °C
13
13

PT-W

Initials

effective 7/26/13

TestA
THE LEADER IN E

SIG | DAT | C

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-71625-1

Login Number: 71625
List Number: 1
Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	