

ANALYTICAL REPORT

Job Number: 180-59576-1

Job Description: Harley Davidson

For:

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

Attention: Allan Miller



Approved for release.
Carrie L. Gamber
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10/17/2016 12:49 PM

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10/17/2016

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Table of Contents

Cover Title Page	1
Data Summaries	4
Definitions	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Default Detection Limits	14
Surrogate Summary	15
QC Sample Results	16
QC Association	20
Chronicle	21
Certification Summary	23
Method Summary	24
Sample Summary	25
Manual Integration Summary	26
Reagent Traceability	29
COAs	45
Organic Sample Data	100
GC/MS VOA	100
Method 8260C Low Level	100
Method 8260C Low Level QC Summary	101
Method 8260C Low Level Sample Data	113
Standards Data	179
Method 8260C Low Level ICAL Data	179
Method 8260C Low Level CCAL Data	240
Raw QC Data	254

Table of Contents

Method 8260C Low Level Tune Data	254
Method 8260C Low Level Blank Data	266
Method 8260C Low Level LCS/LCSD Data	282
Method 8260C Low Level Run Logs	297
Shipping and Receiving Documents	300
Client Chain of Custody	301
Sample Receipt Checklist	303

Definitions/Glossary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-59576-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
^c	CCV 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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

CASE NARRATIVE

Client: Groundwater Sciences Corporation

Project: Harley Davidson

Report Number: 180-59576-1

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 10/08/2016; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.3 C.

The sample HD-QC4-0/1-0 should be HD-QC4-0/1-2 per the client. This updated sample ID was used for log in and reporting.

VOLATILES

The continuing calibration verification (CCV) analyzed in batch 180-191047 was outside the method criteria for the following analytes: Acetone, Bromomethane, Chloromethane, and trans-1,3-Dichloropropene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 180-191190 was outside the method criteria for the following analytes: 1,4-Dioxane, Acetone, Acrylonitrile, Bromomethane, Chloromethane, and Vinyl chloride. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-59576-1

Client Sample ID: HD-MW-3-0/1-0

Lab Sample ID: 180-59576-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.8	J ^c	5.0	2.5	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	0.73	J	1.0	0.29	ug/L	1		8260C	Total/NA
Chloroform	2.4		1.0	0.27	ug/L	1		8260C	Total/NA
Trichloroethene	28		1.0	0.26	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.54	J	1.0	0.27	ug/L	1		8260C	Total/NA

Client Sample ID: HD-MW-18D-0/1-0

Lab Sample ID: 180-59576-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	0.53	J ^c	1.0	0.32	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	15		1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	5.5		1.0	0.26	ug/L	1		8260C	Total/NA

Client Sample ID: HD-MW-16D-0/1-0

Lab Sample ID: 180-59576-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	8.9		1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	10		1.0	0.26	ug/L	1		8260C	Total/NA

Client Sample ID: HD-MW-143D-0/1-0

Lab Sample ID: 180-59576-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.5	J ^c	5.0	2.5	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	0.66	J	1.0	0.29	ug/L	1		8260C	Total/NA

Client Sample ID: HD-MW-143S-0/1-0

Lab Sample ID: 180-59576-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.6	J ^c	5.0	2.5	ug/L	1		8260C	Total/NA
Trichloroethene	1.3		1.0	0.26	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.76	J	1.0	0.27	ug/L	1		8260C	Total/NA

Client Sample ID: HD-MW-82-0/1-0

Lab Sample ID: 180-59576-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.39	J	1.0	0.29	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.55	J	1.0	0.24	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	17		1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	6.7		1.0	0.26	ug/L	1		8260C	Total/NA
Tetrachloroethene	1.8		1.0	0.27	ug/L	1		8260C	Total/NA

Client Sample ID: HD-QC4-0/1-2

Lab Sample ID: 180-59576-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.1	^c	5.0	2.5	ug/L	1		8260C	Total/NA
Methylene Chloride	0.38	J	1.0	0.36	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pittsburgh

Client Sample Results

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-59576-1

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

Client Sample ID: HD-MW-3-0/1-0

Date Collected: 10/07/16 09:40

Date Received: 10/08/16 09:00

Lab Sample ID: 180-59576-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U ^c	1.0	0.23	ug/L			10/13/16 17:06	1
Vinyl chloride	1.0	U	1.0	0.32	ug/L			10/13/16 17:06	1
Bromomethane	1.0	U ^c	1.0	0.36	ug/L			10/13/16 17:06	1
Chloroethane	1.0	U	1.0	0.26	ug/L			10/13/16 17:06	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			10/13/16 17:06	1
Acetone	3.8	J ^c	5.0	2.5	ug/L			10/13/16 17:06	1
Carbon disulfide	1.0	U	1.0	0.18	ug/L			10/13/16 17:06	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			10/13/16 17:06	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			10/13/16 17:06	1
Methyl tert-butyl ether	1.0	U	1.0	0.24	ug/L			10/13/16 17:06	1
1,1-Dichloroethane	1.0	U	1.0	0.24	ug/L			10/13/16 17:06	1
cis-1,2-Dichloroethene	0.73	J	1.0	0.29	ug/L			10/13/16 17:06	1
Bromochloromethane	1.0	U	1.0	0.38	ug/L			10/13/16 17:06	1
2-Butanone (MEK)	5.0	U	5.0	1.2	ug/L			10/13/16 17:06	1
Chloroform	2.4		1.0	0.27	ug/L			10/13/16 17:06	1
1,1,1-Trichloroethane	1.0	U	1.0	0.22	ug/L			10/13/16 17:06	1
Carbon tetrachloride	1.0	U	1.0	0.24	ug/L			10/13/16 17:06	1
Benzene	1.0	U	1.0	0.26	ug/L			10/13/16 17:06	1
1,2-Dichloroethane	1.0	U	1.0	0.25	ug/L			10/13/16 17:06	1
Trichloroethene	28		1.0	0.26	ug/L			10/13/16 17:06	1
1,2-Dichloropropane	1.0	U	1.0	0.23	ug/L			10/13/16 17:06	1
Bromodichloromethane	1.0	U	1.0	0.23	ug/L			10/13/16 17:06	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			10/13/16 17:06	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.59	ug/L			10/13/16 17:06	1
Toluene	1.0	U	1.0	0.28	ug/L			10/13/16 17:06	1
trans-1,3-Dichloropropene	1.0	U ^c	1.0	0.24	ug/L			10/13/16 17:06	1
1,1,2-Trichloroethane	1.0	U	1.0	0.35	ug/L			10/13/16 17:06	1
Tetrachloroethene	0.54	J	1.0	0.27	ug/L			10/13/16 17:06	1
2-Hexanone	5.0	U	5.0	0.74	ug/L			10/13/16 17:06	1
Dibromochloromethane	1.0	U	1.0	0.40	ug/L			10/13/16 17:06	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.29	ug/L			10/13/16 17:06	1
Chlorobenzene	1.0	U	1.0	0.31	ug/L			10/13/16 17:06	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			10/13/16 17:06	1
Ethylbenzene	1.0	U	1.0	0.27	ug/L			10/13/16 17:06	1
Xylenes, Total	2.0	U	2.0	0.48	ug/L			10/13/16 17:06	1
Styrene	1.0	U	1.0	0.26	ug/L			10/13/16 17:06	1
Bromoform	1.0	U	1.0	0.29	ug/L			10/13/16 17:06	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.35	ug/L			10/13/16 17:06	1
Acrylonitrile	20	U	20	2.8	ug/L			10/13/16 17:06	1
1,4-Dioxane	200	U	200	7.5	ug/L			10/13/16 17:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		72 - 134		10/13/16 17:06	1
Toluene-d8 (Surr)	104		80 - 120		10/13/16 17:06	1
4-Bromofluorobenzene (Surr)	109		72 - 120		10/13/16 17:06	1
Dibromofluoromethane (Surr)	102		77 - 127		10/13/16 17:06	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-59576-1

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

Client Sample ID: HD-MW-18D-0/1-0

Date Collected: 10/07/16 12:25

Date Received: 10/08/16 09:00

Lab Sample ID: 180-59576-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U ^c	1.0	0.23	ug/L			10/14/16 18:20	1
Vinyl chloride	0.53	J ^c	1.0	0.32	ug/L			10/14/16 18:20	1
Bromomethane	1.0	U ^c	1.0	0.36	ug/L			10/14/16 18:20	1
Chloroethane	1.0	U	1.0	0.26	ug/L			10/14/16 18:20	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			10/14/16 18:20	1
Acetone	5.0	U ^c	5.0	2.5	ug/L			10/14/16 18:20	1
Carbon disulfide	1.0	U	1.0	0.18	ug/L			10/14/16 18:20	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			10/14/16 18:20	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			10/14/16 18:20	1
Methyl tert-butyl ether	1.0	U	1.0	0.24	ug/L			10/14/16 18:20	1
1,1-Dichloroethane	1.0	U	1.0	0.24	ug/L			10/14/16 18:20	1
cis-1,2-Dichloroethene	15		1.0	0.29	ug/L			10/14/16 18:20	1
Bromochloromethane	1.0	U	1.0	0.38	ug/L			10/14/16 18:20	1
2-Butanone (MEK)	5.0	U	5.0	1.2	ug/L			10/14/16 18:20	1
Chloroform	1.0	U	1.0	0.27	ug/L			10/14/16 18:20	1
1,1,1-Trichloroethane	1.0	U	1.0	0.22	ug/L			10/14/16 18:20	1
Carbon tetrachloride	1.0	U	1.0	0.24	ug/L			10/14/16 18:20	1
Benzene	1.0	U	1.0	0.26	ug/L			10/14/16 18:20	1
1,2-Dichloroethane	1.0	U	1.0	0.25	ug/L			10/14/16 18:20	1
Trichloroethene	5.5		1.0	0.26	ug/L			10/14/16 18:20	1
1,2-Dichloropropane	1.0	U	1.0	0.23	ug/L			10/14/16 18:20	1
Bromodichloromethane	1.0	U	1.0	0.23	ug/L			10/14/16 18:20	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			10/14/16 18:20	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.59	ug/L			10/14/16 18:20	1
Toluene	1.0	U	1.0	0.28	ug/L			10/14/16 18:20	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.24	ug/L			10/14/16 18:20	1
1,1,2-Trichloroethane	1.0	U	1.0	0.35	ug/L			10/14/16 18:20	1
Tetrachloroethene	1.0	U	1.0	0.27	ug/L			10/14/16 18:20	1
2-Hexanone	5.0	U	5.0	0.74	ug/L			10/14/16 18:20	1
Dibromochloromethane	1.0	U	1.0	0.40	ug/L			10/14/16 18:20	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.29	ug/L			10/14/16 18:20	1
Chlorobenzene	1.0	U	1.0	0.31	ug/L			10/14/16 18:20	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			10/14/16 18:20	1
Ethylbenzene	1.0	U	1.0	0.27	ug/L			10/14/16 18:20	1
Xylenes, Total	2.0	U	2.0	0.48	ug/L			10/14/16 18:20	1
Styrene	1.0	U	1.0	0.26	ug/L			10/14/16 18:20	1
Bromoform	1.0	U	1.0	0.29	ug/L			10/14/16 18:20	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.35	ug/L			10/14/16 18:20	1
Acrylonitrile	20	U ^c	20	2.8	ug/L			10/14/16 18:20	1
1,4-Dioxane	200	U ^c	200	7.5	ug/L			10/14/16 18:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	122		72 - 134		10/14/16 18:20	1
Toluene-d8 (Surr)	109		80 - 120		10/14/16 18:20	1
4-Bromofluorobenzene (Surr)	110		72 - 120		10/14/16 18:20	1
Dibromofluoromethane (Surr)	105		77 - 127		10/14/16 18:20	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-59576-1

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

Client Sample ID: HD-MW-16D-0/1-0

Date Collected: 10/07/16 13:45

Date Received: 10/08/16 09:00

Lab Sample ID: 180-59576-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U ^c	1.0	0.23	ug/L			10/13/16 18:18	1
Vinyl chloride	1.0	U	1.0	0.32	ug/L			10/13/16 18:18	1
Bromomethane	1.0	U ^c	1.0	0.36	ug/L			10/13/16 18:18	1
Chloroethane	1.0	U	1.0	0.26	ug/L			10/13/16 18:18	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			10/13/16 18:18	1
Acetone	5.0	U ^c	5.0	2.5	ug/L			10/13/16 18:18	1
Carbon disulfide	1.0	U	1.0	0.18	ug/L			10/13/16 18:18	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			10/13/16 18:18	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			10/13/16 18:18	1
Methyl tert-butyl ether	1.0	U	1.0	0.24	ug/L			10/13/16 18:18	1
1,1-Dichloroethane	1.0	U	1.0	0.24	ug/L			10/13/16 18:18	1
cis-1,2-Dichloroethene	8.9		1.0	0.29	ug/L			10/13/16 18:18	1
Bromochloromethane	1.0	U	1.0	0.38	ug/L			10/13/16 18:18	1
2-Butanone (MEK)	5.0	U	5.0	1.2	ug/L			10/13/16 18:18	1
Chloroform	1.0	U	1.0	0.27	ug/L			10/13/16 18:18	1
1,1,1-Trichloroethane	1.0	U	1.0	0.22	ug/L			10/13/16 18:18	1
Carbon tetrachloride	1.0	U	1.0	0.24	ug/L			10/13/16 18:18	1
Benzene	1.0	U	1.0	0.26	ug/L			10/13/16 18:18	1
1,2-Dichloroethane	1.0	U	1.0	0.25	ug/L			10/13/16 18:18	1
Trichloroethene	10		1.0	0.26	ug/L			10/13/16 18:18	1
1,2-Dichloropropane	1.0	U	1.0	0.23	ug/L			10/13/16 18:18	1
Bromodichloromethane	1.0	U	1.0	0.23	ug/L			10/13/16 18:18	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			10/13/16 18:18	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.59	ug/L			10/13/16 18:18	1
Toluene	1.0	U	1.0	0.28	ug/L			10/13/16 18:18	1
trans-1,3-Dichloropropene	1.0	U ^c	1.0	0.24	ug/L			10/13/16 18:18	1
1,1,2-Trichloroethane	1.0	U	1.0	0.35	ug/L			10/13/16 18:18	1
Tetrachloroethene	1.0	U	1.0	0.27	ug/L			10/13/16 18:18	1
2-Hexanone	5.0	U	5.0	0.74	ug/L			10/13/16 18:18	1
Dibromochloromethane	1.0	U	1.0	0.40	ug/L			10/13/16 18:18	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.29	ug/L			10/13/16 18:18	1
Chlorobenzene	1.0	U	1.0	0.31	ug/L			10/13/16 18:18	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			10/13/16 18:18	1
Ethylbenzene	1.0	U	1.0	0.27	ug/L			10/13/16 18:18	1
Xylenes, Total	2.0	U	2.0	0.48	ug/L			10/13/16 18:18	1
Styrene	1.0	U	1.0	0.26	ug/L			10/13/16 18:18	1
Bromoform	1.0	U	1.0	0.29	ug/L			10/13/16 18:18	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.35	ug/L			10/13/16 18:18	1
Acrylonitrile	20	U	20	2.8	ug/L			10/13/16 18:18	1
1,4-Dioxane	200	U	200	7.5	ug/L			10/13/16 18:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	124		72 - 134		10/13/16 18:18	1
Toluene-d8 (Surr)	102		80 - 120		10/13/16 18:18	1
4-Bromofluorobenzene (Surr)	109		72 - 120		10/13/16 18:18	1
Dibromofluoromethane (Surr)	109		77 - 127		10/13/16 18:18	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-59576-1

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

Client Sample ID: HD-MW-143D-0/1-0

Date Collected: 10/07/16 10:07

Date Received: 10/08/16 09:00

Lab Sample ID: 180-59576-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U ^c	1.0	0.23	ug/L			10/13/16 18:42	1
Vinyl chloride	1.0	U	1.0	0.32	ug/L			10/13/16 18:42	1
Bromomethane	1.0	U ^c	1.0	0.36	ug/L			10/13/16 18:42	1
Chloroethane	1.0	U	1.0	0.26	ug/L			10/13/16 18:42	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			10/13/16 18:42	1
Acetone	2.5	J ^c	5.0	2.5	ug/L			10/13/16 18:42	1
Carbon disulfide	1.0	U	1.0	0.18	ug/L			10/13/16 18:42	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			10/13/16 18:42	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			10/13/16 18:42	1
Methyl tert-butyl ether	1.0	U	1.0	0.24	ug/L			10/13/16 18:42	1
1,1-Dichloroethane	1.0	U	1.0	0.24	ug/L			10/13/16 18:42	1
cis-1,2-Dichloroethene	0.66	J	1.0	0.29	ug/L			10/13/16 18:42	1
Bromochloromethane	1.0	U	1.0	0.38	ug/L			10/13/16 18:42	1
2-Butanone (MEK)	5.0	U	5.0	1.2	ug/L			10/13/16 18:42	1
Chloroform	1.0	U	1.0	0.27	ug/L			10/13/16 18:42	1
1,1,1-Trichloroethane	1.0	U	1.0	0.22	ug/L			10/13/16 18:42	1
Carbon tetrachloride	1.0	U	1.0	0.24	ug/L			10/13/16 18:42	1
Benzene	1.0	U	1.0	0.26	ug/L			10/13/16 18:42	1
1,2-Dichloroethane	1.0	U	1.0	0.25	ug/L			10/13/16 18:42	1
Trichloroethene	1.0	U	1.0	0.26	ug/L			10/13/16 18:42	1
1,2-Dichloropropane	1.0	U	1.0	0.23	ug/L			10/13/16 18:42	1
Bromodichloromethane	1.0	U	1.0	0.23	ug/L			10/13/16 18:42	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			10/13/16 18:42	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.59	ug/L			10/13/16 18:42	1
Toluene	1.0	U	1.0	0.28	ug/L			10/13/16 18:42	1
trans-1,3-Dichloropropene	1.0	U ^c	1.0	0.24	ug/L			10/13/16 18:42	1
1,1,2-Trichloroethane	1.0	U	1.0	0.35	ug/L			10/13/16 18:42	1
Tetrachloroethene	1.0	U	1.0	0.27	ug/L			10/13/16 18:42	1
2-Hexanone	5.0	U	5.0	0.74	ug/L			10/13/16 18:42	1
Dibromochloromethane	1.0	U	1.0	0.40	ug/L			10/13/16 18:42	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.29	ug/L			10/13/16 18:42	1
Chlorobenzene	1.0	U	1.0	0.31	ug/L			10/13/16 18:42	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			10/13/16 18:42	1
Ethylbenzene	1.0	U	1.0	0.27	ug/L			10/13/16 18:42	1
Xylenes, Total	2.0	U	2.0	0.48	ug/L			10/13/16 18:42	1
Styrene	1.0	U	1.0	0.26	ug/L			10/13/16 18:42	1
Bromoform	1.0	U	1.0	0.29	ug/L			10/13/16 18:42	1
1,1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.35	ug/L			10/13/16 18:42	1
Acrylonitrile	20	U	20	2.8	ug/L			10/13/16 18:42	1
1,4-Dioxane	200	U	200	7.5	ug/L			10/13/16 18:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	125		72 - 134		10/13/16 18:42	1
Toluene-d8 (Surr)	104		80 - 120		10/13/16 18:42	1
4-Bromofluorobenzene (Surr)	112		72 - 120		10/13/16 18:42	1
Dibromofluoromethane (Surr)	107		77 - 127		10/13/16 18:42	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-59576-1

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

Client Sample ID: HD-MW-143S-0/1-0

Date Collected: 10/07/16 11:55

Date Received: 10/08/16 09:00

Lab Sample ID: 180-59576-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U ^c	1.0	0.23	ug/L			10/13/16 19:07	1
Vinyl chloride	1.0	U	1.0	0.32	ug/L			10/13/16 19:07	1
Bromomethane	1.0	U ^c	1.0	0.36	ug/L			10/13/16 19:07	1
Chloroethane	1.0	U	1.0	0.26	ug/L			10/13/16 19:07	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			10/13/16 19:07	1
Acetone	2.6	J ^c	5.0	2.5	ug/L			10/13/16 19:07	1
Carbon disulfide	1.0	U	1.0	0.18	ug/L			10/13/16 19:07	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			10/13/16 19:07	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			10/13/16 19:07	1
Methyl tert-butyl ether	1.0	U	1.0	0.24	ug/L			10/13/16 19:07	1
1,1-Dichloroethane	1.0	U	1.0	0.24	ug/L			10/13/16 19:07	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			10/13/16 19:07	1
Bromochloromethane	1.0	U	1.0	0.38	ug/L			10/13/16 19:07	1
2-Butanone (MEK)	5.0	U	5.0	1.2	ug/L			10/13/16 19:07	1
Chloroform	1.0	U	1.0	0.27	ug/L			10/13/16 19:07	1
1,1,1-Trichloroethane	1.0	U	1.0	0.22	ug/L			10/13/16 19:07	1
Carbon tetrachloride	1.0	U	1.0	0.24	ug/L			10/13/16 19:07	1
Benzene	1.0	U	1.0	0.26	ug/L			10/13/16 19:07	1
1,2-Dichloroethane	1.0	U	1.0	0.25	ug/L			10/13/16 19:07	1
Trichloroethene	1.3		1.0	0.26	ug/L			10/13/16 19:07	1
1,2-Dichloropropane	1.0	U	1.0	0.23	ug/L			10/13/16 19:07	1
Bromodichloromethane	1.0	U	1.0	0.23	ug/L			10/13/16 19:07	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			10/13/16 19:07	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.59	ug/L			10/13/16 19:07	1
Toluene	1.0	U	1.0	0.28	ug/L			10/13/16 19:07	1
trans-1,3-Dichloropropene	1.0	U ^c	1.0	0.24	ug/L			10/13/16 19:07	1
1,1,2-Trichloroethane	1.0	U	1.0	0.35	ug/L			10/13/16 19:07	1
Tetrachloroethene	0.76	J	1.0	0.27	ug/L			10/13/16 19:07	1
2-Hexanone	5.0	U	5.0	0.74	ug/L			10/13/16 19:07	1
Dibromochloromethane	1.0	U	1.0	0.40	ug/L			10/13/16 19:07	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.29	ug/L			10/13/16 19:07	1
Chlorobenzene	1.0	U	1.0	0.31	ug/L			10/13/16 19:07	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			10/13/16 19:07	1
Ethylbenzene	1.0	U	1.0	0.27	ug/L			10/13/16 19:07	1
Xylenes, Total	2.0	U	2.0	0.48	ug/L			10/13/16 19:07	1
Styrene	1.0	U	1.0	0.26	ug/L			10/13/16 19:07	1
Bromoform	1.0	U	1.0	0.29	ug/L			10/13/16 19:07	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.35	ug/L			10/13/16 19:07	1
Acrylonitrile	20	U	20	2.8	ug/L			10/13/16 19:07	1
1,4-Dioxane	200	U	200	7.5	ug/L			10/13/16 19:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	126		72 - 134		10/13/16 19:07	1
Toluene-d8 (Surr)	105		80 - 120		10/13/16 19:07	1
4-Bromofluorobenzene (Surr)	108		72 - 120		10/13/16 19:07	1
Dibromofluoromethane (Surr)	106		77 - 127		10/13/16 19:07	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-59576-1

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

Client Sample ID: HD-MW-82-0/1-0

Date Collected: 10/07/16 14:36

Date Received: 10/08/16 09:00

Lab Sample ID: 180-59576-6

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U ^c	1.0	0.23	ug/L			10/13/16 19:31	1
Vinyl chloride	1.0	U	1.0	0.32	ug/L			10/13/16 19:31	1
Bromomethane	1.0	U ^c	1.0	0.36	ug/L			10/13/16 19:31	1
Chloroethane	1.0	U	1.0	0.26	ug/L			10/13/16 19:31	1
1,1-Dichloroethene	0.39	J	1.0	0.29	ug/L			10/13/16 19:31	1
Acetone	5.0	U ^c	5.0	2.5	ug/L			10/13/16 19:31	1
Carbon disulfide	1.0	U	1.0	0.18	ug/L			10/13/16 19:31	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			10/13/16 19:31	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			10/13/16 19:31	1
Methyl tert-butyl ether	1.0	U	1.0	0.24	ug/L			10/13/16 19:31	1
1,1-Dichloroethane	0.55	J	1.0	0.24	ug/L			10/13/16 19:31	1
cis-1,2-Dichloroethene	17		1.0	0.29	ug/L			10/13/16 19:31	1
Bromochloromethane	1.0	U	1.0	0.38	ug/L			10/13/16 19:31	1
2-Butanone (MEK)	5.0	U	5.0	1.2	ug/L			10/13/16 19:31	1
Chloroform	1.0	U	1.0	0.27	ug/L			10/13/16 19:31	1
1,1,1-Trichloroethane	1.0	U	1.0	0.22	ug/L			10/13/16 19:31	1
Carbon tetrachloride	1.0	U	1.0	0.24	ug/L			10/13/16 19:31	1
Benzene	1.0	U	1.0	0.26	ug/L			10/13/16 19:31	1
1,2-Dichloroethane	1.0	U	1.0	0.25	ug/L			10/13/16 19:31	1
Trichloroethene	6.7		1.0	0.26	ug/L			10/13/16 19:31	1
1,2-Dichloropropane	1.0	U	1.0	0.23	ug/L			10/13/16 19:31	1
Bromodichloromethane	1.0	U	1.0	0.23	ug/L			10/13/16 19:31	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			10/13/16 19:31	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.59	ug/L			10/13/16 19:31	1
Toluene	1.0	U	1.0	0.28	ug/L			10/13/16 19:31	1
trans-1,3-Dichloropropene	1.0	U ^c	1.0	0.24	ug/L			10/13/16 19:31	1
1,1,2-Trichloroethane	1.0	U	1.0	0.35	ug/L			10/13/16 19:31	1
Tetrachloroethene	1.8		1.0	0.27	ug/L			10/13/16 19:31	1
2-Hexanone	5.0	U	5.0	0.74	ug/L			10/13/16 19:31	1
Dibromochloromethane	1.0	U	1.0	0.40	ug/L			10/13/16 19:31	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.29	ug/L			10/13/16 19:31	1
Chlorobenzene	1.0	U	1.0	0.31	ug/L			10/13/16 19:31	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			10/13/16 19:31	1
Ethylbenzene	1.0	U	1.0	0.27	ug/L			10/13/16 19:31	1
Xylenes, Total	2.0	U	2.0	0.48	ug/L			10/13/16 19:31	1
Styrene	1.0	U	1.0	0.26	ug/L			10/13/16 19:31	1
Bromoform	1.0	U	1.0	0.29	ug/L			10/13/16 19:31	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.35	ug/L			10/13/16 19:31	1
Acrylonitrile	20	U	20	2.8	ug/L			10/13/16 19:31	1
1,4-Dioxane	200	U	200	7.5	ug/L			10/13/16 19:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	124		72 - 134		10/13/16 19:31	1
Toluene-d8 (Surr)	107		80 - 120		10/13/16 19:31	1
4-Bromofluorobenzene (Surr)	106		72 - 120		10/13/16 19:31	1
Dibromofluoromethane (Surr)	103		77 - 127		10/13/16 19:31	1

Client Sample Results

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-59576-1

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

Client Sample ID: HD-QC4-0/1-2

Date Collected: 10/07/16 12:00

Date Received: 10/08/16 09:00

Lab Sample ID: 180-59576-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U ^c	1.0	0.23	ug/L			10/13/16 14:17	1
Vinyl chloride	1.0	U	1.0	0.32	ug/L			10/13/16 14:17	1
Bromomethane	1.0	U ^c	1.0	0.36	ug/L			10/13/16 14:17	1
Chloroethane	1.0	U	1.0	0.26	ug/L			10/13/16 14:17	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			10/13/16 14:17	1
Acetone	5.1	^c	5.0	2.5	ug/L			10/13/16 14:17	1
Carbon disulfide	1.0	U	1.0	0.18	ug/L			10/13/16 14:17	1
Methylene Chloride	0.38	J	1.0	0.36	ug/L			10/13/16 14:17	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			10/13/16 14:17	1
Methyl tert-butyl ether	1.0	U	1.0	0.24	ug/L			10/13/16 14:17	1
1,1-Dichloroethane	1.0	U	1.0	0.24	ug/L			10/13/16 14:17	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			10/13/16 14:17	1
Bromochloromethane	1.0	U	1.0	0.38	ug/L			10/13/16 14:17	1
2-Butanone (MEK)	5.0	U	5.0	1.2	ug/L			10/13/16 14:17	1
Chloroform	1.0	U	1.0	0.27	ug/L			10/13/16 14:17	1
1,1,1-Trichloroethane	1.0	U	1.0	0.22	ug/L			10/13/16 14:17	1
Carbon tetrachloride	1.0	U	1.0	0.24	ug/L			10/13/16 14:17	1
Benzene	1.0	U	1.0	0.26	ug/L			10/13/16 14:17	1
1,2-Dichloroethane	1.0	U	1.0	0.25	ug/L			10/13/16 14:17	1
Trichloroethene	1.0	U	1.0	0.26	ug/L			10/13/16 14:17	1
1,2-Dichloropropane	1.0	U	1.0	0.23	ug/L			10/13/16 14:17	1
Bromodichloromethane	1.0	U	1.0	0.23	ug/L			10/13/16 14:17	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			10/13/16 14:17	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.59	ug/L			10/13/16 14:17	1
Toluene	1.0	U	1.0	0.28	ug/L			10/13/16 14:17	1
trans-1,3-Dichloropropene	1.0	U ^c	1.0	0.24	ug/L			10/13/16 14:17	1
1,1,2-Trichloroethane	1.0	U	1.0	0.35	ug/L			10/13/16 14:17	1
Tetrachloroethene	1.0	U	1.0	0.27	ug/L			10/13/16 14:17	1
2-Hexanone	5.0	U	5.0	0.74	ug/L			10/13/16 14:17	1
Dibromochloromethane	1.0	U	1.0	0.40	ug/L			10/13/16 14:17	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.29	ug/L			10/13/16 14:17	1
Chlorobenzene	1.0	U	1.0	0.31	ug/L			10/13/16 14:17	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			10/13/16 14:17	1
Ethylbenzene	1.0	U	1.0	0.27	ug/L			10/13/16 14:17	1
Xylenes, Total	2.0	U	2.0	0.48	ug/L			10/13/16 14:17	1
Styrene	1.0	U	1.0	0.26	ug/L			10/13/16 14:17	1
Bromoform	1.0	U	1.0	0.29	ug/L			10/13/16 14:17	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.35	ug/L			10/13/16 14:17	1
Acrylonitrile	20	U	20	2.8	ug/L			10/13/16 14:17	1
1,4-Dioxane	200	U	200	7.5	ug/L			10/13/16 14:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	124		72 - 134		10/13/16 14:17	1
Toluene-d8 (Surr)	106		80 - 120		10/13/16 14:17	1
4-Bromofluorobenzene (Surr)	117		72 - 120		10/13/16 14:17	1
Dibromofluoromethane (Surr)	104		77 - 127		10/13/16 14:17	1

Default Detection Limits

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-59576-1

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

Analyte	RL	MDL	Units	Method
1,1,1,2-Tetrachloroethane	1.0	0.20	ug/L	8260C
1,1,1-Trichloroethane	1.0	0.22	ug/L	8260C
1,1,2,2-Tetrachloroethane	1.0	0.35	ug/L	8260C
1,1,2-Trichloroethane	1.0	0.35	ug/L	8260C
1,1-Dichloroethane	1.0	0.24	ug/L	8260C
1,1-Dichloroethene	1.0	0.29	ug/L	8260C
1,2-Dibromoethane (EDB)	1.0	0.29	ug/L	8260C
1,2-Dichloroethane	1.0	0.25	ug/L	8260C
1,2-Dichloropropane	1.0	0.23	ug/L	8260C
1,4-Dioxane	200	7.5	ug/L	8260C
2-Butanone (MEK)	5.0	1.2	ug/L	8260C
2-Hexanone	5.0	0.74	ug/L	8260C
4-Methyl-2-pentanone (MIBK)	5.0	0.59	ug/L	8260C
Acetone	5.0	2.5	ug/L	8260C
Acrylonitrile	20	2.8	ug/L	8260C
Benzene	1.0	0.26	ug/L	8260C
Bromochloromethane	1.0	0.38	ug/L	8260C
Bromodichloromethane	1.0	0.23	ug/L	8260C
Bromoform	1.0	0.29	ug/L	8260C
Bromomethane	1.0	0.36	ug/L	8260C
Carbon disulfide	1.0	0.18	ug/L	8260C
Carbon tetrachloride	1.0	0.24	ug/L	8260C
Chlorobenzene	1.0	0.31	ug/L	8260C
Chloroethane	1.0	0.26	ug/L	8260C
Chloroform	1.0	0.27	ug/L	8260C
Chloromethane	1.0	0.23	ug/L	8260C
cis-1,2-Dichloroethene	1.0	0.29	ug/L	8260C
cis-1,3-Dichloropropene	1.0	0.21	ug/L	8260C
Dibromochloromethane	1.0	0.40	ug/L	8260C
Ethylbenzene	1.0	0.27	ug/L	8260C
Methyl tert-butyl ether	1.0	0.24	ug/L	8260C
Methylene Chloride	1.0	0.36	ug/L	8260C
Styrene	1.0	0.26	ug/L	8260C
Tetrachloroethene	1.0	0.27	ug/L	8260C
Toluene	1.0	0.28	ug/L	8260C
trans-1,2-Dichloroethene	1.0	0.29	ug/L	8260C
trans-1,3-Dichloropropene	1.0	0.24	ug/L	8260C
Trichloroethene	1.0	0.26	ug/L	8260C
Vinyl chloride	1.0	0.32	ug/L	8260C
Xylenes, Total	2.0	0.48	ug/L	8260C

Surrogate Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-59576-1

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 (72-134)	TOL (80-120)	BFB (72-120)	DBFM (77-127)
180-59576-1	HD-MW-3-0/1-0	119	104	109	102
180-59576-2	HD-MW-18D-0/1-0	122	109	110	105
180-59576-3	HD-MW-16D-0/1-0	124	102	109	109
180-59576-4	HD-MW-143D-0/1-0	125	104	112	107
180-59576-5	HD-MW-143S-0/1-0	126	105	108	106
180-59576-6	HD-MW-82-0/1-0	124	107	106	103
180-59576-7	HD-QC4-0/1-2	124	106	117	104
LCS 180-191047/9	Lab Control Sample	107	97	97	94
LCS 180-191190/10	Lab Control Sample	111	104	100	97
MB 180-191047/6	Method Blank	117	106	108	103
MB 180-191190/4	Method Blank	121	108	114	102

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: 180-59576-1

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

Lab Sample ID: MB 180-191047/6

Matrix: Water

Analysis Batch: 191047

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	0.23	ug/L			10/13/16 13:17	1
Vinyl chloride	1.0	U	1.0	0.32	ug/L			10/13/16 13:17	1
Bromomethane	1.0	U	1.0	0.36	ug/L			10/13/16 13:17	1
Chloroethane	1.0	U	1.0	0.26	ug/L			10/13/16 13:17	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			10/13/16 13:17	1
Acetone	5.0	U	5.0	2.5	ug/L			10/13/16 13:17	1
Carbon disulfide	1.0	U	1.0	0.18	ug/L			10/13/16 13:17	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			10/13/16 13:17	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			10/13/16 13:17	1
Methyl tert-butyl ether	1.0	U	1.0	0.24	ug/L			10/13/16 13:17	1
1,1-Dichloroethane	1.0	U	1.0	0.24	ug/L			10/13/16 13:17	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			10/13/16 13:17	1
Bromochloromethane	1.0	U	1.0	0.38	ug/L			10/13/16 13:17	1
2-Butanone (MEK)	5.0	U	5.0	1.2	ug/L			10/13/16 13:17	1
Chloroform	1.0	U	1.0	0.27	ug/L			10/13/16 13:17	1
1,1,1-Trichloroethane	1.0	U	1.0	0.22	ug/L			10/13/16 13:17	1
Carbon tetrachloride	1.0	U	1.0	0.24	ug/L			10/13/16 13:17	1
Benzene	1.0	U	1.0	0.26	ug/L			10/13/16 13:17	1
1,2-Dichloroethane	1.0	U	1.0	0.25	ug/L			10/13/16 13:17	1
Trichloroethene	1.0	U	1.0	0.26	ug/L			10/13/16 13:17	1
1,2-Dichloropropane	1.0	U	1.0	0.23	ug/L			10/13/16 13:17	1
Bromodichloromethane	1.0	U	1.0	0.23	ug/L			10/13/16 13:17	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			10/13/16 13:17	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.59	ug/L			10/13/16 13:17	1
Toluene	1.0	U	1.0	0.28	ug/L			10/13/16 13:17	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.24	ug/L			10/13/16 13:17	1
1,1,2-Trichloroethane	1.0	U	1.0	0.35	ug/L			10/13/16 13:17	1
Tetrachloroethene	1.0	U	1.0	0.27	ug/L			10/13/16 13:17	1
2-Hexanone	5.0	U	5.0	0.74	ug/L			10/13/16 13:17	1
Dibromochloromethane	1.0	U	1.0	0.40	ug/L			10/13/16 13:17	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.29	ug/L			10/13/16 13:17	1
Chlorobenzene	1.0	U	1.0	0.31	ug/L			10/13/16 13:17	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			10/13/16 13:17	1
Ethylbenzene	1.0	U	1.0	0.27	ug/L			10/13/16 13:17	1
Xylenes, Total	2.0	U	2.0	0.48	ug/L			10/13/16 13:17	1
Styrene	1.0	U	1.0	0.26	ug/L			10/13/16 13:17	1
Bromoform	1.0	U	1.0	0.29	ug/L			10/13/16 13:17	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.35	ug/L			10/13/16 13:17	1
Acrylonitrile	20	U	20	2.8	ug/L			10/13/16 13:17	1
1,4-Dioxane	200	U	200	7.5	ug/L			10/13/16 13:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	117		72 - 134		10/13/16 13:17	1
Toluene-d8 (Surr)	106		80 - 120		10/13/16 13:17	1
4-Bromofluorobenzene (Surr)	108		72 - 120		10/13/16 13:17	1
Dibromofluoromethane (Surr)	103		77 - 127		10/13/16 13:17	1

TestAmerica Pittsburgh

QC Sample Results

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-59576-1

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

Lab Sample ID: LCS 180-191047/9

Matrix: Water

Analysis Batch: 191047

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	13.2		ug/L		132	51 - 150
Vinyl chloride	10.0	12.7		ug/L		127	61 - 138
Bromomethane	10.0	10.8		ug/L		108	39 - 150
Chloroethane	10.0	11.0		ug/L		110	53 - 148
1,1-Dichloroethene	10.0	9.94		ug/L		99	71 - 122
Acetone	20.0	18.1		ug/L		91	10 - 150
Carbon disulfide	10.0	9.92		ug/L		99	57 - 137
Methylene Chloride	10.0	9.28		ug/L		93	71 - 129
trans-1,2-Dichloroethene	10.0	9.78		ug/L		98	80 - 121
Methyl tert-butyl ether	10.0	8.74		ug/L		87	68 - 124
1,1-Dichloroethane	10.0	10.6		ug/L		106	76 - 126
cis-1,2-Dichloroethene	10.0	9.43		ug/L		94	80 - 120
Bromochloromethane	10.0	8.73		ug/L		87	76 - 120
2-Butanone (MEK)	20.0	20.2		ug/L		101	41 - 150
Chloroform	10.0	10.1		ug/L		101	78 - 122
1,1,1-Trichloroethane	10.0	9.58		ug/L		96	57 - 128
Carbon tetrachloride	10.0	9.77		ug/L		98	59 - 145
Benzene	10.0	10.2		ug/L		102	80 - 121
1,2-Dichloroethane	10.0	11.0		ug/L		110	72 - 126
Trichloroethene	10.0	9.63		ug/L		96	79 - 120
1,2-Dichloropropane	10.0	10.2		ug/L		102	78 - 123
Bromodichloromethane	10.0	10.1		ug/L		101	72 - 124
cis-1,3-Dichloropropene	10.0	8.29		ug/L		83	67 - 127
4-Methyl-2-pentanone (MIBK)	20.0	16.8		ug/L		84	49 - 147
Toluene	10.0	10.3		ug/L		103	80 - 125
trans-1,3-Dichloropropene	10.0	7.51		ug/L		75	63 - 144
1,1,2-Trichloroethane	10.0	10.0		ug/L		100	77 - 127
Tetrachloroethene	10.0	10.6		ug/L		106	80 - 122
2-Hexanone	20.0	15.4		ug/L		77	40 - 150
Dibromochloromethane	10.0	9.17		ug/L		92	71 - 134
1,2-Dibromoethane (EDB)	10.0	9.83		ug/L		98	79 - 126
Chlorobenzene	10.0	10.3		ug/L		103	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.77		ug/L		98	75 - 135
Ethylbenzene	10.0	10.4		ug/L		104	80 - 123
Xylenes, Total	20.0	21.3		ug/L		107	80 - 123
Styrene	10.0	10.7		ug/L		107	80 - 125
Bromoform	10.0	8.69		ug/L		87	62 - 138
1,1,2,2-Tetrachloroethane	10.0	10.8		ug/L		108	78 - 135
Acrylonitrile	100	122		ug/L		122	66 - 146
1,4-Dioxane	200	164	J	ug/L		82	10 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		72 - 134
Toluene-d8 (Surr)	97		80 - 120
4-Bromofluorobenzene (Surr)	97		72 - 120
Dibromofluoromethane (Surr)	94		77 - 127

QC Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-59576-1

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

Lab Sample ID: MB 180-191190/4
Matrix: Water
Analysis Batch: 191190

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	0.23	ug/L			10/14/16 12:00	1
Vinyl chloride	1.0	U	1.0	0.32	ug/L			10/14/16 12:00	1
Bromomethane	1.0	U	1.0	0.36	ug/L			10/14/16 12:00	1
Chloroethane	1.0	U	1.0	0.26	ug/L			10/14/16 12:00	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			10/14/16 12:00	1
Acetone	5.0	U	5.0	2.5	ug/L			10/14/16 12:00	1
Carbon disulfide	1.0	U	1.0	0.18	ug/L			10/14/16 12:00	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			10/14/16 12:00	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			10/14/16 12:00	1
Methyl tert-butyl ether	1.0	U	1.0	0.24	ug/L			10/14/16 12:00	1
1,1-Dichloroethane	1.0	U	1.0	0.24	ug/L			10/14/16 12:00	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			10/14/16 12:00	1
Bromochloromethane	1.0	U	1.0	0.38	ug/L			10/14/16 12:00	1
2-Butanone (MEK)	5.0	U	5.0	1.2	ug/L			10/14/16 12:00	1
Chloroform	1.0	U	1.0	0.27	ug/L			10/14/16 12:00	1
1,1,1-Trichloroethane	1.0	U	1.0	0.22	ug/L			10/14/16 12:00	1
Carbon tetrachloride	1.0	U	1.0	0.24	ug/L			10/14/16 12:00	1
Benzene	1.0	U	1.0	0.26	ug/L			10/14/16 12:00	1
1,2-Dichloroethane	1.0	U	1.0	0.25	ug/L			10/14/16 12:00	1
Trichloroethene	1.0	U	1.0	0.26	ug/L			10/14/16 12:00	1
1,2-Dichloropropane	1.0	U	1.0	0.23	ug/L			10/14/16 12:00	1
Bromodichloromethane	1.0	U	1.0	0.23	ug/L			10/14/16 12:00	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			10/14/16 12:00	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.59	ug/L			10/14/16 12:00	1
Toluene	1.0	U	1.0	0.28	ug/L			10/14/16 12:00	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.24	ug/L			10/14/16 12:00	1
1,1,2-Trichloroethane	1.0	U	1.0	0.35	ug/L			10/14/16 12:00	1
Tetrachloroethene	1.0	U	1.0	0.27	ug/L			10/14/16 12:00	1
2-Hexanone	5.0	U	5.0	0.74	ug/L			10/14/16 12:00	1
Dibromochloromethane	1.0	U	1.0	0.40	ug/L			10/14/16 12:00	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.29	ug/L			10/14/16 12:00	1
Chlorobenzene	1.0	U	1.0	0.31	ug/L			10/14/16 12:00	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			10/14/16 12:00	1
Ethylbenzene	1.0	U	1.0	0.27	ug/L			10/14/16 12:00	1
Xylenes, Total	2.0	U	2.0	0.48	ug/L			10/14/16 12:00	1
Styrene	1.0	U	1.0	0.26	ug/L			10/14/16 12:00	1
Bromoform	1.0	U	1.0	0.29	ug/L			10/14/16 12:00	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.35	ug/L			10/14/16 12:00	1
Acrylonitrile	20	U	20	2.8	ug/L			10/14/16 12:00	1
1,4-Dioxane	200	U	200	7.5	ug/L			10/14/16 12:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	121		72 - 134		10/14/16 12:00	1
Toluene-d8 (Surr)	108		80 - 120		10/14/16 12:00	1
4-Bromofluorobenzene (Surr)	114		72 - 120		10/14/16 12:00	1
Dibromofluoromethane (Surr)	102		77 - 127		10/14/16 12:00	1

QC Sample Results

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-59576-1

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

Lab Sample ID: LCS 180-191190/10

Matrix: Water

Analysis Batch: 191190

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	11.5		ug/L		115	51 - 150
Vinyl chloride	10.0	10.9		ug/L		109	61 - 138
Bromomethane	10.0	10.3		ug/L		103	39 - 150
Chloroethane	10.0	9.78		ug/L		98	53 - 148
1,1-Dichloroethene	10.0	9.17		ug/L		92	71 - 122
Acetone	20.0	21.6		ug/L		108	10 - 150
Carbon disulfide	10.0	8.55		ug/L		85	57 - 137
Methylene Chloride	10.0	10.4		ug/L		104	71 - 129
trans-1,2-Dichloroethene	10.0	9.38		ug/L		94	80 - 121
Methyl tert-butyl ether	10.0	9.04		ug/L		90	68 - 124
1,1-Dichloroethane	10.0	10.2		ug/L		102	76 - 126
cis-1,2-Dichloroethene	10.0	9.49		ug/L		95	80 - 120
Bromochloromethane	10.0	9.68		ug/L		97	76 - 120
2-Butanone (MEK)	20.0	21.5		ug/L		107	41 - 150
Chloroform	10.0	9.90		ug/L		99	78 - 122
1,1,1-Trichloroethane	10.0	8.80		ug/L		88	57 - 128
Carbon tetrachloride	10.0	8.73		ug/L		87	59 - 145
Benzene	10.0	10.2		ug/L		102	80 - 121
1,2-Dichloroethane	10.0	11.1		ug/L		111	72 - 126
Trichloroethene	10.0	9.16		ug/L		92	79 - 120
1,2-Dichloropropane	10.0	10.7		ug/L		107	78 - 123
Bromodichloromethane	10.0	10.0		ug/L		100	72 - 124
cis-1,3-Dichloropropene	10.0	8.48		ug/L		85	67 - 127
4-Methyl-2-pentanone (MIBK)	20.0	19.0		ug/L		95	49 - 147
Toluene	10.0	10.6		ug/L		106	80 - 125
trans-1,3-Dichloropropene	10.0	8.12		ug/L		81	63 - 144
1,1,2-Trichloroethane	10.0	10.7		ug/L		107	77 - 127
Tetrachloroethene	10.0	10.3		ug/L		103	80 - 122
2-Hexanone	20.0	16.7		ug/L		83	40 - 150
Dibromochloromethane	10.0	9.45		ug/L		95	71 - 134
1,2-Dibromoethane (EDB)	10.0	10.2		ug/L		102	79 - 126
Chlorobenzene	10.0	10.6		ug/L		106	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.96		ug/L		100	75 - 135
Ethylbenzene	10.0	10.3		ug/L		103	80 - 123
Xylenes, Total	20.0	21.0		ug/L		105	80 - 123
Styrene	10.0	10.8		ug/L		108	80 - 125
Bromoform	10.0	8.41		ug/L		84	62 - 138
1,1,2,2-Tetrachloroethane	10.0	10.9		ug/L		109	78 - 135
Acrylonitrile	100	125		ug/L		125	66 - 146
1,4-Dioxane	200	199	J	ug/L		100	10 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	111		72 - 134
Toluene-d8 (Surr)	104		80 - 120
4-Bromofluorobenzene (Surr)	100		72 - 120
Dibromofluoromethane (Surr)	97		77 - 127

QC Association Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-59576-1

GC/MS VOA

Analysis Batch: 191047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-59576-1	HD-MW-3-0/1-0	Total/NA	Water	8260C	
180-59576-3	HD-MW-16D-0/1-0	Total/NA	Water	8260C	
180-59576-4	HD-MW-143D-0/1-0	Total/NA	Water	8260C	
180-59576-5	HD-MW-143S-0/1-0	Total/NA	Water	8260C	
180-59576-6	HD-MW-82-0/1-0	Total/NA	Water	8260C	
180-59576-7	HD-QC4-0/1-2	Total/NA	Water	8260C	
MB 180-191047/6	Method Blank	Total/NA	Water	8260C	
LCS 180-191047/9	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 191190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-59576-2	HD-MW-18D-0/1-0	Total/NA	Water	8260C	
MB 180-191190/4	Method Blank	Total/NA	Water	8260C	
LCS 180-191190/10	Lab Control Sample	Total/NA	Water	8260C	

Lab Chronicle

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-59576-1

Client Sample ID: HD-MW-3-0/1-0

Date Collected: 10/07/16 09:40

Date Received: 10/08/16 09:00

Lab Sample ID: 180-59576-1

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	191047	10/13/16 17:06	DLF	TAL PIT
Instrument ID: CHHP5										

Client Sample ID: HD-MW-18D-0/1-0

Date Collected: 10/07/16 12:25

Date Received: 10/08/16 09:00

Lab Sample ID: 180-59576-2

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	191190	10/14/16 18:20	DLF	TAL PIT
Instrument ID: CHHP5										

Client Sample ID: HD-MW-16D-0/1-0

Date Collected: 10/07/16 13:45

Date Received: 10/08/16 09:00

Lab Sample ID: 180-59576-3

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	191047	10/13/16 18:18	DLF	TAL PIT
Instrument ID: CHHP5										

Client Sample ID: HD-MW-143D-0/1-0

Date Collected: 10/07/16 10:07

Date Received: 10/08/16 09:00

Lab Sample ID: 180-59576-4

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	191047	10/13/16 18:42	DLF	TAL PIT
Instrument ID: CHHP5										

Client Sample ID: HD-MW-143S-0/1-0

Date Collected: 10/07/16 11:55

Date Received: 10/08/16 09:00

Lab Sample ID: 180-59576-5

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	191047	10/13/16 19:07	DLF	TAL PIT
Instrument ID: CHHP5										

Client Sample ID: HD-MW-82-0/1-0

Date Collected: 10/07/16 14:36

Date Received: 10/08/16 09:00

Lab Sample ID: 180-59576-6

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	191047	10/13/16 19:31	DLF	TAL PIT
Instrument ID: CHHP5										

TestAmerica Pittsburgh

Lab Chronicle

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-59576-1

Client Sample ID: HD-QC4-0/1-2

Lab Sample ID: 180-59576-7

Date Collected: 10/07/16 12:00

Matrix: Water

Date Received: 10/08/16 09:00

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	191047	10/13/16 14:17	DLF	TAL PIT
Instrument ID: CHHP5										

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

DLF = Donald Ferguson

Certification Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-59576-1

Laboratory: TestAmerica Pittsburgh

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Pennsylvania	NELAP	3	02-00416	04-30-17

Method Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-59576-1

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: 180-59576-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-59576-1	HD-MW-3-0/1-0	Water	10/07/16 09:40	10/08/16 09:00
180-59576-2	HD-MW-18D-0/1-0	Water	10/07/16 12:25	10/08/16 09:00
180-59576-3	HD-MW-16D-0/1-0	Water	10/07/16 13:45	10/08/16 09:00
180-59576-4	HD-MW-143D-0/1-0	Water	10/07/16 10:07	10/08/16 09:00
180-59576-5	HD-MW-143S-0/1-0	Water	10/07/16 11:55	10/08/16 09:00
180-59576-6	HD-MW-82-0/1-0	Water	10/07/16 14:36	10/08/16 09:00
180-59576-7	HD-QC4-0/1-2	Water	10/07/16 12:00	10/08/16 09:00

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1

SDG No.: _____

Instrument ID: CHHP5 Analysis Batch Number: 189445Lab Sample ID: ICIS 180-189445/6 Client Sample ID: _____Date Analyzed: 09/28/16 14:51 Lab File ID: 50928006.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isobutyl alcohol	6.93	Incomplete Integration	fergusond	09/29/16 08:24
1,4-Dioxane	8.02	Incomplete Integration	fergusond	09/29/16 08:24

Lab Sample ID: IC 180-189445/7 Client Sample ID: _____Date Analyzed: 09/28/16 15:15 Lab File ID: 50928007.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,2-Dichloropropane	5.94	Poor chromatography	fergusond	09/29/16 09:04
1,4-Dioxane	8.02	Incomplete Integration	fergusond	09/29/16 09:04

Lab Sample ID: IC 180-189445/8 Client Sample ID: _____Date Analyzed: 09/28/16 15:39 Lab File ID: 50928008.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,2-Dichloropropane	5.93	Poor chromatography	fergusond	09/29/16 09:09

Lab Sample ID: IC 180-189445/9 Client Sample ID: _____Date Analyzed: 09/28/16 16:03 Lab File ID: 50928009.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,2-Dichloropropane	5.94	Poor chromatography	fergusond	09/29/16 09:13
1,4-Dioxane	8.02	Poor chromatography	fergusond	09/29/16 09:13

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1

SDG No.: _____

Instrument ID: CHHP5 Analysis Batch Number: 189445Lab Sample ID: IC 180-189445/10 Client Sample ID: _____Date Analyzed: 09/28/16 16:27 Lab File ID: 50928010.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,2-Dichloropropane	5.94	Poor chromatography	fergusond	09/29/16 09:21
Isobutyl alcohol	6.93	Poor chromatography	fergusond	09/29/16 09:21

Lab Sample ID: IC 180-189445/11 Client Sample ID: _____Date Analyzed: 09/28/16 16:51 Lab File ID: 50928011.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,2-Dichloropropane	5.94	Poor chromatography	fergusond	09/29/16 09:23
4-Methyl-2-pentanone (MIBK)	8.82	Peak Tail	fergusond	09/29/16 09:28

Lab Sample ID: IC 180-189445/15 Client Sample ID: _____Date Analyzed: 09/28/16 18:27 Lab File ID: 50928015.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,2-Dichloropropane	5.94	Poor chromatography	fergusond	09/29/16 11:02
Isobutyl alcohol	6.93	Poor chromatography	fergusond	09/29/16 11:02

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1

SDG No.: _____

Instrument ID: CHHP5 Analysis Batch Number: 191047Lab Sample ID: 180-59576-7 Client Sample ID: HD-QC4-0/1-2Date Analyzed: 10/13/16 14:17 Lab File ID: 51013008.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methylene Chloride	4.14	Incomplete Integration	fergusond	10/13/16 15:00

Lab Sample ID: LCS 180-191047/9 Client Sample ID: _____Date Analyzed: 10/13/16 14:41 Lab File ID: 51013009.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Incomplete Integration	fergusond	10/13/16 15:02

Lab Sample ID: 180-59576-3 Client Sample ID: HD-MW-16D-0/1-0Date Analyzed: 10/13/16 18:18 Lab File ID: 51013018.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.45	Poor chromatography	fergusond	10/14/16 07:36

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-59576-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration					
					Reagent ID	Volume Added							
VOA8260INT_00061	10/22/16	09/22/16	Methanol, Lot 136118	10 mL	VOA8260INTRES_00126	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_00126	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					
VOA8260SURR_00059	10/22/16	09/22/16	Methanol, Lot 136118	100 mL	VOA8260SURRES_00116	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_00116	07/31/20		Restek, Lot A0112455		(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_00208	10/13/16	10/06/16	Methanol, Lot 136118	10 mL	VOA8260GAS2ND_00165	0.1 mL	Bromomethane	25 ug/mL					
							Chloroethane	25 ug/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					
					VOA8260VOA2ND_00207						1 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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-59576-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00165	11/30/18		Restek, Lot A0115484			(Purchased Reagent)	Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOA2ND_00207	11/04/16	10/04/16	Methanol, Lot 136118	10 mL	VOA8260MEGA2_00052	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
							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_00052	01/31/17		Restek, Lot A0118163			(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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-59576-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
VOA8260VOA2ND_00209	10/21/16	10/14/16	Methanol, Lot 136118	10 mL	VOA8260GAS2ND_00166	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOA2ND_00207	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
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-59576-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00166	11/30/18		Restek, Lot A0115484			(Purchased Reagent)	Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOA2ND_00207	11/04/16	10/04/16	Methanol, Lot 136118	10 mL	VOA8260MEGA2_00052	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
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-59576-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichloroethene	250 ug/mL
							Xylenes, Total	500 ug/mL
..VOA8260MEGA2_00052	01/31/17		Restek, Lot A0118163		(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_00213	10/05/16	09/28/16	Methanol, Lot 136118	10 mL	VOA8260GAS1ST_00166	0.1 mL	Bromomethane	25 ug/mL
							Butadiene	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Dichlorodifluoromethane	25 ug/mL
							Dichlorofluoromethane	25 ug/mL
							Trichlorofluoromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00210	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-59576-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-59576-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Iodomethane	25 ug/mL
							Isobutyl alcohol	625 ug/mL
							Isopropylbenzene	25 ug/mL
							m-Xylene & p-Xylene	25 ug/mL
							Methyl acetate	125 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_00166	10/31/18		Restek, Lot A0115012			(Purchased Reagent)	Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00210	10/07/16	09/07/16	Methanol, Lot 127999	10 mL	VOA8260KET1ST_00074	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_00053	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
							1,1-Dichloroethene	250 ug/mL
							1,1-Dichloropropene	250 ug/mL
							1,2,3-Trichlorobenzene	250 ug/mL
							1,2,3-Trichloropropene	250 ug/mL
							1,2,4-Trichlorobenzene	250 ug/mL
							1,2,4-Trimethylbenzene	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-59576-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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	1250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-59576-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00074	11/30/18		Restek, Lot A0115554			(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_00053	03/31/18		Restek, Lot A0108177			(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
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-59576-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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	12500 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_00215	10/13/16	10/06/16	Methanol, Lot 136118	10 mL	VOA8260GAS1ST_00167	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00214	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-59576-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00167	10/31/18		Restek, Lot A0115012			(Purchased Reagent)	Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00214	11/04/16	10/04/16	Methanol, Lot 136118	10 mL	VOA8260MEGA1_00054	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	500 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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-59576-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00054	03/31/18		Restek, Lot A0108177		(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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-59576-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
VOA8260VOAPRI_00216	10/21/16	10/14/16	Methanol, Lot 136118	10 mL	VOA8260GAS1ST_00168	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
							1,1,1,2-Tetrachloroethane	25 ug/mL
					VOA8260VOAPRI_00214	1 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_00168	04/30/19		Restek, Lot A0118719		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00214	11/04/16	10/04/16	Methanol, Lot 136118	10 mL	VOA8260MEGA1_00054	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							

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-59576-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							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_00054	03/31/18		Restek, Lot A0108177		(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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-59576-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
voaW2CLEReste_00001	10/05/16	09/28/16	Methanol, Lot 2019056	10 mL	VOACEVERES_00104	0.2 mL	2-Chloroethyl vinyl ether	50 ug/mL
.VOACEVERES_00104	11/30/18		Restek, Lot A0115628		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
voaWAcro1stRe_00008	10/01/16	09/01/16	Methanol, Lot 2019052	100 mL	VOAACRORES_00102	0.125 mL	Acrolein	25 ug/mL
.VOAACRORES_00102	10/31/16		Restek, Lot A0119846		(Purchased Reagent)		Acrolein	20000 ug/mL
voaWEEmixRest_00001	10/27/16	09/27/16	Methanol, Lot 2019056	25 mL	VOARESEE1ST_00035	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_00035	01/01/18		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
							2,4- & 2,5- & 2,6-Dichlorotoluene	15000 ug/mL
							2,4-Dichloro-1-(trifluoromethyl)-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_00013	10/20/17	09/20/16	Methanol, Lot 2019052	50 mL	VOA8260KET2ND_00079	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_00079	11/30/18		Restek, Lot A0115554		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetone	12500 ug/mL
voaWketPriRes_00002	10/26/16	09/26/16	Methanol, Lot 2019054	50 mL	VOA8260KET1ST_00075	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_00075	11/30/18		Restek, Lot A0115554		(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_00008	09/30/16	09/06/16	Methanol, Lot 2019052	25 mL	VOA8260VARES_00069	0.125 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00069	09/30/16		Restek, Lot A0118255		(Purchased Reagent)		Vinyl acetate	5000 ug/mL

Reagent

VOA8260GAS1ST_00166



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
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Fax: (814)353-1309

Certificate of Analysis

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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.: A0115012

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 : October 31, 2018 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 (Lot Q167-08) Purity 99%	2,502.3 µg/mL	+/-	17.1236	µg/mL Gravimetric
			+/-	140.5935	µg/mL Unstressed
			+/-	143.8698	µg/mL Stressed
2	Chloromethane (methyl chloride) CAS # 74-87-3 (Lot SHBF7067V) Purity 99%	2,506.2 µg/mL	+/-	15.8909	µg/mL Gravimetric
			+/-	140.6631	µg/mL Unstressed
			+/-	143.9478	µg/mL Stressed
3	Vinyl chloride CAS # 75-01-4 (Lot 25LPST) Purity 99%	2,507.2 µg/mL	+/-	16.0743	µg/mL Gravimetric
			+/-	140.7405	µg/mL Unstressed
			+/-	144.0261	µg/mL Stressed
4	1,3-Butadiene CAS # 106-99-0 (Lot SHBF3387V) Purity 99%	2,517.0 µg/mL	+/-	17.1894	µg/mL Gravimetric
			+/-	141.4157	µg/mL Unstressed
			+/-	144.7114	µg/mL Stressed
5	Bromomethane (methyl bromide) CAS # 74-83-9 (Lot 101604) Purity 99%	2,511.3 µg/mL	+/-	17.3826	µg/mL Gravimetric
			+/-	141.1222	µg/mL Unstressed
			+/-	144.4097	µg/mL Stressed
6	Chloroethane (ethyl chloride) CAS # 75-00-3 (Lot SHBD1717V) Purity 99%	2,497.4 µg/mL	+/-	16.0992	µg/mL Gravimetric
			+/-	140.2015	µg/mL Unstressed
			+/-	143.4741	µg/mL Stressed
7	Dichlorofluoromethane (CFC-21) CAS # 75-43-4 (Lot Q9B-58) Purity 99%	2,516.3 µg/mL	+/-	19.2032	µg/mL Gravimetric
			+/-	141.6354	µg/mL Unstressed
			+/-	144.9242	µg/mL Stressed

8	Trichlorofluoromethane (CFC-11)	2,512.2 µg/mL	+/- 18.6489	µg/mL	Gravimetric
	CAS # 75-69-4 (Lot SHBF6387V)		+/- 141.3341	µg/mL	Unstressed
	Purity 99%		+/- 144.6191	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:

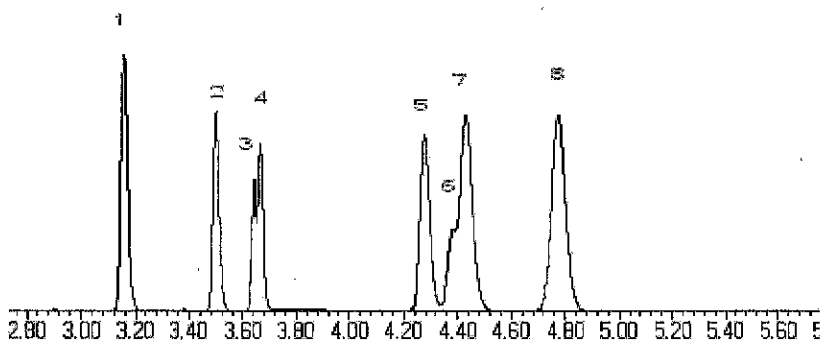
200°C

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.

Kendra Swope
 Kendra Swope - Mix Technician

Date Mixed: 29-Oct-2015 **Balance:** 1125113331

Jennifer L. Pollino
 Jennifer L. Pollino - QC Analyst

Date Passed: 02-Nov-2015

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

Reagent

VOA8260GAS1ST_00167



CERTIFIED REFERENCE MATERIAL

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Catalog No. : 569722 Lot No.: A0115012

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 : October 31, 2018 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 (Lot Q167-08) Purity 99%	2,502.3 µg/mL	+/- 17.1236 µg/mL +/- 140.5935 µg/mL +/- 143.8698 µg/mL	Gravimetric Unstressed Stressed	
2	Chloromethane (methyl chloride) CAS # 74-87-3 (Lot SHBF7067V) Purity 99%	2,506.2 µg/mL	+/- 15.8909 µg/mL +/- 140.6631 µg/mL +/- 143.9478 µg/mL	Gravimetric Unstressed Stressed	
3	Vinyl chloride CAS # 75-01-4 (Lot 25LPST) Purity 99%	2,507.2 µg/mL	+/- 16.0743 µg/mL +/- 140.7405 µg/mL +/- 144.0261 µg/mL	Gravimetric Unstressed Stressed	
4	1,3-Butadiene CAS # 106-99-0 (Lot SHBF3387V) Purity 99%	2,517.0 µg/mL	+/- 17.1894 µg/mL +/- 141.4157 µg/mL +/- 144.7114 µg/mL	Gravimetric Unstressed Stressed	
5	Bromomethane (methyl bromide) CAS # 74-83-9 (Lot 101604) Purity 99%	2,511.3 µg/mL	+/- 17.3826 µg/mL +/- 141.1222 µg/mL +/- 144.4097 µg/mL	Gravimetric Unstressed Stressed	
6	Chloroethane (ethyl chloride) CAS # 75-00-3 (Lot SHBD1717V) Purity 99%	2,497.4 µg/mL	+/- 16.0992 µg/mL +/- 140.2015 µg/mL +/- 143.4741 µg/mL	Gravimetric Unstressed Stressed	
7	Dichlorofluoromethane (CFC-21) CAS # 75-43-4 (Lot Q9B-58) Purity 99%	2,516.3 µg/mL	+/- 19.2032 µg/mL +/- 141.6354 µg/mL +/- 144.9242 µg/mL	Gravimetric Unstressed Stressed	

8	Trichlorofluoromethane (CFC-11)	2,512.2 µg/mL	+/- 18.6489	µg/mL	Gravimetric
	CAS # 75-69-4 (Lot SHBF6387V)		+/- 141.3341	µg/mL	Unstressed
	Purity 99%		+/- 144.6191	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)

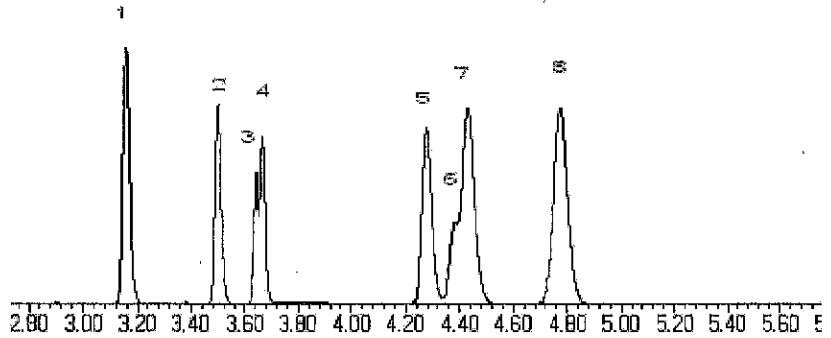
Carrier Gas:
helium-constant flow 2.0 ml/min.

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.

Kendra Swope
Kendra Swope - Mix Technician

Date Mixed: 29-Oct-2015 **Balance:** 1125113331

Jennifer L. Pollino
Jennifer L. Pollino - QC Analyst

Date Passed: 02-Nov-2015

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

Reagent

VOA8260GAS1ST_00168



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 Lot No.: A0118719

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 : April 30, 2019 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.I., K=2)			
1	Dichlorodifluoromethane (CFC-12)	2,504.2 µg/mL	-/-	18.7109	µg/mL	Gravimetric
	CAS # 75-71-8 (Lot Q167-08)		+/-	140.8995	µg/mL	Unstressed
	Purity 99%		-/+	144.1737	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,500.6 µg/mL	+/-	18.9897	µg/mL	Gravimetric
	CAS # 74-87-3 (Lot SHBG1480V)		+/-	140.7385	µg/mL	Unstressed
	Purity 99%		+/-	144.0070	µg/mL	Stressed
3	Vinyl chloride	2,499.8 µg/mL	+/-	20.8058	µg/mL	Gravimetric
	CAS # 75-01-4 (Lot 25LPST)		+/-	140.9486	µg/mL	Unstressed
	Purity 99%		+/-	144.2103	µg/mL	Stressed
4	1,3-Butadiene	2,500.6 µg/mL	-/-	21.2874	µg/mL	Gravimetric
	CAS # 106-99-0 (Lot SHBF3387V)		+/-	141.0663	µg/mL	Unstressed
	Purity 99%		+/-	144.3274	µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,500.1 µg/mL	+/-	22.8576	µg/mL	Gravimetric
	CAS # 74-83-9 (Lot 101604)		+/-	141.2859	µg/mL	Unstressed
	Purity 99%		+/-	144.5409	µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,500.3 µg/mL	+/-	19.5969	µg/mL	Gravimetric
	CAS # 75-00-3 (Lot SHBD1717V)		+/-	140.8062	µg/mL	Unstressed
	Purity 99%		+/-	144.0725	µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,504.7 µg/mL	-/-	19.5937	µg/mL	Gravimetric
	CAS # 75-43-4 (Lot Q9B-58)		+/-	141.0449	µg/mL	Unstressed
	Purity 99%		+/-	144.3170	µg/mL	Stressed

8	Trichlorofluoromethane (CFC-11)	2.524.5	µg/mL	+/-	16.8928	µg/mL	Gravimetric
	CAS # 75-69-4.SEC (Lot Q12B-59)			+/-	141.7952	µg/mL	Unstressed
	Purity 99%			+/-	145.1017	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)

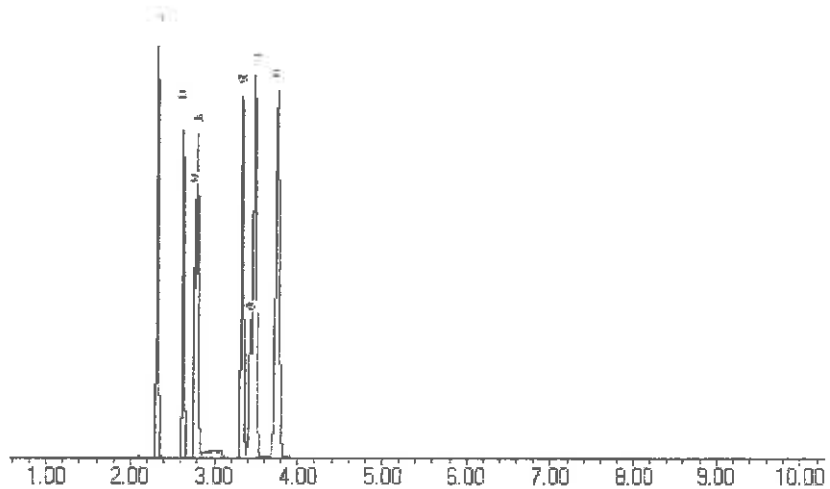
Carrier Gas:
helium-constant flow 2.0 mL/min.

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.

Lane Klbe
Lane Klbe - Mix Technician

Date Mixed: 17-Nov-2015 **Balance:** 1127510105

Jennifer L. Pollino
Jennifer L. Pollino - QC Analyst

Date Passed: 10-Dec-2015

<p>Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397</p>
--

Reagent

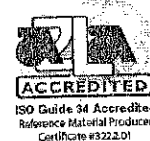
VOA8260GAS2ND_00165

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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.: A0115484
 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 : November 30, 2018 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc (weight/volume)	Expanded Uncertainty (95% C.L., K=2)		
			+/-	µg/mL	Gravimetric
1	Dichlorodifluoromethane (CFC-12) CAS # 75-71-8.SEC (Lot 22274) Purity 99%	2,505.6 µg/mL	+/-	16.6251	Gravimetric
			+/-	140.7169	Unstressed
			+/-	143.9990	Stressed
2	Chloromethane (methyl chloride) CAS # 74-87-3.SEC (Lot 18343) Purity 99%	2,517.3 µg/mL	+/-	17.3796	Gravimetric
			+/-	141.4522	Unstressed
			+/-	144.7477	Stressed
3	Vinyl chloride CAS # 75-01-4.SEC (Lot MKBK6872V) Purity 99%	2,510.2 µg/mL	+/-	16.6342	Gravimetric
			+/-	140.9727	Unstressed
			+/-	144.2609	Stressed
4	1,3-Butadiene CAS # 106-99-0.SEC (Lot 22331) Purity 99%	2,516.5 µg/mL	+/-	17.4874	Gravimetric
			+/-	141.4240	Unstressed
			+/-	144.7182	Stressed
5	Bromomethane (methyl bromide) CAS # 74-83-9.SEC (Lot Q119-46) Purity 99%	2,511.5 µg/mL	+/-	16.8310	Gravimetric
			+/-	141.0664	Unstressed
			+/-	144.3557	Stressed
6	Chloroethane (ethyl chloride) CAS # 75-00-3.SEC (Lot 00004202) Purity 99%	2,504.8 µg/mL	+/-	16.4341	Gravimetric
			+/-	140.6469	Unstressed
			+/-	143.9283	Stressed
7	Dichlorofluoromethane (CFC-21) CAS # 75-43-4.SEC (Lot SHBC0858V) Purity 99%	2,500.5 µg/mL	+/-	16.1659	Gravimetric
			+/-	140.3776	Unstressed
			+/-	143.6540	Stressed

8	Trichlorofluoromethane (CFC-11)	2,524.5	µg/mL	+/-	16.8928	µg/mL	Gravimetric
	CAS # 75-69-4,SEC (Lot Q12B-59)			+/-	141.7952	µg/mL	Unstressed
	Purity 99%			+/-	145.1017	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:

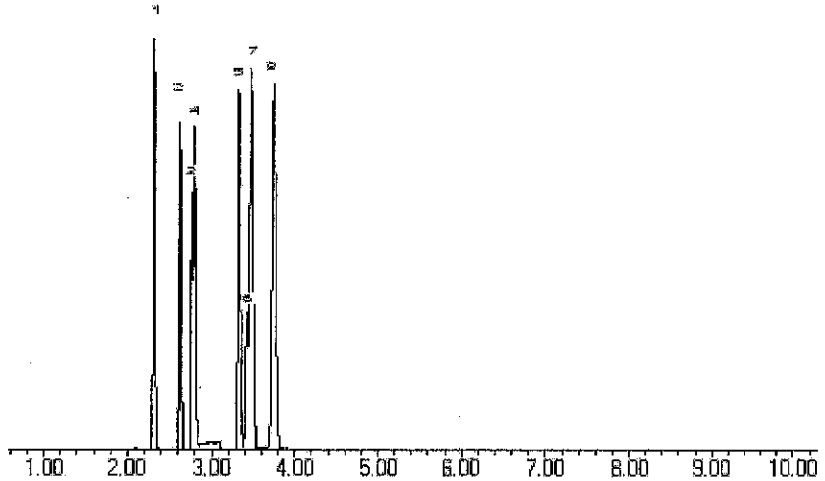
200°C

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.

Lane Kibe

Lane Kibe - Mix Technician

Date Mixed: 17-Nov-2015

Balance: 1127510105

Jennifer L. Pollino

Jennifer L. Pollino - QC Analyst

Date Passed: 10-Dec-2015

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

Reagent

VOA8260GAS2ND_00166



CERTIFIED REFERENCE MATERIAL

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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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Catalog No. : 569722.sec Lot No.: A0115484

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 : November 30, 2018 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc (weight/volume)	Expanded Uncertainty (95% C.L., K=2)		
			+/-	µg/mL	Gravimetric
1	Dichlorodifluoromethane (CFC-12) CAS # 75-71-8.SEC (Lot 22274) Purity 99%	2,505.6 µg/mL	+/-	16.6251	Gravimetric
			+/-	140.7169	Unstressed
			+/-	143.9990	Stressed
2	Chloromethane (methyl chloride) CAS # 74-87-3.SEC (Lot 18343) Purity 99%	2,517.3 µg/mL	+/-	17.3796	Gravimetric
			+/-	141.4522	Unstressed
			+/-	144.7477	Stressed
3	Vinyl chloride CAS # 75-01-4.SEC (Lot MKBK6872V) Purity 99%	2,510.2 µg/mL	+/-	16.6342	Gravimetric
			+/-	140.9727	Unstressed
			+/-	144.2609	Stressed
4	1,3-Butadiene CAS # 106-99-0.SEC (Lot 22331) Purity 99%	2,516.5 µg/mL	+/-	17.4874	Gravimetric
			+/-	141.4240	Unstressed
			+/-	144.7182	Stressed
5	Bromomethane (methyl bromide) CAS # 74-83-9.SEC (Lot Q119-46) Purity 99%	2,511.5 µg/mL	+/-	16.8310	Gravimetric
			+/-	141.0664	Unstressed
			+/-	144.3557	Stressed
6	Chloroethane (ethyl chloride) CAS # 75-00-3.SEC (Lot 00004202) Purity 99%	2,504.8 µg/mL	+/-	16.4341	Gravimetric
			+/-	140.6469	Unstressed
			+/-	143.9283	Stressed
7	Dichlorofluoromethane (CFC-21) CAS # 75-43-4.SEC (Lot SHBC0858V) Purity 99%	2,500.5 µg/mL	+/-	16.1659	Gravimetric
			+/-	140.3776	Unstressed
			+/-	143.6540	Stressed

8	Trichlorofluoromethane (CFC-11)	2,524.5	µg/mL	+/-	16.8928	µg/mL	Gravimetric
	CAS # 75-69-4,SEC (Lot Q12B-59)			+/-	141.7952	µg/mL	Unstressed
	Purity 99%			+/-	145.1017	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:

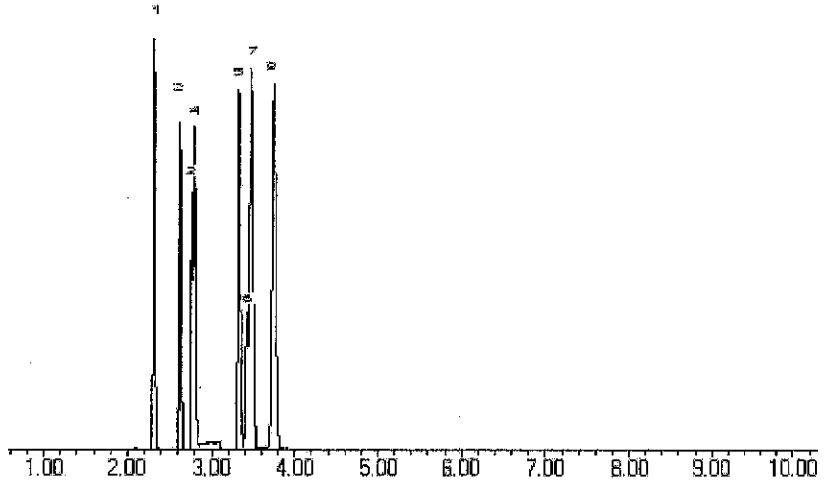
200°C

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.

Lane Kibe

Lane Kibe - Mix Technician

Date Mixed: 17-Nov-2015

Balance: 1127510105

Jennifer L. Pollino

Jennifer L. Pollino - QC Analyst

Date Passed: 10-Dec-2015

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

Reagent

VOA8260INTRES_00126



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Tel: (800)356-1688
Fax: (814)353-1309

Certificate of Analysis

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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

VOA8260KET1ST_00074



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Catalog No. : 569721 Lot No.: A0115554
 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 : November 30, 2018 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone	12,501.8 µg/mL (Lot 07196AK)	+/- 72.6865 µg/mL	Gravimetric
	CAS # 67-64-1		+/- 754.2890 µg/mL	Unstressed
	Purity 99%		+/- 756.0798 µg/mL	Stressed
2	2-Butanone (MEK)	12,499.7 µg/mL (Lot SHBG0444V)	+/- 72.6744 µg/mL	Gravimetric
	CAS # 78-93-3		+/- 754.1625 µg/mL	Unstressed
	Purity 98%		+/- 755.9530 µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,500.6 µg/mL (Lot SHBF9556V)	+/- 72.6796 µg/mL	Gravimetric
	CAS # 108-10-1		+/- 754.2166 µg/mL	Unstressed
	Purity 99%		+/- 756.0072 µg/mL	Stressed
4	2-Hexanone	12,502.4 µg/mL (Lot MKBT3158V)	+/- 72.6900 µg/mL	Gravimetric
	CAS # 591-78-6		+/- 754.3252 µg/mL	Unstressed
	Purity 99%		+/- 756.1161 µg/mL	Stressed

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

Reagent

VOA8260KET1ST_00075



CERTIFIED REFERENCE MATERIAL

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Catalog No. : 569721 Lot No.: A0115554
 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 : November 30, 2018 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone	12,501.8 µg/mL (Lot 07196AK)	+/- 72.6865 µg/mL	Gravimetric
	CAS # 67-64-1		+/- 754.2890 µg/mL	Unstressed
	Purity 99%		+/- 756.0798 µg/mL	Stressed
2	2-Butanone (MEK)	12,499.7 µg/mL (Lot SHBG0444V)	+/- 72.6744 µg/mL	Gravimetric
	CAS # 78-93-3		+/- 754.1625 µg/mL	Unstressed
	Purity 98%		+/- 755.9530 µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,500.6 µg/mL (Lot SHBF9556V)	+/- 72.6796 µg/mL	Gravimetric
	CAS # 108-10-1		+/- 754.2166 µg/mL	Unstressed
	Purity 99%		+/- 756.0072 µg/mL	Stressed
4	2-Hexanone	12,502.4 µg/mL (Lot MKBT3158V)	+/- 72.6900 µg/mL	Gravimetric
	CAS # 591-78-6		+/- 754.3252 µg/mL	Unstressed
	Purity 99%		+/- 756.1161 µg/mL	Stressed

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

Reagent

VOA8260KET2ND_00079



CERTIFIED REFERENCE MATERIAL

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Catalog No. : 569721 **Lot No.:** A0115554

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 : November 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone	12,501.8 µg/mL (Lot 07196AK)	+/-	72.6865	µg/mL	Gravimetric
	CAS # 67-64-1		+/-	754.2890	µg/mL	Unstressed
	Purity 99%		+/-	756.0798	µg/mL	Stressed
2	2-Butanone (MEK)	12,499.7 µg/mL (Lot SHBG0444V)	+/-	72.6744	µg/mL	Gravimetric
	CAS # 78-93-3		+/-	754.1625	µg/mL	Unstressed
	Purity 98%		+/-	755.9530	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,500.6 µg/mL (Lot SHBF9556V)	+/-	72.6796	µg/mL	Gravimetric
	CAS # 108-10-1		+/-	754.2166	µg/mL	Unstressed
	Purity 99%		+/-	756.0072	µg/mL	Stressed
4	2-Hexanone	12,502.4 µg/mL (Lot MKBT3158V)	+/-	72.6900	µg/mL	Gravimetric
	CAS # 591-78-6		+/-	754.3252	µg/mL	Unstressed
	Purity 99%		+/-	756.1161	µg/mL	Stressed

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

Reagent

VOA8260MEGA1_00053

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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. : 569720 **Lot No.:** A0118177
Description : 8260 List 1 / Std #1 MegaMix (2015)
8260 List 1 / Std #1 MegaMix (2015) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : March 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)	2,503.5 µg/mL	+/-	14.5556	µg/mL	Gravimetric
	CAS # 60-29-7 (Lot SHBG1462V)		+/-	151.0472	µg/mL	Unstressed
	Purity 99%		+/-	151.4059	µg/mL	Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113)	2,500.0 µg/mL	+/-	14.5352	µg/mL	Gravimetric
	CAS # 76-13-1 (Lot 00004562)		+/-	150.8361	µg/mL	Unstressed
	Purity 99%		+/-	151.1942	µg/mL	Stressed
3	1,1-Dichloroethane	2,500.1 µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS # 75-34-3 (Lot 00008621)		+/-	150.8436	µg/mL	Unstressed
	Purity 99%		+/-	151.2017	µg/mL	Stressed
4	tert-Butanol (TBA)	25,033.4 µg/mL	+/-	145.5386	µg/mL	Gravimetric
	CAS # 75-65-0 (Lot SHBD0362V)		+/-	1,510.3737	µg/mL	Unstressed
	Purity 99%		+/-	1,513.9596	µg/mL	Stressed
5	Iodomethane (methyl iodide)	2,502.9 µg/mL	+/-	14.5522	µg/mL	Gravimetric
	CAS # 74-88-4 (Lot SHBF2149V)		+/-	151.0123	µg/mL	Unstressed
	Purity 98%		+/-	151.3708	µg/mL	Stressed
6	Methyl acetate	12,508.6 µg/mL	+/-	72.7223	µg/mL	Gravimetric
	CAS # 79-20-9 (Lot SHBD7134V)		+/-	754.6987	µg/mL	Unstressed
	Purity 98%		+/-	756.4905	µg/mL	Stressed
7	Allyl chloride (3-chloropropene)	2,500.0 µg/mL	+/-	19.2743	µg/mL	Gravimetric
	CAS # 107-05-1 (Lot SHBF8133V)		+/-	151.3663	µg/mL	Unstressed
	Purity 99%		+/-	151.7231	µg/mL	Stressed

8	Methylene chloride (dichloromethane)		2,521.4	µg/mL	+/-	14.6595	µg/mL	Gravimetric
	CAS # 75-09-2	(Lot SHBF9870V)			+/-	152.1257	µg/mL	Unstressed
	Purity 99%				+/-	152.4869	µg/mL	Stressed
9	Carbon disulfide		2,516.0	µg/mL	+/-	14.6282	µg/mL	Gravimetric
	CAS # 75-15-0	(Lot S20A856)			+/-	151.8014	µg/mL	Unstressed
	Purity 99%				+/-	152.1618	µg/mL	Stressed
10	Acrylonitrile		25,001.3	µg/mL	+/-	145.3518	µg/mL	Gravimetric
	CAS # 107-13-1	(Lot J08Z057)			+/-	1,508.4355	µg/mL	Unstressed
	Purity 99%				+/-	1,512.0167	µg/mL	Stressed
11	cis-1,2-Dichloroethene		2,507.8	µg/mL	+/-	14.5807	µg/mL	Gravimetric
	CAS # 156-59-2	(Lot MKBV2831V)			+/-	151.3079	µg/mL	Unstressed
	Purity 98%				+/-	151.6671	µg/mL	Stressed
12	n-Hexane (C6)		2,512.4	µg/mL	+/-	14.6072	µg/mL	Gravimetric
	CAS # 110-54-3	(Lot SHBF7674V)			+/-	151.5827	µg/mL	Unstressed
	Purity 99%				+/-	151.9426	µg/mL	Stressed
13	1,1-dichloroethene		2,508.1	µg/mL	+/-	14.5825	µg/mL	Gravimetric
	CAS # 75-35-4	(Lot 73896KMV)			+/-	151.3263	µg/mL	Unstressed
	Purity 99%				+/-	151.6856	µg/mL	Stressed
14	2,2-Dichloropropane		2,507.6	µg/mL	+/-	14.5795	µg/mL	Gravimetric
	CAS # 594-20-7	(Lot BCBL9720V)			+/-	151.2961	µg/mL	Unstressed
	Purity 99%				+/-	151.6553	µg/mL	Stressed
15	trans-1,2-Dichloroethene		2,509.8	µg/mL	+/-	14.5919	µg/mL	Gravimetric
	CAS # 156-60-5	(Lot MKBH9850V)			+/-	151.4243	µg/mL	Unstressed
	Purity 99%				+/-	151.7838	µg/mL	Stressed
16	Isobutanol (2-Methyl-1-propanol)		62,815.4	µg/mL	+/-	365.1949	µg/mL	Gravimetric
	CAS # 78-83-1	(Lot SHBD1647V)			+/-	3,789.9281	µg/mL	Unstressed
	Purity 99%				+/-	3,798.9260	µg/mL	Stressed
17	Methyl-tert-butyl ether (MTBE)		2,510.0	µg/mL	+/-	14.5934	µg/mL	Gravimetric
	CAS # 1634-04-4	(Lot MKBV2134V)			+/-	151.4394	µg/mL	Unstressed
	Purity 99%				+/-	151.7990	µg/mL	Stressed
18	Bromochloromethane		2,507.0	µg/mL	+/-	14.5759	µg/mL	Gravimetric
	CAS # 74-97-5	(Lot 00004559)			+/-	151.2584	µg/mL	Unstressed
	Purity 99%				+/-	151.6175	µg/mL	Stressed
19	Tetrahydrofuran		5,025.3	µg/mL	+/-	29.2172	µg/mL	Gravimetric
	CAS # 109-99-9	(Lot SHBG2910V)			+/-	303.1956	µg/mL	Unstressed
	Purity 99%				+/-	303.9154	µg/mL	Stressed
20	1,1,1-trichloroethane		2,508.9	µg/mL	+/-	14.5868	µg/mL	Gravimetric
	CAS # 71-55-6	(Lot B15MW0705)			+/-	151.3715	µg/mL	Unstressed
	Purity 99%				+/-	151.7309	µg/mL	Stressed
21	Cyclohexane		2,503.4	µg/mL	+/-	14.5548	µg/mL	Gravimetric
	CAS # 110-82-7	(Lot MKBV3194V)			+/-	151.0397	µg/mL	Unstressed
	Purity 99%				+/-	151.3983	µg/mL	Stressed
22	1,1-Dichloropropene		2,507.4	µg/mL	+/-	14.5781	µg/mL	Gravimetric
	CAS # 563-58-6	(Lot PR09161302)			+/-	151.2810	µg/mL	Unstressed
	Purity 99%				+/-	151.6402	µg/mL	Stressed
23	carbon tetrachloride		2,505.9	µg/mL	+/-	14.5694	µg/mL	Gravimetric
	CAS # 56-23-5	(Lot SHBG1763V)			+/-	151.1905	µg/mL	Unstressed
	Purity 99%				+/-	151.5495	µg/mL	Stressed

24	n-Heptane (C7)		2,510.8	µg/mL	+/-	14.5977	µg/mL	Gravimetric
	CAS #	142-82-5	(Lot MKBV6176V)		+/-	151.4847	µg/mL	Unstressed
	Purity	99%			+/-	151.8443	µg/mL	Stressed
25	1,2-Dichloroethane		2,511.1	µg/mL	+/-	14.5999	µg/mL	Gravimetric
	CAS #	107-06-2	(Lot MKBV4565V)		+/-	151.5073	µg/mL	Unstressed
	Purity	99%			+/-	151.8670	µg/mL	Stressed
26	Benzene		2,502.9	µg/mL	+/-	14.5519	µg/mL	Gravimetric
	CAS #	71-43-2	(Lot SHBG1169V)		+/-	151.0095	µg/mL	Unstressed
	Purity	99%			+/-	151.3681	µg/mL	Stressed
27	Trichloroethene		2,500.4	µg/mL	+/-	14.5374	µg/mL	Gravimetric
	CAS #	79-01-6	(Lot SHBF0943V)		+/-	150.8587	µg/mL	Unstressed
	Purity	99%			+/-	151.2169	µg/mL	Stressed
28	Methylcyclohexane		2,503.9	µg/mL	+/-	14.5577	µg/mL	Gravimetric
	CAS #	108-87-2	(Lot 50996APV)		+/-	151.0699	µg/mL	Unstressed
	Purity	99%			+/-	151.4285	µg/mL	Stressed
29	1,2-Dichloropropane		2,523.5	µg/mL	+/-	14.6718	µg/mL	Gravimetric
	CAS #	78-87-5	(Lot 01113D0V)		+/-	152.2539	µg/mL	Unstressed
	Purity	99%			+/-	152.6154	µg/mL	Stressed
30	bromodichloromethane		2,509.0	µg/mL	+/-	14.5878	µg/mL	Gravimetric
	CAS #	75-27-4	(Lot MKBL1617V)		+/-	151.3818	µg/mL	Unstressed
	Purity	98%			+/-	151.7412	µg/mL	Stressed
31	1,4-Dioxane		50,018.1	µg/mL	+/-	290.7945	µg/mL	Gravimetric
	CAS #	123-91-1	(Lot SHBG6312V)		+/-	3,017.8137	µg/mL	Unstressed
	Purity	99%			+/-	3,024.9785	µg/mL	Stressed
32	Dibromomethane		2,511.4	µg/mL	+/-	14.6013	µg/mL	Gravimetric
	CAS #	74-95-3	(Lot 10183283)		+/-	151.5222	µg/mL	Unstressed
	Purity	98%			+/-	151.8820	µg/mL	Stressed
33	cis-1,3-Dichloropropene		2,506.0	µg/mL	+/-	14.5701	µg/mL	Gravimetric
	CAS #	10061-01-5	(Lot 22622)		+/-	151.1981	µg/mL	Unstressed
	Purity	99%			+/-	151.5571	µg/mL	Stressed
34	Toluene		2,515.5	µg/mL	+/-	14.6253	µg/mL	Gravimetric
	CAS #	108-88-3	(Lot MKBV5601V)		+/-	151.7713	µg/mL	Unstressed
	Purity	99%			+/-	152.1316	µg/mL	Stressed
35	Ethyl methacrylate		2,503.1	µg/mL	+/-	14.5534	µg/mL	Gravimetric
	CAS #	97-63-2	(Lot SHBD9190V)		+/-	151.0246	µg/mL	Unstressed
	Purity	99%			+/-	151.3832	µg/mL	Stressed
36	trans-1,3-Dichloropropene		2,508.0	µg/mL	+/-	14.5817	µg/mL	Gravimetric
	CAS #	10061-02-6	(Lot C584177)		+/-	151.3188	µg/mL	Unstressed
	Purity	99%			+/-	151.6780	µg/mL	Stressed
37	1,1,2-Trichloroethane		2,508.4	µg/mL	+/-	14.5839	µg/mL	Gravimetric
	CAS #	79-00-5	(Lot FGB01)		+/-	151.3414	µg/mL	Unstressed
	Purity	99%			+/-	151.7007	µg/mL	Stressed
38	1,3-Dichloropropane		2,522.8	µg/mL	+/-	14.6675	µg/mL	Gravimetric
	CAS #	142-28-9	(Lot BCBG2162V)		+/-	152.2087	µg/mL	Unstressed
	Purity	99%			+/-	152.5701	µg/mL	Stressed
39	Tetrachloroethene		2,518.9	µg/mL	+/-	14.6450	µg/mL	Gravimetric
	CAS #	127-18-4	(Lot SHBD9374V)		+/-	151.9749	µg/mL	Unstressed
	Purity	99%			+/-	152.3357	µg/mL	Stressed

40	dibromochloromethane		2,505.4	µg/mL	+/-	14.5664	µg/mL	Gravimetric
	CAS #	124-48-1	(Lot MKBQ6577V)		+/-	151.1601	µg/mL	Unstressed
	Purity	98%			+/-	151.5190	µg/mL	Stressed
41	1,2-Dibromoethane (EDB)		2,505.1	µg/mL	+/-	14.5650	µg/mL	Gravimetric
	CAS #	106-93-4	(Lot BCBH3877V)		+/-	151.1453	µg/mL	Unstressed
	Purity	99%			+/-	151.5041	µg/mL	Stressed
42	Chlorobenzene		2,505.6	µg/mL	+/-	14.5679	µg/mL	Gravimetric
	CAS #	108-90-7	(Lot SHBF0505V)		+/-	151.1755	µg/mL	Unstressed
	Purity	99%			+/-	151.5344	µg/mL	Stressed
43	1,1,2,2-Tetrachloroethane		2,505.1	µg/mL	+/-	14.5650	µg/mL	Gravimetric
	CAS #	79-34-5	(Lot CFA4D)		+/-	151.1453	µg/mL	Unstressed
	Purity	99%			+/-	151.5041	µg/mL	Stressed
44	Ethylbenzene		2,506.1	µg/mL	+/-	14.5708	µg/mL	Gravimetric
	CAS #	100-41-4	(Lot SHBG5920V)		+/-	151.2056	µg/mL	Unstressed
	Purity	99%			+/-	151.5646	µg/mL	Stressed
45	m-Xylene		1,254.4	µg/mL	+/-	7.2930	µg/mL	Gravimetric
	CAS #	108-38-3	(Lot SHBF8095V)		+/-	75.6820	µg/mL	Unstressed
	Purity	99%			+/-	75.8617	µg/mL	Stressed
46	p-Xylene		1,250.0	µg/mL	+/-	7.2676	µg/mL	Gravimetric
	CAS #	106-42-3	(Lot SHBF3427V)		+/-	75.4180	µg/mL	Unstressed
	Purity	99%			+/-	75.5971	µg/mL	Stressed
47	o-Xylene		2,506.3	µg/mL	+/-	14.5716	µg/mL	Gravimetric
	CAS #	95-47-6	(Lot SHBF7003V)		+/-	151.2132	µg/mL	Unstressed
	Purity	99%			+/-	151.5722	µg/mL	Stressed
48	Styrene		2,503.9	µg/mL	+/-	14.5577	µg/mL	Gravimetric
	CAS #	100-42-5	(Lot MKBS7097V)		+/-	151.0699	µg/mL	Unstressed
	Purity	99%			+/-	151.4285	µg/mL	Stressed
49	Isopropylbenzene (cumene)		2,509.4	µg/mL	+/-	14.5897	µg/mL	Gravimetric
	CAS #	98-82-8	(Lot 10185056)		+/-	151.4017	µg/mL	Unstressed
	Purity	99%			+/-	151.7612	µg/mL	Stressed
50	bromoform		2,503.3	µg/mL	+/-	14.5541	µg/mL	Gravimetric
	CAS #	75-25-2	(Lot SHBC3410V)		+/-	151.0322	µg/mL	Unstressed
	Purity	99%			+/-	151.3907	µg/mL	Stressed
51	1,1,1,2-Tetrachloroethane		2,505.0	µg/mL	+/-	14.5643	µg/mL	Gravimetric
	CAS #	630-20-6	(Lot MKBS3769V)		+/-	151.1378	µg/mL	Unstressed
	Purity	99%			+/-	151.4966	µg/mL	Stressed
52	chloroform		2,507.8	µg/mL	+/-	14.5803	µg/mL	Gravimetric
	CAS #	67-66-3	(Lot MKBV2089V)		+/-	151.3037	µg/mL	Unstressed
	Purity	99%			+/-	151.6629	µg/mL	Stressed
53	1,2,3-Trichloropropane		2,504.8	µg/mL	+/-	14.5628	µg/mL	Gravimetric
	CAS #	96-18-4	(Lot BCBH8722V)		+/-	151.1227	µg/mL	Unstressed
	Purity	99%			+/-	151.4815	µg/mL	Stressed
54	trans-1,4-dichloro-2-butene		2,499.7	µg/mL	+/-	14.5334	µg/mL	Gravimetric
	CAS #	110-57-6	(Lot MKBP6041V)		+/-	150.8172	µg/mL	Unstressed
	Purity	95%			+/-	151.1753	µg/mL	Stressed
55	n-Propylbenzene		2,507.5	µg/mL	+/-	14.5788	µg/mL	Gravimetric
	CAS #	103-65-1	(Lot MKBJ0332V)		+/-	151.2886	µg/mL	Unstressed
	Purity	99%			+/-	151.6478	µg/mL	Stressed

56	Bromobenzene CAS # 108-86-1 Purity 99%	(Lot MKBD4032V)	2,515.1 µg/mL	+/- 14.6232 +/- 151.7486 +/- 152.1089	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	1,2,4-Trimethylbenzene CAS # 95-63-6 Purity 98%	(Lot MKBJ6229V)	2,503.7 µg/mL	+/- 14.5565 +/- 151.0566 +/- 151.4152	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	2-Chlorotoluene CAS # 95-49-8 Purity 99%	(Lot MKBH8892V)	2,502.1 µg/mL	+/- 14.5476 +/- 150.9643 +/- 151.3227	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4-Chlorotoluene CAS # 106-43-4 Purity 99%	(Lot MKBL7753V)	2,512.6 µg/mL	+/- 14.6086 +/- 151.5978 +/- 151.9577	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	tert-Butylbenzene CAS # 98-06-6 Purity 99%	(Lot S52237V)	2,507.8 µg/mL	+/- 14.5803 +/- 151.3037 +/- 151.6629	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	1,3,5-Trimethylbenzene CAS # 108-67-8 Purity 99%	(Lot BCBJ6245V)	2,502.5 µg/mL	+/- 14.5498 +/- 150.9869 +/- 151.3454	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	sec-Butylbenzene CAS # 135-98-8 Purity 99%	(Lot MKBK3151V)	2,521.8 µg/mL	+/- 14.6617 +/- 152.1484 +/- 152.5096	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	p-Isopropyltoluene (p-Cymene) CAS # 99-87-6 Purity 99%	(Lot MKBK4439V)	2,502.6 µg/mL	+/- 14.5505 +/- 150.9945 +/- 151.3529	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	1,3-Dichlorobenzene CAS # 541-73-1 Purity 99%	(Lot BCBM5751V)	2,505.8 µg/mL	+/- 14.5686 +/- 151.1830 +/- 151.5419	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	1,4-Dichlorobenzene CAS # 106-46-7 Purity 99%	(Lot MKBS1350V)	2,504.1 µg/mL	+/- 14.5592 +/- 151.0850 +/- 151.4437	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)	2,505.5 µg/mL	+/- 14.5672 +/- 151.1679 +/- 151.5268	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane CAS # 96-12-8 Purity 99%	(Lot FBL01-JM)	2,508.6 µg/mL	+/- 14.5854 +/- 151.3565 +/- 151.7158	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 99%	(Lot 26896BM)	2,518.6 µg/mL	+/- 14.6435 +/- 151.9598 +/- 152.3206	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene CAS # 87-68-3 Purity 98%	(Lot J31X013)	2,499.9 µg/mL	+/- 14.5344 +/- 150.8275 +/- 151.1856	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene CAS # 91-20-3 Purity 99%	(Lot MKBH4351V)	2,514.9 µg/mL	+/- 14.6217 +/- 151.7336 +/- 152.0938	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	1,2,3-Trichlorobenzene		2,502.0 µg/mL	+/- 14.5468	µg/mL	Gravimetric
	CAS # 87-61-6	(Lot MKBS4859V)		+/- 150.9567	µg/mL	Unstressed
	Purity 99%			+/- 151.3151	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)

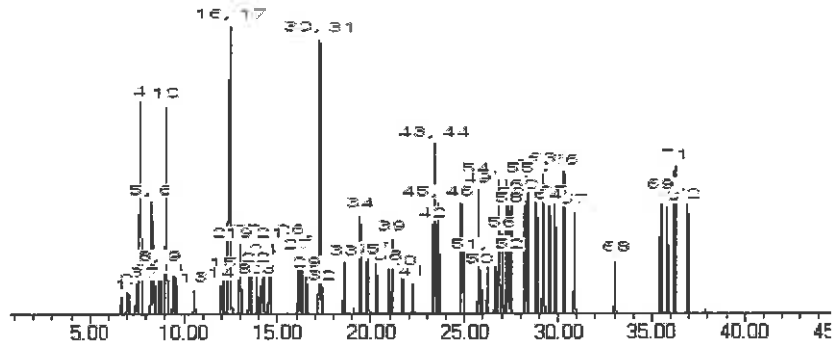
Carrier Gas:
helium-constant pressure 30 psi

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.

Rebecca Sawyer

Date Mixed: 21-Mar-2016 Balance: 1125113331

Jodi E. Breon

Jodi E. Breon - QA Analyst

Date Passed: 28-Mar-2016

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

Reagent

VOA8260MEGA1_00054

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. : 569720 **Lot No.:** A0118177
Description : 8260 List 1 / Std #1 MegaMix (2015)
8260 List 1 / Std #1 MegaMix (2015) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : March 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)	2,503.5 µg/mL (Lot SHBG1462V)	+/-	14.5556	µg/mL	Gravimetric
	CAS # 60-29-7		+/-	151.0472	µg/mL	Unstressed
	Purity 99%		+/-	151.4059	µg/mL	Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113)	2,500.0 µg/mL (Lot 00004562)	+/-	14.5352	µg/mL	Gravimetric
	CAS # 76-13-1		+/-	150.8361	µg/mL	Unstressed
	Purity 99%		+/-	151.1942	µg/mL	Stressed
3	1,1-Dichloroethane	2,500.1 µg/mL (Lot 00008621)	+/-	14.5359	µg/mL	Gravimetric
	CAS # 75-34-3		+/-	150.8436	µg/mL	Unstressed
	Purity 99%		+/-	151.2017	µg/mL	Stressed
4	tert-Butanol (TBA)	25,033.4 µg/mL (Lot SHBD0362V)	+/-	145.5386	µg/mL	Gravimetric
	CAS # 75-65-0		+/-	1,510.3737	µg/mL	Unstressed
	Purity 99%		+/-	1,513.9596	µg/mL	Stressed
5	Iodomethane (methyl iodide)	2,502.9 µg/mL (Lot SHBF2149V)	+/-	14.5522	µg/mL	Gravimetric
	CAS # 74-88-4		+/-	151.0123	µg/mL	Unstressed
	Purity 98%		+/-	151.3708	µg/mL	Stressed
6	Methyl acetate	12,508.6 µg/mL (Lot SHBD7134V)	+/-	72.7223	µg/mL	Gravimetric
	CAS # 79-20-9		+/-	754.6987	µg/mL	Unstressed
	Purity 98%		+/-	756.4905	µg/mL	Stressed
7	Allyl chloride (3-chloropropene)	2,500.0 µg/mL (Lot SHBF8133V)	+/-	19.2743	µg/mL	Gravimetric
	CAS # 107-05-1		+/-	151.3663	µg/mL	Unstressed
	Purity 99%		+/-	151.7231	µg/mL	Stressed

8	Methylene chloride (dichloromethane)		2,521.4	µg/mL	+/-	14.6595	µg/mL	Gravimetric
	CAS # 75-09-2	(Lot SHBF9870V)			+/-	152.1257	µg/mL	Unstressed
	Purity 99%				+/-	152.4869	µg/mL	Stressed
9	Carbon disulfide		2,516.0	µg/mL	+/-	14.6282	µg/mL	Gravimetric
	CAS # 75-15-0	(Lot S20A856)			+/-	151.8014	µg/mL	Unstressed
	Purity 99%				+/-	152.1618	µg/mL	Stressed
10	Acrylonitrile		25,001.3	µg/mL	+/-	145.3518	µg/mL	Gravimetric
	CAS # 107-13-1	(Lot J08Z057)			+/-	1,508.4355	µg/mL	Unstressed
	Purity 99%				+/-	1,512.0167	µg/mL	Stressed
11	cis-1,2-Dichloroethene		2,507.8	µg/mL	+/-	14.5807	µg/mL	Gravimetric
	CAS # 156-59-2	(Lot MKBV2831V)			+/-	151.3079	µg/mL	Unstressed
	Purity 98%				+/-	151.6671	µg/mL	Stressed
12	n-Hexane (C6)		2,512.4	µg/mL	+/-	14.6072	µg/mL	Gravimetric
	CAS # 110-54-3	(Lot SHBF7674V)			+/-	151.5827	µg/mL	Unstressed
	Purity 99%				+/-	151.9426	µg/mL	Stressed
13	1,1-dichloroethene		2,508.1	µg/mL	+/-	14.5825	µg/mL	Gravimetric
	CAS # 75-35-4	(Lot 73896KMV)			+/-	151.3263	µg/mL	Unstressed
	Purity 99%				+/-	151.6856	µg/mL	Stressed
14	2,2-Dichloropropane		2,507.6	µg/mL	+/-	14.5795	µg/mL	Gravimetric
	CAS # 594-20-7	(Lot BCBL9720V)			+/-	151.2961	µg/mL	Unstressed
	Purity 99%				+/-	151.6553	µg/mL	Stressed
15	trans-1,2-Dichloroethene		2,509.8	µg/mL	+/-	14.5919	µg/mL	Gravimetric
	CAS # 156-60-5	(Lot MKBH9850V)			+/-	151.4243	µg/mL	Unstressed
	Purity 99%				+/-	151.7838	µg/mL	Stressed
16	Isobutanol (2-Methyl-1-propanol)		62,815.4	µg/mL	+/-	365.1949	µg/mL	Gravimetric
	CAS # 78-83-1	(Lot SHBD1647V)			+/-	3,789.9281	µg/mL	Unstressed
	Purity 99%				+/-	3,798.9260	µg/mL	Stressed
17	Methyl-tert-butyl ether (MTBE)		2,510.0	µg/mL	+/-	14.5934	µg/mL	Gravimetric
	CAS # 1634-04-4	(Lot MKBV2134V)			+/-	151.4394	µg/mL	Unstressed
	Purity 99%				+/-	151.7990	µg/mL	Stressed
18	Bromochloromethane		2,507.0	µg/mL	+/-	14.5759	µg/mL	Gravimetric
	CAS # 74-97-5	(Lot 00004559)			+/-	151.2584	µg/mL	Unstressed
	Purity 99%				+/-	151.6175	µg/mL	Stressed
19	Tetrahydrofuran		5,025.3	µg/mL	+/-	29.2172	µg/mL	Gravimetric
	CAS # 109-99-9	(Lot SHBG2910V)			+/-	303.1956	µg/mL	Unstressed
	Purity 99%				+/-	303.9154	µg/mL	Stressed
20	1,1,1-trichloroethane		2,508.9	µg/mL	+/-	14.5868	µg/mL	Gravimetric
	CAS # 71-55-6	(Lot B15MW0705)			+/-	151.3715	µg/mL	Unstressed
	Purity 99%				+/-	151.7309	µg/mL	Stressed
21	Cyclohexane		2,503.4	µg/mL	+/-	14.5548	µg/mL	Gravimetric
	CAS # 110-82-7	(Lot MKBV3194V)			+/-	151.0397	µg/mL	Unstressed
	Purity 99%				+/-	151.3983	µg/mL	Stressed
22	1,1-Dichloropropene		2,507.4	µg/mL	+/-	14.5781	µg/mL	Gravimetric
	CAS # 563-58-6	(Lot PR09161302)			+/-	151.2810	µg/mL	Unstressed
	Purity 99%				+/-	151.6402	µg/mL	Stressed
23	carbon tetrachloride		2,505.9	µg/mL	+/-	14.5694	µg/mL	Gravimetric
	CAS # 56-23-5	(Lot SHBG1763V)			+/-	151.1905	µg/mL	Unstressed
	Purity 99%				+/-	151.5495	µg/mL	Stressed

24	n-Heptane (C7)		2,510.8	µg/mL	+/-	14.5977	µg/mL	Gravimetric
	CAS #	142-82-5	(Lot MKBV6176V)		+/-	151.4847	µg/mL	Unstressed
	Purity	99%			+/-	151.8443	µg/mL	Stressed
25	1,2-Dichloroethane		2,511.1	µg/mL	+/-	14.5999	µg/mL	Gravimetric
	CAS #	107-06-2	(Lot MKBV4565V)		+/-	151.5073	µg/mL	Unstressed
	Purity	99%			+/-	151.8670	µg/mL	Stressed
26	Benzene		2,502.9	µg/mL	+/-	14.5519	µg/mL	Gravimetric
	CAS #	71-43-2	(Lot SHBG1169V)		+/-	151.0095	µg/mL	Unstressed
	Purity	99%			+/-	151.3681	µg/mL	Stressed
27	Trichloroethene		2,500.4	µg/mL	+/-	14.5374	µg/mL	Gravimetric
	CAS #	79-01-6	(Lot SHBF0943V)		+/-	150.8587	µg/mL	Unstressed
	Purity	99%			+/-	151.2169	µg/mL	Stressed
28	Methylcyclohexane		2,503.9	µg/mL	+/-	14.5577	µg/mL	Gravimetric
	CAS #	108-87-2	(Lot 50996APV)		+/-	151.0699	µg/mL	Unstressed
	Purity	99%			+/-	151.4285	µg/mL	Stressed
29	1,2-Dichloropropane		2,523.5	µg/mL	+/-	14.6718	µg/mL	Gravimetric
	CAS #	78-87-5	(Lot 01113D0V)		+/-	152.2539	µg/mL	Unstressed
	Purity	99%			+/-	152.6154	µg/mL	Stressed
30	bromodichloromethane		2,509.0	µg/mL	+/-	14.5878	µg/mL	Gravimetric
	CAS #	75-27-4	(Lot MKBL1617V)		+/-	151.3818	µg/mL	Unstressed
	Purity	98%			+/-	151.7412	µg/mL	Stressed
31	1,4-Dioxane		50,018.1	µg/mL	+/-	290.7945	µg/mL	Gravimetric
	CAS #	123-91-1	(Lot SHBG6312V)		+/-	3,017.8137	µg/mL	Unstressed
	Purity	99%			+/-	3,024.9785	µg/mL	Stressed
32	Dibromomethane		2,511.4	µg/mL	+/-	14.6013	µg/mL	Gravimetric
	CAS #	74-95-3	(Lot 10183283)		+/-	151.5222	µg/mL	Unstressed
	Purity	98%			+/-	151.8820	µg/mL	Stressed
33	cis-1,3-Dichloropropene		2,506.0	µg/mL	+/-	14.5701	µg/mL	Gravimetric
	CAS #	10061-01-5	(Lot 22622)		+/-	151.1981	µg/mL	Unstressed
	Purity	99%			+/-	151.5571	µg/mL	Stressed
34	Toluene		2,515.5	µg/mL	+/-	14.6253	µg/mL	Gravimetric
	CAS #	108-88-3	(Lot MKBV5601V)		+/-	151.7713	µg/mL	Unstressed
	Purity	99%			+/-	152.1316	µg/mL	Stressed
35	Ethyl methacrylate		2,503.1	µg/mL	+/-	14.5534	µg/mL	Gravimetric
	CAS #	97-63-2	(Lot SHBD9190V)		+/-	151.0246	µg/mL	Unstressed
	Purity	99%			+/-	151.3832	µg/mL	Stressed
36	trans-1,3-Dichloropropene		2,508.0	µg/mL	+/-	14.5817	µg/mL	Gravimetric
	CAS #	10061-02-6	(Lot C584177)		+/-	151.3188	µg/mL	Unstressed
	Purity	99%			+/-	151.6780	µg/mL	Stressed
37	1,1,2-Trichloroethane		2,508.4	µg/mL	+/-	14.5839	µg/mL	Gravimetric
	CAS #	79-00-5	(Lot FGB01)		+/-	151.3414	µg/mL	Unstressed
	Purity	99%			+/-	151.7007	µg/mL	Stressed
38	1,3-Dichloropropane		2,522.8	µg/mL	+/-	14.6675	µg/mL	Gravimetric
	CAS #	142-28-9	(Lot BCBG2162V)		+/-	152.2087	µg/mL	Unstressed
	Purity	99%			+/-	152.5701	µg/mL	Stressed
39	Tetrachloroethene		2,518.9	µg/mL	+/-	14.6450	µg/mL	Gravimetric
	CAS #	127-18-4	(Lot SHBD9374V)		+/-	151.9749	µg/mL	Unstressed
	Purity	99%			+/-	152.3357	µg/mL	Stressed

40	dibromochloromethane		2,505.4	µg/mL	+/-	14.5664	µg/mL	Gravimetric
	CAS #	124-48-1	(Lot MKBQ6577V)		+/-	151.1601	µg/mL	Unstressed
	Purity	98%			+/-	151.5190	µg/mL	Stressed
41	1,2-Dibromoethane (EDB)		2,505.1	µg/mL	+/-	14.5650	µg/mL	Gravimetric
	CAS #	106-93-4	(Lot BCBH3877V)		+/-	151.1453	µg/mL	Unstressed
	Purity	99%			+/-	151.5041	µg/mL	Stressed
42	Chlorobenzene		2,505.6	µg/mL	+/-	14.5679	µg/mL	Gravimetric
	CAS #	108-90-7	(Lot SHBF0505V)		+/-	151.1755	µg/mL	Unstressed
	Purity	99%			+/-	151.5344	µg/mL	Stressed
43	1,1,2,2-Tetrachloroethane		2,505.1	µg/mL	+/-	14.5650	µg/mL	Gravimetric
	CAS #	79-34-5	(Lot CFA4D)		+/-	151.1453	µg/mL	Unstressed
	Purity	99%			+/-	151.5041	µg/mL	Stressed
44	Ethylbenzene		2,506.1	µg/mL	+/-	14.5708	µg/mL	Gravimetric
	CAS #	100-41-4	(Lot SHBG5920V)		+/-	151.2056	µg/mL	Unstressed
	Purity	99%			+/-	151.5646	µg/mL	Stressed
45	m-Xylene		1,254.4	µg/mL	+/-	7.2930	µg/mL	Gravimetric
	CAS #	108-38-3	(Lot SHBF8095V)		+/-	75.6820	µg/mL	Unstressed
	Purity	99%			+/-	75.8617	µg/mL	Stressed
46	p-Xylene		1,250.0	µg/mL	+/-	7.2676	µg/mL	Gravimetric
	CAS #	106-42-3	(Lot SHBF3427V)		+/-	75.4180	µg/mL	Unstressed
	Purity	99%			+/-	75.5971	µg/mL	Stressed
47	o-Xylene		2,506.3	µg/mL	+/-	14.5716	µg/mL	Gravimetric
	CAS #	95-47-6	(Lot SHBF7003V)		+/-	151.2132	µg/mL	Unstressed
	Purity	99%			+/-	151.5722	µg/mL	Stressed
48	Styrene		2,503.9	µg/mL	+/-	14.5577	µg/mL	Gravimetric
	CAS #	100-42-5	(Lot MKBS7097V)		+/-	151.0699	µg/mL	Unstressed
	Purity	99%			+/-	151.4285	µg/mL	Stressed
49	Isopropylbenzene (cumene)		2,509.4	µg/mL	+/-	14.5897	µg/mL	Gravimetric
	CAS #	98-82-8	(Lot 10185056)		+/-	151.4017	µg/mL	Unstressed
	Purity	99%			+/-	151.7612	µg/mL	Stressed
50	bromoform		2,503.3	µg/mL	+/-	14.5541	µg/mL	Gravimetric
	CAS #	75-25-2	(Lot SHBC3410V)		+/-	151.0322	µg/mL	Unstressed
	Purity	99%			+/-	151.3907	µg/mL	Stressed
51	1,1,1,2-Tetrachloroethane		2,505.0	µg/mL	+/-	14.5643	µg/mL	Gravimetric
	CAS #	630-20-6	(Lot MKBS3769V)		+/-	151.1378	µg/mL	Unstressed
	Purity	99%			+/-	151.4966	µg/mL	Stressed
52	chloroform		2,507.8	µg/mL	+/-	14.5803	µg/mL	Gravimetric
	CAS #	67-66-3	(Lot MKBV2089V)		+/-	151.3037	µg/mL	Unstressed
	Purity	99%			+/-	151.6629	µg/mL	Stressed
53	1,2,3-Trichloropropane		2,504.8	µg/mL	+/-	14.5628	µg/mL	Gravimetric
	CAS #	96-18-4	(Lot BCBH8722V)		+/-	151.1227	µg/mL	Unstressed
	Purity	99%			+/-	151.4815	µg/mL	Stressed
54	trans-1,4-dichloro-2-butene		2,499.7	µg/mL	+/-	14.5334	µg/mL	Gravimetric
	CAS #	110-57-6	(Lot MKBP6041V)		+/-	150.8172	µg/mL	Unstressed
	Purity	95%			+/-	151.1753	µg/mL	Stressed
55	n-Propylbenzene		2,507.5	µg/mL	+/-	14.5788	µg/mL	Gravimetric
	CAS #	103-65-1	(Lot MKBJ0332V)		+/-	151.2886	µg/mL	Unstressed
	Purity	99%			+/-	151.6478	µg/mL	Stressed

56	Bromobenzene CAS # 108-86-1 Purity 99%	(Lot MKBD4032V)	2,515.1 µg/mL	+/-	14.6232 µg/mL 151.7486 µg/mL 152.1089 µg/mL	Gravimetric Unstressed Stressed
57	1,2,4-Trimethylbenzene CAS # 95-63-6 Purity 98%	(Lot MKBJ6229V)	2,503.7 µg/mL	+/-	14.5565 µg/mL 151.0566 µg/mL 151.4152 µg/mL	Gravimetric Unstressed Stressed
58	2-Chlorotoluene CAS # 95-49-8 Purity 99%	(Lot MKBH8892V)	2,502.1 µg/mL	+/-	14.5476 µg/mL 150.9643 µg/mL 151.3227 µg/mL	Gravimetric Unstressed Stressed
59	4-Chlorotoluene CAS # 106-43-4 Purity 99%	(Lot MKBL7753V)	2,512.6 µg/mL	+/-	14.6086 µg/mL 151.5978 µg/mL 151.9577 µg/mL	Gravimetric Unstressed Stressed
60	tert-Butylbenzene CAS # 98-06-6 Purity 99%	(Lot S52237V)	2,507.8 µg/mL	+/-	14.5803 µg/mL 151.3037 µg/mL 151.6629 µg/mL	Gravimetric Unstressed Stressed
61	1,3,5-Trimethylbenzene CAS # 108-67-8 Purity 99%	(Lot BCBJ6245V)	2,502.5 µg/mL	+/-	14.5498 µg/mL 150.9869 µg/mL 151.3454 µg/mL	Gravimetric Unstressed Stressed
62	sec-Butylbenzene CAS # 135-98-8 Purity 99%	(Lot MKBK3151V)	2,521.8 µg/mL	+/-	14.6617 µg/mL 152.1484 µg/mL 152.5096 µg/mL	Gravimetric Unstressed Stressed
63	p-Isopropyltoluene (p-Cymene) CAS # 99-87-6 Purity 99%	(Lot MKBK4439V)	2,502.6 µg/mL	+/-	14.5505 µg/mL 150.9945 µg/mL 151.3529 µg/mL	Gravimetric Unstressed Stressed
64	1,3-Dichlorobenzene CAS # 541-73-1 Purity 99%	(Lot BCBM5751V)	2,505.8 µg/mL	+/-	14.5686 µg/mL 151.1830 µg/mL 151.5419 µg/mL	Gravimetric Unstressed Stressed
65	1,4-Dichlorobenzene CAS # 106-46-7 Purity 99%	(Lot MKBS1350V)	2,504.1 µg/mL	+/-	14.5592 µg/mL 151.0850 µg/mL 151.4437 µg/mL	Gravimetric Unstressed Stressed
66	n-Butylbenzene CAS # 104-51-8 Purity 99%	(Lot 09418JJV)	2,503.3 µg/mL	+/-	14.5541 µg/mL 151.0322 µg/mL 151.3907 µg/mL	Gravimetric Unstressed Stressed
67	1,2-Dichlorobenzene CAS # 95-50-1 Purity 99%	(Lot SHBD7331V)	2,505.5 µg/mL	+/-	14.5672 µg/mL 151.1679 µg/mL 151.5268 µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane CAS # 96-12-8 Purity 99%	(Lot FBL01-JM)	2,508.6 µg/mL	+/-	14.5854 µg/mL 151.3565 µg/mL 151.7158 µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 99%	(Lot 26896BM)	2,518.6 µg/mL	+/-	14.6435 µg/mL 151.9598 µg/mL 152.3206 µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene CAS # 87-68-3 Purity 98%	(Lot J31X013)	2,499.9 µg/mL	+/-	14.5344 µg/mL 150.8275 µg/mL 151.1856 µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene CAS # 91-20-3 Purity 99%	(Lot MKBH4351V)	2,514.9 µg/mL	+/-	14.6217 µg/mL 151.7336 µg/mL 152.0938 µg/mL	Gravimetric Unstressed Stressed

72	1,2,3-Trichlorobenzene		2,502.0 µg/mL	+/- 14.5468	µg/mL	Gravimetric
	CAS # 87-61-6	(Lot MKBS4859V)		+/- 150.9567	µg/mL	Unstressed
	Purity 99%			+/- 151.3151	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)

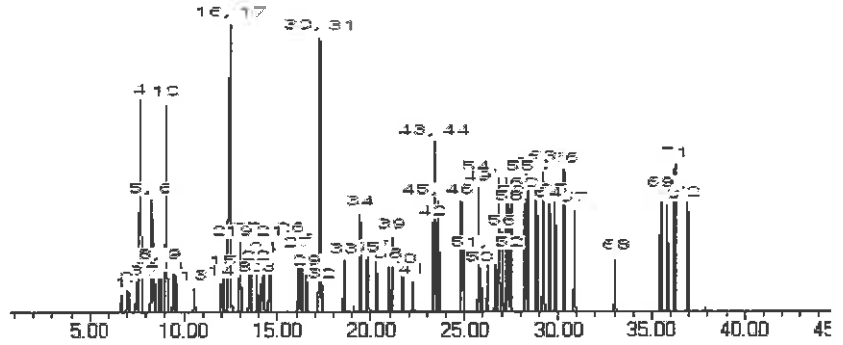
Carrier Gas:
helium-constant pressure 30 psi

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.

Rebecca Sawyer

Date Mixed: 21-Mar-2016 **Balance:** 1125113331

Jodi E. Breon

Jodi E. Breon - QA Analyst

Date Passed: 28-Mar-2016

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

Reagent

VOA8260MEGA2_00052



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

Certificate of Analysis



ACCREDITED
 ISO Guide 34 Accredited
 Reference Material Producer
 Certificate #3222.01



ACCREDITED
 ISO/IEC 17025 Accredited
 Testing Laboratory
 Certificate #3222.02

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. : 569720.sec Lot No.: A0108163
 Description : 8260 List 1 / Std #1 MegaMix (2015)
8260 List 1 / Std #1 MegaMix (2015) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul
 Container Size : 2 mL Pkg Amt: > 1 mL
 Expiration Date : January 31, 2017 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.SEC (Lot F23X068) Purity 99%	2,501.1 µg/mL	+/-	14.5418	µg/mL Gravimetric
			+/-	133.1044	µg/mL Unstressed
			+/-	133.2511	µg/mL Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) CAS # 76-13-1.SEC (Lot 18342) Purity 99%	2,501.1 µg/mL	+/-	14.5418	µg/mL Gravimetric
			+/-	133.1044	µg/mL Unstressed
			+/-	133.2511	µg/mL Stressed
3	1,1-Dichloroethene CAS # 75-35-4.SEC (Lot 903000) Purity 99%	2,502.8 µg/mL	+/-	14.5512	µg/mL Gravimetric
			+/-	133.1908	µg/mL Unstressed
			+/-	133.3377	µg/mL Stressed
4	tert-Butanol (TBA) CAS # 75-65-0.SEC (Lot XYXDO) Purity 98%	25,000.5 µg/mL	+/-	145.3477	µg/mL Gravimetric
			+/-	1,330.4725	µg/mL Unstressed
			+/-	1,331.9397	µg/mL Stressed
5	Iodomethane (methyl iodide) CAS # 74-88-4.SEC (Lot A13Y016) Purity 97%	2,500.5 µg/mL	+/-	14.5383	µg/mL Gravimetric
			+/-	133.0732	µg/mL Unstressed
			+/-	133.2199	µg/mL Stressed
6	Methyl acetate CAS # 79-20-9.SEC (Lot YDQVD) Purity 99%	12,500.6 µg/mL	+/-	72.6759	µg/mL Gravimetric
			+/-	665.2553	µg/mL Unstressed
			+/-	665.9889	µg/mL Stressed
7	Allyl chloride (3-chloropropene) CAS # 107-05-1.SEC (Lot 5MNOA-DQ) Purity 99%	2,501.3 µg/mL	+/-	14.5425	µg/mL Gravimetric
			+/-	133.1110	µg/mL Unstressed
			+/-	133.2578	µg/mL Stressed

8	Methylene chloride (dichloromethane)		2,501.4	µg/mL	+/-	14.5432	µg/mL	Gravimetric
	CAS # 75-09-2.SEC	(Lot FGM02)			+/-	133.1177	µg/mL	Unstressed
	Purity 99%				+/-	133.2645	µg/mL	Stressed
9	Carbon disulfide		2,501.2	µg/mL	+/-	14.5422	µg/mL	Gravimetric
	CAS # 75-15-0.SEC	(Lot MKBL1376V)			+/-	133.1086	µg/mL	Unstressed
	Purity 98%				+/-	133.2554	µg/mL	Stressed
10	Acrylonitrile		25,002.1	µg/mL	+/-	145.3569	µg/mL	Gravimetric
	CAS # 107-13-1.SEC	(Lot CCFKL)			+/-	1,330.5571	µg/mL	Unstressed
	Purity 99%				+/-	1,332.0244	µg/mL	Stressed
11	cis-1,2-Dichloroethene		2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
	CAS # 156-59-2.SEC	(Lot HGC01-BLKT)			+/-	133.0578	µg/mL	Unstressed
	Purity 99%				+/-	133.2045	µg/mL	Stressed
12	n-Hexane (C6)		2,500.1	µg/mL	+/-	14.5358	µg/mL	Gravimetric
	CAS # 110-54-3.SEC	(Lot K24W001)			+/-	133.0499	µg/mL	Unstressed
	Purity 98%				+/-	133.1967	µg/mL	Stressed
13	1,1-Dichloroethane		2,503.0	µg/mL	+/-	14.5527	µg/mL	Gravimetric
	CAS # 75-34-3.SEC	(Lot 2663100)			+/-	133.2041	µg/mL	Unstressed
	Purity 99%				+/-	133.3510	µg/mL	Stressed
14	2,2-Dichloropropane		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS # 594-20-7.SEC	(Lot GI01)			+/-	133.0844	µg/mL	Unstressed
	Purity 99%				+/-	133.2312	µg/mL	Stressed
15	trans-1,2-Dichloroethene		2,500.2	µg/mL	+/-	14.5362	µg/mL	Gravimetric
	CAS # 156-60-5.SEC	(Lot TS5UB)			+/-	133.0538	µg/mL	Unstressed
	Purity 97%				+/-	133.2005	µg/mL	Stressed
16	Isobutanol (2-Methyl-1-propanol)		62,501.3	µg/mL	+/-	363.3687	µg/mL	Gravimetric
	CAS # 78-83-1.SEC	(Lot PH2XK)			+/-	3,326.1766	µg/mL	Unstressed
	Purity 99%				+/-	3,329.8447	µg/mL	Stressed
17	Methyl-tert-butyl ether (MTBE)		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 1634-04-4.SEC	(Lot ZAQTA-MS)			+/-	133.0711	µg/mL	Unstressed
	Purity 99%				+/-	133.2178	µg/mL	Stressed
18	Bromochloromethane		2,500.6	µg/mL	+/-	14.5388	µg/mL	Gravimetric
	CAS # 74-97-5.SEC	(Lot 345600)			+/-	133.0777	µg/mL	Unstressed
	Purity 99%				+/-	133.2245	µg/mL	Stressed
19	Tetrahydrofuran		5,002.3	µg/mL	+/-	29.0835	µg/mL	Gravimetric
	CAS # 109-99-9.SEC	(Lot XWFLA)			+/-	266.2087	µg/mL	Unstressed
	Purity 99%				+/-	266.5023	µg/mL	Stressed
20	1,1,1-Trichloroethane		2,501.9	µg/mL	+/-	14.5461	µg/mL	Gravimetric
	CAS # 71-55-6.SEC	(Lot 1103200)			+/-	133.1443	µg/mL	Unstressed
	Purity 99%				+/-	133.2911	µg/mL	Stressed
21	Cyclohexane		2,501.5	µg/mL	+/-	14.5439	µg/mL	Gravimetric
	CAS # 110-82-7.SEC	(Lot YADRA)			+/-	133.1243	µg/mL	Unstressed
	Purity 99%				+/-	133.2711	µg/mL	Stressed
22	1,1-Dichloropropene		2,501.1	µg/mL	+/-	14.5419	µg/mL	Gravimetric
	CAS # 563-58-6.SEC	(Lot 2028500)			+/-	133.1054	µg/mL	Unstressed
	Purity 97%				+/-	133.2522	µg/mL	Stressed
23	Carbon tetrachloride		2,501.9	µg/mL	+/-	14.5465	µg/mL	Gravimetric
	CAS # 56-23-5.SEC	(Lot 11466)			+/-	133.1477	µg/mL	Unstressed
	Purity 98%				+/-	133.2946	µg/mL	Stressed

24	n-Heptane (C7) CAS # 142-82-5.SEC Purity 99%	(Lot OGM01)	2,500.4 µg/mL	+/- 14.5374 +/- 133.0644 +/- 133.2112	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	1,2-Dichloroethane CAS # 107-06-2.SEC Purity 99%	(Lot FO6PK)	2,501.9 µg/mL	+/- 14.5461 +/- 133.1443 +/- 133.2911	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	Benzene CAS # 71-43-2.SEC Purity 99%	(Lot B28Y008)	2,500.9 µg/mL	+/- 14.5403 +/- 133.0911 +/- 133.2378	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Trichloroethene CAS # 79-01-6.SEC Purity 98%	(Lot H04X050)	2,500.6 µg/mL	+/- 14.5387 +/- 133.0760 +/- 133.2228	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Methylcyclohexane CAS # 108-87-2.SEC Purity 99%	(Lot 24MSD-CD)	2,500.5 µg/mL	+/- 14.5381 +/- 133.0711 +/- 133.2178	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	1,2-Dichloropropane CAS # 78-87-5.SEC Purity 99%	(Lot OGG01)	2,500.0 µg/mL	+/- 14.5352 +/- 133.0445 +/- 133.1912	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	Bromodichloromethane CAS # 75-27-4.SEC Purity 99%	(Lot 10171168)	2,501.5 µg/mL	+/- 14.5439 +/- 133.1243 +/- 133.2711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane CAS # 123-91-1.SEC Purity 99%	(Lot CHA4A)	50,000.8 µg/mL	+/- 290.6935 +/- 2,660.9280 +/- 2,663.8624	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane CAS # 74-95-3.SEC Purity 99%	(Lot FGI01-OICH)	2,500.6 µg/mL	+/- 14.5388 +/- 133.0777 +/- 133.2245	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene CAS # 10061-01-5.SEC Purity 99%	(Lot 7ZLXI-TJ)	2,501.0 µg/mL	+/- 14.5410 +/- 133.0977 +/- 133.2445	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene CAS # 108-88-3.SEC Purity 99%	(Lot YND2B-BD)	2,500.1 µg/mL	+/- 14.5359 +/- 133.0511 +/- 133.1979	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate CAS # 97-63-2.SEC Purity 99%	(Lot MLWYK-LS)	2,500.8 µg/mL	+/- 14.5396 +/- 133.0844 +/- 133.2312	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene CAS # 10061-02-6.SEC Purity 98%	(Lot 2ECIC-NM)	2,501.6 µg/mL	+/- 14.5444 +/- 133.1282 +/- 133.2750	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane CAS # 79-00-5.SEC Purity 99%	(Lot 732700)	2,501.0 µg/mL	+/- 14.5410 +/- 133.0977 +/- 133.2445	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane CAS # 142-28-9.SEC Purity 99%	(Lot AGN01-EFPC)	2,500.8 µg/mL	+/- 14.5396 +/- 133.0844 +/- 133.2312	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene CAS # 127-18-4.SEC Purity 99%	(Lot F09W014)	2,500.0 µg/mL	+/- 14.5352 +/- 133.0445 +/- 133.1912	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	Dibromochloromethane CAS # 124-48-1.SEC Purity 97%	(Lot I13W021)	2,501.8 µg/mL	+/- 14.5454 +/- 133.1377 +/- 133.2845	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	1,2-Dibromoethane (EDB) CAS # 106-93-4.SEC Purity 98%	(Lot 1368400)	2,502.1 µg/mL	+/- 14.5472 +/- 133.1542 +/- 133.3011	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	Chlorobenzene CAS # 108-90-7.SEC Purity 99%	(Lot H161936)	2,501.6 µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	1,1,1,2-Tetrachloroethane CAS # 630-20-6.SEC Purity 99%	(Lot GC01-QSHR)	2,500.8 µg/mL	+/- 14.5396 +/- 133.0844 +/- 133.2312	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	Ethylbenzene CAS # 100-41-4.SEC Purity 99%	(Lot PI4SE-GR)	2,500.3 µg/mL	+/- 14.5367 +/- 133.0578 +/- 133.2045	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	m-Xylene CAS # 108-38-3.SEC Purity 99%	(Lot OUKMG-GB)	1,250.4 µg/mL	+/- 7.2698 +/- 66.5422 +/- 66.6156	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	o-Xylene CAS # 95-47-6.SEC Purity 99%	(Lot FGL01-KTPK)	2,501.3 µg/mL	+/- 14.5425 +/- 133.1110 +/- 133.2578	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	p-Xylene CAS # 106-42-3.SEC Purity 99%	(Lot GM01)	1,251.6 µg/mL	+/- 7.2771 +/- 66.6087 +/- 66.6822	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	Styrene CAS # 100-42-5.SEC Purity 99%	(Lot OFIOL-IA)	2,500.9 µg/mL	+/- 14.5403 +/- 133.0911 +/- 133.2378	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	Isopropylbenzene (cumene) CAS # 98-82-8.SEC Purity 99%	(Lot 2PHXG-IH)	2,501.3 µg/mL	+/- 14.5425 +/- 133.1110 +/- 133.2578	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	Bromoform CAS # 75-25-2.SEC Purity 99%	(Lot 1039300)	2,501.5 µg/mL	+/- 14.5439 +/- 133.1243 +/- 133.2711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	1,1,2,2-Tetrachloroethane CAS # 79-34-5.SEC Purity 99%	(Lot CFA4D-AQ)	2,502.9 µg/mL	+/- 14.5519 +/- 133.1975 +/- 133.3444	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	Chloroform CAS # 67-66-3.SEC Purity 99%	(Lot 1297547)	2,501.6 µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	1,2,3-Trichloropropane CAS # 96-18-4.SEC Purity 98%	(Lot OGI01)	2,501.9 µg/mL	+/- 14.5465 +/- 133.1477 +/- 133.2946	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	trans-1,4-Dichloro-2-butene CAS # 110-57-6.SEC Purity 97%	(Lot 100700-2)	2,502.7 µg/mL	+/- 14.5510 +/- 133.1893 +/- 133.3362	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 +/- 133.0445 +/- 133.1912	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Bromobenzene CAS # 108-86-1.SEC Purity 99%	(Lot 2FUHG-EM)	2,501.6 µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	1,2,4-Trimethylbenzene CAS # 95-63-6.SEC Purity 99%	(Lot SC7LO-QA)	2,502.4 µg/mL	+/- 14.5490 +/- 133.1709 +/- 133.3177	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	2-Chlorotoluene CAS # 95-49-8.SEC Purity 99%	(Lot SW8QG-AO)	2,500.5 µg/mL	+/- 14.5381 +/- 133.0711 +/- 133.2178	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4-Chlorotoluene CAS # 106-43-4.SEC Purity 99%	(Lot P4XHJ-AO)	2,500.3 µg/mL	+/- 14.5367 +/- 133.0578 +/- 133.2045	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	tert-Butylbenzene CAS # 98-06-6.SEC Purity 99%	(Lot OGN01)	2,501.6 µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	1,3,5-Trimethylbenzene CAS # 108-67-8.SEC Purity 99%	(Lot FGH02-CMLN)	2,500.3 µg/mL	+/- 14.5367 +/- 133.0578 +/- 133.2045	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	sec-Butylbenzene CAS # 135-98-8.SEC Purity 99%	(Lot OGN01)	2,500.1 µg/mL	+/- 14.5359 +/- 133.0511 +/- 133.1979	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	4-Isopropyltoluene (p-cymene) CAS # 99-87-6.SEC Purity 99%	(Lot 1721700)	2,501.6 µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	1,3-Dichlorobenzene CAS # 541-73-1.SEC Purity 99%	(Lot FMDFD-KA)	2,501.5 µg/mL	+/- 14.5439 +/- 133.1243 +/- 133.2711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	1,4-Dichlorobenzene CAS # 106-46-7.SEC Purity 99%	(Lot YWKDC-MK)	2,500.3 µg/mL	+/- 14.5367 +/- 133.0578 +/- 133.2045	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	n-Butylbenzene CAS # 104-51-8.SEC Purity 99%	(Lot OGN01)	2,500.6 µg/mL	+/- 14.5388 +/- 133.0777 +/- 133.2245	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	1,2-Dichlorobenzene CAS # 95-50-1.SEC Purity 99%	(Lot 4NRGF-OT)	2,500.0 µg/mL	+/- 14.5352 +/- 133.0445 +/- 133.1912	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane CAS # 96-12-8.SEC Purity 97%	(Lot LC00408V)	2,500.5 µg/mL	+/- 14.5383 +/- 133.0732 +/- 133.2199	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene CAS # 120-82-1.SEC Purity 99%	(Lot OGO01)	2,501.0 µg/mL	+/- 14.5410 +/- 133.0977 +/- 133.2445	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene CAS # 87-68-3.SEC Purity 97%	(Lot 2009400)	2,501.0 µg/mL	+/- 14.5412 +/- 133.0990 +/- 133.2458	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene CAS # 91-20-3.SEC Purity 99%	(Lot 4KW3H-OO)	2,500.5 µg/mL	+/- 14.5381 +/- 133.0711 +/- 133.2178	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	1,2,3-Trichlorobenzene		2,502.4	µg/mL	+/-	14.5490	µg/mL	Gravimetric
	CAS # 87-61-6.SEC	(Lot A0043055)			+/-	133.1709	µg/mL	Unstressed
	Purity 99%				+/-	133.3177	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)

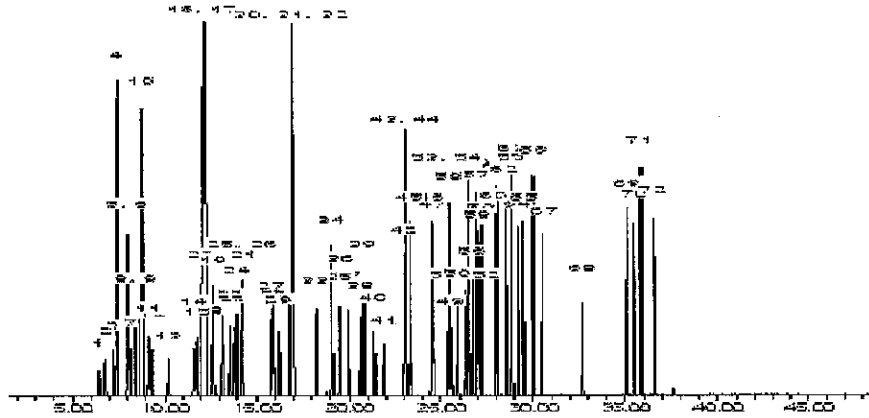
Carrier Gas:
helium-constant pressure 30 psi

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 Mage

Date Mixed: 07-Jan-2015 **Balance:** 1127510105

Tyler Brown

Tyler Brown - QA Analyst

Date Passed: 14-Jan-2015

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

Reagent

VOA8260SURRES_00116



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. : 567650 Lot No.: A0112455

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 : July 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	2,509.6 µg/mL	+/-	14.5910	µg/mL	Gravimetric
	CAS # 1868-53-7 (Lot 022012)		+/-	28.2993	µg/mL	Unstressed
	Purity 99%		+/-	32.5644	µg/mL	Stressed
2	1,2-Dichloroethane-d4	2,507.5 µg/mL	+/-	14.5788	µg/mL	Gravimetric
	CAS # 17060-07-0 (Lot 14C-191)		+/-	28.2757	µg/mL	Unstressed
	Purity 99%		+/-	32.5371	µg/mL	Stressed
3	Toluene-d8	2,509.0 µg/mL	+/-	14.5875	µg/mL	Gravimetric
	CAS # 2037-26-5 (Lot PR-26282)		+/-	28.2926	µg/mL	Unstressed
	Purity 99%		+/-	32.5566	µg/mL	Stressed
4	1-Bromo-4-fluorobenzene (BFB)	2,506.0 µg/mL	+/-	14.5701	µg/mL	Gravimetric
	CAS # 460-00-4 (Lot 20401KOV)		+/-	28.2587	µg/mL	Unstressed
	Purity 99%		+/-	32.5176	µg/mL	Stressed

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

Reagent

VOA8260VARES_00069



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. : 569724 **Lot No.:** A0118255

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 : September 30, 2016 **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%	5,003.0 µg/mL (Lot STBD7333V)	+/- 29.3604 µg/mL +/- 301.8795 µg/mL +/- 302.5961 µg/mL
			Gravimetric Unstressed 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_00102



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. : 568720 Lot No.: A0119846

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 : October 31, 2016 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 160518JLM)	19,873.0 µg/mL	+/-	116.3608	µg/mL	Gravimetric
			+/-	637.1909	µg/mL	Unstressed
			+/-	740.6647	µg/mL	Stressed

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

Reagent

VOACEVERES_00104



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. : 569723 Lot No.: A0115628

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 : November 30, 2018 Storage: 0°C or colder

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 99% (Lot MKBK2735V)	2,509.2 µg/mL	+/- 14.5887	µg/mL	Gravimetric
			+/- 53.7223	µg/mL	Unstressed
			+/- 55.2841	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_00035



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. : 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

CERTIFIED VALUES

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

8	2,4-Dichlorotoluene	(Lot 4194700)	5,036.0	µg/mL	+/-	29.5541	µg/mL	Gravimetric	
	CAS # 95-73-8					282.3921			Unstressed
	Purity 99%					288.9984			
9	2,5-Dichlorotoluene	(Lot 1381346V)	5,016.0	µg/mL	+/-	29.4367	µg/mL	Gravimetric	
	CAS # 19398-61-9					281.2706			Unstressed
	Purity 99%					287.8507			
10	2,6-Dichlorotoluene	(Lot MKBG8583V)	5,027.0	µg/mL	+/-	29.5013	µg/mL	Gravimetric	
	CAS # 118-69-4					281.8874			Unstressed
	Purity 99%					288.4819			
11	3,4-Dichlorotoluene	(Lot 09419AS)	5,021.0	µg/mL	+/-	29.4660	µg/mL	Gravimetric	
	CAS # 95-75-0					281.5510			Unstressed
	Purity 99%					288.1376			
12	2,3-Dichlorotoluene	(Lot 41215)	5,031.0	µg/mL	+/-	29.5247	µg/mL	Gravimetric	
	CAS # 32768-54-0					282.1117			Unstressed
	Purity 99%					288.7115			
13	2,4,5-Trichlorotoluene	(Lot 5150700)	5,041.0	µg/mL	+/-	29.5834	µg/mL	Gravimetric	
	CAS # 6639-30-1					282.6725			Unstressed
	Purity 99%					289.2853			
14	2,3,6-Trichlorotoluene	(Lot NT054179)	5,003.0	µg/mL	+/-	29.3604	µg/mL	Gravimetric	
	CAS # 2077-46-5					280.5416			Unstressed
	Purity 99%					287.1046			
Solvent:	P&T Methanol								
	CAS # 67-56-1								
	Purity 99%								

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.: 180-59576-1

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-3-0/1-0	180-59576-1	102	119	104	109
HD-MW-18D-0/1-0	180-59576-2	105	122	109	110
HD-MW-16D-0/1-0	180-59576-3	109	124	102	109
HD-MW-143D-0/1-0	180-59576-4	107	125	104	112
HD-MW-143S-0/1-0	180-59576-5	106	126	105	108
HD-MW-82-0/1-0	180-59576-6	103	124	107	106
HD-QC4-0/1-2	180-59576-7	104	124	106	117
	MB 180-191047/6	103	117	106	108
	MB 180-191190/4	102	121	108	114
	LCS 180-191047/9	94	107	97	97
	LCS 180-191190/10	97	111	104	100

DBFM = Dibromofluoromethane (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

QC LIMITS
77-127
72-134
80-120
72-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-59576-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: 51013009.D

Lab ID: LCS 180-191047/9

Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	13.2	132	51-150	
Vinyl chloride	10.0	12.7	127	61-138	
Bromomethane	10.0	10.8	108	39-150	
Chloroethane	10.0	11.0	110	53-148	
1,1-Dichloroethene	10.0	9.94	99	71-122	
Acetone	20.0	18.1	91	10-150	
Carbon disulfide	10.0	9.92	99	57-137	
Methylene Chloride	10.0	9.28	93	71-129	
trans-1,2-Dichloroethene	10.0	9.78	98	80-121	
Methyl tert-butyl ether	10.0	8.74	87	68-124	
1,1-Dichloroethane	10.0	10.6	106	76-126	
cis-1,2-Dichloroethene	10.0	9.43	94	80-120	
Bromochloromethane	10.0	8.73	87	76-120	
2-Butanone (MEK)	20.0	20.2	101	41-150	
Chloroform	10.0	10.1	101	78-122	
1,1,1-Trichloroethane	10.0	9.58	96	57-128	
Carbon tetrachloride	10.0	9.77	98	59-145	
Benzene	10.0	10.2	102	80-121	
1,2-Dichloroethane	10.0	11.0	110	72-126	
Trichloroethene	10.0	9.63	96	79-120	
1,2-Dichloropropane	10.0	10.2	102	78-123	
Bromodichloromethane	10.0	10.1	101	72-124	
cis-1,3-Dichloropropene	10.0	8.29	83	67-127	
4-Methyl-2-pentanone (MIBK)	20.0	16.8	84	49-147	
Toluene	10.0	10.3	103	80-125	
trans-1,3-Dichloropropene	10.0	7.51	75	63-144	
1,1,2-Trichloroethane	10.0	10.0	100	77-127	
Tetrachloroethene	10.0	10.6	106	80-122	
2-Hexanone	20.0	15.4	77	40-150	
Dibromochloromethane	10.0	9.17	92	71-134	
1,2-Dibromoethane (EDB)	10.0	9.83	98	79-126	
Chlorobenzene	10.0	10.3	103	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.77	98	75-135	
Ethylbenzene	10.0	10.4	104	80-123	
Xylenes, Total	20.0	21.3	107	80-123	
Styrene	10.0	10.7	107	80-125	
Bromoform	10.0	8.69	87	62-138	
1,1,2,2-Tetrachloroethane	10.0	10.8	108	78-135	
Acrylonitrile	100	122	122	66-146	
1,4-Dioxane	200	164 J	82	10-150	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-59576-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: 51014010.D

Lab ID: LCS 180-191190/10

Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	11.5	115	51-150	
Vinyl chloride	10.0	10.9	109	61-138	
Bromomethane	10.0	10.3	103	39-150	
Chloroethane	10.0	9.78	98	53-148	
1,1-Dichloroethene	10.0	9.17	92	71-122	
Acetone	20.0	21.6	108	10-150	
Carbon disulfide	10.0	8.55	85	57-137	
Methylene Chloride	10.0	10.4	104	71-129	
trans-1,2-Dichloroethene	10.0	9.38	94	80-121	
Methyl tert-butyl ether	10.0	9.04	90	68-124	
1,1-Dichloroethane	10.0	10.2	102	76-126	
cis-1,2-Dichloroethene	10.0	9.49	95	80-120	
Bromochloromethane	10.0	9.68	97	76-120	
2-Butanone (MEK)	20.0	21.5	107	41-150	
Chloroform	10.0	9.90	99	78-122	
1,1,1-Trichloroethane	10.0	8.80	88	57-128	
Carbon tetrachloride	10.0	8.73	87	59-145	
Benzene	10.0	10.2	102	80-121	
1,2-Dichloroethane	10.0	11.1	111	72-126	
Trichloroethene	10.0	9.16	92	79-120	
1,2-Dichloropropane	10.0	10.7	107	78-123	
Bromodichloromethane	10.0	10.0	100	72-124	
cis-1,3-Dichloropropene	10.0	8.48	85	67-127	
4-Methyl-2-pentanone (MIBK)	20.0	19.0	95	49-147	
Toluene	10.0	10.6	106	80-125	
trans-1,3-Dichloropropene	10.0	8.12	81	63-144	
1,1,2-Trichloroethane	10.0	10.7	107	77-127	
Tetrachloroethene	10.0	10.3	103	80-122	
2-Hexanone	20.0	16.7	83	40-150	
Dibromochloromethane	10.0	9.45	95	71-134	
1,2-Dibromoethane (EDB)	10.0	10.2	102	79-126	
Chlorobenzene	10.0	10.6	106	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.96	100	75-135	
Ethylbenzene	10.0	10.3	103	80-123	
Xylenes, Total	20.0	21.0	105	80-123	
Styrene	10.0	10.8	108	80-125	
Bromoform	10.0	8.41	84	62-138	
1,1,2,2-Tetrachloroethane	10.0	10.9	109	78-135	
Acrylonitrile	100	125	125	66-146	
1,4-Dioxane	200	199 J	100	10-150	

Column to be used to flag recovery and RPD values

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Lab File ID: 51013006.D Lab Sample ID: MB 180-191047/6
 Matrix: Water Heated Purge: (Y/N) N
 Instrument ID: CHHP5 Date Analyzed: 10/13/2016 13:17
 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
HD-QC4-0/1-2	180-59576-7	51013008.D	10/13/2016 14:17
	LCS 180-191047/9	51013009.D	10/13/2016 14:41
HD-MW-3-0/1-0	180-59576-1	51013015.D	10/13/2016 17:06
HD-MW-16D-0/1-0	180-59576-3	51013018.D	10/13/2016 18:18
HD-MW-143D-0/1-0	180-59576-4	51013019.D	10/13/2016 18:42
HD-MW-143S-0/1-0	180-59576-5	51013020.D	10/13/2016 19:07
HD-MW-82-0/1-0	180-59576-6	51013021.D	10/13/2016 19:31

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Lab File ID: 51014004.D Lab Sample ID: MB 180-191190/4
 Matrix: Water Heated Purge: (Y/N) N
 Instrument ID: CHHP5 Date Analyzed: 10/14/2016 12:00
 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 180-191190/10	51014010.D	10/14/2016 14:39
HD-MW-18D-0/1-0	180-59576-2	51014018.D	10/14/2016 18:20

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Lab File ID: 50928002.D BFB Injection Date: 09/28/2016
 Instrument ID: CHHP5 BFB Injection Time: 12:00
 Analysis Batch No.: 189445

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	22.7	
75	30.0 - 60.0 % of mass 95	52.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.8	
173	Less than 2.0 % of mass 174	0.6	(0.8) 1
174	50.0 - 120.00 % of mass 95	70.8	
175	5.0 - 9.0 % of mass 174	6.2	(8.7) 1
176	95.0 - 101.0 % of mass 174	67.7	(95.6) 1
177	5.0 - 9.0 % of mass 176	4.9	(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
	IC 180-189445/5	50928005.D	09/28/2016	14:27
	ICIS 180-189445/6	50928006.D	09/28/2016	14:51
	IC 180-189445/7	50928007.D	09/28/2016	15:15
	IC 180-189445/8	50928008.D	09/28/2016	15:39
	IC 180-189445/9	50928009.D	09/28/2016	16:03
	IC 180-189445/10	50928010.D	09/28/2016	16:27
	IC 180-189445/11	50928011.D	09/28/2016	16:51
	IC 180-189445/15	50928015.D	09/28/2016	18:27

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Lab File ID: 51013004.D BFB Injection Date: 10/13/2016
 Instrument ID: CHHP5 BFB Injection Time: 10:55
 Analysis Batch No.: 191047

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	27.9
75	30.0 - 60.0 % of mass 95	54.6
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	0.3 (0.5) 1
174	50.0 - 120.00 % of mass 95	69.8
175	5.0 - 9.0 % of mass 174	5.5 (7.9) 1
176	95.0 - 101.0 % of mass 174	69.4 (99.5) 1
177	5.0 - 9.0 % of mass 176	4.8 (7.0) 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 180-191047/5	51013005.D	10/13/2016	12:21
	MB 180-191047/6	51013006.D	10/13/2016	13:17
HD-QC4-0/1-2	180-59576-7	51013008.D	10/13/2016	14:17
	LCS 180-191047/9	51013009.D	10/13/2016	14:41
HD-MW-3-0/1-0	180-59576-1	51013015.D	10/13/2016	17:06
HD-MW-16D-0/1-0	180-59576-3	51013018.D	10/13/2016	18:18
HD-MW-143D-0/1-0	180-59576-4	51013019.D	10/13/2016	18:42
HD-MW-143S-0/1-0	180-59576-5	51013020.D	10/13/2016	19:07
HD-MW-82-0/1-0	180-59576-6	51013021.D	10/13/2016	19:31

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Lab File ID: 51014001.D BFB Injection Date: 10/14/2016
 Instrument ID: CHHP5 BFB Injection Time: 10:18
 Analysis Batch No.: 191190

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	27.9
75	30.0 - 60.0 % of mass 95	58.1
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.6
173	Less than 2.0 % of mass 174	0.0 (0.0) 1
174	50.0 - 120.00 % of mass 95	66.2
175	5.0 - 9.0 % of mass 174	5.6 (8.4) 1
176	95.0 - 101.0 % of mass 174	66.6 (100.7) 1
177	5.0 - 9.0 % of mass 176	4.6 (6.9) 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 180-191190/2	51014002.D	10/14/2016	10:56
	MB 180-191190/4	51014004.D	10/14/2016	12:00
	LCS 180-191190/10	51014010.D	10/14/2016	14:39
HD-MW-18D-0/1-0	180-59576-2	51014018.D	10/14/2016	18:20

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Sample No.: CCVIS 180-191047/5 Date Analyzed: 10/13/2016 12:21
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 51013005.D Heated Purge: (Y/N) N
 Calibration ID: 33103

	TBA _d 9		FB		CBN _Z d ₅		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	114886	4.28	359057	7.27	79298	10.37	
UPPER LIMIT	229772	4.78	718114	7.77	158596	10.87	
LOWER LIMIT	57443	3.78	179529	6.77	39649	9.87	
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-191047/6		113480	4.27	343395	7.27	72573	10.38
180-59576-7	HD-QC4-0/1-2	184077	4.28	333764	7.28	71428	10.38
LCS 180-191047/9		101020	4.27	335148	7.27	75098	10.37
180-59576-1	HD-MW-3-0/1-0	138308	4.27	340783	7.27	74602	10.37
180-59576-3	HD-MW-16D-0/1-0	113056	4.26	329719	7.28	74135	10.37
180-59576-4	HD-MW-143D-0/1-0	94538	4.27	326564	7.27	71438	10.37
180-59576-5	HD-MW-143S-0/1-0	104922	4.26	321060	7.27	70116	10.37
180-59576-6	HD-MW-82-0/1-0	95994	4.26	340615	7.27	72909	10.37

TBA_d9 = TBA-d₉ (IS)

FB = Fluorobenzene (IS)

CBN_Zd₅ = 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.: 180-59576-1
 SDG No.: _____
 Sample No.: CCVIS 180-191047/5 Date Analyzed: 10/13/2016 12:21
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 51013005.D Heated Purge: (Y/N) N
 Calibration ID: 33103

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		97828	12.72				
UPPER LIMIT		195656	13.22				
LOWER LIMIT		48914	12.22				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-191047/6		82800	12.72				
180-59576-7	HD-QC4-0/1-2	87753	12.72				
LCS 180-191047/9		84885	12.72				
180-59576-1	HD-MW-3-0/1-0	90622	12.72				
180-59576-3	HD-MW-16D-0/1-0	92039	12.72				
180-59576-4	HD-MW-143D-0/1-0	86104	12.72				
180-59576-5	HD-MW-143S-0/1-0	83252	12.72				
180-59576-6	HD-MW-82-0/1-0	84148	12.72				

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Sample No.: CCVIS 180-191190/2 Date Analyzed: 10/14/2016 10:56
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 51014002.D Heated Purge: (Y/N) N
 Calibration ID: 33103

	TBA _d 9		FB		CBN _{Zd} 5		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	107101	4.29	344914	7.27	78358	10.38	
UPPER LIMIT	214202	4.79	689828	7.77	156716	10.88	
LOWER LIMIT	53551	3.79	172457	6.77	39179	9.88	
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-191190/4	126356	4.28	353600	7.27	77925	10.38	
LCS 180-191190/10	117248	4.28	367004	7.27	79345	10.38	
180-59576-2	HD-MW-18D-0/1-0	109928	4.26	371586	7.27	77713	10.37

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.: 180-59576-1
 SDG No.: _____
 Sample No.: CCVIS 180-191190/2 Date Analyzed: 10/14/2016 10:56
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 51014002.D Heated Purge: (Y/N) N
 Calibration ID: 33103

	DCBd4		AREA #	RT #	AREA #	RT #
	AREA #	RT #				
12/24 HOUR STD	106022	12.72				
UPPER LIMIT	212044	13.22				
LOWER LIMIT	53011	12.22				
LAB SAMPLE ID	CLIENT SAMPLE ID					
MB 180-191190/4		99682	12.72			
LCS 180-191190/10		86361	12.72			
180-59576-2	HD-MW-18D-0/1-0	89373	12.72			

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.: 180-59576-1
 SDG No.: _____
 Client Sample ID: HD-MW-3-0/1-0 Lab Sample ID: 180-59576-1
 Matrix: Water Lab File ID: 51013015.D
 Analysis Method: 8260C Date Collected: 10/07/2016 09:40
 Sample wt/vol: 5(mL) Date Analyzed: 10/13/2016 17:06
 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.: 191047 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U ^c	1.0	0.23
75-01-4	Vinyl chloride	1.0	U	1.0	0.32
74-83-9	Bromomethane	1.0	U ^c	1.0	0.36
75-00-3	Chloroethane	1.0	U	1.0	0.26
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.29
67-64-1	Acetone	3.8	J ^c	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.18
75-09-2	Methylene Chloride	1.0	U	1.0	0.36
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.29
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.24
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.24
156-59-2	cis-1,2-Dichloroethene	0.73	J	1.0	0.29
74-97-5	Bromochloromethane	1.0	U	1.0	0.38
78-93-3	2-Butanone (MEK)	5.0	U	5.0	1.2
67-66-3	Chloroform	2.4		1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.24
71-43-2	Benzene	1.0	U	1.0	0.26
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.25
79-01-6	Trichloroethene	28		1.0	0.26
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.23
75-27-4	Bromodichloromethane	1.0	U	1.0	0.23
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.21
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.59
108-88-3	Toluene	1.0	U	1.0	0.28
10061-02-6	trans-1,3-Dichloropropene	1.0	U ^c	1.0	0.24
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.35
127-18-4	Tetrachloroethene	0.54	J	1.0	0.27
591-78-6	2-Hexanone	5.0	U	5.0	0.74
124-48-1	Dibromochloromethane	1.0	U	1.0	0.40
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.29
108-90-7	Chlorobenzene	1.0	U	1.0	0.31
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.20
100-41-4	Ethylbenzene	1.0	U	1.0	0.27
1330-20-7	Xylenes, Total	2.0	U	2.0	0.48
100-42-5	Styrene	1.0	U	1.0	0.26

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Client Sample ID: HD-MW-3-0/1-0 Lab Sample ID: 180-59576-1
 Matrix: Water Lab File ID: 51013015.D
 Analysis Method: 8260C Date Collected: 10/07/2016 09:40
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2016 17:06
 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.: 191047 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.29
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.35
107-13-1	Acrylonitrile	20	U	20	2.8
123-91-1	1,4-Dioxane	200	U	200	7.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	119		72-134
2037-26-5	Toluene-d8 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	109		72-120
1868-53-7	Dibromofluoromethane (Surr)	102		77-127

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013015.D
 Lims ID: 180-59576-A-1
 Client ID: HD-MW-3-0/1-0
 Sample Type: Client
 Inject. Date: 13-Oct-2016 17:06:30 ALS Bottle#: 14 Worklist Smp#: 15
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013857-015
 Misc. Info.: 180-59576-A-1
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 14-Oct-2016 07:34:47 Calib Date: 04-Oct-2016 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161004-13721.b\51004011.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: fergusond

Date: 14-Oct-2016 07:34:47

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.272	4.284	-0.012	0	138308	1000.0	
* 2 Fluorobenzene (IS)	96	7.271	7.271	0.000	97	340783	50.0	
* 3 Chlorobenzene-d5	119	10.374	10.374	0.000	93	74602	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.716	12.716	0.000	97	90622	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.553	6.547	0.006	92	78677	51.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.918	6.919	0.000	0	124520	59.6	
\$ 7 Toluene-d8 (Surr)	98	8.920	8.920	0.000	95	304280	51.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.554	11.560	-0.006	83	118545	54.7	
12 Chloromethane	50		1.772				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.234				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96		3.335				ND	
24 Acetone	43	3.463	3.439	0.024	90	12587	18.8	
26 Carbon disulfide	76		3.621				ND	
31 Methylene Chloride	84	4.138	4.126	0.012	4	886	0.3950	
33 Acrylonitrile	53		4.516				ND	
34 trans-1,2-Dichloroethene	96		4.546				ND	
35 Methyl tert-butyl ether	73	4.570	4.570	0.000	64	4740	0.8559	
37 1,1-Dichloroethane	63		5.185				ND	
45 cis-1,2-Dichloroethene	96	5.945	5.933	0.012	83	8168	3.66	
46 2-Butanone (MEK)	43		5.945				ND	
49 Chlorobromomethane	128		6.225				ND	
52 Chloroform	83	6.365	6.371	-0.006	94	42063	12.1	
53 1,1,1-Trichloroethane	97		6.523				ND	
56 Carbon tetrachloride	117		6.693				ND	
58 Benzene	78		6.925				ND	
59 1,2-Dichloroethane	62		7.004				ND	
64 Trichloroethene	130	7.661	7.661	0.000	95	266517	139.1	
67 1,2-Dichloropropane	63		7.934				ND	
70 1,4-Dioxane	88		8.026				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.220				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.817				ND	
76 Toluene	91		8.987				ND	
77 trans-1,3-Dichloropropene	75		9.242				ND	
79 1,1,2-Trichloroethane	97		9.431				ND	
80 Tetrachloroethene	164	9.510	9.504	0.006	82	3741	2.72	
82 2-Hexanone	43		9.650				ND	
84 Chlorodibromomethane	129		9.802				ND	
85 Ethylene Dibromide	107		9.918				ND	
87 Chlorobenzene	112		10.404				ND	
89 1,1,1,2-Tetrachloroethane	131		10.496				ND	
90 Ethylbenzene	106		10.502				ND	
91 m-Xylene & p-Xylene	106		10.636				ND	
92 o-Xylene	106		11.013				ND	
93 Styrene	104		11.037				ND	
94 Bromoform	173		11.220				ND	
99 1,1,2,2-Tetrachloroethane	83		11.694				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00061

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00059

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013015.D

Injection Date: 13-Oct-2016 17:06:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-59576-A-1

Lab Sample ID: 180-59576-1

Worklist Smp#: 15

Client ID: HD-MW-3-0/1-0

Purge Vol: 5.000 mL

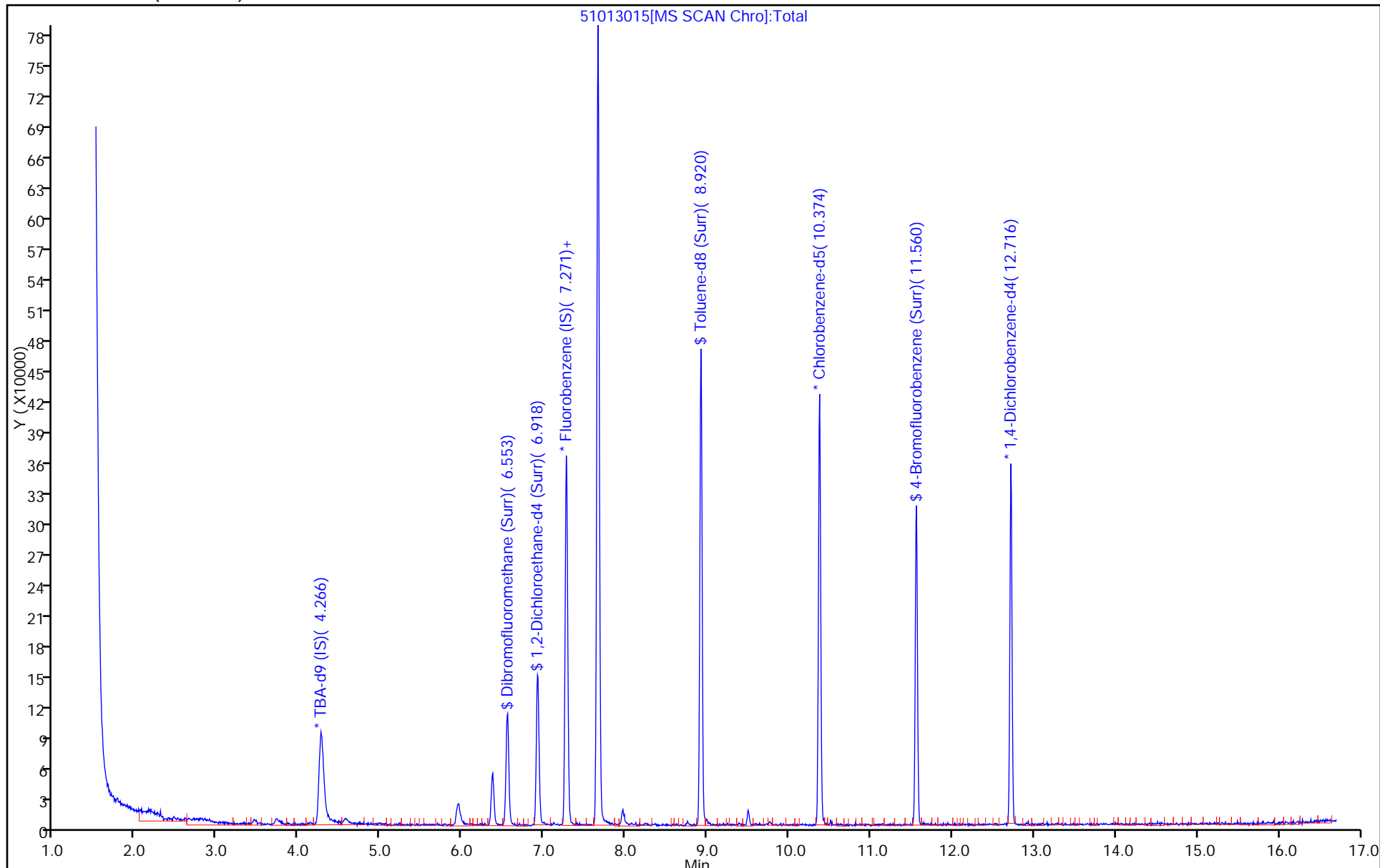
Dil. Factor: 1.0000

ALS Bottle#: 14

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013015.D
 Lims ID: 180-59576-A-1
 Client ID: HD-MW-3-0/1-0
 Sample Type: Client
 Inject. Date: 13-Oct-2016 17:06:30 ALS Bottle#: 14 Worklist Smp#: 15
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013857-015
 Misc. Info.: 180-59576-A-1
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 14-Oct-2016 07:34:47 Calib Date: 04-Oct-2016 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161004-13721.b\51004011.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: fergusond Date: 14-Oct-2016 07:34:47

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	51.2	102.44
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	59.6	119.25
\$ 7 Toluene-d8 (Surr)	50.0	51.8	103.68
\$ 8 4-Bromofluorobenzene (Surr)	50.0	54.7	109.32

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013015.D

Injection Date: 13-Oct-2016 17:06:30

Instrument ID: CHHP5

Lims ID: 180-59576-A-1

Lab Sample ID: 180-59576-1

Client ID: HD-MW-3-0/1-0

Operator ID: 001562

ALS Bottle#: 14

Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

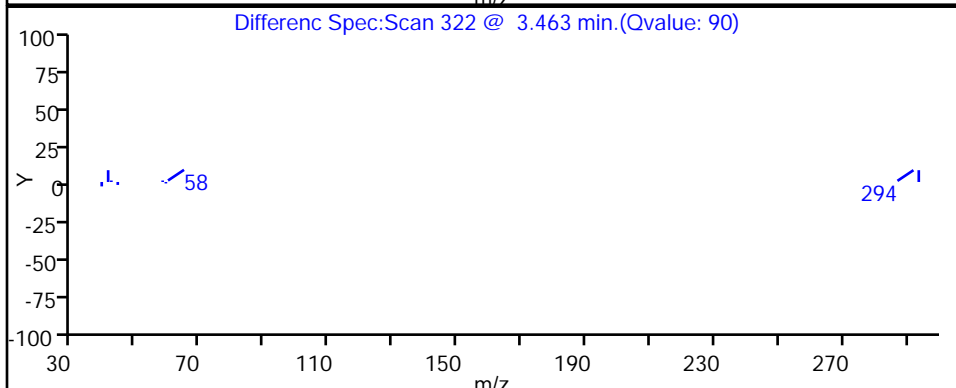
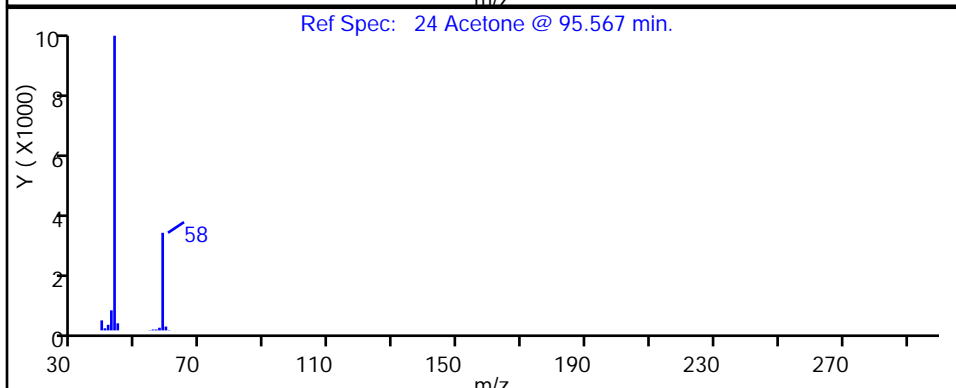
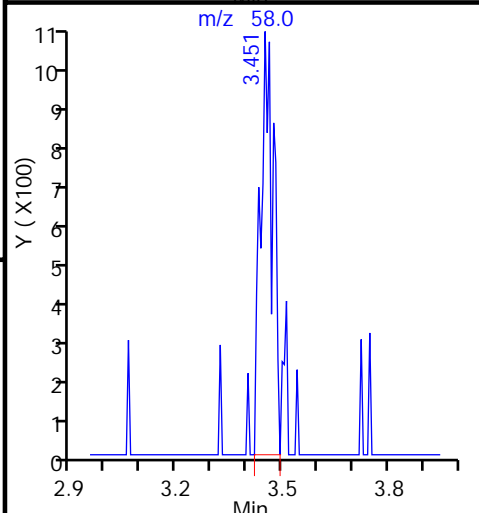
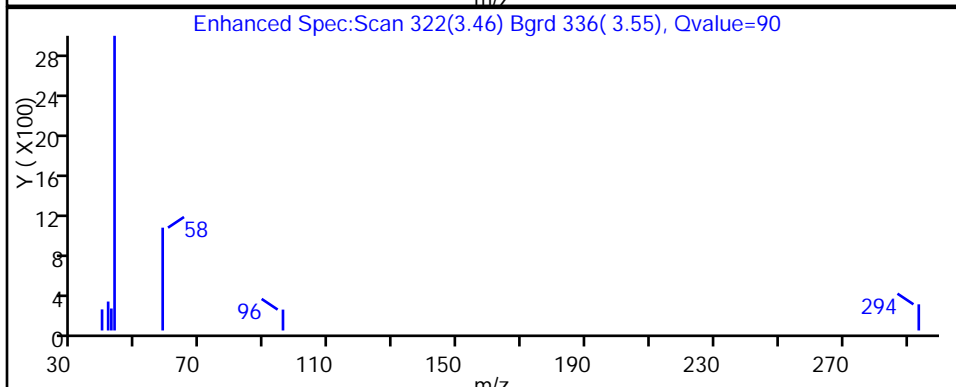
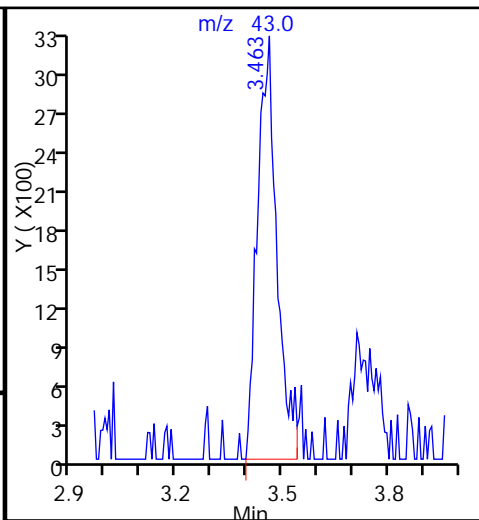
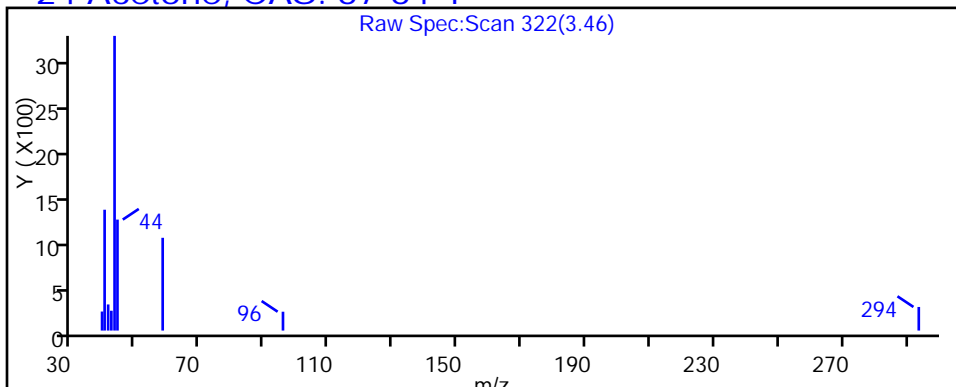
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

24 Acetone, CAS: 67-64-1



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013015.D

Injection Date: 13-Oct-2016 17:06:30

Instrument ID: CHHP5

Lims ID: 180-59576-A-1

Lab Sample ID: 180-59576-1

Client ID: HD-MW-3-0/1-0

Operator ID: 001562

ALS Bottle#: 14

Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

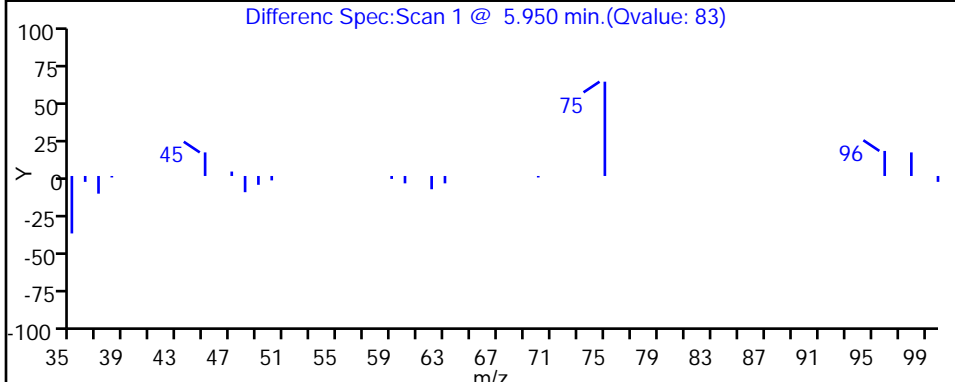
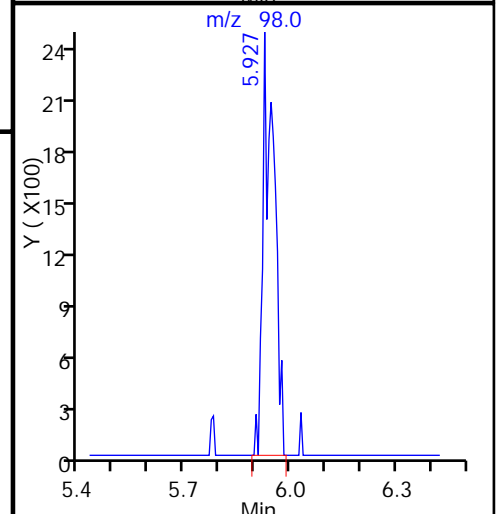
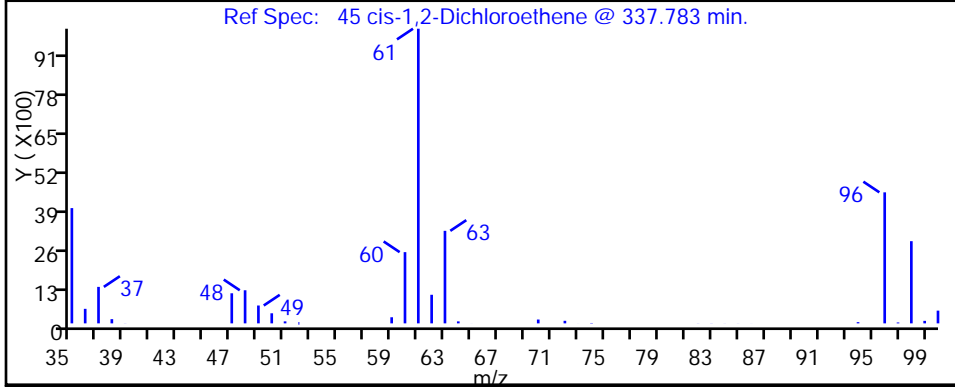
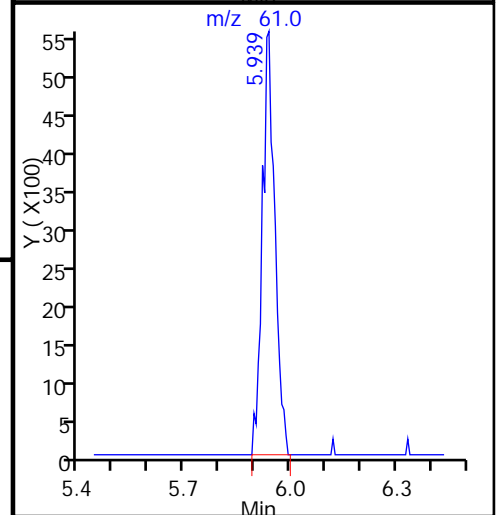
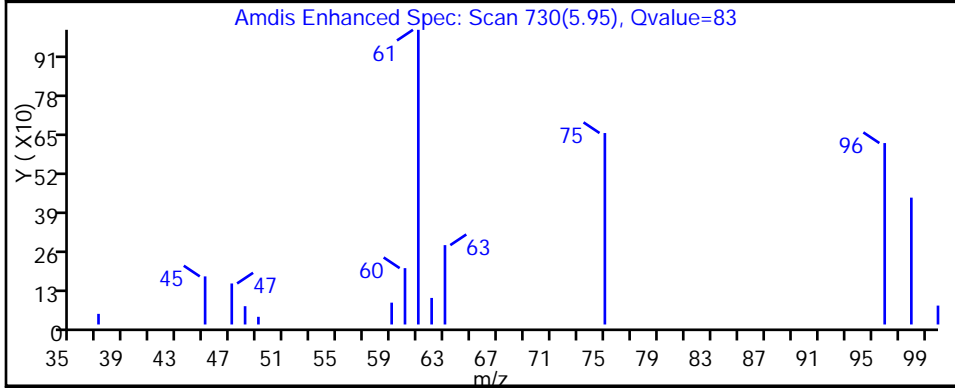
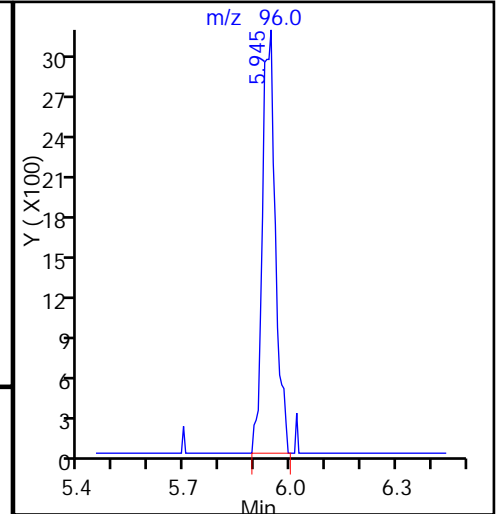
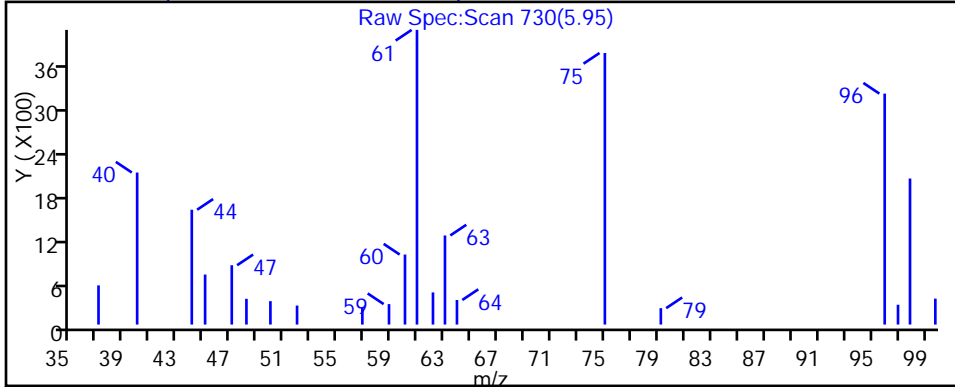
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013015.D

Injection Date: 13-Oct-2016 17:06:30

Instrument ID: CHHP5

Lims ID: 180-59576-A-1

Lab Sample ID: 180-59576-1

Client ID: HD-MW-3-0/1-0

Operator ID: 001562

ALS Bottle#: 14

Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

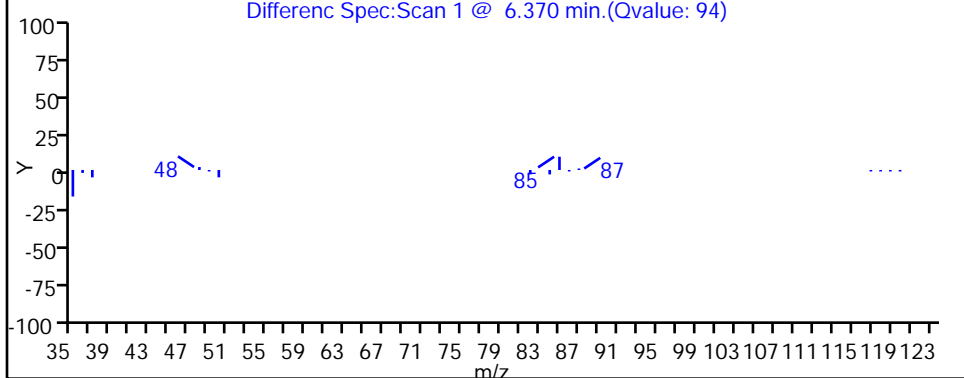
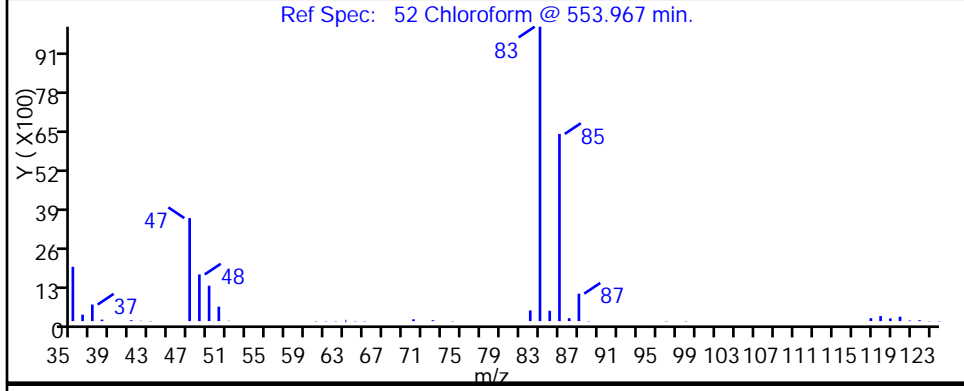
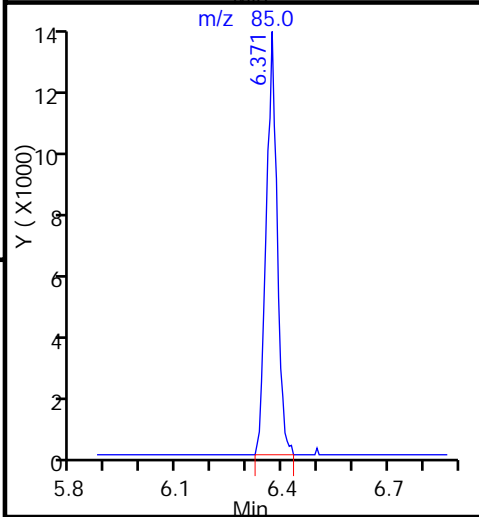
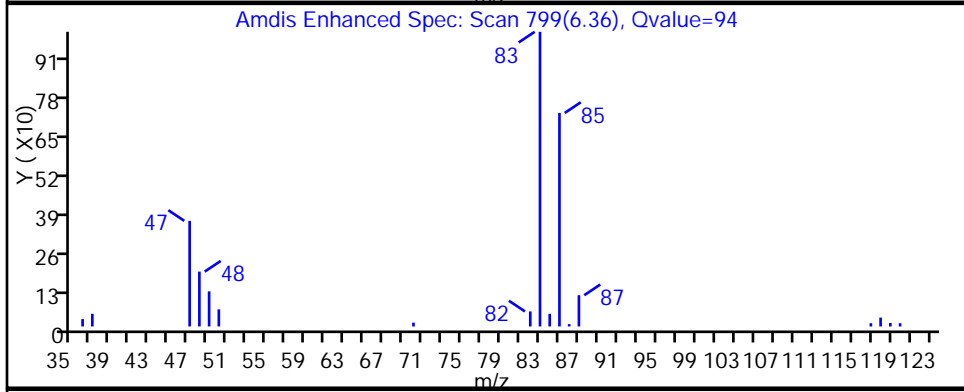
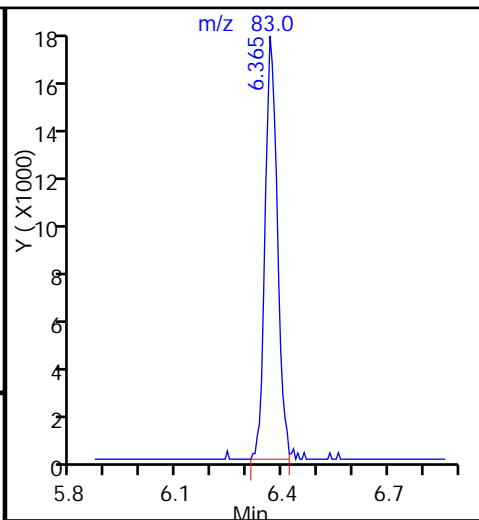
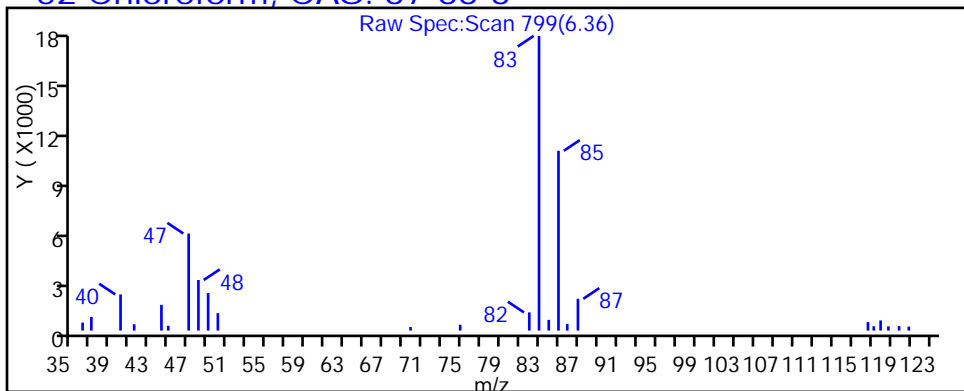
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

52 Chloroform, CAS: 67-66-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013015.D

Injection Date: 13-Oct-2016 17:06:30

Instrument ID: CHHP5

Lims ID: 180-59576-A-1

Lab Sample ID: 180-59576-1

Client ID: HD-MW-3-0/1-0

Operator ID: 001562

ALS Bottle#: 14

Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

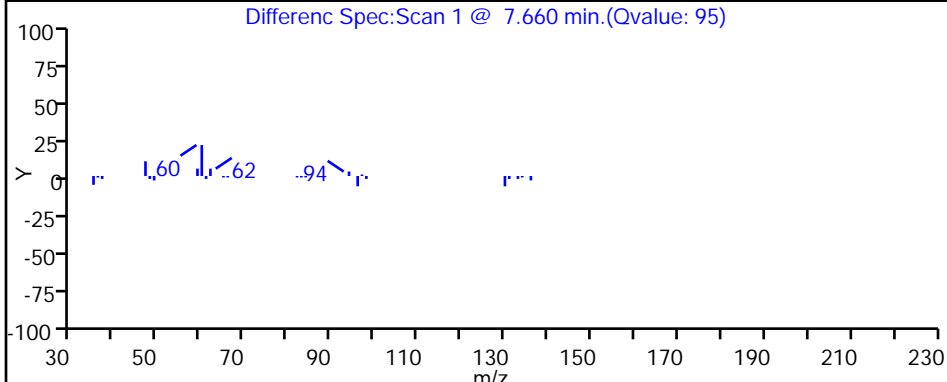
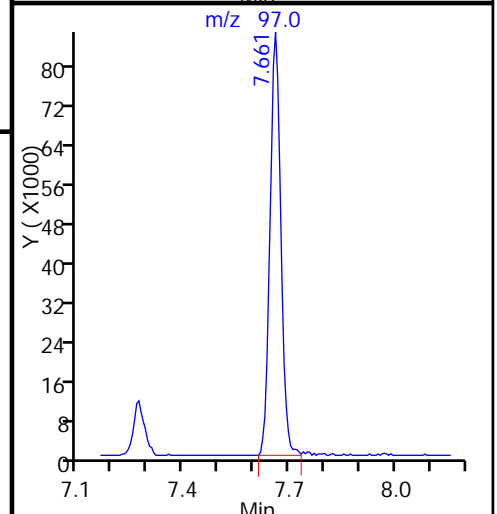
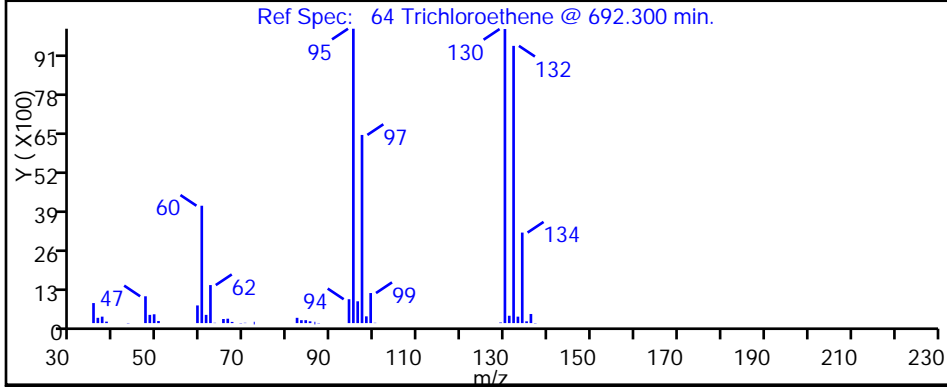
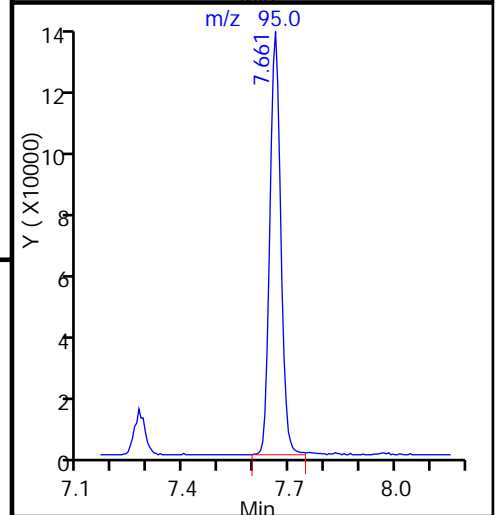
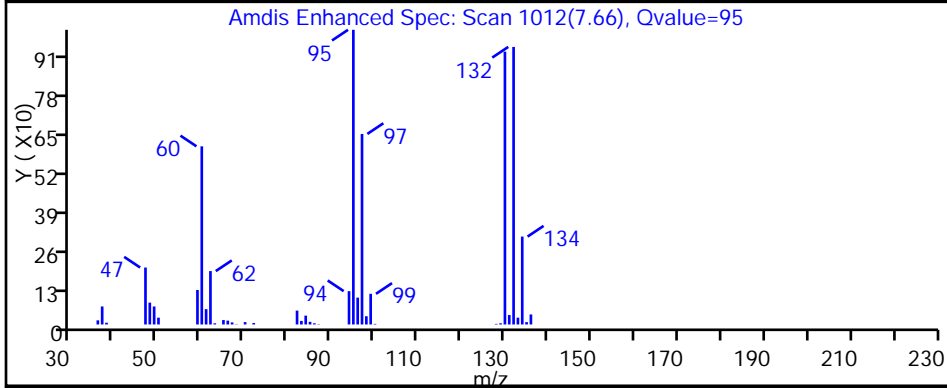
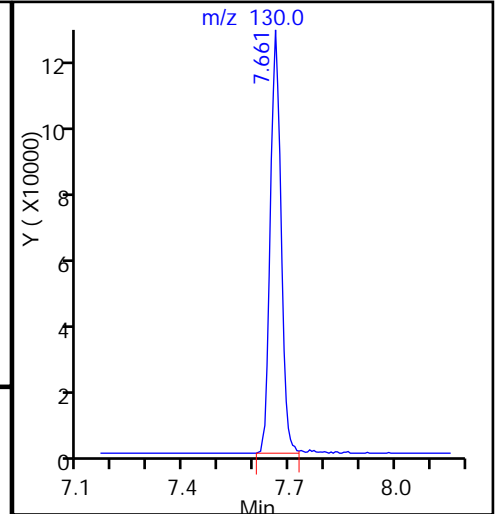
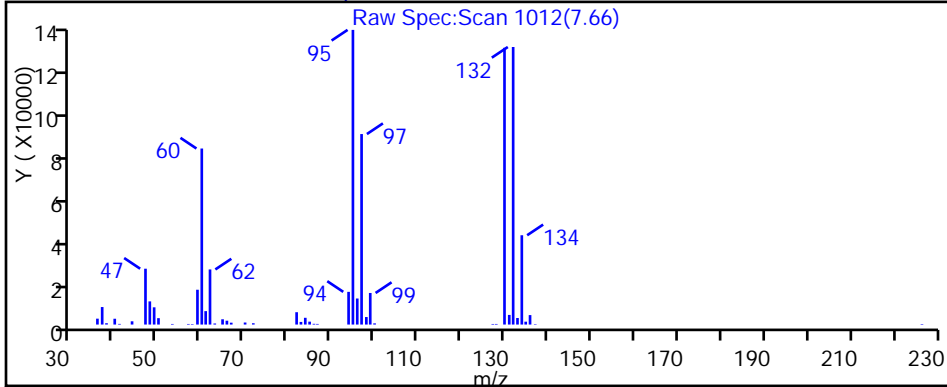
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013015.D

Injection Date: 13-Oct-2016 17:06:30

Instrument ID: CHHP5

Lims ID: 180-59576-A-1

Lab Sample ID: 180-59576-1

Client ID: HD-MW-3-0/1-0

Operator ID: 001562

ALS Bottle#: 14

Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

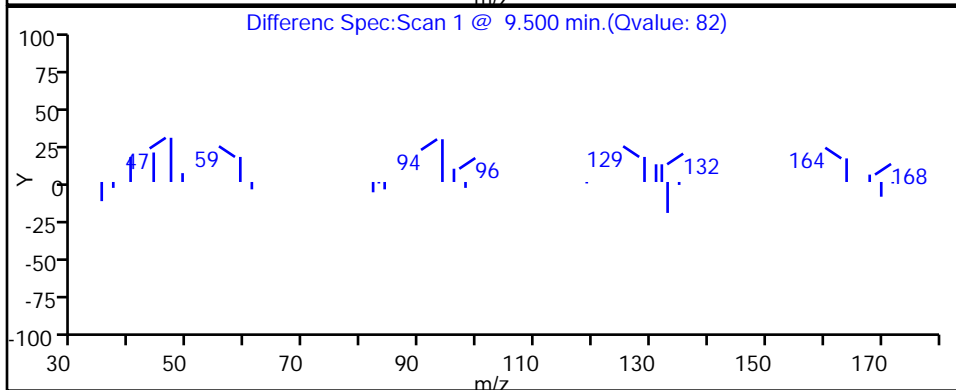
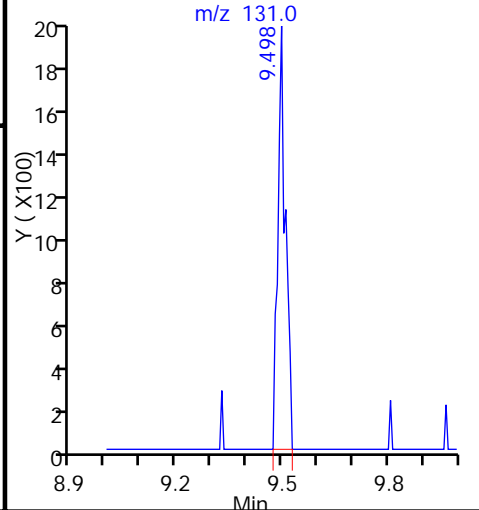
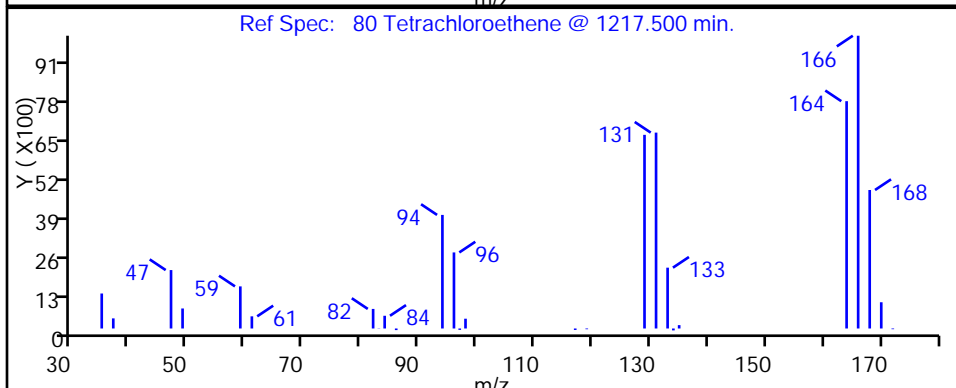
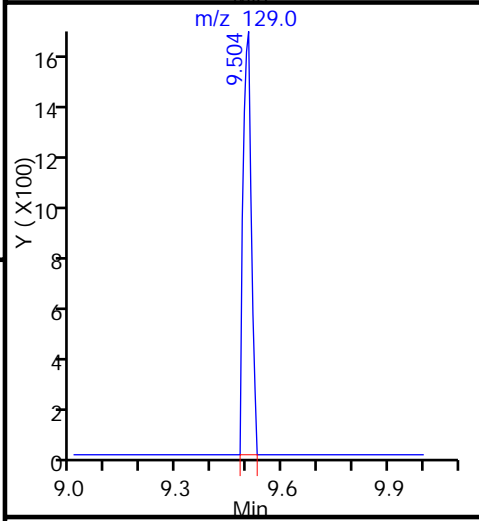
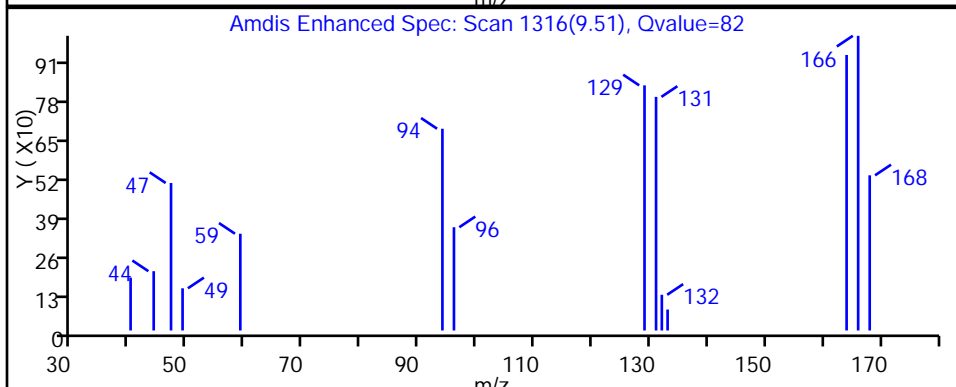
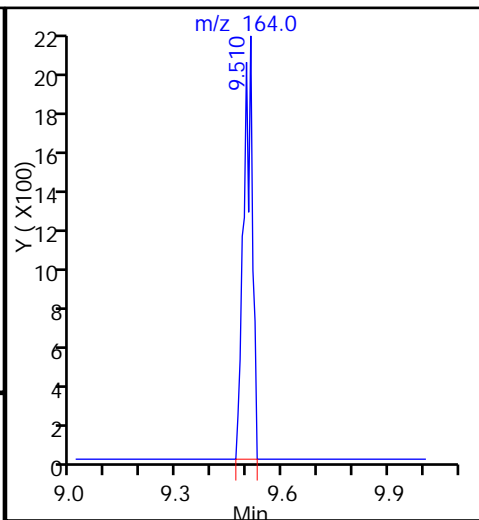
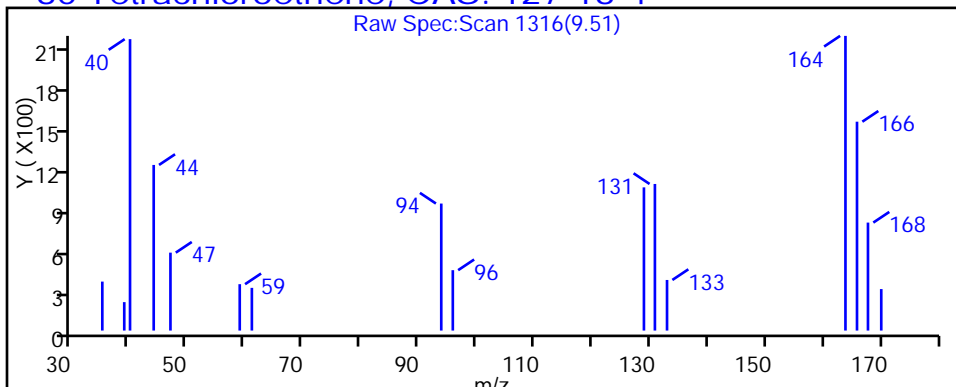
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Client Sample ID: HD-MW-18D-0/1-0 Lab Sample ID: 180-59576-2
 Matrix: Water Lab File ID: 51014018.D
 Analysis Method: 8260C Date Collected: 10/07/2016 12:25
 Sample wt/vol: 5 (mL) Date Analyzed: 10/14/2016 18:20
 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.: 191190 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U ^c	1.0	0.23
75-01-4	Vinyl chloride	0.53	J ^c	1.0	0.32
74-83-9	Bromomethane	1.0	U ^c	1.0	0.36
75-00-3	Chloroethane	1.0	U	1.0	0.26
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.29
67-64-1	Acetone	5.0	U ^c	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.18
75-09-2	Methylene Chloride	1.0	U	1.0	0.36
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.29
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.24
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.24
156-59-2	cis-1,2-Dichloroethene	15		1.0	0.29
74-97-5	Bromochloromethane	1.0	U	1.0	0.38
78-93-3	2-Butanone (MEK)	5.0	U	5.0	1.2
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.24
71-43-2	Benzene	1.0	U	1.0	0.26
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.25
79-01-6	Trichloroethene	5.5		1.0	0.26
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.23
75-27-4	Bromodichloromethane	1.0	U	1.0	0.23
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.21
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.59
108-88-3	Toluene	1.0	U	1.0	0.28
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.24
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.35
127-18-4	Tetrachloroethene	1.0	U	1.0	0.27
591-78-6	2-Hexanone	5.0	U	5.0	0.74
124-48-1	Dibromochloromethane	1.0	U	1.0	0.40
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.29
108-90-7	Chlorobenzene	1.0	U	1.0	0.31
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.20
100-41-4	Ethylbenzene	1.0	U	1.0	0.27
1330-20-7	Xylenes, Total	2.0	U	2.0	0.48
100-42-5	Styrene	1.0	U	1.0	0.26

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Client Sample ID: HD-MW-18D-0/1-0 Lab Sample ID: 180-59576-2
 Matrix: Water Lab File ID: 51014018.D
 Analysis Method: 8260C Date Collected: 10/07/2016 12:25
 Sample wt/vol: 5 (mL) Date Analyzed: 10/14/2016 18:20
 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.: 191190 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.29
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.35
107-13-1	Acrylonitrile	20	U ^c	20	2.8
123-91-1	1,4-Dioxane	200	U ^c	200	7.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	122		72-134
2037-26-5	Toluene-d8 (Surr)	109		80-120
460-00-4	4-Bromofluorobenzene (Surr)	110		72-120
1868-53-7	Dibromofluoromethane (Surr)	105		77-127

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161014-13878.b\51014018.D
 Lims ID: 180-59576-A-2
 Client ID: HD-MW-18D-0/1-0
 Sample Type: Client
 Inject. Date: 14-Oct-2016 18:20:30 ALS Bottle#: 18 Worklist Smp#: 18
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013878-018
 Misc. Info.: 180-59576-A-2
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161014-13878.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 15-Oct-2016 09:07:32 Calib Date: 04-Oct-2016 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161004-13721.b\51004011.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK011

First Level Reviewer: fergusond

Date: 15-Oct-2016 09:07:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.259	4.286	-0.027	0	109928	1000.0	
* 2 Fluorobenzene (IS)	96	7.271	7.267	0.004	97	371586	50.0	
* 3 Chlorobenzene-d5	119	10.373	10.376	-0.003	92	77713	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.715	12.718	-0.003	98	89373	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.547	6.549	-0.002	92	87897	52.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.924	6.920	0.004	0	139107	61.1	
\$ 7 Toluene-d8 (Surr)	98	8.919	8.922	-0.003	96	334176	54.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.559	11.562	-0.003	82	124463	55.1	
12 Chloromethane	50		1.768				ND	
13 Vinyl chloride	62	1.899	1.901	-0.002	51	6053	2.63	
15 Bromomethane	94		2.230				ND	
16 Chloroethane	64		2.376				ND	
22 1,1-Dichloroethene	96		3.325				ND	
24 Acetone	43	3.450	3.447	0.003	72	8809	12.1	
26 Carbon disulfide	76	3.633	3.611	0.022	73	1541	0.2718	
31 Methylene Chloride	84	4.144	4.128	0.016	29	710	0.2903	
33 Acrylonitrile	53		4.517				ND	
34 trans-1,2-Dichloroethene	96		4.554				ND	
35 Methyl tert-butyl ether	73		4.566				ND	
37 1,1-Dichloroethane	63		5.180				ND	
45 cis-1,2-Dichloroethene	96	5.938	5.935	0.003	86	185803	76.3	
46 2-Butanone (MEK)	43		5.947				ND	
49 Chlorobromomethane	128		6.215				ND	
52 Chloroform	83		6.367				ND	
53 1,1,1-Trichloroethane	97		6.519				ND	
56 Carbon tetrachloride	117		6.695				ND	
58 Benzene	78		6.926				ND	
59 1,2-Dichloroethane	62		6.999				ND	
64 Trichloroethene	130	7.660	7.662	-0.002	93	57256	27.4	
67 1,2-Dichloropropane	63		7.930				ND	
70 1,4-Dioxane	88		8.015				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.216				ND	
74 cis-1,3-Dichloropropene	75		8.660				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.818				ND	
76 Toluene	91		8.989				ND	
77 trans-1,3-Dichloropropene	75		9.238				ND	
79 1,1,2-Trichloroethane	97		9.433				ND	
80 Tetrachloroethene	164		9.500				ND	
82 2-Hexanone	43		9.646				ND	
84 Chlorodibromomethane	129		9.804				ND	
85 Ethylene Dibromide	107		9.913				ND	
87 Chlorobenzene	112		10.406				ND	
89 1,1,1,2-Tetrachloroethane	131		10.497				ND	
90 Ethylbenzene	106		10.503				ND	
91 m-Xylene & p-Xylene	106		10.631				ND	
92 o-Xylene	106		11.014				ND	
93 Styrene	104		11.039				ND	
94 Bromoform	173		11.221				ND	
99 1,1,2,2-Tetrachloroethane	83		11.696				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00061

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00059

Amount Added: 2.00

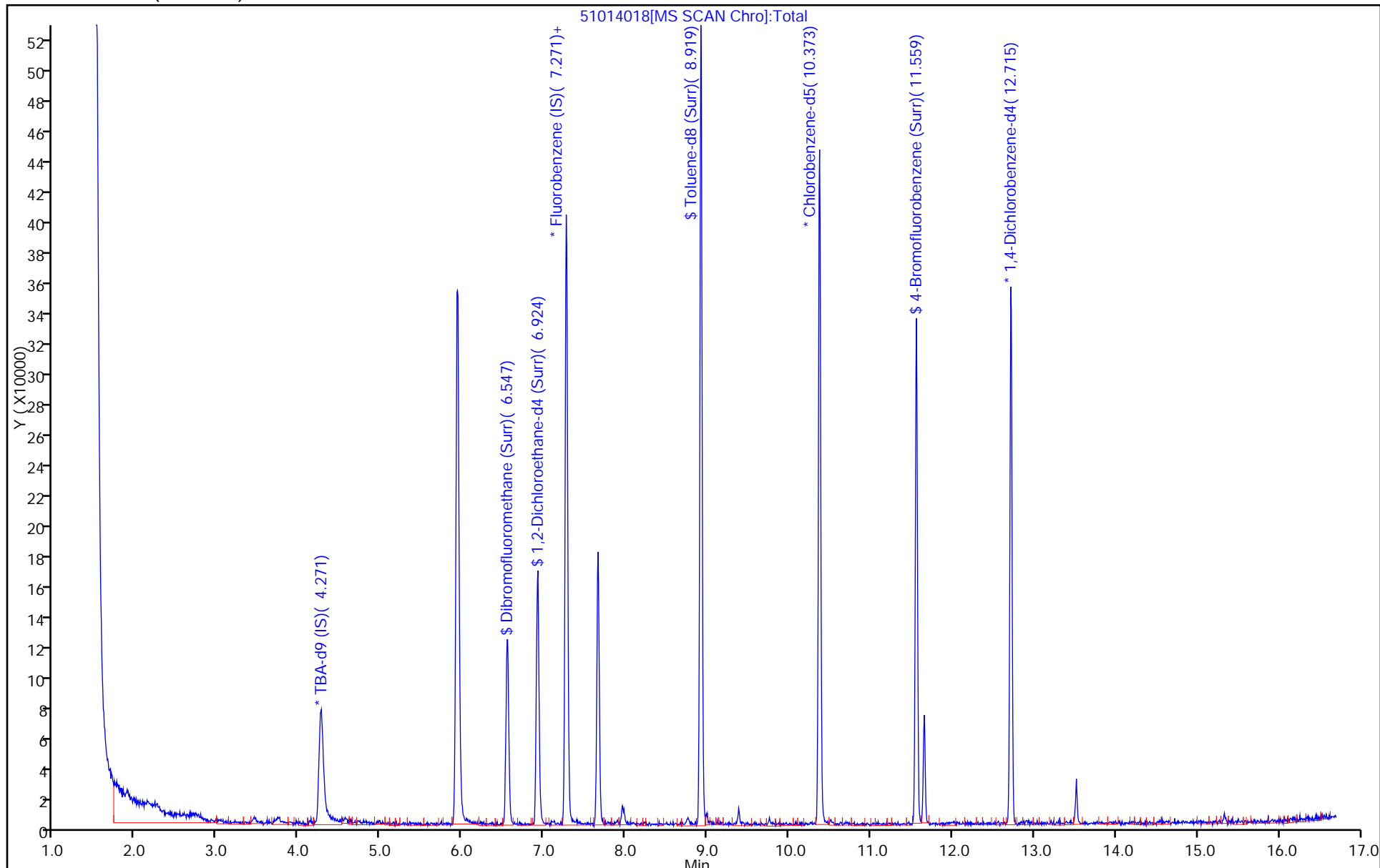
Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161014-13878.b\51014018.D
Injection Date: 14-Oct-2016 18:20:30 Instrument ID: CHHP5
Lims ID: 180-59576-A-2 Lab Sample ID: 180-59576-2
Client ID: HD-MW-18D-0/1-0
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm)

Operator ID: 001562
Worklist Smp#: 18
ALS Bottle#: 18



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161014-13878.b\51014018.D
 Lims ID: 180-59576-A-2
 Client ID: HD-MW-18D-0/1-0
 Sample Type: Client
 Inject. Date: 14-Oct-2016 18:20:30 ALS Bottle#: 18 Worklist Smp#: 18
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013878-018
 Misc. Info.: 180-59576-A-2
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161014-13878.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 15-Oct-2016 09:07:32 Calib Date: 04-Oct-2016 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161004-13721.b\51004011.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK011

First Level Reviewer: fergusond

Date: 15-Oct-2016 09:07:32

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	52.5	104.95
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	61.1	122.18
\$ 7 Toluene-d8 (Surr)	50.0	54.7	109.30
\$ 8 4-Bromofluorobenzene (Surr)	50.0	55.1	110.18

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161014-13878.b\51014018.D

Injection Date: 14-Oct-2016 18:20:30

Instrument ID: CHHP5

Lims ID: 180-59576-A-2

Lab Sample ID: 180-59576-2

Client ID: HD-MW-18D-0/1-0

Operator ID: 001562

ALS Bottle#: 18 Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

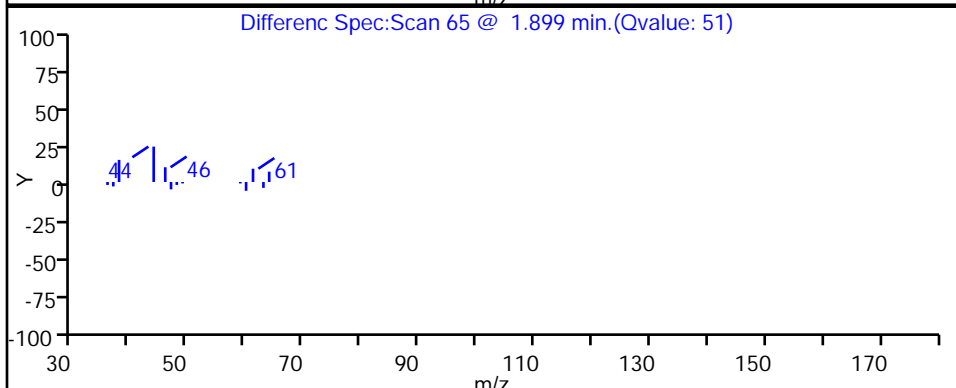
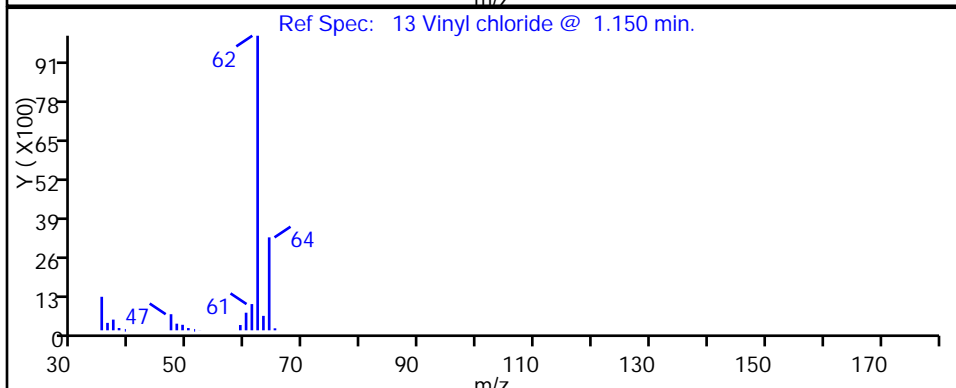
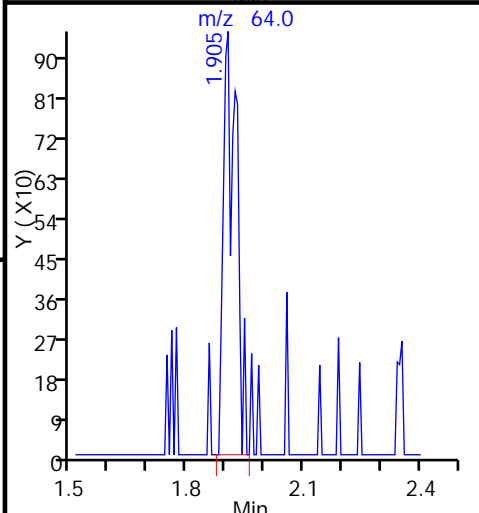
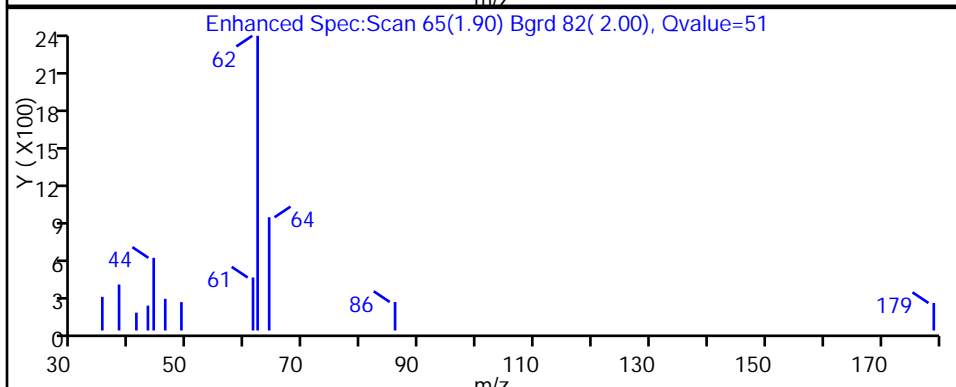
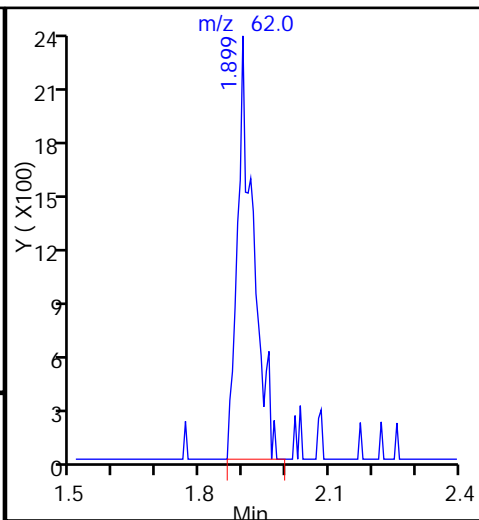
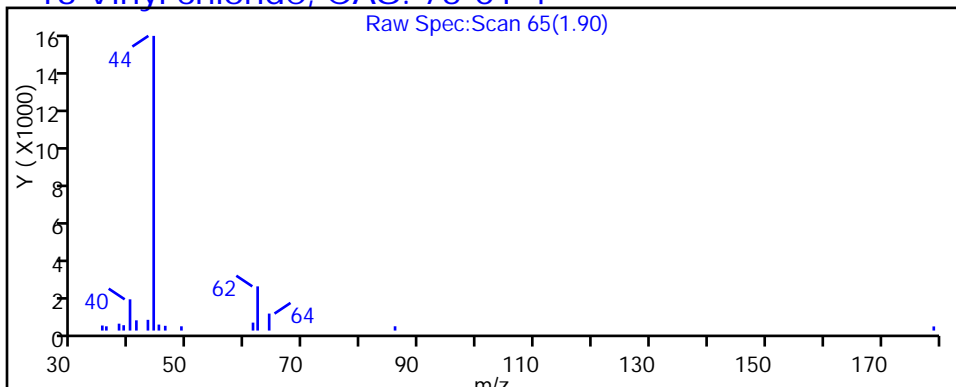
Method: MSVOA_LL_CHHP5

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\CHHP5\20161014-13878.b\51014018.D

Injection Date: 14-Oct-2016 18:20:30

Instrument ID: CHHP5

Lims ID: 180-59576-A-2

Lab Sample ID: 180-59576-2

Client ID: HD-MW-18D-0/1-0

Operator ID: 001562

ALS Bottle#: 18

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

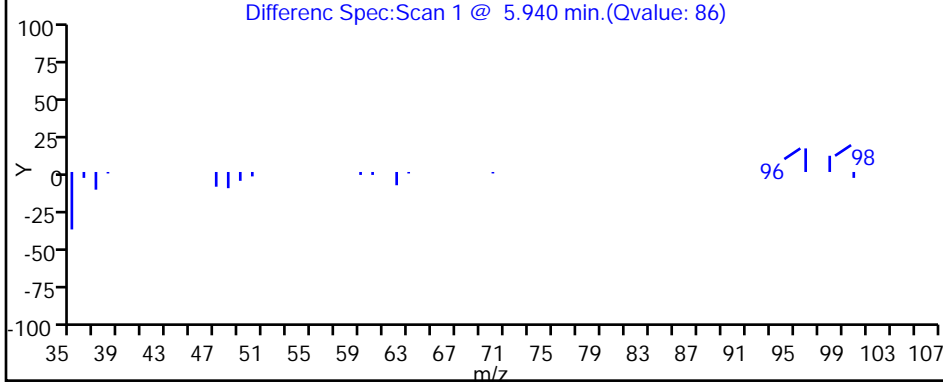
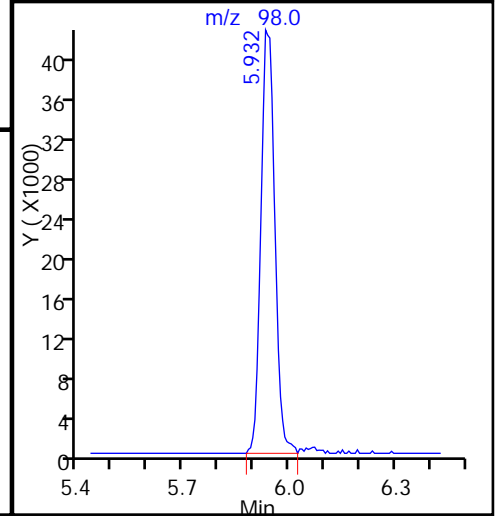
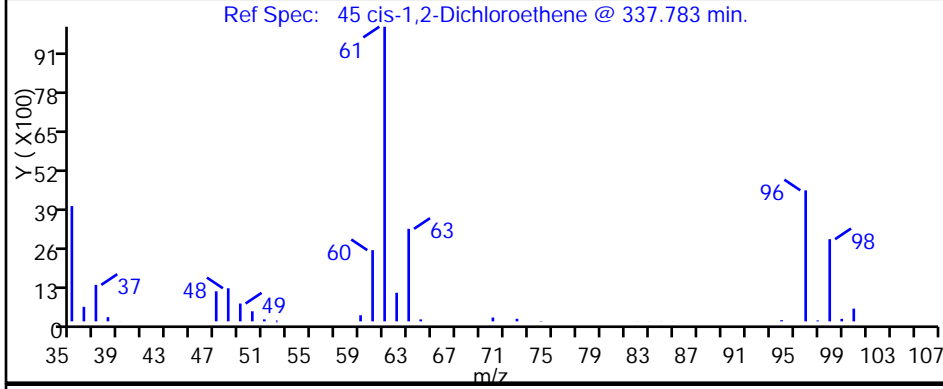
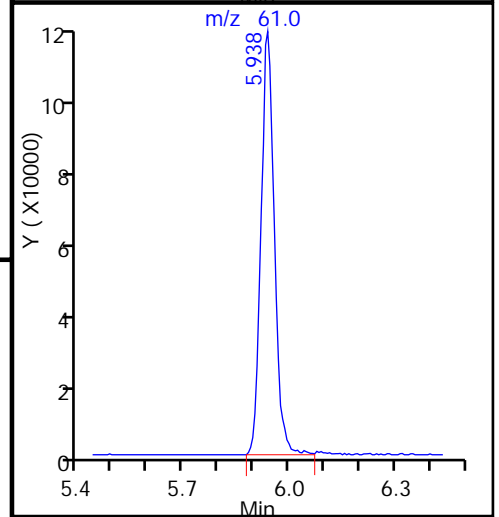
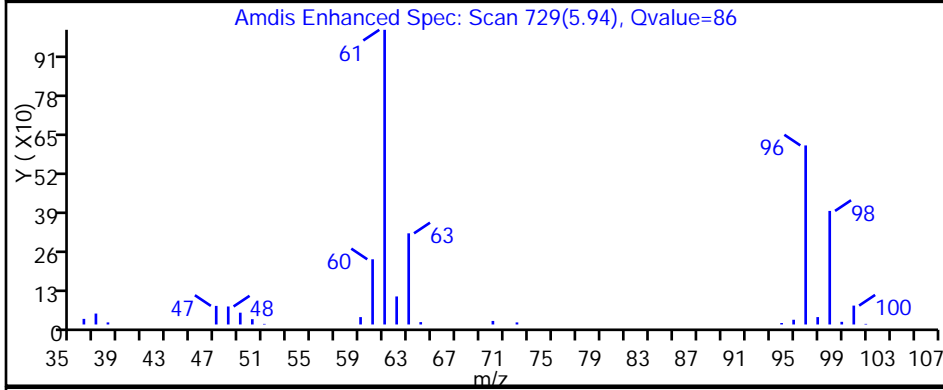
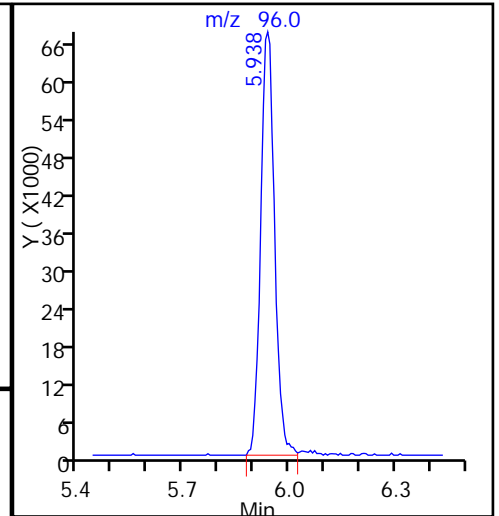
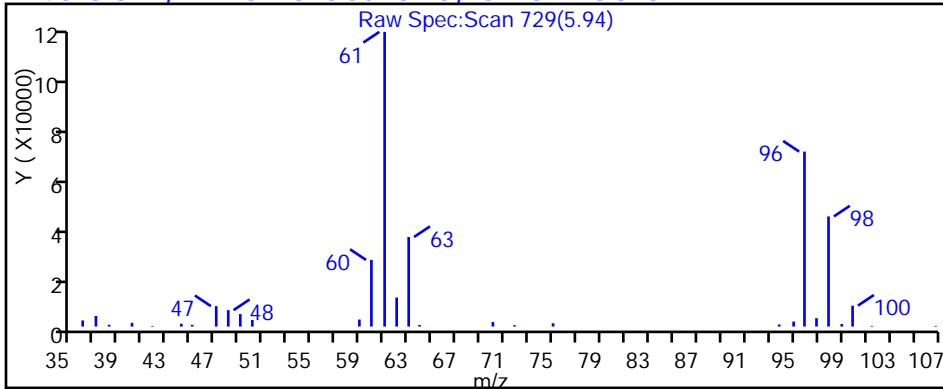
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161014-13878.b\51014018.D

Injection Date: 14-Oct-2016 18:20:30

Instrument ID: CHHP5

Lims ID: 180-59576-A-2

Lab Sample ID: 180-59576-2

Client ID: HD-MW-18D-0/1-0

Operator ID: 001562

ALS Bottle#: 18

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

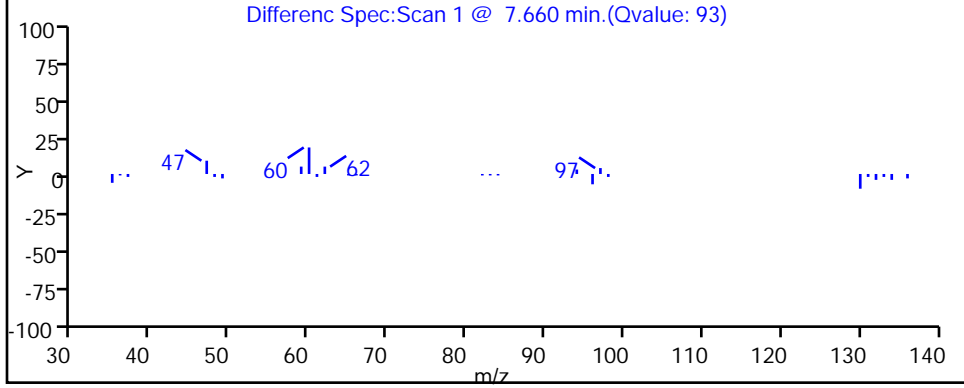
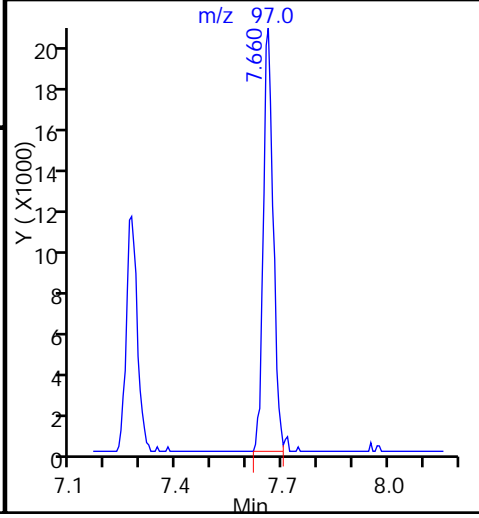
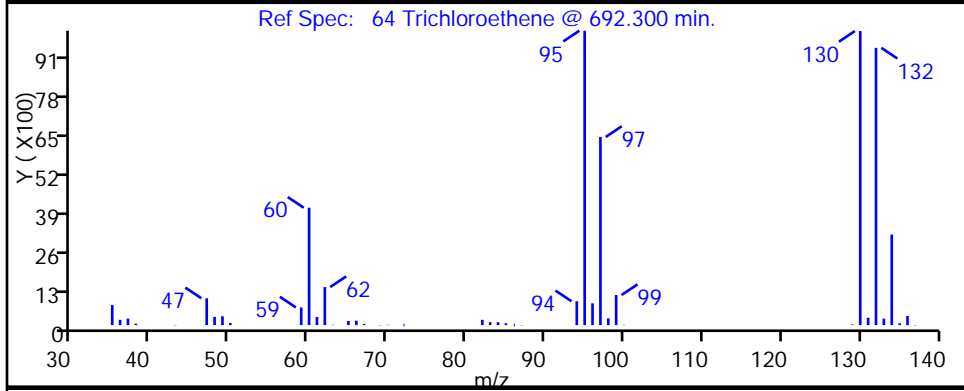
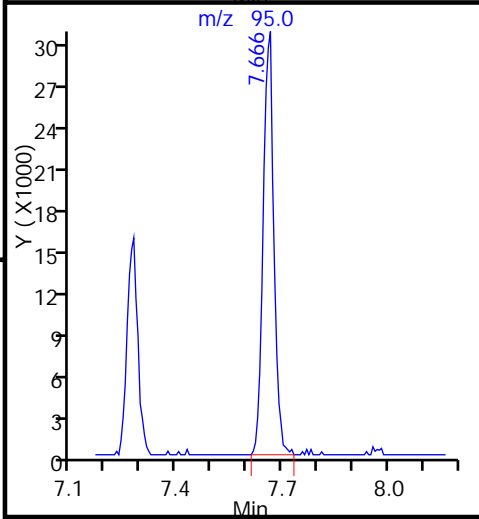
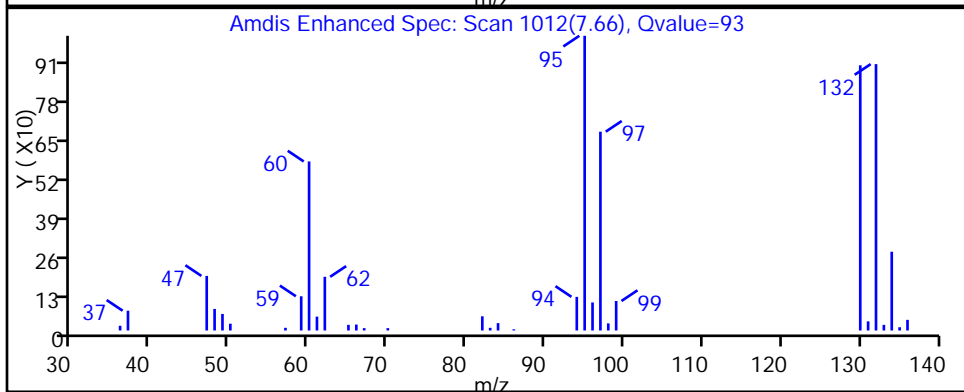
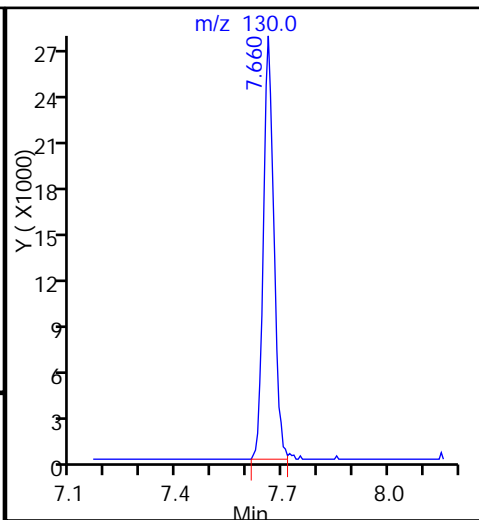
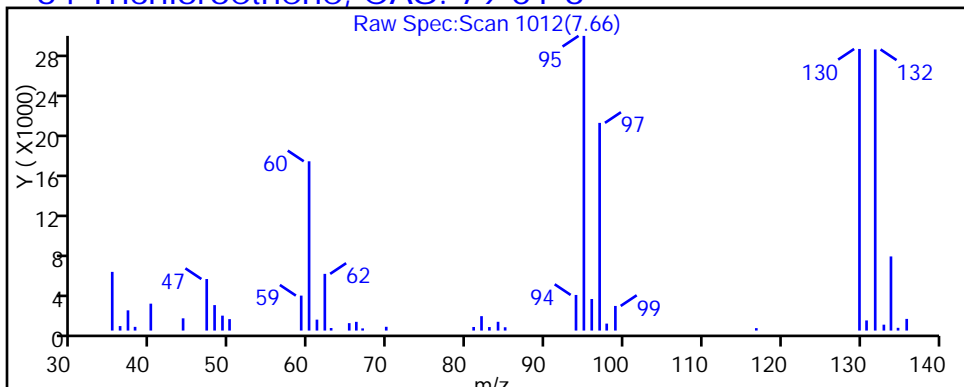
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Client Sample ID: HD-MW-16D-0/1-0 Lab Sample ID: 180-59576-3
 Matrix: Water Lab File ID: 51013018.D
 Analysis Method: 8260C Date Collected: 10/07/2016 13:45
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2016 18:18
 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.: 191047 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U ^c	1.0	0.23
75-01-4	Vinyl chloride	1.0	U	1.0	0.32
74-83-9	Bromomethane	1.0	U ^c	1.0	0.36
75-00-3	Chloroethane	1.0	U	1.0	0.26
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.29
67-64-1	Acetone	5.0	U ^c	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.18
75-09-2	Methylene Chloride	1.0	U	1.0	0.36
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.29
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.24
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.24
156-59-2	cis-1,2-Dichloroethene	8.9		1.0	0.29
74-97-5	Bromochloromethane	1.0	U	1.0	0.38
78-93-3	2-Butanone (MEK)	5.0	U	5.0	1.2
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.24
71-43-2	Benzene	1.0	U	1.0	0.26
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.25
79-01-6	Trichloroethene	10		1.0	0.26
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.23
75-27-4	Bromodichloromethane	1.0	U	1.0	0.23
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.21
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.59
108-88-3	Toluene	1.0	U	1.0	0.28
10061-02-6	trans-1,3-Dichloropropene	1.0	U ^c	1.0	0.24
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.35
127-18-4	Tetrachloroethene	1.0	U	1.0	0.27
591-78-6	2-Hexanone	5.0	U	5.0	0.74
124-48-1	Dibromochloromethane	1.0	U	1.0	0.40
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.29
108-90-7	Chlorobenzene	1.0	U	1.0	0.31
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.20
100-41-4	Ethylbenzene	1.0	U	1.0	0.27
1330-20-7	Xylenes, Total	2.0	U	2.0	0.48
100-42-5	Styrene	1.0	U	1.0	0.26

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Client Sample ID: HD-MW-16D-0/1-0 Lab Sample ID: 180-59576-3
 Matrix: Water Lab File ID: 51013018.D
 Analysis Method: 8260C Date Collected: 10/07/2016 13:45
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2016 18:18
 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.: 191047 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.29
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.35
107-13-1	Acrylonitrile	20	U	20	2.8
123-91-1	1,4-Dioxane	200	U	200	7.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	124		72-134
2037-26-5	Toluene-d8 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	109		72-120
1868-53-7	Dibromofluoromethane (Surr)	109		77-127

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013018.D
 Lims ID: 180-59576-C-3
 Client ID: HD-MW-16D-0/1-0
 Sample Type: Client
 Inject. Date: 13-Oct-2016 18:18:30 ALS Bottle#: 17 Worklist Smp#: 18
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013857-018
 Misc. Info.: 180-59576-C-3
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 14-Oct-2016 07:36:54 Calib Date: 04-Oct-2016 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161004-13721.b\51004011.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: fergusond

Date: 14-Oct-2016 07:36:54

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.263	4.284	-0.021	0	113056	1000.0	
* 2 Fluorobenzene (IS)	96	7.275	7.271	0.004	97	329719	50.0	
* 3 Chlorobenzene-d5	119	10.371	10.374	-0.003	93	74135	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.719	12.716	0.003	98	92039	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.551	6.547	0.004	93	81342	54.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.922	6.919	0.004	0	125552	62.1	
\$ 7 Toluene-d8 (Surr)	98	8.917	8.920	-0.003	95	296162	50.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.557	11.560	-0.003	83	117405	54.5	
12 Chloromethane	50		1.772				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.234				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96		3.335				ND	
24 Acetone	43	3.454	3.439	0.015	74	6147	9.51	M
26 Carbon disulfide	76		3.621				ND	
31 Methylene Chloride	84	4.136	4.126	0.010	1	496	0.2285	
33 Acrylonitrile	53		4.516				ND	
34 trans-1,2-Dichloroethene	96		4.546				ND	
35 Methyl tert-butyl ether	73		4.570				ND	
37 1,1-Dichloroethane	63		5.185				ND	
45 cis-1,2-Dichloroethene	96	5.942	5.933	0.009	85	95855	44.4	
46 2-Butanone (MEK)	43		5.945				ND	
49 Chlorobromomethane	128		6.225				ND	
52 Chloroform	83		6.371				ND	
53 1,1,1-Trichloroethane	97		6.523				ND	
56 Carbon tetrachloride	117		6.693				ND	
58 Benzene	78		6.925				ND	
59 1,2-Dichloroethane	62		7.004				ND	
64 Trichloroethene	130	7.658	7.661	-0.003	94	96701	52.2	
67 1,2-Dichloropropane	63		7.934				ND	
70 1,4-Dioxane	88		8.026				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.220				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.817				ND	
76 Toluene	91		8.987				ND	
77 trans-1,3-Dichloropropene	75		9.242				ND	
79 1,1,2-Trichloroethane	97		9.431				ND	
80 Tetrachloroethene	164		9.504				ND	
82 2-Hexanone	43		9.650				ND	
84 Chlorodibromomethane	129		9.802				ND	
85 Ethylene Dibromide	107		9.918				ND	
87 Chlorobenzene	112		10.404				ND	
89 1,1,1,2-Tetrachloroethane	131		10.496				ND	
90 Ethylbenzene	106		10.502				ND	
91 m-Xylene & p-Xylene	106		10.636				ND	
92 o-Xylene	106		11.013				ND	
93 Styrene	104		11.037				ND	
94 Bromoform	173		11.220				ND	
99 1,1,2,2-Tetrachloroethane	83		11.694				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00061

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00059

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013018.D

Injection Date: 13-Oct-2016 18:18:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-59576-C-3

Lab Sample ID: 180-59576-3

Worklist Smp#: 18

Client ID: HD-MW-16D-0/1-0

Purge Vol: 5.000 mL

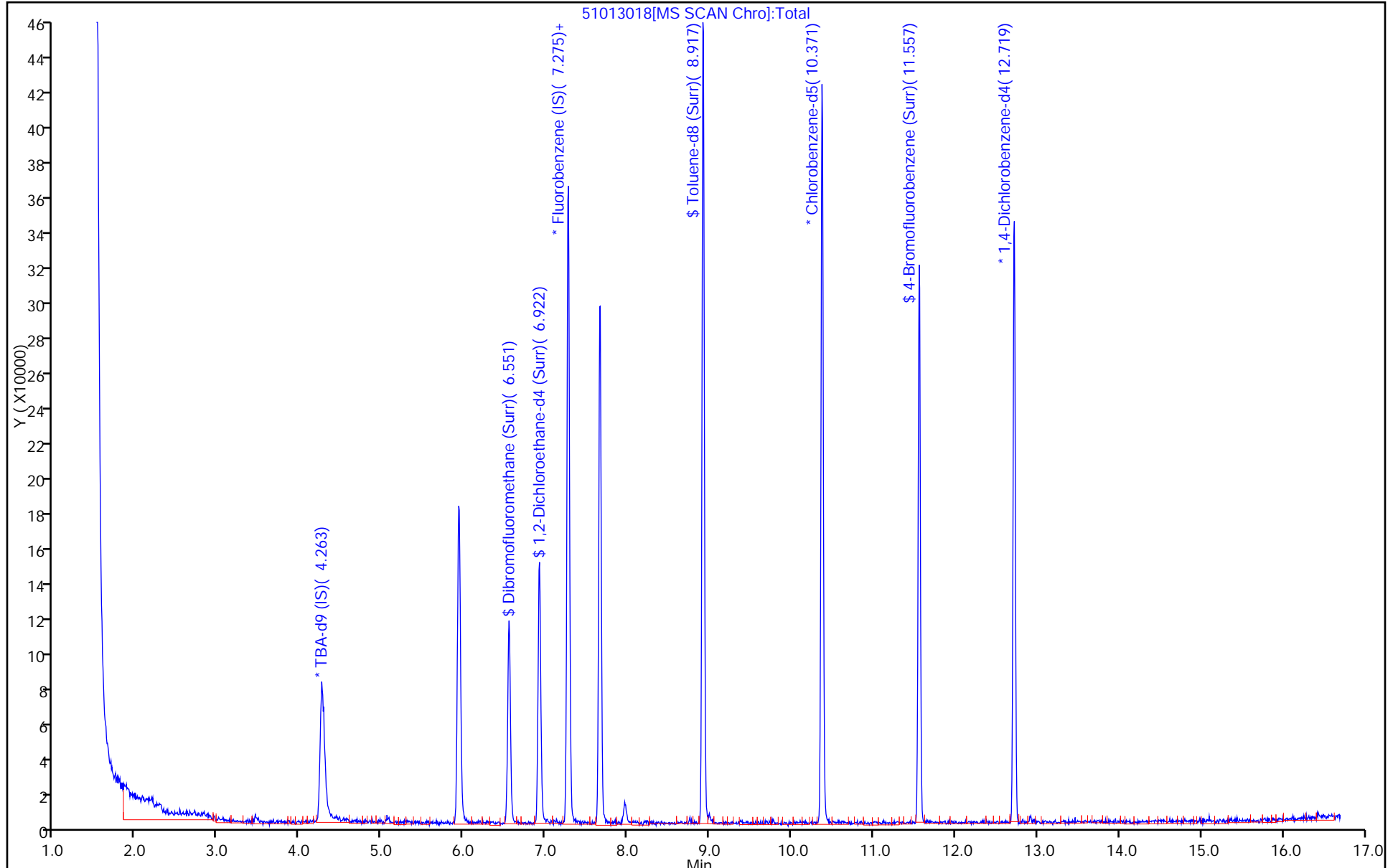
Dil. Factor: 1.0000

ALS Bottle#: 17

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013018.D
 Lims ID: 180-59576-C-3
 Client ID: HD-MW-16D-0/1-0
 Sample Type: Client
 Inject. Date: 13-Oct-2016 18:18:30 ALS Bottle#: 17 Worklist Smp#: 18
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013857-018
 Misc. Info.: 180-59576-C-3
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 14-Oct-2016 07:36:54 Calib Date: 04-Oct-2016 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161004-13721.b\51004011.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: fergusond

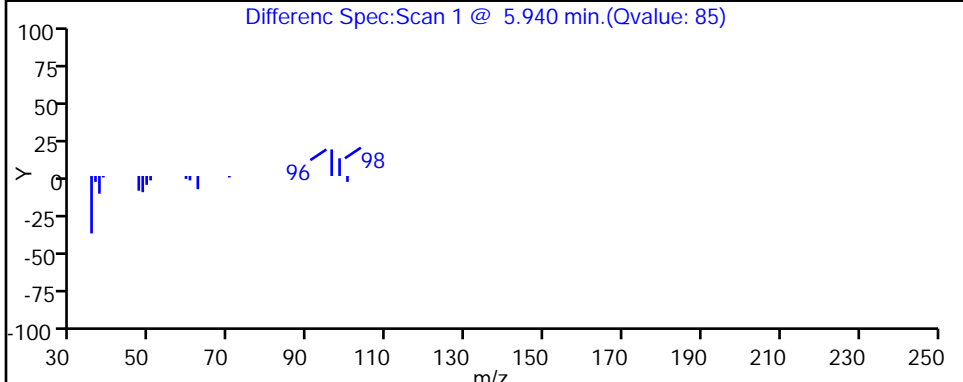
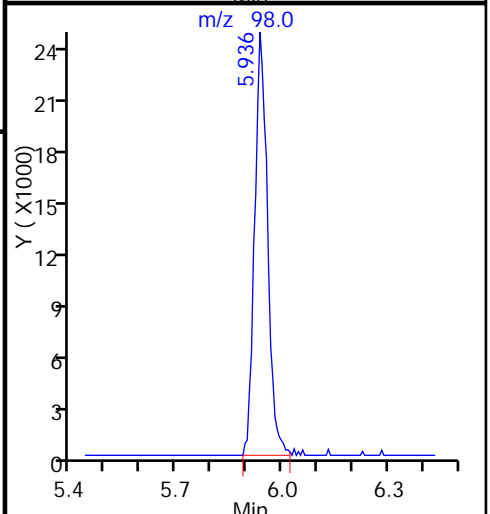
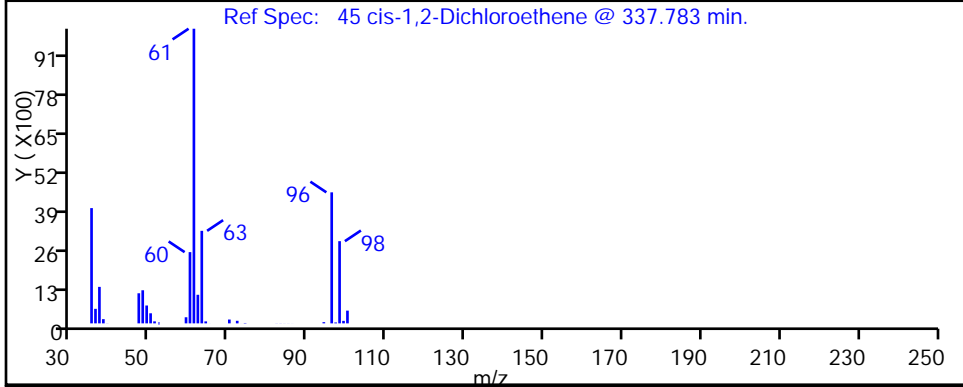
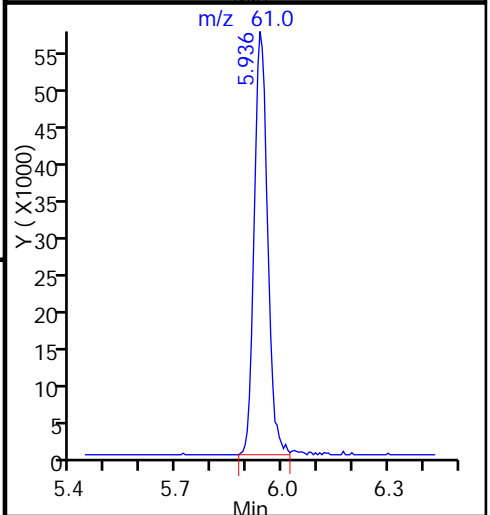
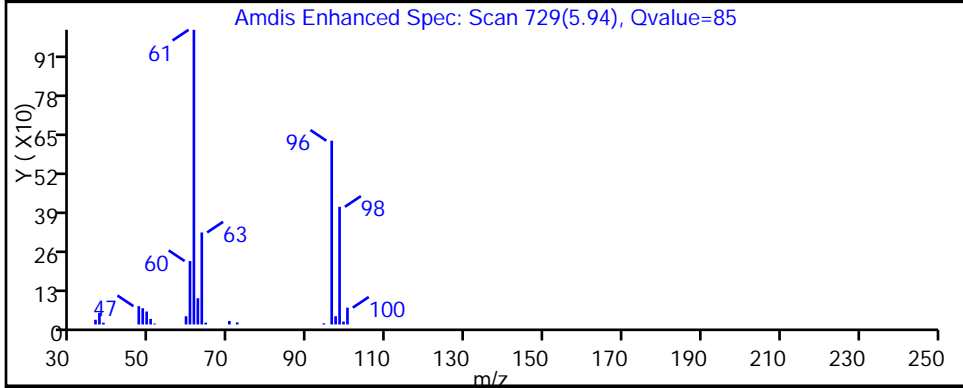
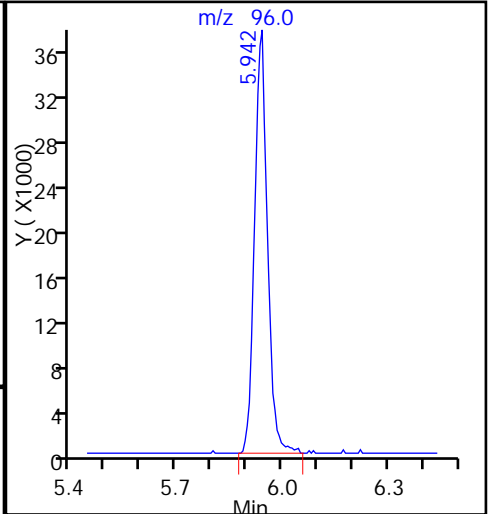
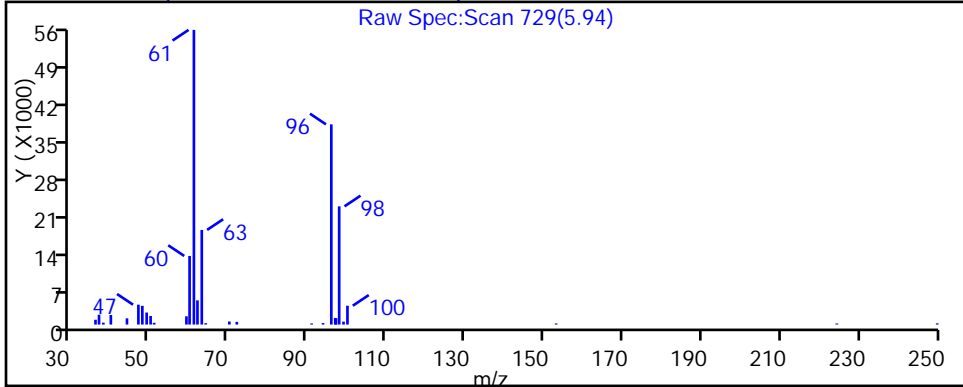
Date: 14-Oct-2016 07:36:54

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	54.7	109.46
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	62.1	124.28
\$ 7 Toluene-d8 (Surr)	50.0	50.8	101.55
\$ 8 4-Bromofluorobenzene (Surr)	50.0	54.5	108.95

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013018.D
Injection Date: 13-Oct-2016 18:18:30 Instrument ID: CHHP5
Lims ID: 180-59576-C-3 Lab Sample ID: 180-59576-3
Client ID: HD-MW-16D-0/1-0
Operator ID: 001562 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013018.D

Injection Date: 13-Oct-2016 18:18:30

Instrument ID: CHHP5

Lims ID: 180-59576-C-3

Lab Sample ID: 180-59576-3

Client ID: HD-MW-16D-0/1-0

Operator ID: 001562

ALS Bottle#: 17

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

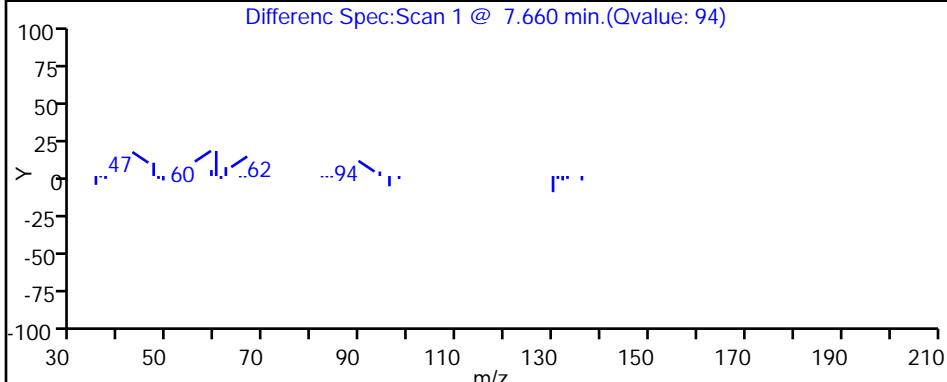
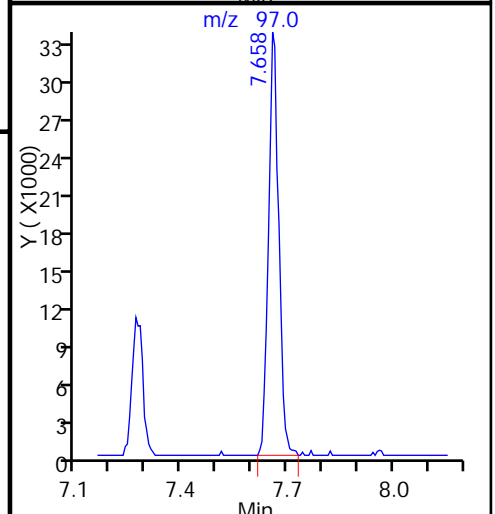
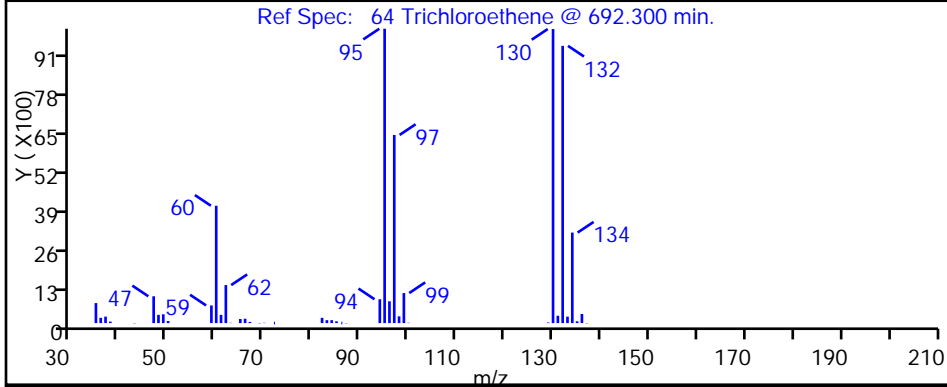
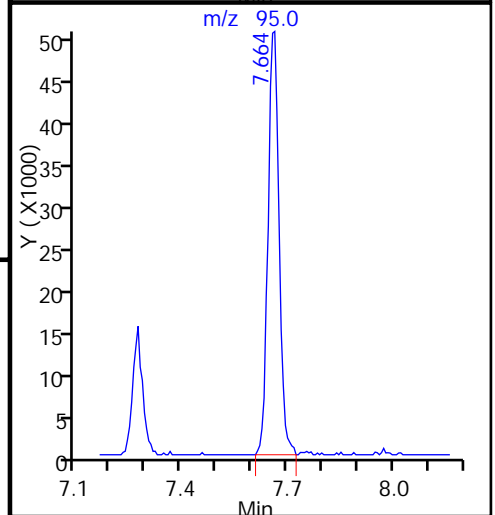
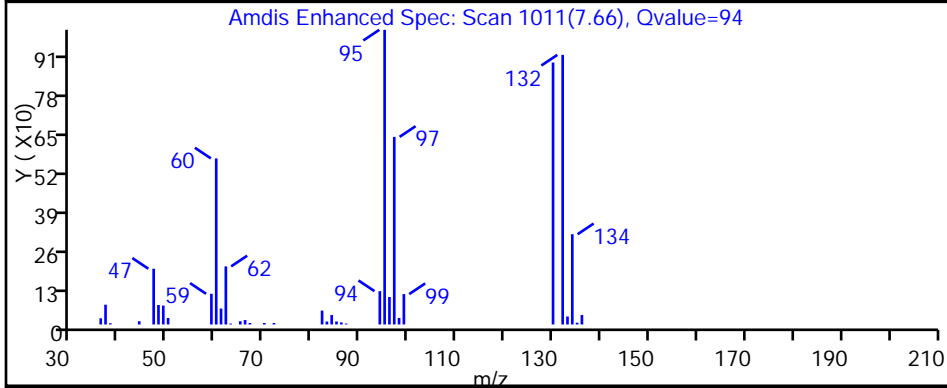
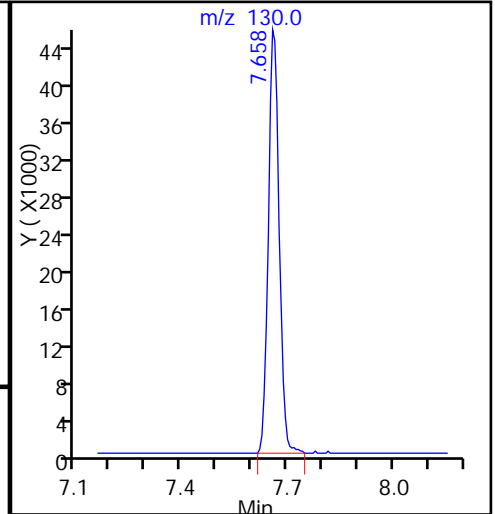
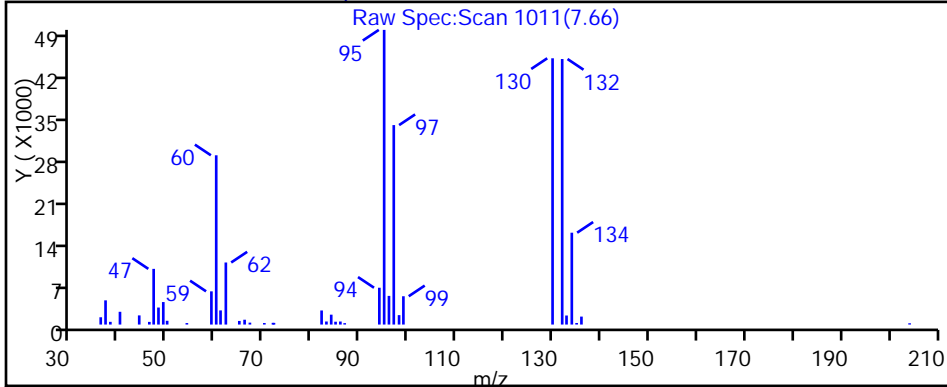
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

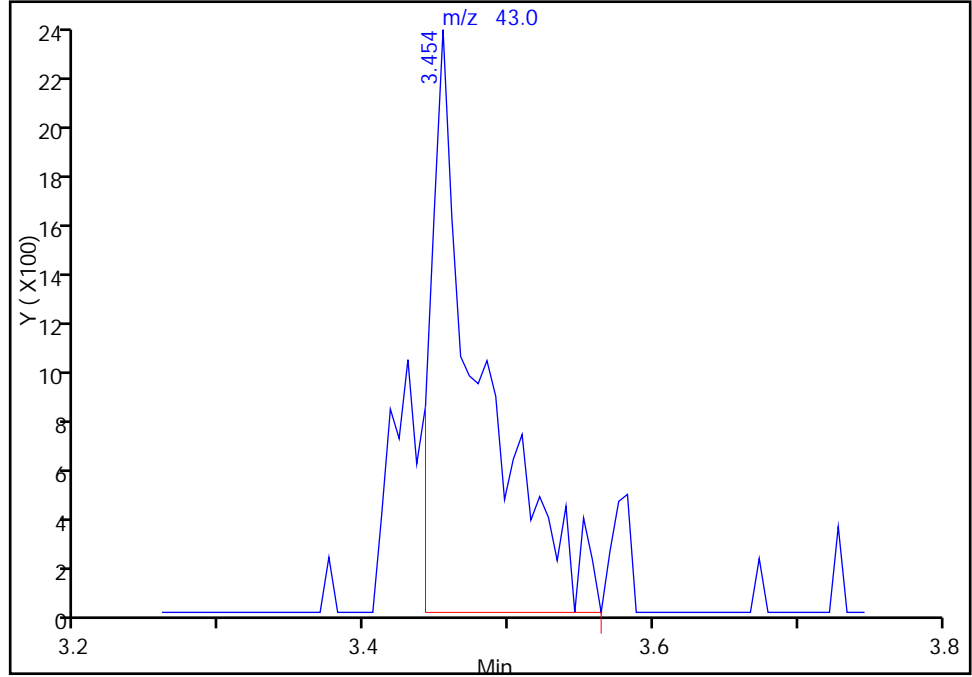
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013018.D
Injection Date: 13-Oct-2016 18:18:30 Instrument ID: CHHP5
Lims ID: 180-59576-C-3 Lab Sample ID: 180-59576-3
Client ID: HD-MW-16D-0/1-0
Operator ID: 001562 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

24 Acetone, CAS: 67-64-1

Signal: 1

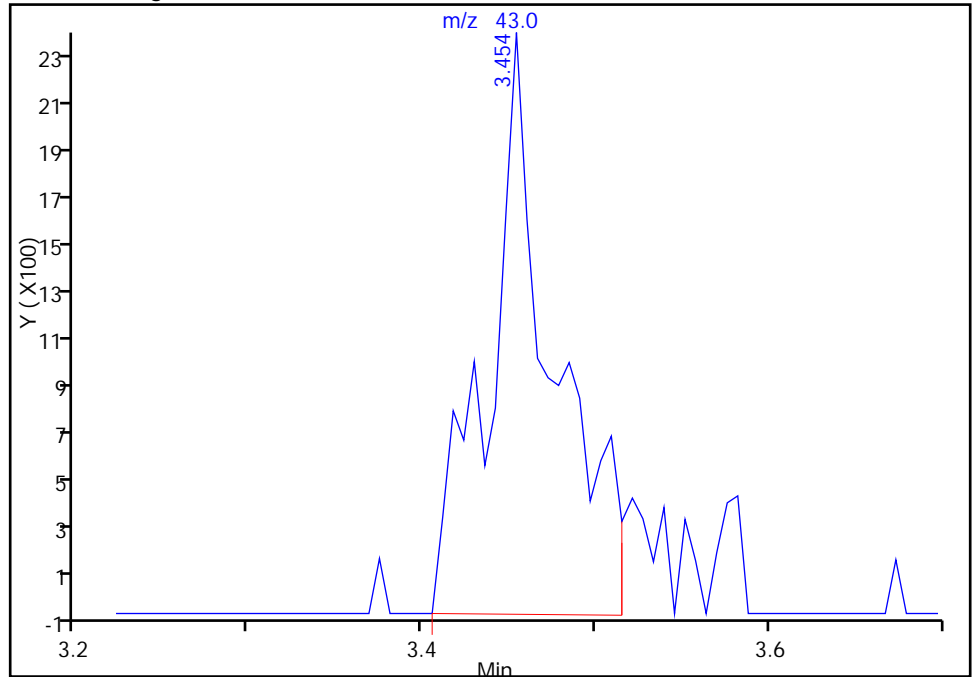
RT: 3.45
Area: 5599
Amount: 8.658884
Amount Units: ng

Processing Integration Results



RT: 3.45
Area: 6147
Amount: 9.506369
Amount Units: ng

Manual Integration Results



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Client Sample ID: HD-MW-143D-0/1-0 Lab Sample ID: 180-59576-4
 Matrix: Water Lab File ID: 51013019.D
 Analysis Method: 8260C Date Collected: 10/07/2016 10:07
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2016 18:42
 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.: 191047 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U ^c	1.0	0.23
75-01-4	Vinyl chloride	1.0	U	1.0	0.32
74-83-9	Bromomethane	1.0	U ^c	1.0	0.36
75-00-3	Chloroethane	1.0	U	1.0	0.26
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.29
67-64-1	Acetone	2.5	J ^c	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.18
75-09-2	Methylene Chloride	1.0	U	1.0	0.36
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.29
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.24
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.24
156-59-2	cis-1,2-Dichloroethene	0.66	J	1.0	0.29
74-97-5	Bromochloromethane	1.0	U	1.0	0.38
78-93-3	2-Butanone (MEK)	5.0	U	5.0	1.2
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.24
71-43-2	Benzene	1.0	U	1.0	0.26
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.25
79-01-6	Trichloroethene	1.0	U	1.0	0.26
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.23
75-27-4	Bromodichloromethane	1.0	U	1.0	0.23
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.21
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.59
108-88-3	Toluene	1.0	U	1.0	0.28
10061-02-6	trans-1,3-Dichloropropene	1.0	U ^c	1.0	0.24
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.35
127-18-4	Tetrachloroethene	1.0	U	1.0	0.27
591-78-6	2-Hexanone	5.0	U	5.0	0.74
124-48-1	Dibromochloromethane	1.0	U	1.0	0.40
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.29
108-90-7	Chlorobenzene	1.0	U	1.0	0.31
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.20
100-41-4	Ethylbenzene	1.0	U	1.0	0.27
1330-20-7	Xylenes, Total	2.0	U	2.0	0.48
100-42-5	Styrene	1.0	U	1.0	0.26

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Client Sample ID: HD-MW-143D-0/1-0 Lab Sample ID: 180-59576-4
 Matrix: Water Lab File ID: 51013019.D
 Analysis Method: 8260C Date Collected: 10/07/2016 10:07
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2016 18:42
 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.: 191047 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.29
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.35
107-13-1	Acrylonitrile	20	U	20	2.8
123-91-1	1,4-Dioxane	200	U	200	7.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	125		72-134
2037-26-5	Toluene-d8 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	112		72-120
1868-53-7	Dibromofluoromethane (Surr)	107		77-127

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013019.D
 Lims ID: 180-59576-C-4
 Client ID: HD-MW-143D-0/1-0
 Sample Type: Client
 Inject. Date: 13-Oct-2016 18:42:30 ALS Bottle#: 18 Worklist Smp#: 19
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013857-019
 Misc. Info.: 180-59576-C-4
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 14-Oct-2016 07:37:57 Calib Date: 04-Oct-2016 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161004-13721.b\51004011.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: fergusond

Date: 14-Oct-2016 07:37:57

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.272	4.284	-0.012	0	94538	1000.0	
* 2 Fluorobenzene (IS)	96	7.271	7.271	0.000	96	326564	50.0	
* 3 Chlorobenzene-d5	119	10.374	10.374	0.000	93	71438	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.716	12.716	0.000	97	86104	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.547	6.547	0.000	92	78476	53.3	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.918	6.919	0.000	0	124871	62.4	
\$ 7 Toluene-d8 (Surr)	98	8.920	8.920	0.000	96	292638	52.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.560	11.560	0.000	82	116676	56.2	
12 Chloromethane	50		1.772				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.234				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96		3.335				ND	
24 Acetone	43	3.433	3.439	-0.006	78	8012	12.5	
26 Carbon disulfide	76		3.621				ND	
31 Methylene Chloride	84	4.132	4.126	0.006	12	1257	0.5847	
33 Acrylonitrile	53		4.516				ND	
34 trans-1,2-Dichloroethene	96		4.546				ND	
35 Methyl tert-butyl ether	73		4.570				ND	
37 1,1-Dichloroethane	63		5.185				ND	
45 cis-1,2-Dichloroethene	96	5.927	5.933	-0.006	83	7039	3.29	
46 2-Butanone (MEK)	43		5.945				ND	
49 Chlorobromomethane	128		6.225				ND	
52 Chloroform	83		6.371				ND	
53 1,1,1-Trichloroethane	97		6.523				ND	
56 Carbon tetrachloride	117		6.693				ND	
58 Benzene	78		6.925				ND	
59 1,2-Dichloroethane	62		7.004				ND	
64 Trichloroethene	130	7.667	7.661	0.006	39	1216	0.6625	
67 1,2-Dichloropropane	63		7.934				ND	
70 1,4-Dioxane	88		8.026				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.220				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.817				ND	
76 Toluene	91	8.993	8.987	0.006	28	1976	0.2742	
77 trans-1,3-Dichloropropene	75		9.242				ND	
79 1,1,2-Trichloroethane	97		9.431				ND	
80 Tetrachloroethene	164		9.504				ND	
82 2-Hexanone	43		9.650				ND	
84 Chlorodibromomethane	129		9.802				ND	
85 Ethylene Dibromide	107		9.918				ND	
87 Chlorobenzene	112		10.404				ND	
89 1,1,1,2-Tetrachloroethane	131		10.496				ND	
90 Ethylbenzene	106		10.502				ND	
91 m-Xylene & p-Xylene	106		10.636				ND	
92 o-Xylene	106		11.013				ND	
93 Styrene	104		11.037				ND	
94 Bromoform	173		11.220				ND	
99 1,1,2,2-Tetrachloroethane	83		11.694				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00061

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00059

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013019.D

Injection Date: 13-Oct-2016 18:42:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-59576-C-4

Lab Sample ID: 180-59576-4

Worklist Smp#: 19

Client ID: HD-MW-143D-0/1-0

Purge Vol: 5.000 mL

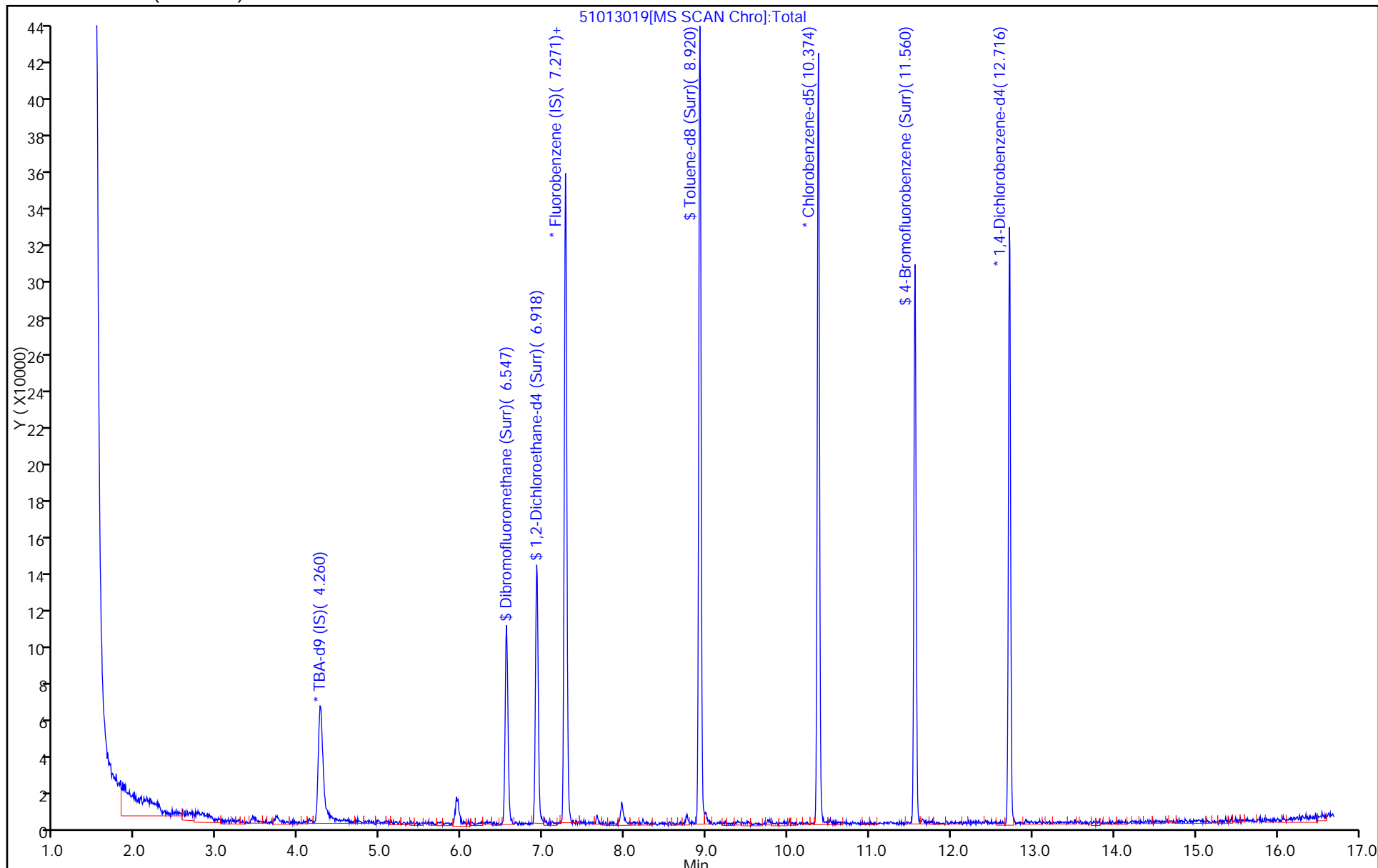
Dil. Factor: 1.0000

ALS Bottle#: 18

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013019.D
 Lims ID: 180-59576-C-4
 Client ID: HD-MW-143D-0/1-0
 Sample Type: Client
 Inject. Date: 13-Oct-2016 18:42:30 ALS Bottle#: 18 Worklist Smp#: 19
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013857-019
 Misc. Info.: 180-59576-C-4
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 14-Oct-2016 07:37:57 Calib Date: 04-Oct-2016 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161004-13721.b\51004011.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: fergusond

Date: 14-Oct-2016 07:37:57

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	53.3	106.62
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	62.4	124.80
\$ 7 Toluene-d8 (Surr)	50.0	52.1	104.13
\$ 8 4-Bromofluorobenzene (Surr)	50.0	56.2	112.36

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013019.D

Injection Date: 13-Oct-2016 18:42:30

Instrument ID: CHHP5

Lims ID: 180-59576-C-4

Lab Sample ID: 180-59576-4

Client ID: HD-MW-143D-0/1-0

Operator ID: 001562

ALS Bottle#: 18 Worklist Smp#: 19

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

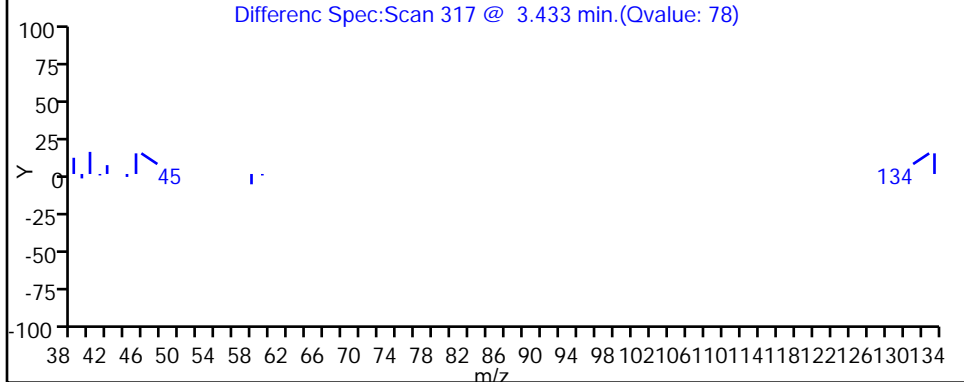
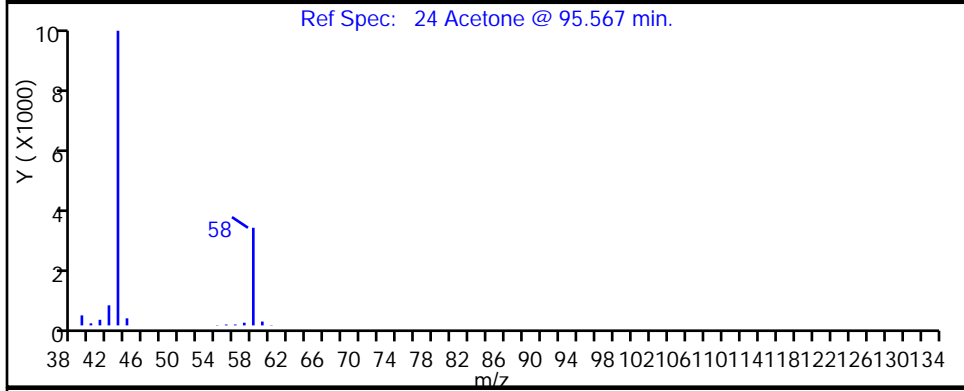
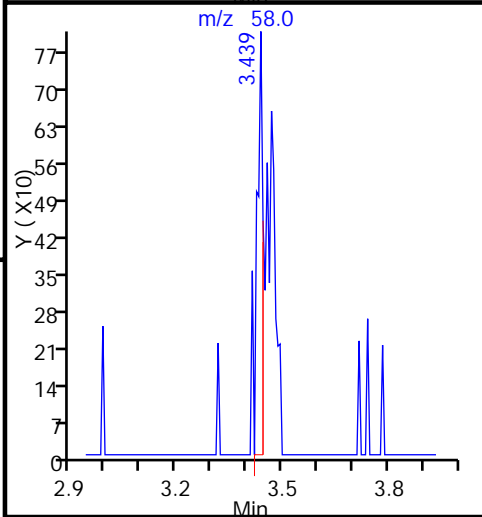
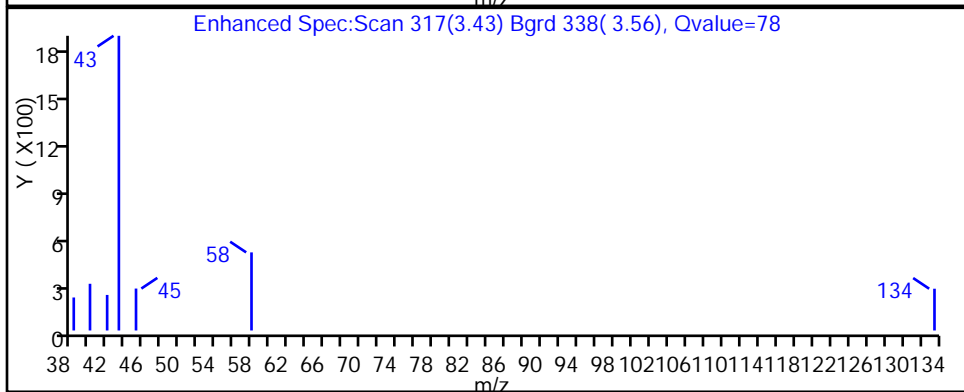
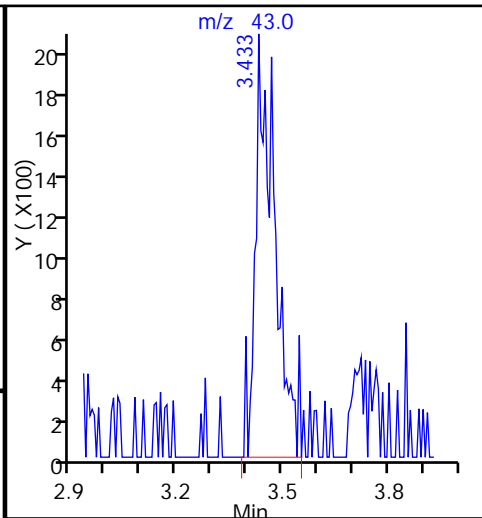
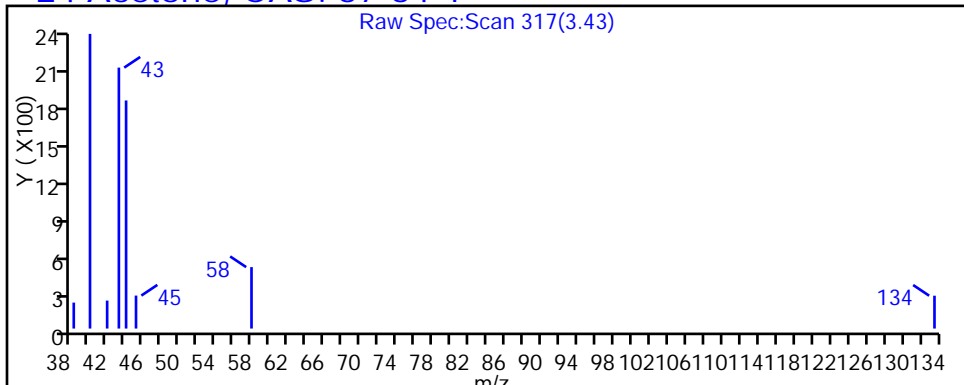
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

24 Acetone, CAS: 67-64-1



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013019.D

Injection Date: 13-Oct-2016 18:42:30

Instrument ID: CHHP5

Lims ID: 180-59576-C-4

Lab Sample ID: 180-59576-4

Client ID: HD-MW-143D-0/1-0

Operator ID: 001562

ALS Bottle#: 18

Worklist Smp#: 19

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

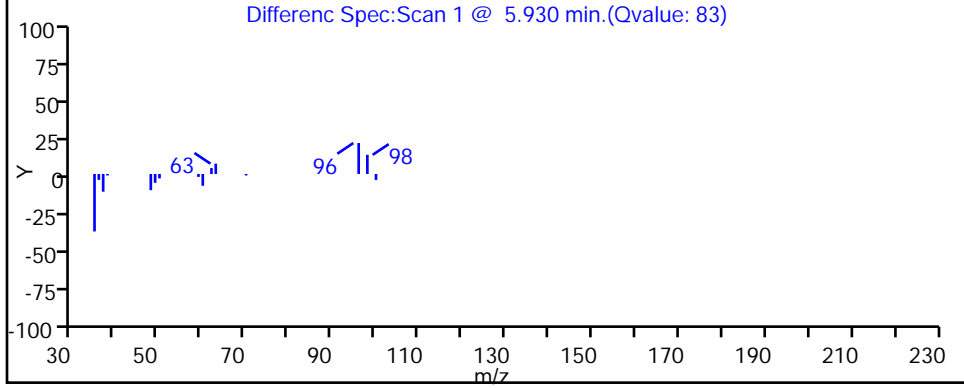
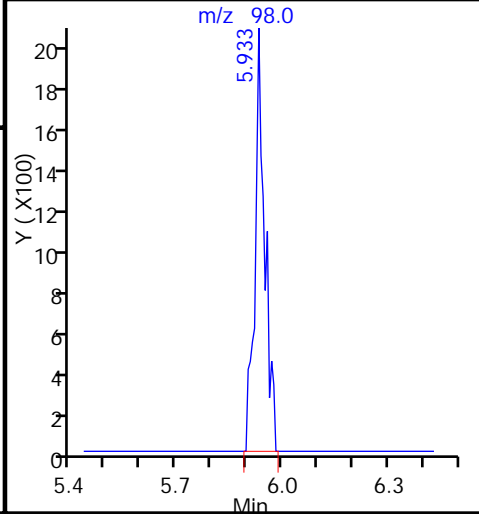
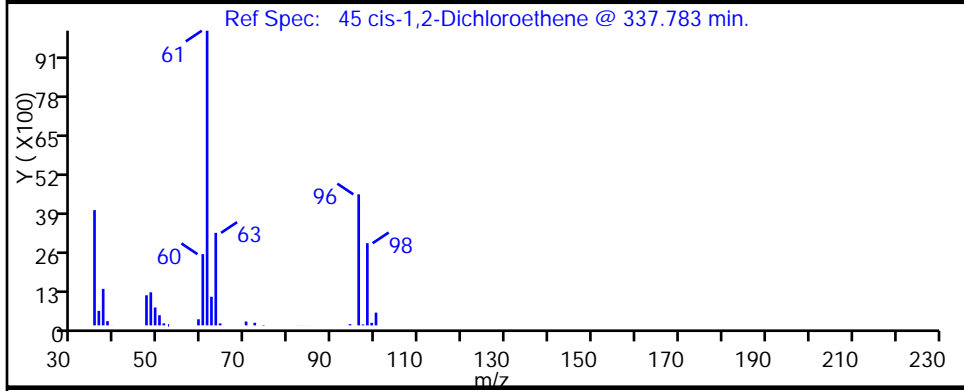
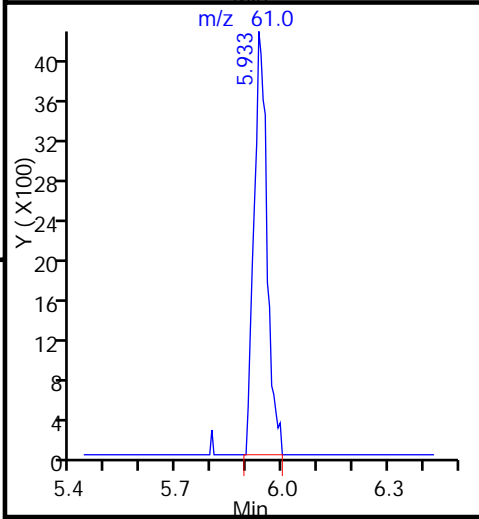
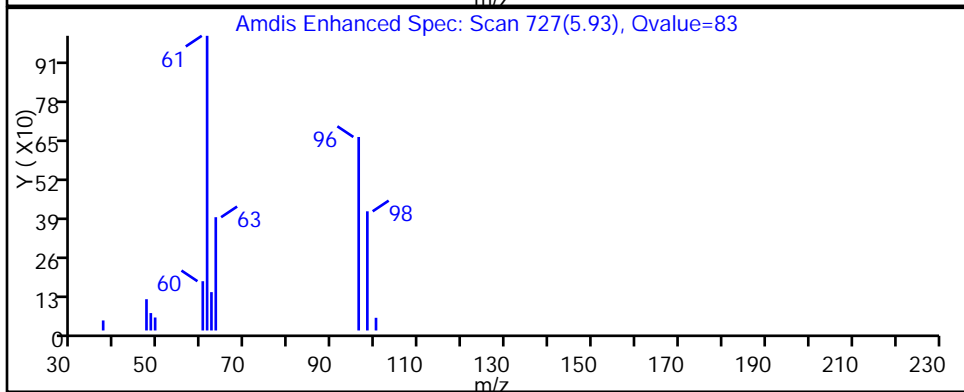
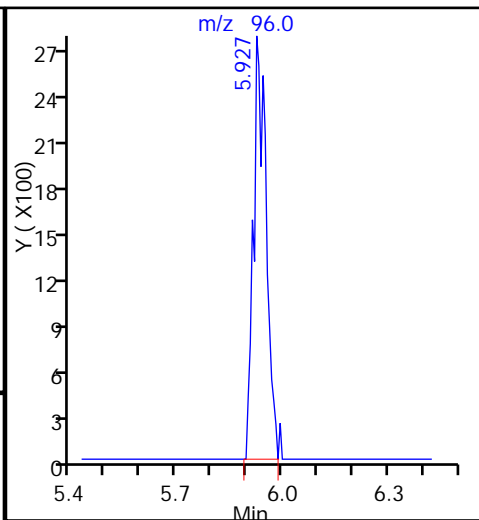
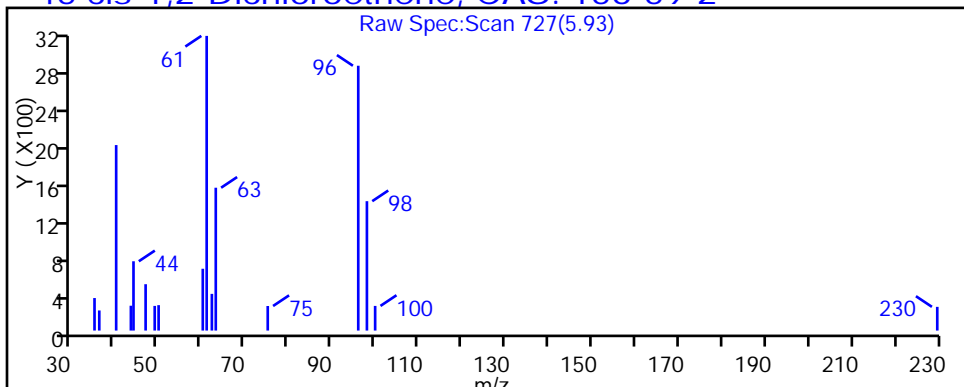
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Client Sample ID: HD-MW-143S-0/1-0 Lab Sample ID: 180-59576-5
 Matrix: Water Lab File ID: 51013020.D
 Analysis Method: 8260C Date Collected: 10/07/2016 11:55
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2016 19:07
 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.: 191047 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U ^c	1.0	0.23
75-01-4	Vinyl chloride	1.0	U	1.0	0.32
74-83-9	Bromomethane	1.0	U ^c	1.0	0.36
75-00-3	Chloroethane	1.0	U	1.0	0.26
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.29
67-64-1	Acetone	2.6	J ^c	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.18
75-09-2	Methylene Chloride	1.0	U	1.0	0.36
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.29
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.24
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.24
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.29
74-97-5	Bromochloromethane	1.0	U	1.0	0.38
78-93-3	2-Butanone (MEK)	5.0	U	5.0	1.2
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.24
71-43-2	Benzene	1.0	U	1.0	0.26
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.25
79-01-6	Trichloroethene	1.3		1.0	0.26
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.23
75-27-4	Bromodichloromethane	1.0	U	1.0	0.23
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.21
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.59
108-88-3	Toluene	1.0	U	1.0	0.28
10061-02-6	trans-1,3-Dichloropropene	1.0	U ^c	1.0	0.24
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.35
127-18-4	Tetrachloroethene	0.76	J	1.0	0.27
591-78-6	2-Hexanone	5.0	U	5.0	0.74
124-48-1	Dibromochloromethane	1.0	U	1.0	0.40
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.29
108-90-7	Chlorobenzene	1.0	U	1.0	0.31
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.20
100-41-4	Ethylbenzene	1.0	U	1.0	0.27
1330-20-7	Xylenes, Total	2.0	U	2.0	0.48
100-42-5	Styrene	1.0	U	1.0	0.26

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Client Sample ID: HD-MW-143S-0/1-0 Lab Sample ID: 180-59576-5
 Matrix: Water Lab File ID: 51013020.D
 Analysis Method: 8260C Date Collected: 10/07/2016 11:55
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2016 19:07
 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.: 191047 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.29
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.35
107-13-1	Acrylonitrile	20	U	20	2.8
123-91-1	1,4-Dioxane	200	U	200	7.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	126		72-134
2037-26-5	Toluene-d8 (Surr)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	108		72-120
1868-53-7	Dibromofluoromethane (Surr)	106		77-127

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013020.D
 Lims ID: 180-59576-C-5
 Client ID: HD-MW-143S-0/1-0
 Sample Type: Client
 Inject. Date: 13-Oct-2016 19:07:30 ALS Bottle#: 19 Worklist Smp#: 20
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013857-020
 Misc. Info.: 180-59576-C-5
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 14-Oct-2016 07:38:48 Calib Date: 04-Oct-2016 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161004-13721.b\51004011.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: fergusond

Date: 14-Oct-2016 07:38:47

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.260	4.284	-0.024	0	104922	1000.0	
* 2 Fluorobenzene (IS)	96	7.272	7.271	0.001	96	321060	50.0	
* 3 Chlorobenzene-d5	119	10.374	10.374	0.000	93	70116	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.716	12.716	0.000	96	83252	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.548	6.547	0.001	93	76515	52.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.919	6.919	0.001	0	123742	62.9	
\$ 7 Toluene-d8 (Surr)	98	8.920	8.920	0.000	96	290973	52.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.560	11.560	0.000	83	110163	54.0	
12 Chloromethane	50		1.772				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.234				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96		3.335				ND	
24 Acetone	43	3.445	3.439	0.006	85	8179	13.0	
26 Carbon disulfide	76		3.621				ND	
31 Methylene Chloride	84		4.126				ND	
33 Acrylonitrile	53		4.516				ND	
34 trans-1,2-Dichloroethene	96		4.546				ND	
35 Methyl tert-butyl ether	73		4.570				ND	
37 1,1-Dichloroethane	63		5.185				ND	
45 cis-1,2-Dichloroethene	96		5.933				ND	
46 2-Butanone (MEK)	43		5.945				ND	
49 Chlorobromomethane	128		6.225				ND	
52 Chloroform	83		6.371				ND	
53 1,1,1-Trichloroethane	97		6.523				ND	
56 Carbon tetrachloride	117		6.693				ND	
58 Benzene	78		6.925				ND	
59 1,2-Dichloroethane	62		7.004				ND	
64 Trichloroethene	130	7.661	7.661	0.000	92	12180	6.75	
67 1,2-Dichloropropane	63		7.934				ND	
70 1,4-Dioxane	88		8.026				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.220				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.817				ND	
76 Toluene	91		8.987				ND	
77 trans-1,3-Dichloropropene	75		9.242				ND	
79 1,1,2-Trichloroethane	97		9.431				ND	
80 Tetrachloroethene	164	9.504	9.504	0.000	88	4928	3.81	
82 2-Hexanone	43		9.650				ND	
84 Chlorodibromomethane	129		9.802				ND	
85 Ethylene Dibromide	107		9.918				ND	
87 Chlorobenzene	112		10.404				ND	
89 1,1,1,2-Tetrachloroethane	131		10.496				ND	
90 Ethylbenzene	106		10.502				ND	
91 m-Xylene & p-Xylene	106		10.636				ND	
92 o-Xylene	106		11.013				ND	
93 Styrene	104		11.037				ND	
94 Bromoform	173		11.220				ND	
99 1,1,2,2-Tetrachloroethane	83		11.694				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00061

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00059

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013020.D

Injection Date: 13-Oct-2016 19:07:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-59576-C-5

Lab Sample ID: 180-59576-5

Worklist Smp#: 20

Client ID: HD-MW-143S-0/1-0

Purge Vol: 5.000 mL

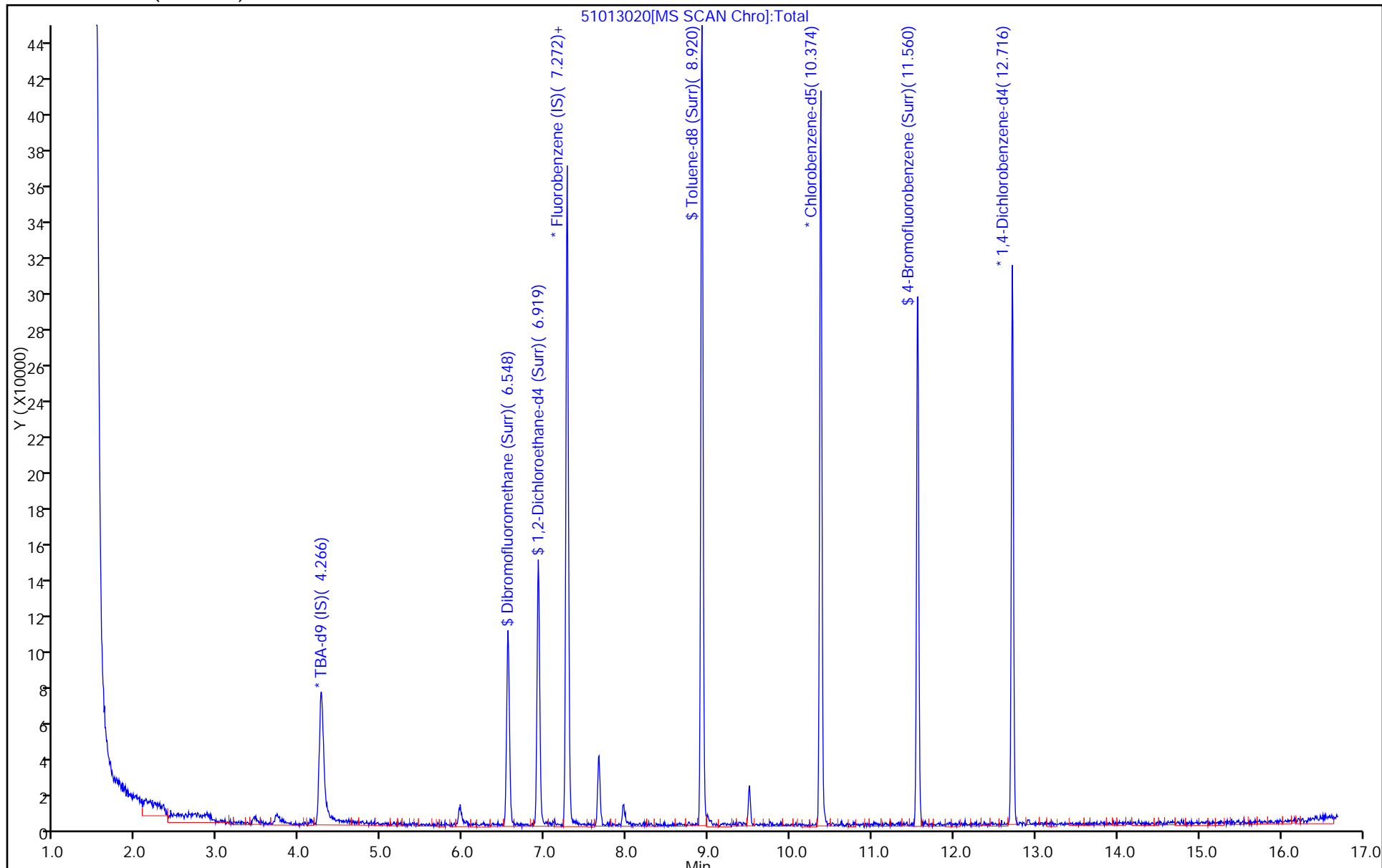
Dil. Factor: 1.0000

ALS Bottle#: 19

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013020.D
 Lims ID: 180-59576-C-5
 Client ID: HD-MW-143S-0/1-0
 Sample Type: Client
 Inject. Date: 13-Oct-2016 19:07:30 ALS Bottle#: 19 Worklist Smp#: 20
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013857-020
 Misc. Info.: 180-59576-C-5
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 14-Oct-2016 07:38:48 Calib Date: 04-Oct-2016 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161004-13721.b\51004011.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: fergusond Date: 14-Oct-2016 07:38:47

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	52.9	105.74
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	62.9	125.79
\$ 7 Toluene-d8 (Surr)	50.0	52.7	105.49
\$ 8 4-Bromofluorobenzene (Surr)	50.0	54.0	108.09

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013020.D

Injection Date: 13-Oct-2016 19:07:30

Instrument ID: CHHP5

Lims ID: 180-59576-C-5

Lab Sample ID: 180-59576-5

Client ID: HD-MW-143S-0/1-0

Operator ID: 001562

ALS Bottle#: 19 Worklist Smp#: 20

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

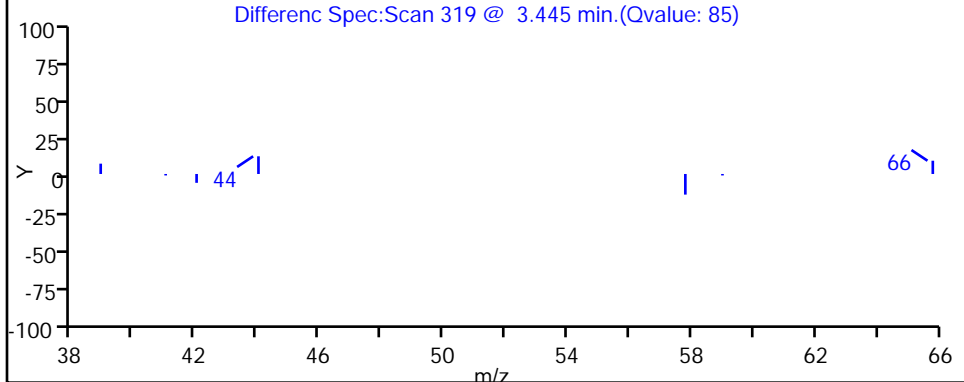
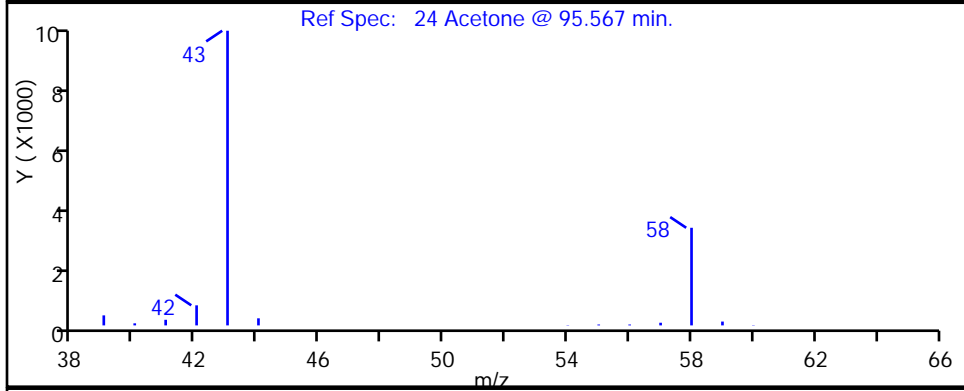
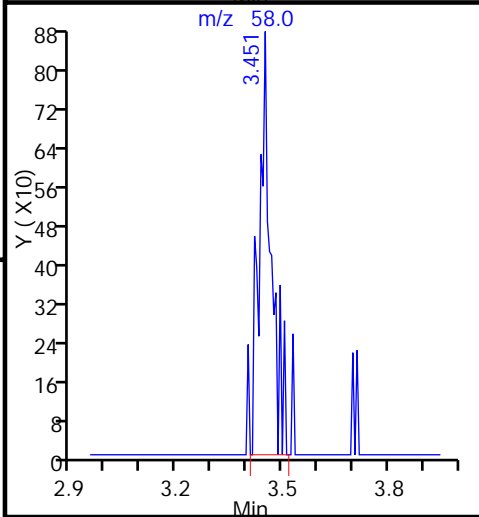
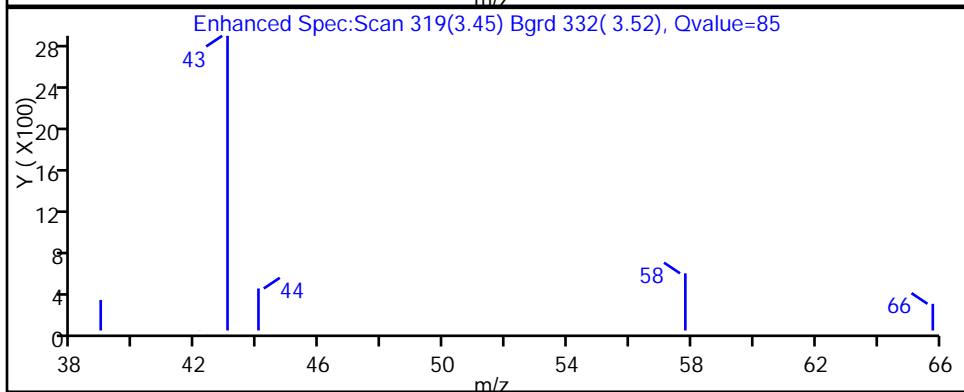
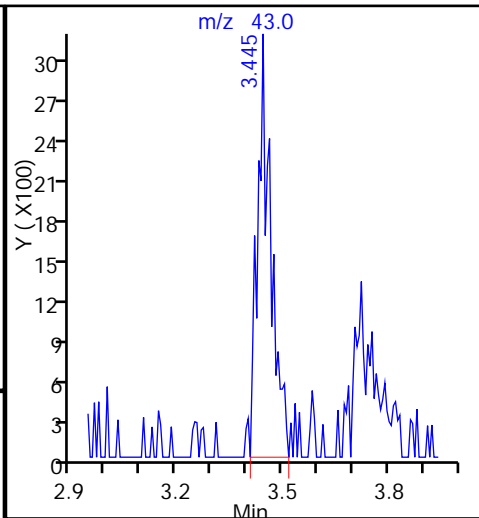
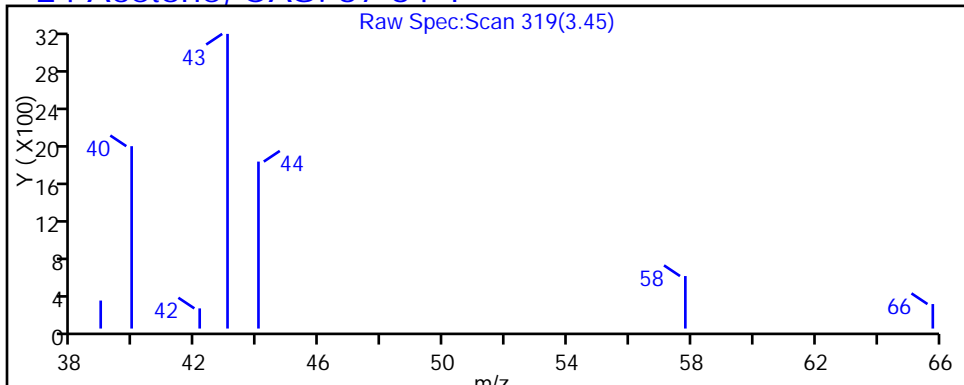
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

24 Acetone, CAS: 67-64-1



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013020.D

Injection Date: 13-Oct-2016 19:07:30

Instrument ID: CHHP5

Lims ID: 180-59576-C-5

Lab Sample ID: 180-59576-5

Client ID: HD-MW-143S-0/1-0

Operator ID: 001562

ALS Bottle#: 19 Worklist Smp#: 20

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

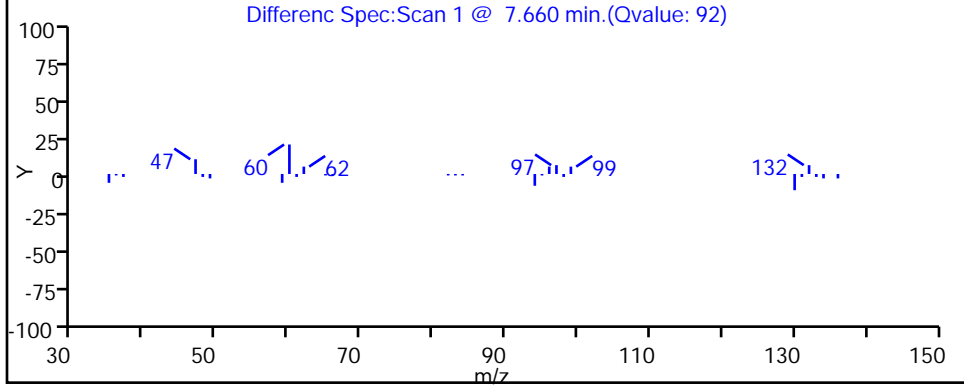
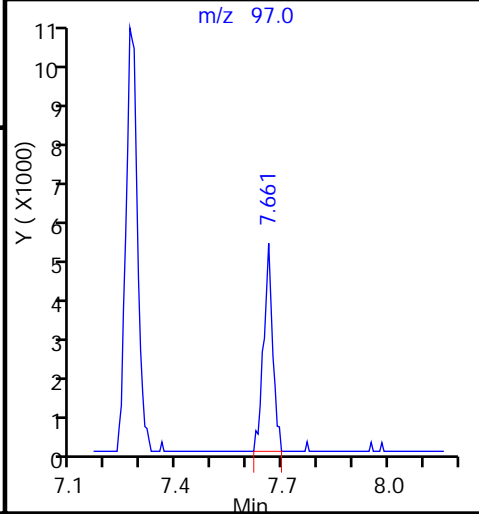
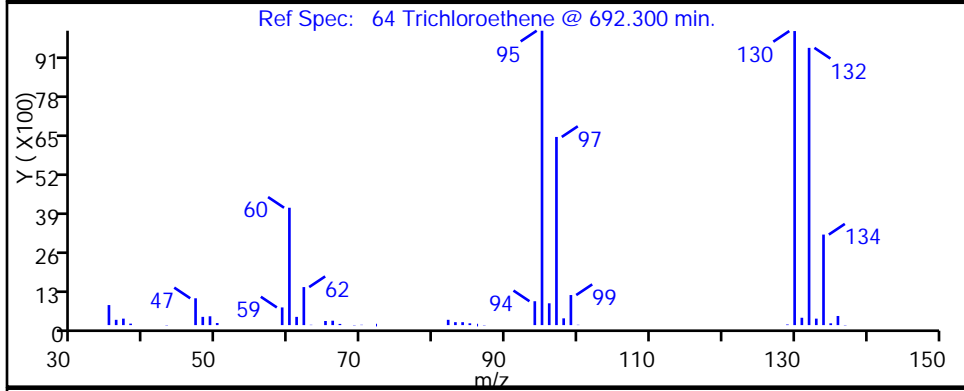
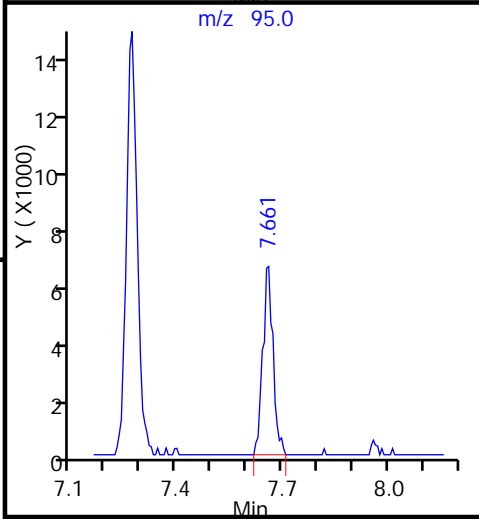
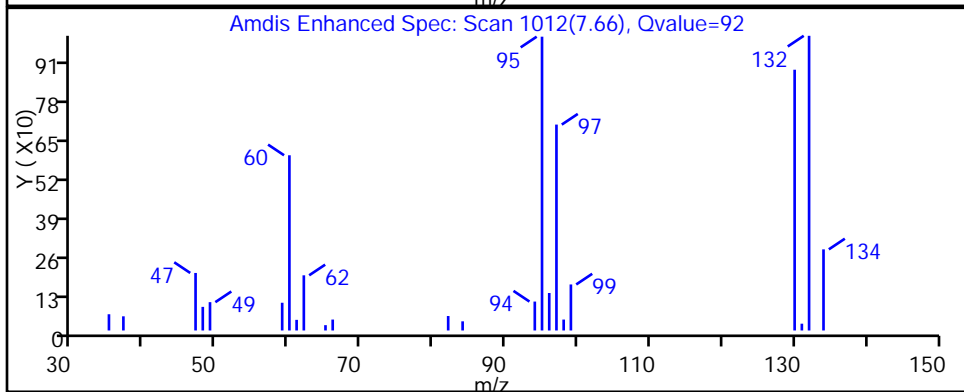
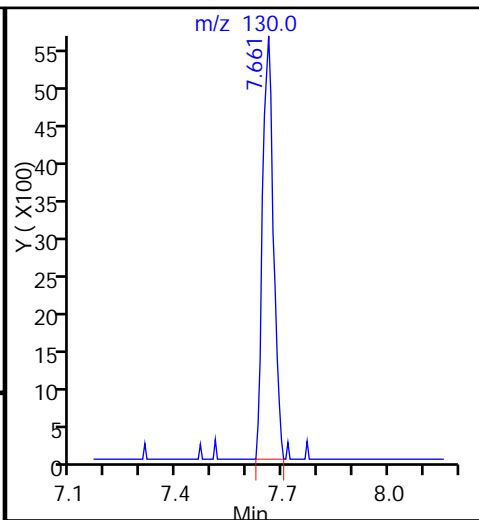
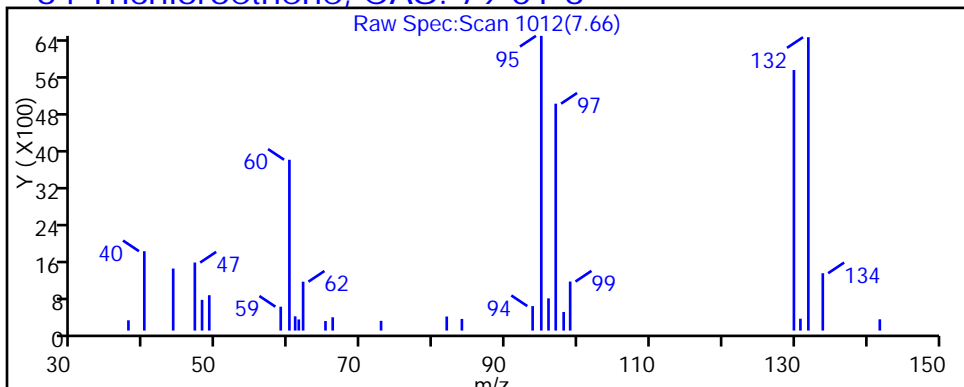
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013020.D

Injection Date: 13-Oct-2016 19:07:30

Instrument ID: CHHP5

Lims ID: 180-59576-C-5

Lab Sample ID: 180-59576-5

Client ID: HD-MW-143S-0/1-0

Operator ID: 001562

ALS Bottle#: 19

Worklist Smp#: 20

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

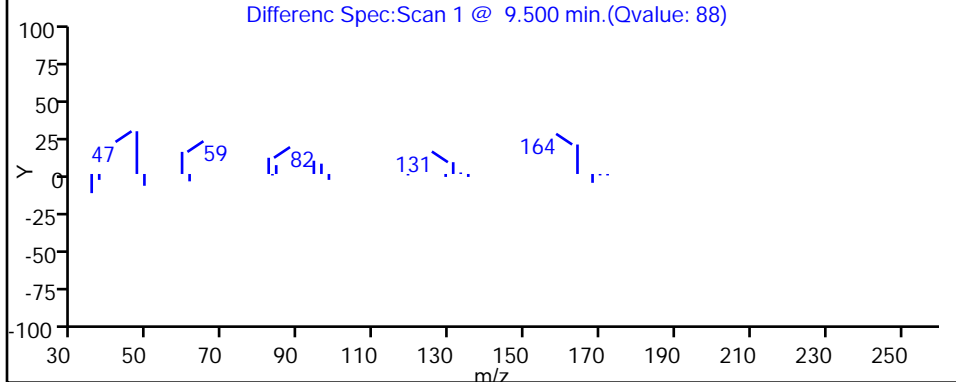
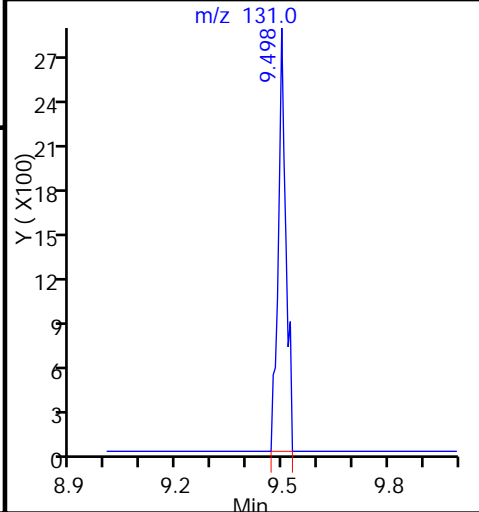
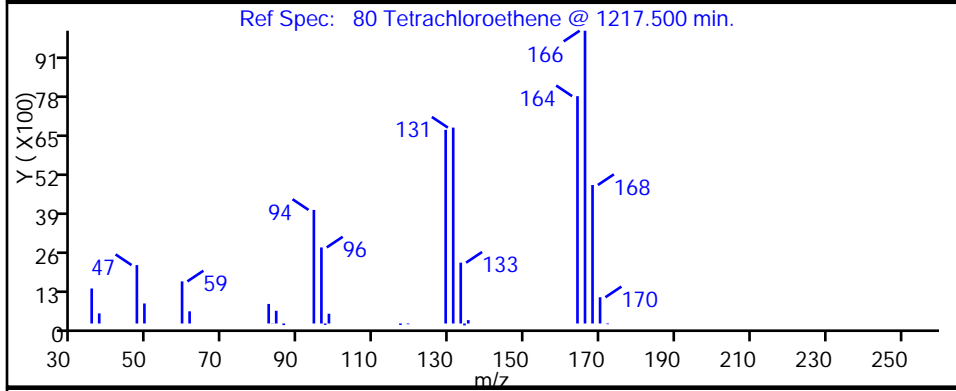
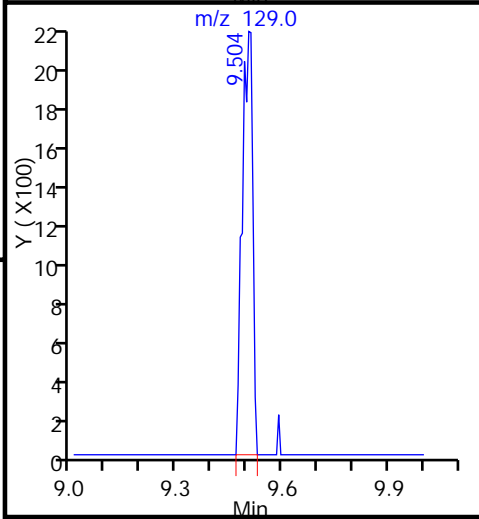
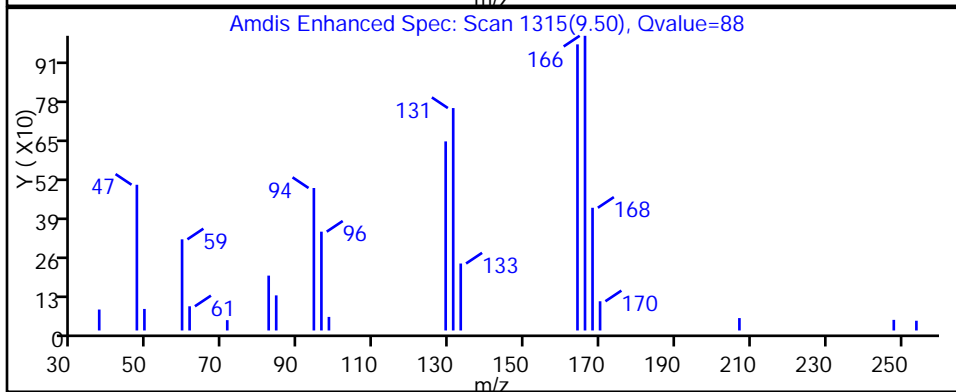
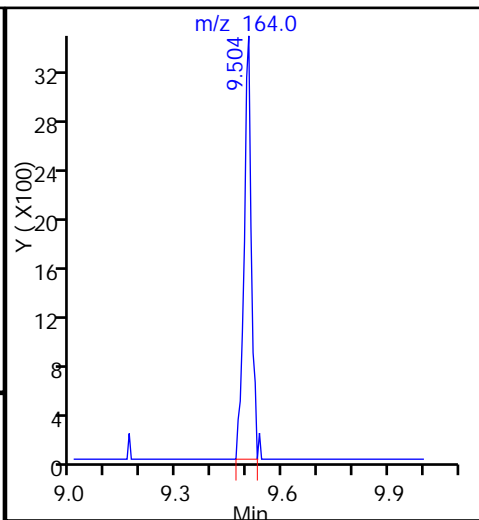
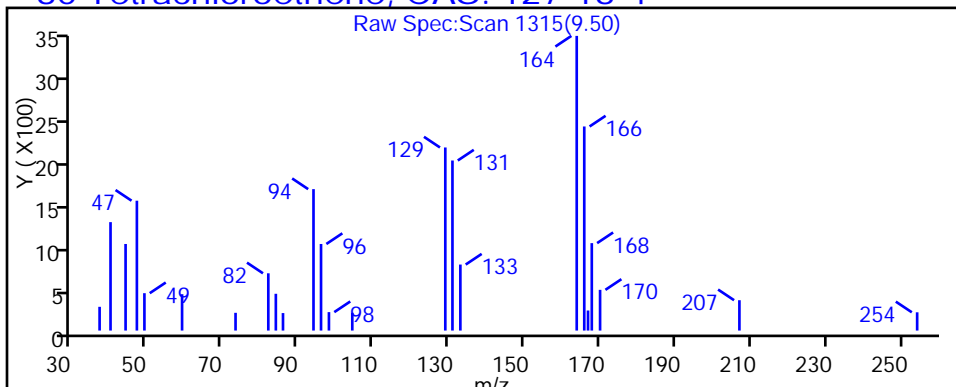
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Client Sample ID: HD-MW-82-0/1-0 Lab Sample ID: 180-59576-6
 Matrix: Water Lab File ID: 51013021.D
 Analysis Method: 8260C Date Collected: 10/07/2016 14:36
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2016 19:31
 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.: 191047 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U ^c	1.0	0.23
75-01-4	Vinyl chloride	1.0	U	1.0	0.32
74-83-9	Bromomethane	1.0	U ^c	1.0	0.36
75-00-3	Chloroethane	1.0	U	1.0	0.26
75-35-4	1,1-Dichloroethene	0.39	J	1.0	0.29
67-64-1	Acetone	5.0	U ^c	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.18
75-09-2	Methylene Chloride	1.0	U	1.0	0.36
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.29
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.24
75-34-3	1,1-Dichloroethane	0.55	J	1.0	0.24
156-59-2	cis-1,2-Dichloroethene	17		1.0	0.29
74-97-5	Bromochloromethane	1.0	U	1.0	0.38
78-93-3	2-Butanone (MEK)	5.0	U	5.0	1.2
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.24
71-43-2	Benzene	1.0	U	1.0	0.26
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.25
79-01-6	Trichloroethene	6.7		1.0	0.26
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.23
75-27-4	Bromodichloromethane	1.0	U	1.0	0.23
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.21
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.59
108-88-3	Toluene	1.0	U	1.0	0.28
10061-02-6	trans-1,3-Dichloropropene	1.0	U ^c	1.0	0.24
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.35
127-18-4	Tetrachloroethene	1.8		1.0	0.27
591-78-6	2-Hexanone	5.0	U	5.0	0.74
124-48-1	Dibromochloromethane	1.0	U	1.0	0.40
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.29
108-90-7	Chlorobenzene	1.0	U	1.0	0.31
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.20
100-41-4	Ethylbenzene	1.0	U	1.0	0.27
1330-20-7	Xylenes, Total	2.0	U	2.0	0.48
100-42-5	Styrene	1.0	U	1.0	0.26

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Client Sample ID: HD-MW-82-0/1-0 Lab Sample ID: 180-59576-6
 Matrix: Water Lab File ID: 51013021.D
 Analysis Method: 8260C Date Collected: 10/07/2016 14:36
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2016 19:31
 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.: 191047 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.29
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.35
107-13-1	Acrylonitrile	20	U	20	2.8
123-91-1	1,4-Dioxane	200	U	200	7.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	124		72-134
2037-26-5	Toluene-d8 (Surr)	107		80-120
460-00-4	4-Bromofluorobenzene (Surr)	106		72-120
1868-53-7	Dibromofluoromethane (Surr)	103		77-127

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013021.D
 Lims ID: 180-59576-B-6
 Client ID: HD-MW-82-0/1-0
 Sample Type: Client
 Inject. Date: 13-Oct-2016 19:31:30 ALS Bottle#: 20 Worklist Smp#: 21
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013857-021
 Misc. Info.: 180-59576-B-6
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 14-Oct-2016 07:40:05 Calib Date: 04-Oct-2016 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161004-13721.b\51004011.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: fergusond

Date: 14-Oct-2016 07:40:05

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.263	4.284	-0.021	0	95994	1000.0	
* 2 Fluorobenzene (IS)	96	7.274	7.271	0.003	97	340615	50.0	
* 3 Chlorobenzene-d5	119	10.371	10.374	-0.003	93	72909	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.719	12.716	0.003	97	84148	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.550	6.547	0.003	92	78757	51.3	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.921	6.919	0.003	0	129020	61.8	
\$ 7 Toluene-d8 (Surr)	98	8.917	8.920	-0.003	95	307697	53.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.557	11.560	-0.003	81	112416	53.0	
12 Chloromethane	50		1.772				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.234				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96	3.356	3.335	0.021	95	3795	1.96	
24 Acetone	43	3.448	3.439	0.009	87	6284	9.41	
26 Carbon disulfide	76		3.621				ND	
31 Methylene Chloride	84	4.135	4.126	0.009	2	1005	0.4482	
33 Acrylonitrile	53		4.516				ND	
34 trans-1,2-Dichloroethene	96		4.546				ND	
35 Methyl tert-butyl ether	73		4.570				ND	
37 1,1-Dichloroethane	63	5.194	5.185	0.009	95	10655	2.73	
45 cis-1,2-Dichloroethene	96	5.936	5.933	0.003	85	190030	85.2	
46 2-Butanone (MEK)	43		5.945				ND	
49 Chlorobromomethane	128		6.225				ND	
52 Chloroform	83	6.356	6.371	-0.015	1	1859	0.5357	
53 1,1,1-Trichloroethane	97		6.523				ND	
56 Carbon tetrachloride	117		6.693				ND	
58 Benzene	78		6.925				ND	
59 1,2-Dichloroethane	62		7.004				ND	
64 Trichloroethene	130	7.657	7.661	-0.004	94	64201	33.5	
67 1,2-Dichloropropane	63		7.934				ND	
70 1,4-Dioxane	88		8.026				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.220				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.817				ND	
76 Toluene	91		8.987				ND	
77 trans-1,3-Dichloropropene	75		9.242				ND	
79 1,1,2-Trichloroethane	97		9.431				ND	
80 Tetrachloroethene	164	9.501	9.504	-0.003	94	12130	9.02	
82 2-Hexanone	43		9.650				ND	
84 Chlorodibromomethane	129		9.802				ND	
85 Ethylene Dibromide	107		9.918				ND	
87 Chlorobenzene	112		10.404				ND	
89 1,1,1,2-Tetrachloroethane	131		10.496				ND	
90 Ethylbenzene	106		10.502				ND	
91 m-Xylene & p-Xylene	106		10.636				ND	
92 o-Xylene	106		11.013				ND	
93 Styrene	104		11.037				ND	
94 Bromoform	173		11.220				ND	
99 1,1,2,2-Tetrachloroethane	83		11.694				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00061

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00059

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013021.D

Injection Date: 13-Oct-2016 19:31:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-59576-B-6

Lab Sample ID: 180-59576-6

Worklist Smp#: 21

Client ID: HD-MW-82-0/1-0

Purge Vol: 5.000 mL

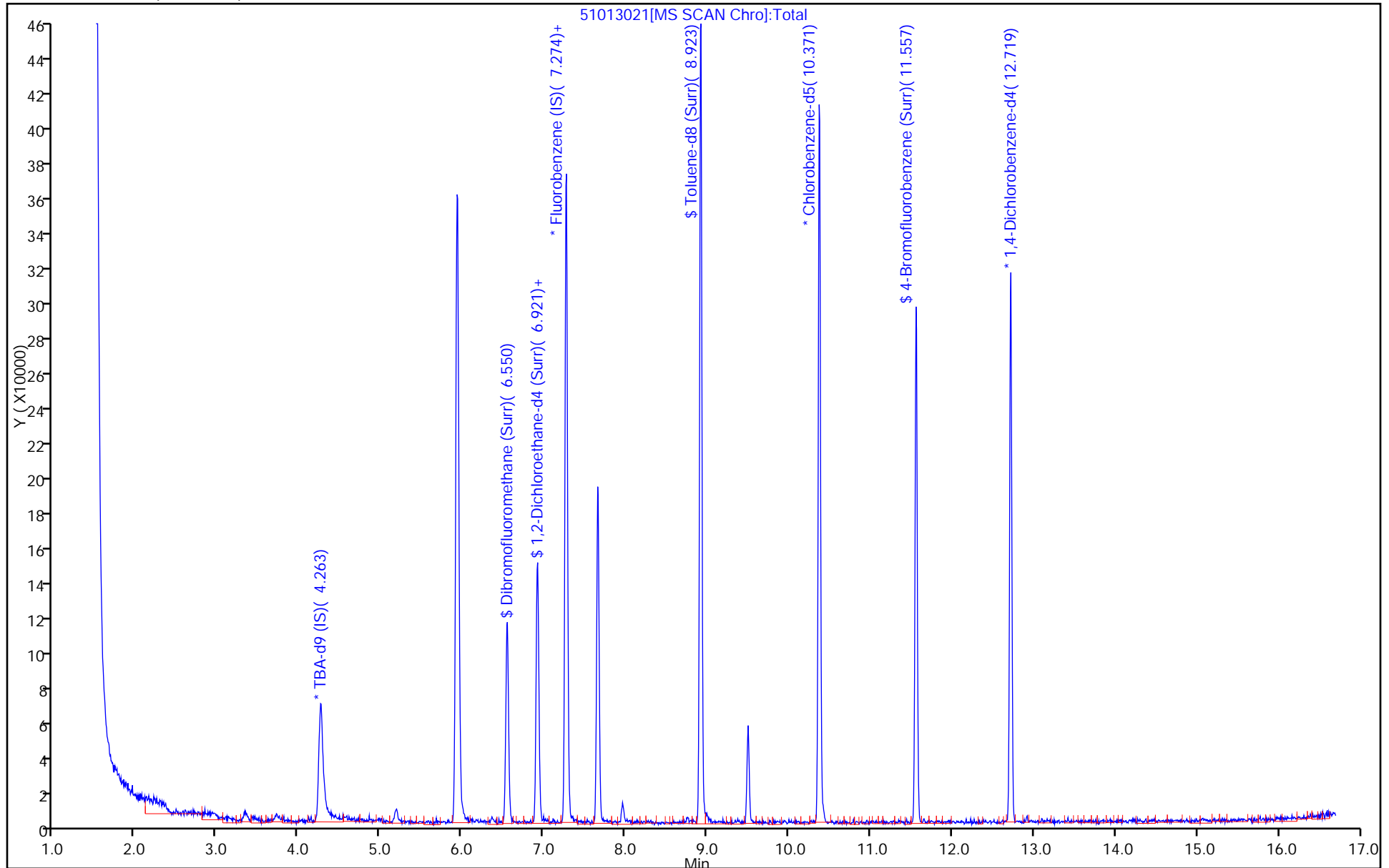
Dil. Factor: 1.0000

ALS Bottle#: 20

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013021.D
 Lims ID: 180-59576-B-6
 Client ID: HD-MW-82-0/1-0
 Sample Type: Client
 Inject. Date: 13-Oct-2016 19:31:30 ALS Bottle#: 20 Worklist Smp#: 21
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013857-021
 Misc. Info.: 180-59576-B-6
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 14-Oct-2016 07:40:05 Calib Date: 04-Oct-2016 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161004-13721.b\51004011.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: fergusond Date: 14-Oct-2016 07:40:05

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	51.3	102.59
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	61.8	123.63
\$ 7 Toluene-d8 (Surr)	50.0	53.6	107.27
\$ 8 4-Bromofluorobenzene (Surr)	50.0	53.0	106.07

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013021.D

Injection Date: 13-Oct-2016 19:31:30

Instrument ID: CHHP5

Lims ID: 180-59576-B-6

Lab Sample ID: 180-59576-6

Client ID: HD-MW-82-0/1-0

Operator ID: 001562

ALS Bottle#: 20

Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

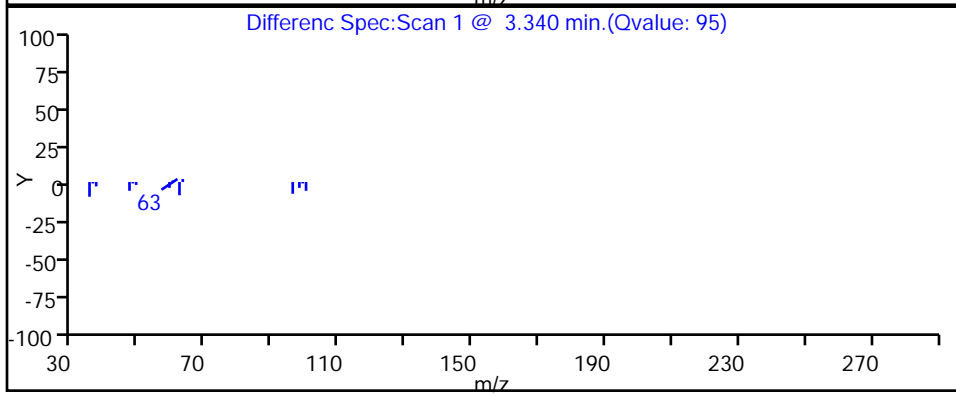
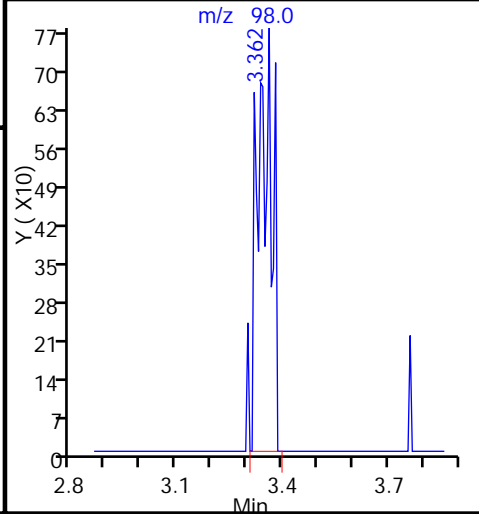
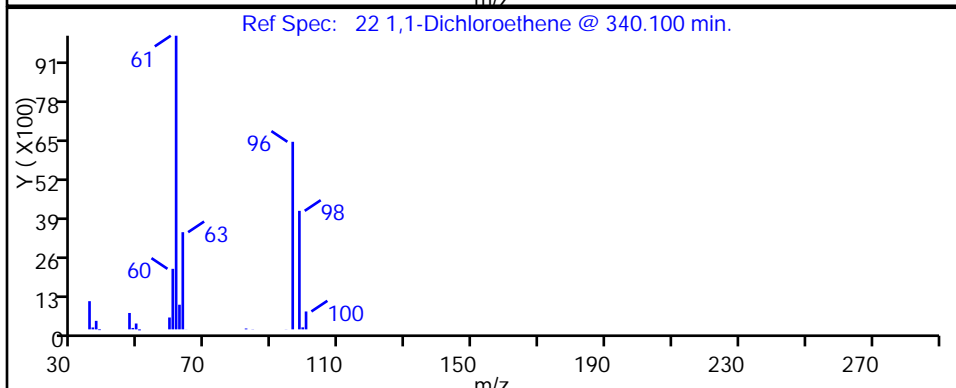
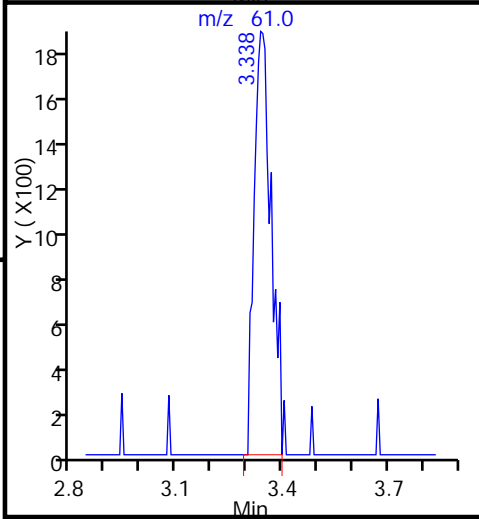
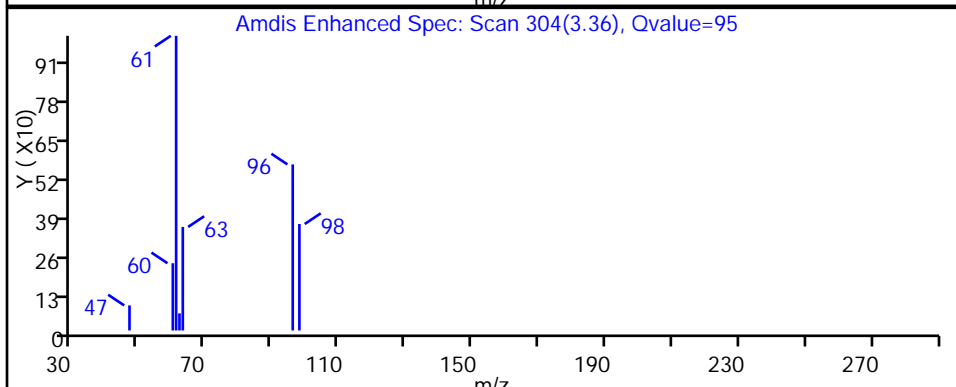
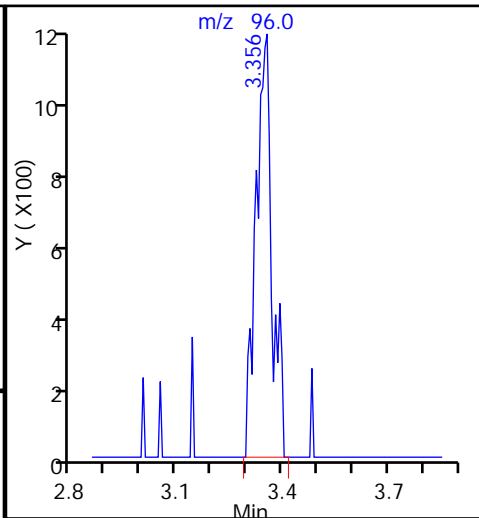
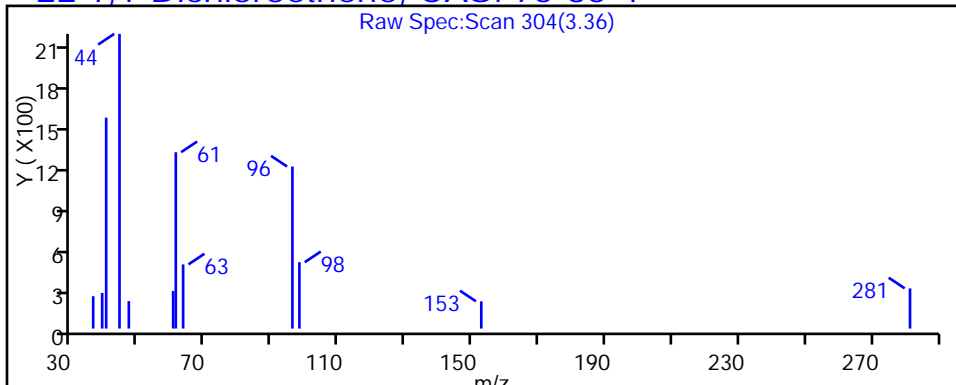
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

22 1,1-Dichloroethene, CAS: 75-35-4



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013021.D

Injection Date: 13-Oct-2016 19:31:30

Instrument ID: CHHP5

Lims ID: 180-59576-B-6

Lab Sample ID: 180-59576-6

Client ID: HD-MW-82-0/1-0

Operator ID: 001562

ALS Bottle#: 20

Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

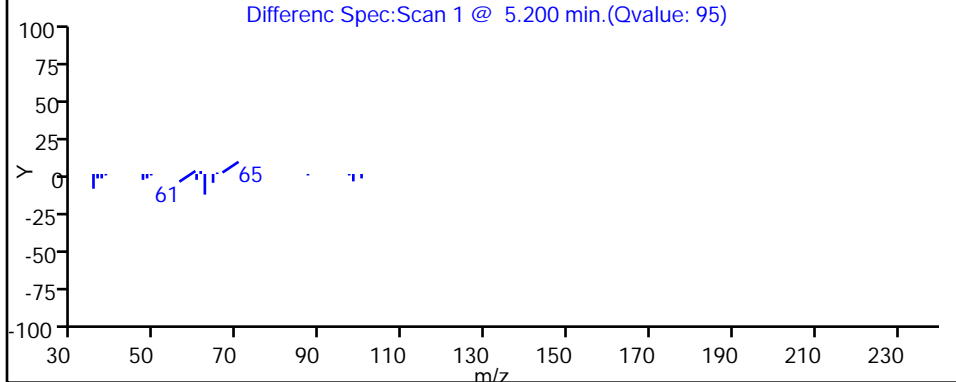
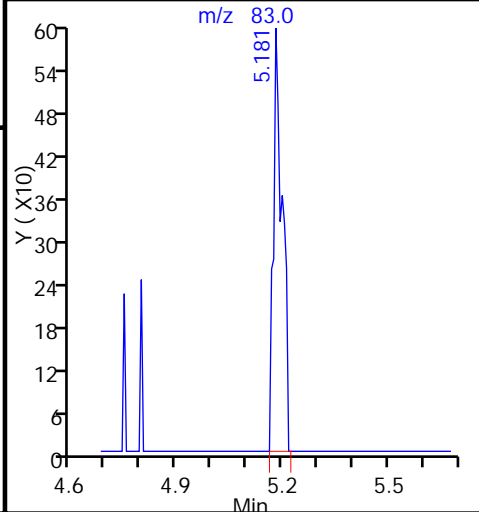
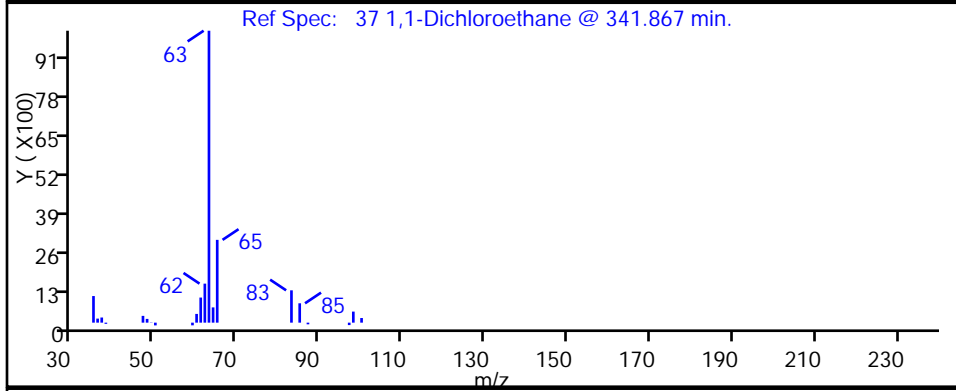
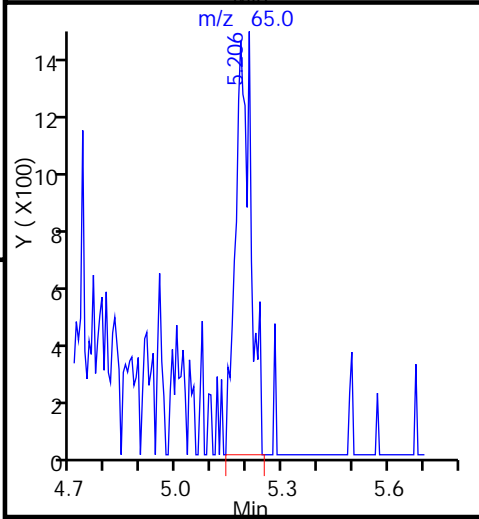
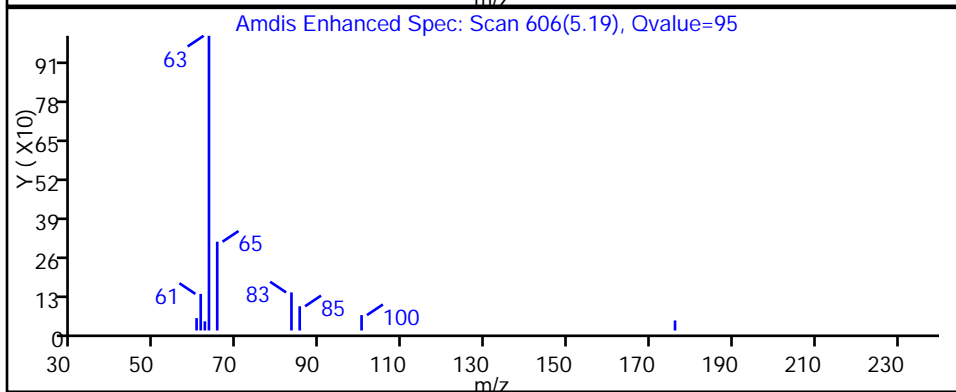
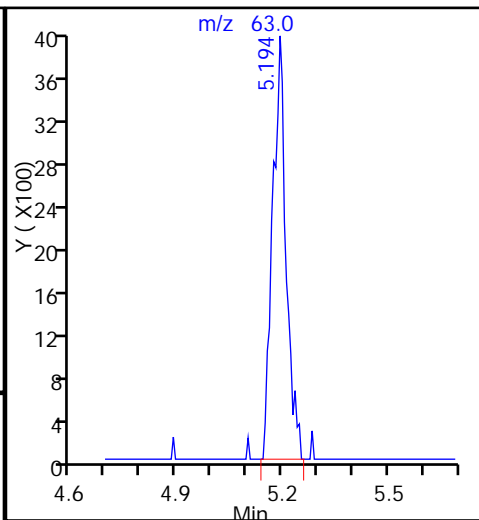
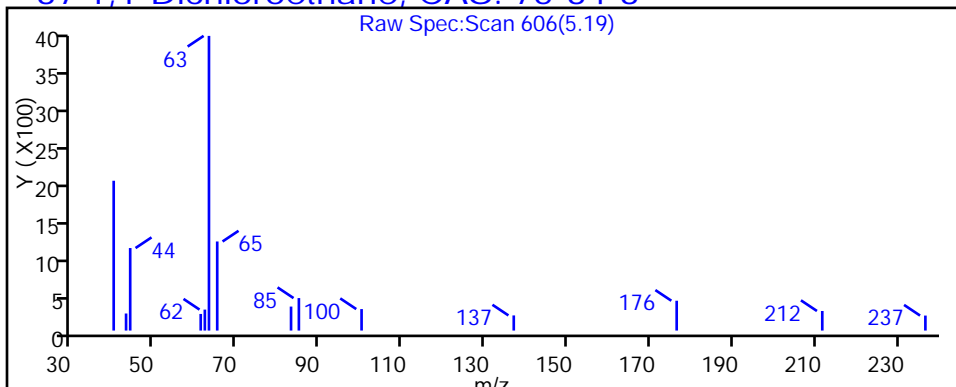
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013021.D

Injection Date: 13-Oct-2016 19:31:30

Instrument ID: CHHP5

Lims ID: 180-59576-B-6

Lab Sample ID: 180-59576-6

Client ID: HD-MW-82-0/1-0

Operator ID: 001562

ALS Bottle#: 20

Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

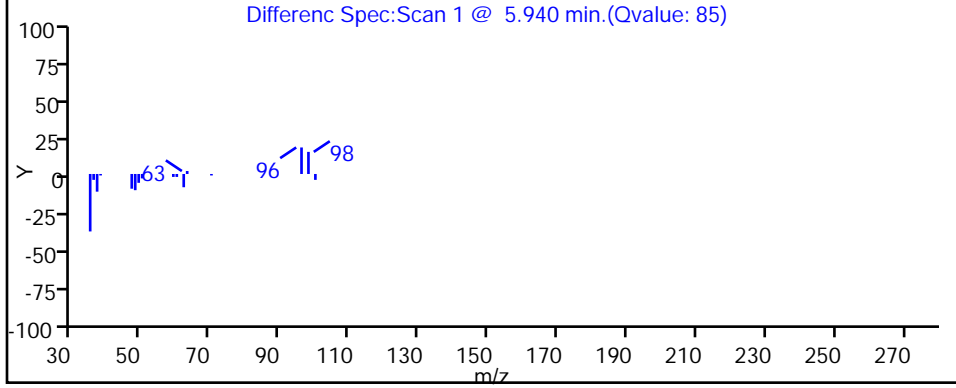
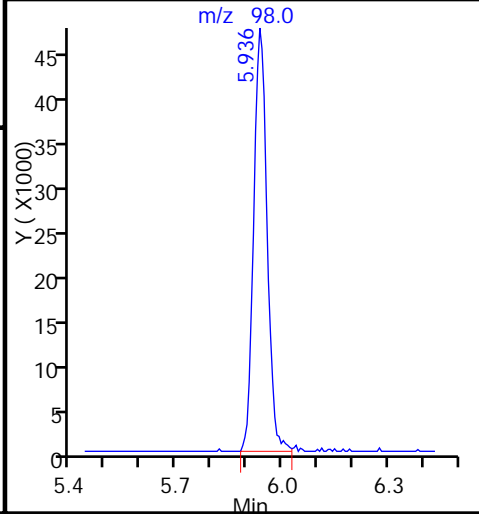
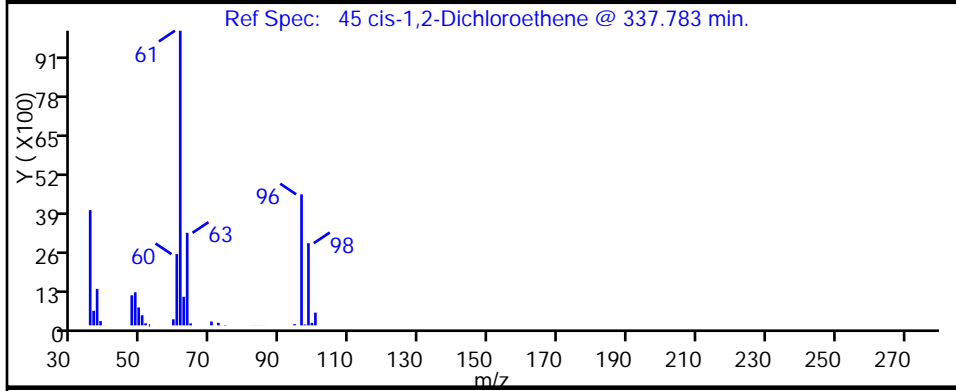
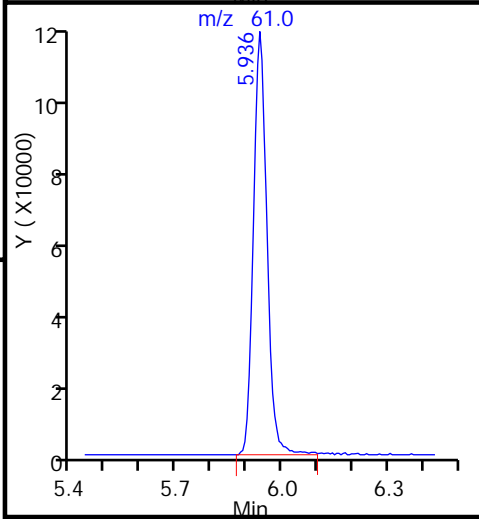
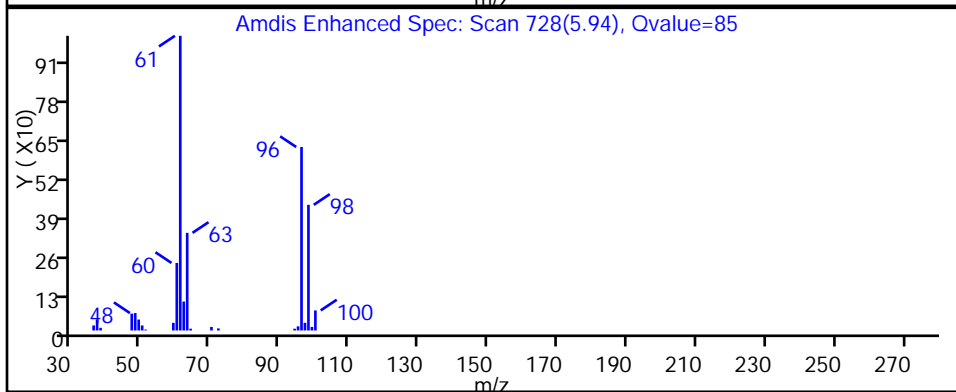
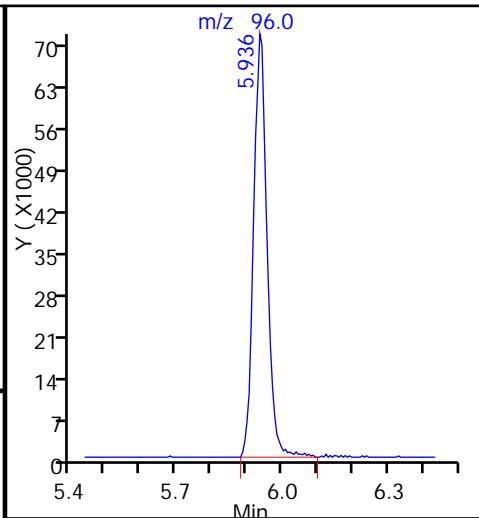
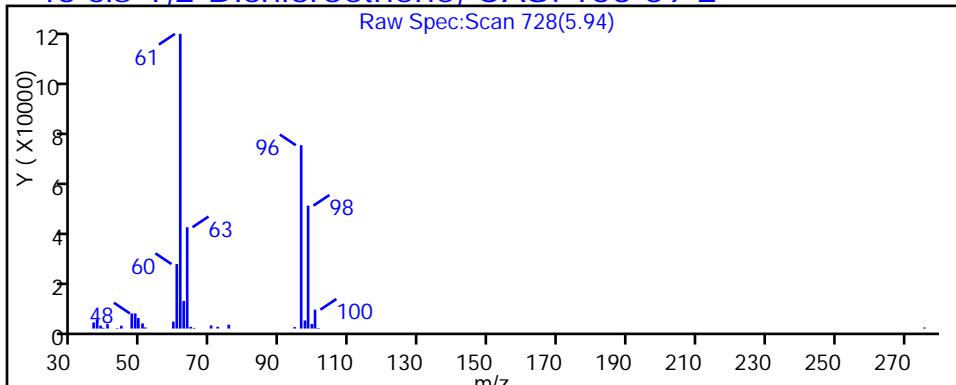
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

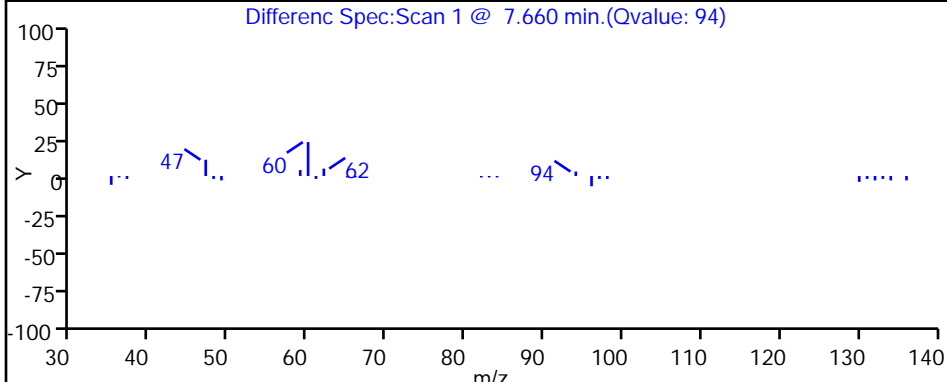
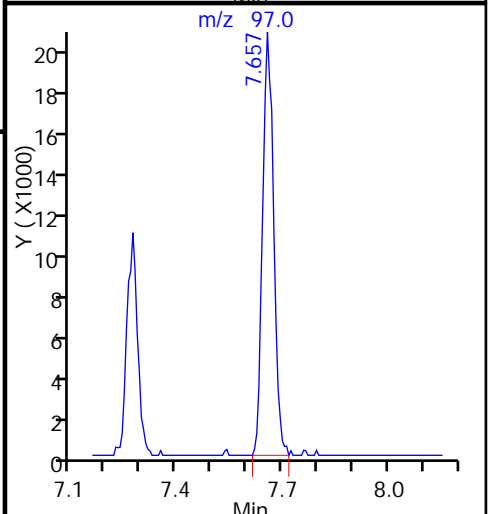
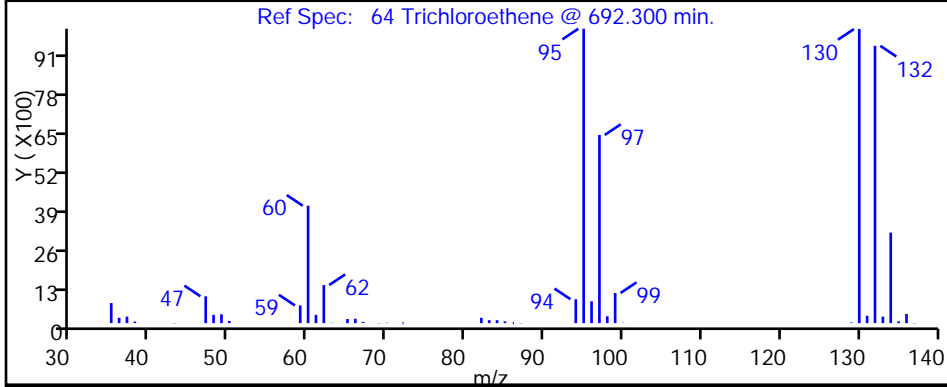
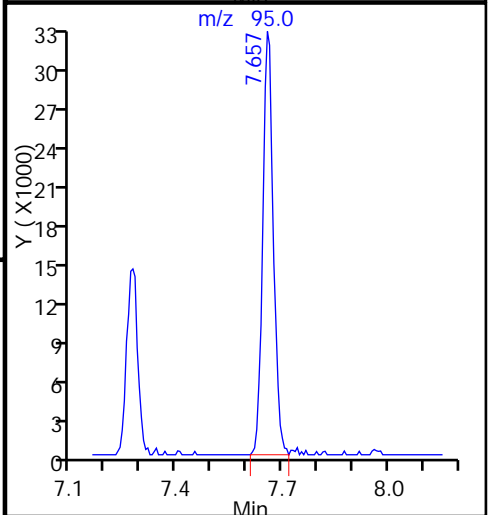
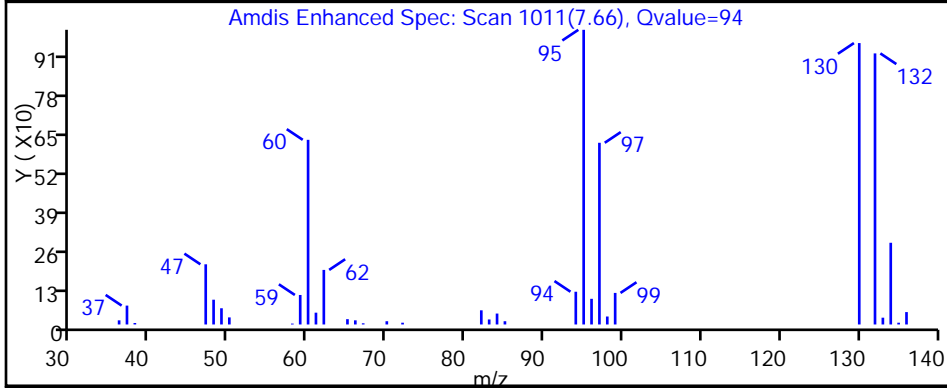
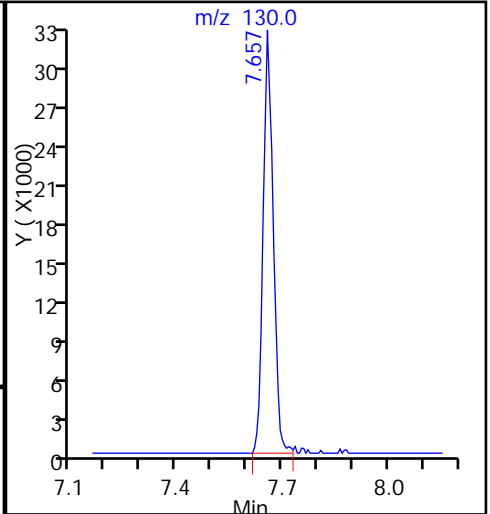
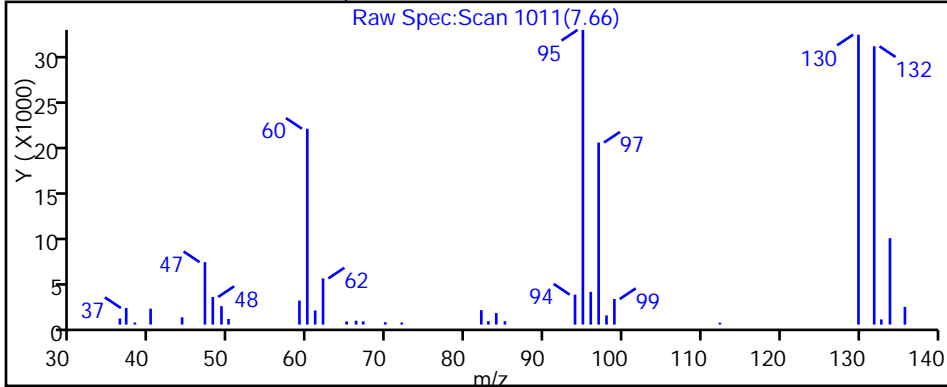
45 cis-1,2-Dichloroethene, CAS: 156-59-2



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013021.D
Injection Date: 13-Oct-2016 19:31:30 Instrument ID: CHHP5
Lims ID: 180-59576-B-6 Lab Sample ID: 180-59576-6
Client ID: HD-MW-82-0/1-0
Operator ID: 001562 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013021.D

Injection Date: 13-Oct-2016 19:31:30

Instrument ID: CHHP5

Lims ID: 180-59576-B-6

Lab Sample ID: 180-59576-6

Client ID: HD-MW-82-0/1-0

Operator ID: 001562

ALS Bottle#: 20

Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

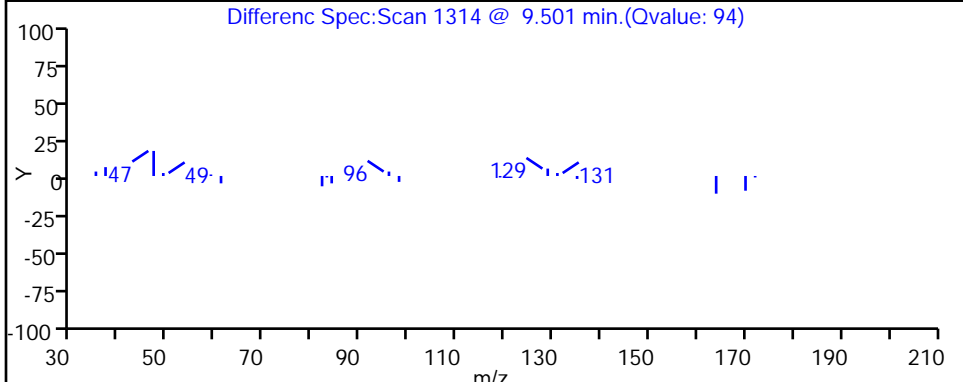
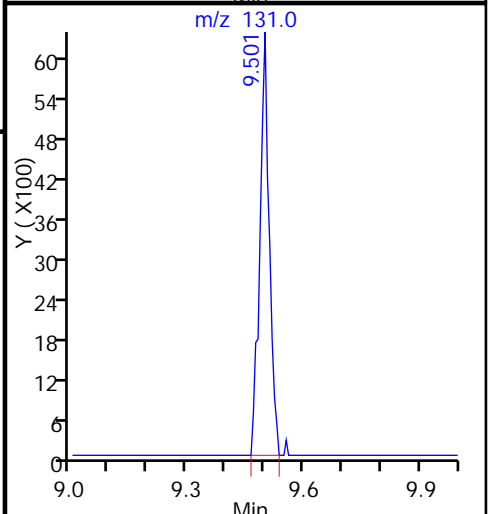
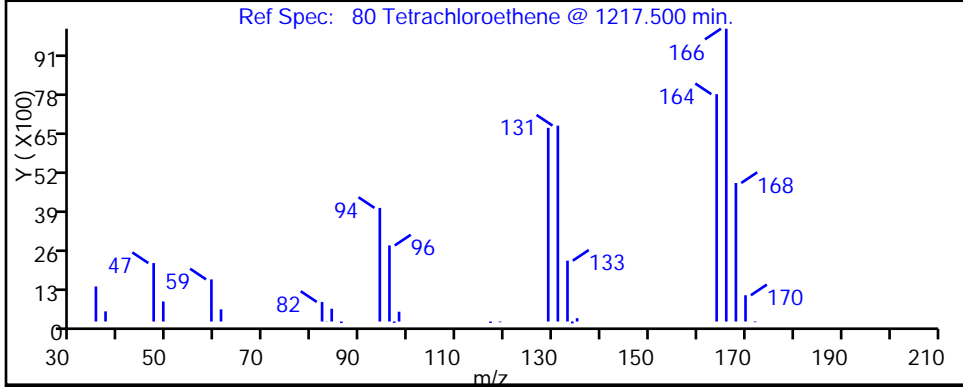
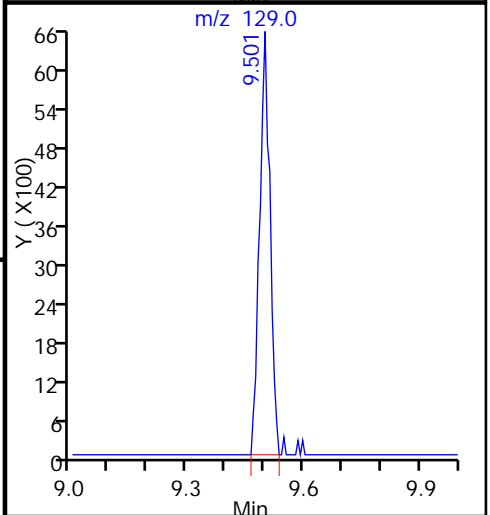
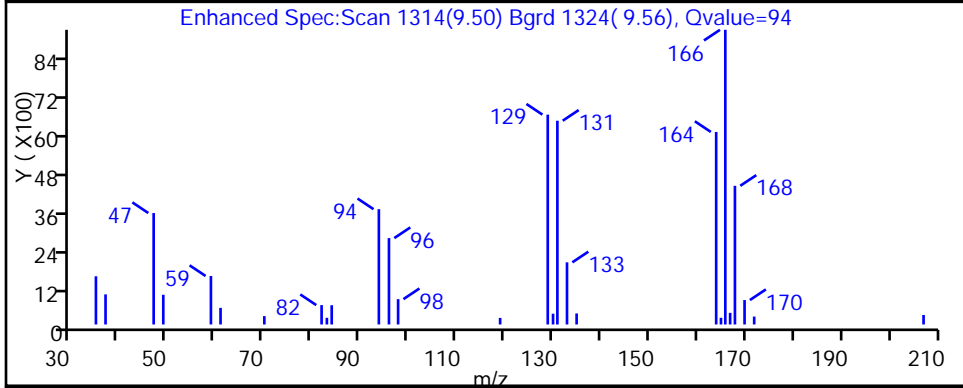
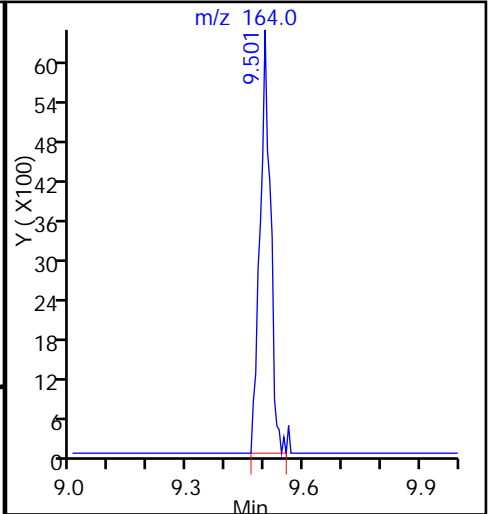
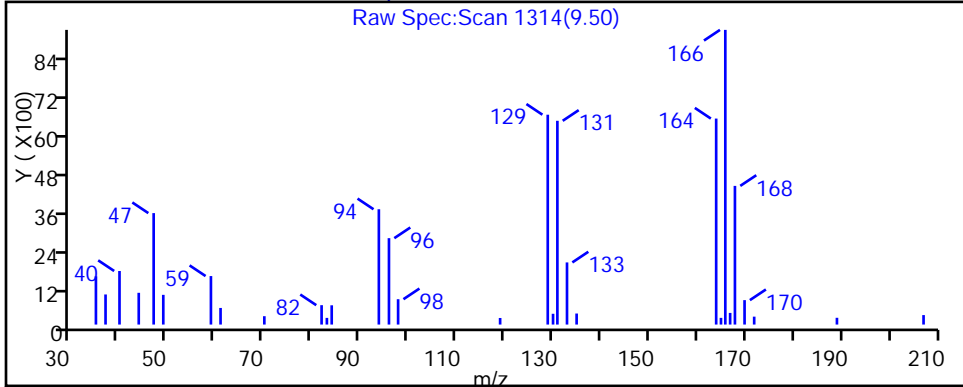
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Client Sample ID: HD-QC4-0/1-2 Lab Sample ID: 180-59576-7
 Matrix: Water Lab File ID: 51013008.D
 Analysis Method: 8260C Date Collected: 10/07/2016 12:00
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2016 14:17
 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.: 191047 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U ^c	1.0	0.23
75-01-4	Vinyl chloride	1.0	U	1.0	0.32
74-83-9	Bromomethane	1.0	U ^c	1.0	0.36
75-00-3	Chloroethane	1.0	U	1.0	0.26
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.29
67-64-1	Acetone	5.1	^c	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.18
75-09-2	Methylene Chloride	0.38	J	1.0	0.36
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.29
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.24
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.24
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.29
74-97-5	Bromochloromethane	1.0	U	1.0	0.38
78-93-3	2-Butanone (MEK)	5.0	U	5.0	1.2
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.24
71-43-2	Benzene	1.0	U	1.0	0.26
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.25
79-01-6	Trichloroethene	1.0	U	1.0	0.26
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.23
75-27-4	Bromodichloromethane	1.0	U	1.0	0.23
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.21
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.59
108-88-3	Toluene	1.0	U	1.0	0.28
10061-02-6	trans-1,3-Dichloropropene	1.0	U ^c	1.0	0.24
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.35
127-18-4	Tetrachloroethene	1.0	U	1.0	0.27
591-78-6	2-Hexanone	5.0	U	5.0	0.74
124-48-1	Dibromochloromethane	1.0	U	1.0	0.40
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.29
108-90-7	Chlorobenzene	1.0	U	1.0	0.31
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.20
100-41-4	Ethylbenzene	1.0	U	1.0	0.27
1330-20-7	Xylenes, Total	2.0	U	2.0	0.48
100-42-5	Styrene	1.0	U	1.0	0.26

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Client Sample ID: HD-QC4-0/1-2 Lab Sample ID: 180-59576-7
 Matrix: Water Lab File ID: 51013008.D
 Analysis Method: 8260C Date Collected: 10/07/2016 12:00
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2016 14:17
 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.: 191047 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.29
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.35
107-13-1	Acrylonitrile	20	U	20	2.8
123-91-1	1,4-Dioxane	200	U	200	7.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	124		72-134
2037-26-5	Toluene-d8 (Surr)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	117		72-120
1868-53-7	Dibromofluoromethane (Surr)	104		77-127

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013008.D
 Lims ID: 180-59576-A-7
 Client ID: HD-QC4-0/1-2
 Sample Type: Client
 Inject. Date: 13-Oct-2016 14:17:30 ALS Bottle#: 7 Worklist Smp#: 8
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013857-008
 Misc. Info.: 180-59576-A-7
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 13-Oct-2016 15:00:49 Calib Date: 04-Oct-2016 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161004-13721.b\51004011.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK016

First Level Reviewer: fergusond

Date: 13-Oct-2016 15:00:49

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.275	4.284	-0.009	0	184077	1000.0	
* 2 Fluorobenzene (IS)	96	7.275	7.271	0.004	97	333764	50.0	
* 3 Chlorobenzene-d5	119	10.377	10.374	0.003	93	71428	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.719	12.716	0.003	97	87753	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.551	6.547	0.004	91	78155	51.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.922	6.919	0.004	0	126680	61.9	
\$ 7 Toluene-d8 (Surr)	98	8.923	8.920	0.003	96	298523	53.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.557	11.560	-0.003	81	121735	58.6	
12 Chloromethane	50		1.772				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.234				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96		3.335				ND	
24 Acetone	43	3.448	3.439	0.009	99	16694	25.5	
26 Carbon disulfide	76		3.621				ND	
31 Methylene Chloride	84	4.142	4.126	0.016	41	4183	1.90	M
33 Acrylonitrile	53		4.516				ND	
34 trans-1,2-Dichloroethene	96		4.546				ND	
35 Methyl tert-butyl ether	73		4.570				ND	
37 1,1-Dichloroethane	63		5.185				ND	
45 cis-1,2-Dichloroethene	96		5.933				ND	
46 2-Butanone (MEK)	43		5.945				ND	
49 Chlorobromomethane	128		6.225				ND	
52 Chloroform	83		6.371				ND	
53 1,1,1-Trichloroethane	97		6.523				ND	
56 Carbon tetrachloride	117		6.693				ND	
58 Benzene	78		6.925				ND	
59 1,2-Dichloroethane	62		7.004				ND	
64 Trichloroethene	130		7.661				ND	
67 1,2-Dichloropropane	63		7.934				ND	
70 1,4-Dioxane	88		8.026				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.220				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.817				ND	
76 Toluene	91		8.987				ND	
77 trans-1,3-Dichloropropene	75		9.242				ND	
79 1,1,2-Trichloroethane	97		9.431				ND	
80 Tetrachloroethene	164		9.504				ND	
82 2-Hexanone	43		9.650				ND	
84 Chlorodibromomethane	129		9.802				ND	
85 Ethylene Dibromide	107		9.918				ND	
87 Chlorobenzene	112		10.404				ND	
89 1,1,1,2-Tetrachloroethane	131		10.496				ND	
90 Ethylbenzene	106		10.502				ND	
91 m-Xylene & p-Xylene	106		10.636				ND	
92 o-Xylene	106		11.013				ND	
93 Styrene	104		11.037				ND	
94 Bromoform	173		11.220				ND	
99 1,1,2,2-Tetrachloroethane	83		11.694				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00061

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00059

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013008.D

Injection Date: 13-Oct-2016 14:17:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-59576-A-7

Lab Sample ID: 180-59576-7

Worklist Smp#: 8

Client ID: HD-QC4-0/1-2

Purge Vol: 5.000 mL

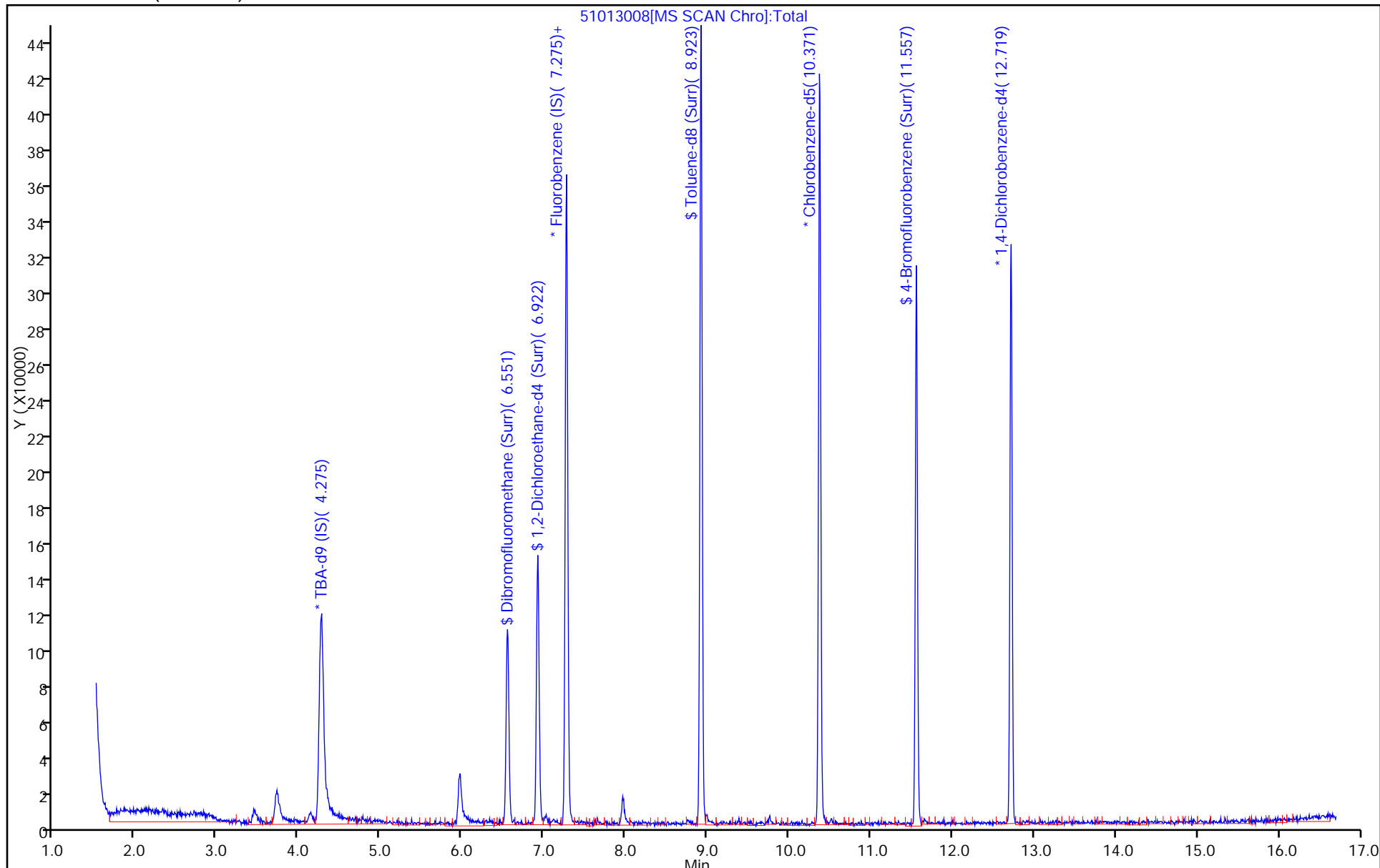
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013008.D
 Lims ID: 180-59576-A-7
 Client ID: HD-QC4-0/1-2
 Sample Type: Client
 Inject. Date: 13-Oct-2016 14:17:30 ALS Bottle#: 7 Worklist Smp#: 8
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013857-008
 Misc. Info.: 180-59576-A-7
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 13-Oct-2016 15:00:49 Calib Date: 04-Oct-2016 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161004-13721.b\51004011.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK016

First Level Reviewer: fergusond Date: 13-Oct-2016 15:00:49

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	51.9	103.90
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	61.9	123.88
\$ 7 Toluene-d8 (Surr)	50.0	53.1	106.23
\$ 8 4-Bromofluorobenzene (Surr)	50.0	58.6	117.24

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013008.D

Injection Date: 13-Oct-2016 14:17:30

Instrument ID: CHHP5

Lims ID: 180-59576-A-7

Lab Sample ID: 180-59576-7

Client ID: HD-QC4-0/1-2

Operator ID: 001562

ALS Bottle#: 7

Worklist Smp#: 8

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

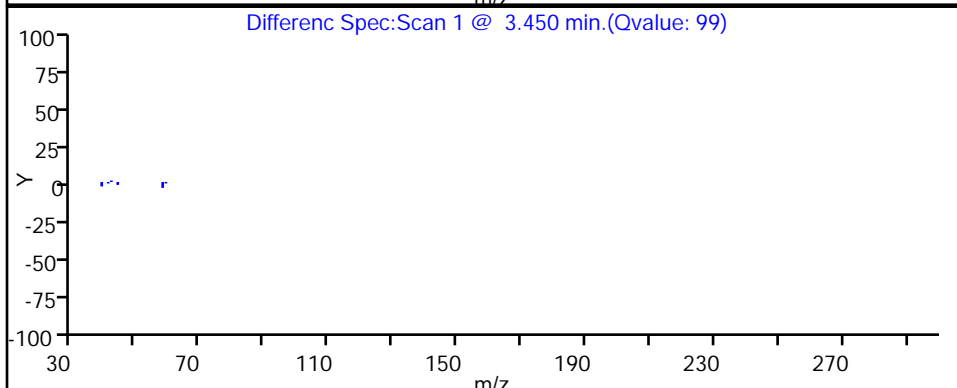
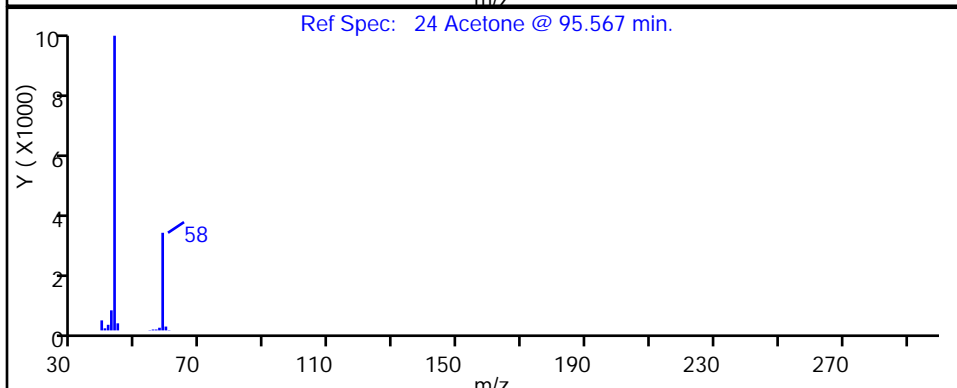
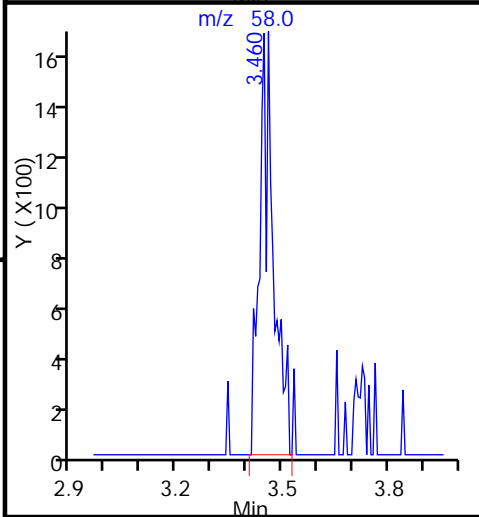
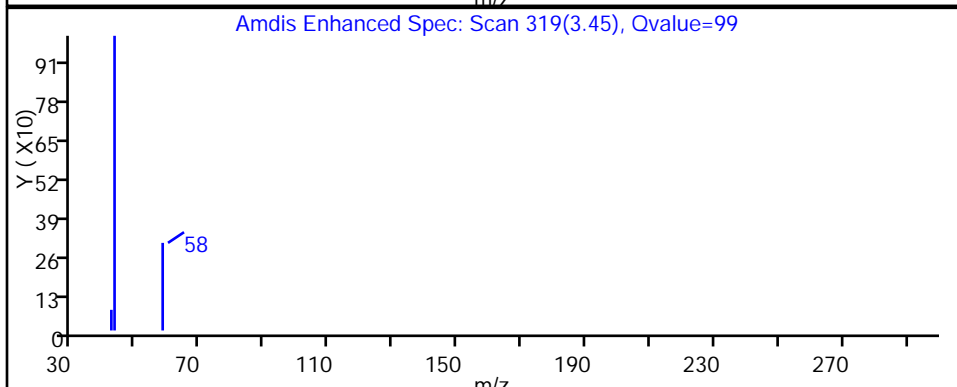
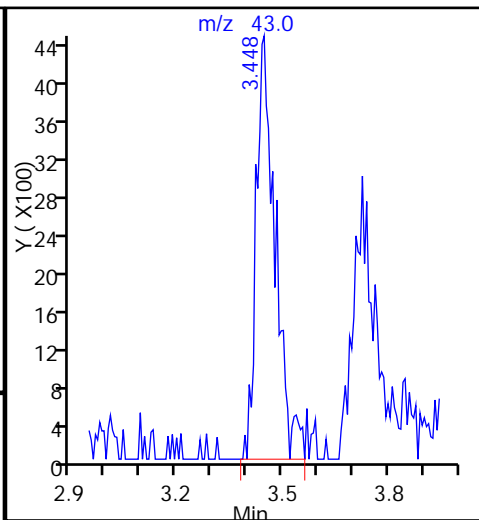
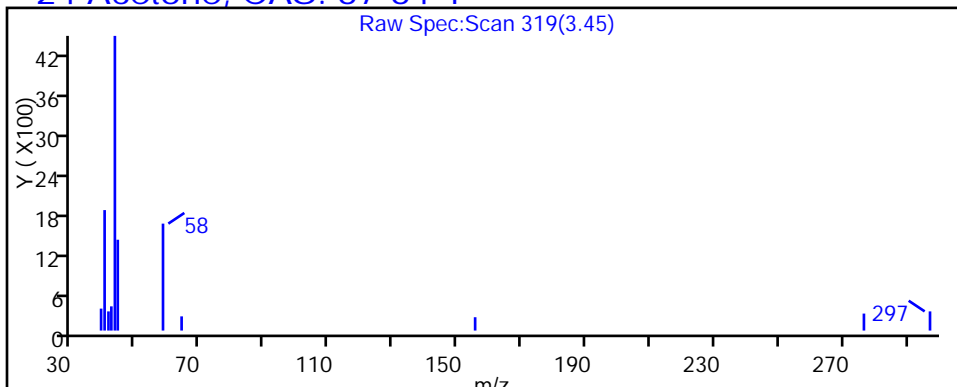
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

24 Acetone, CAS: 67-64-1



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013008.D

Injection Date: 13-Oct-2016 14:17:30

Instrument ID: CHHP5

Lims ID: 180-59576-A-7

Lab Sample ID: 180-59576-7

Client ID: HD-QC4-0/1-2

Operator ID: 001562

ALS Bottle#: 7

Worklist Smp#: 8

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

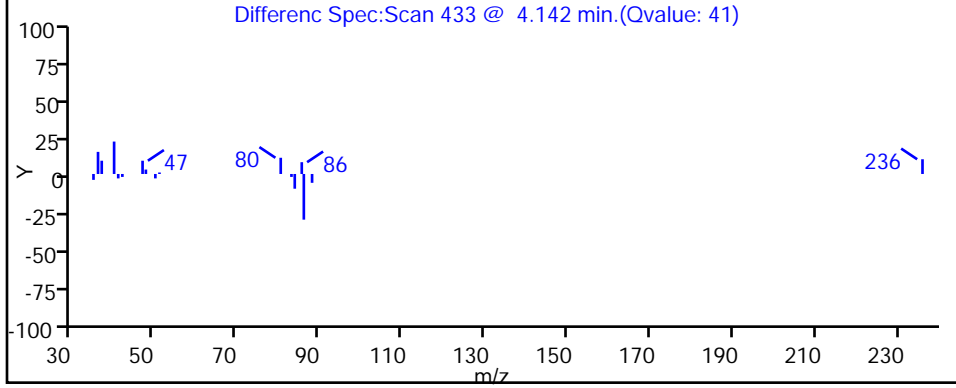
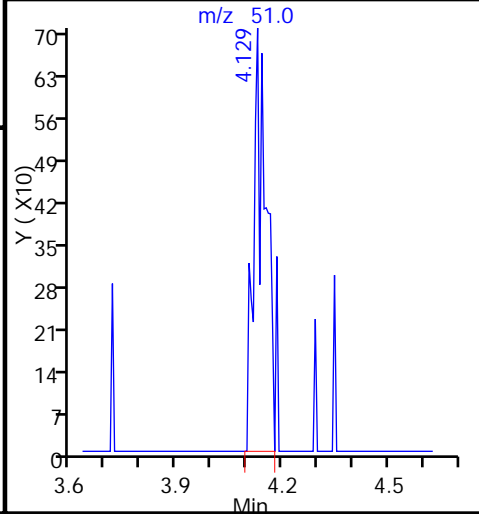
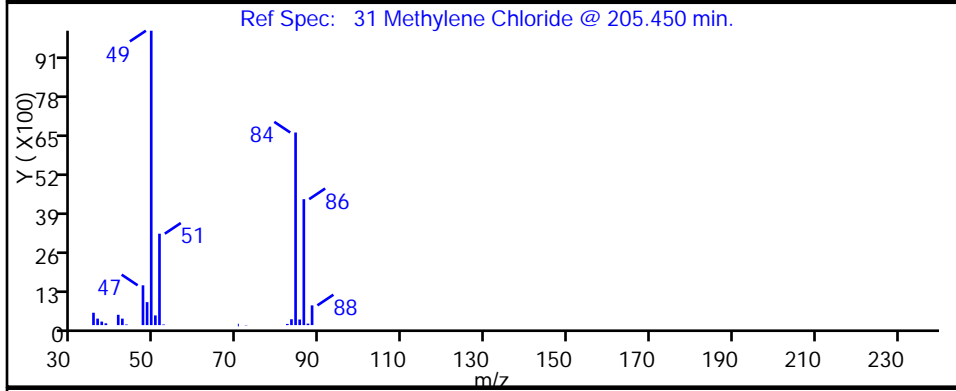
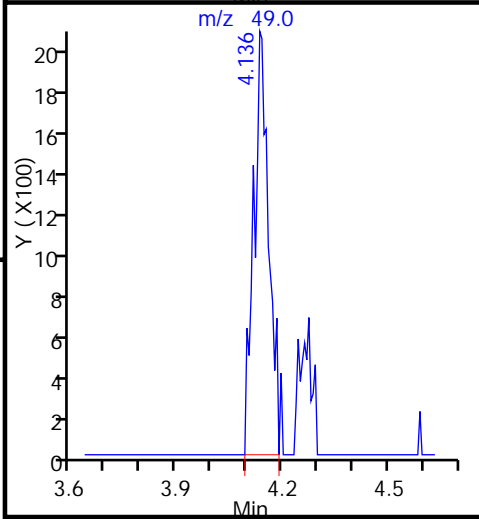
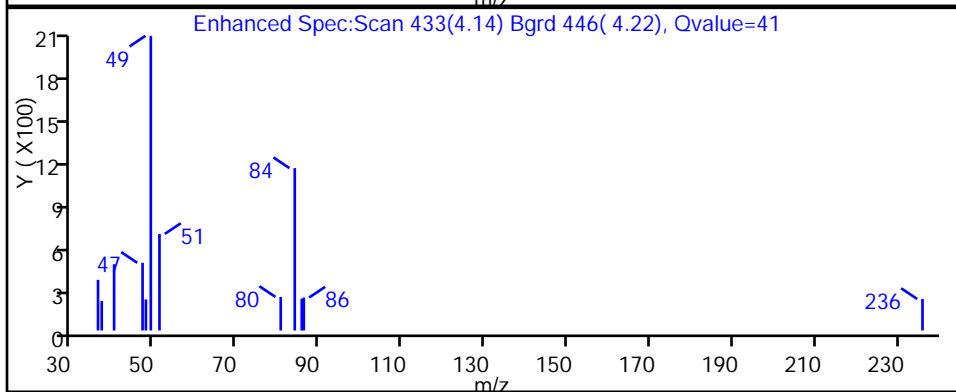
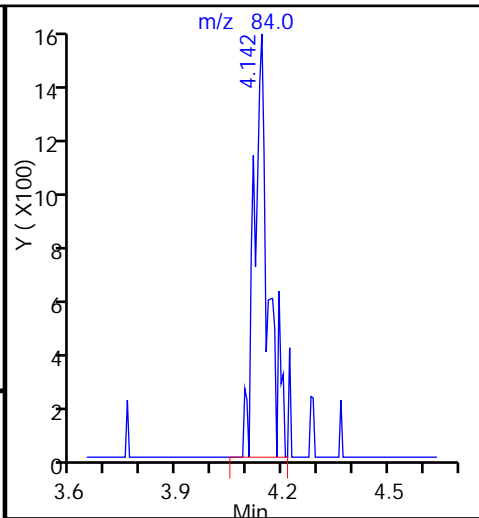
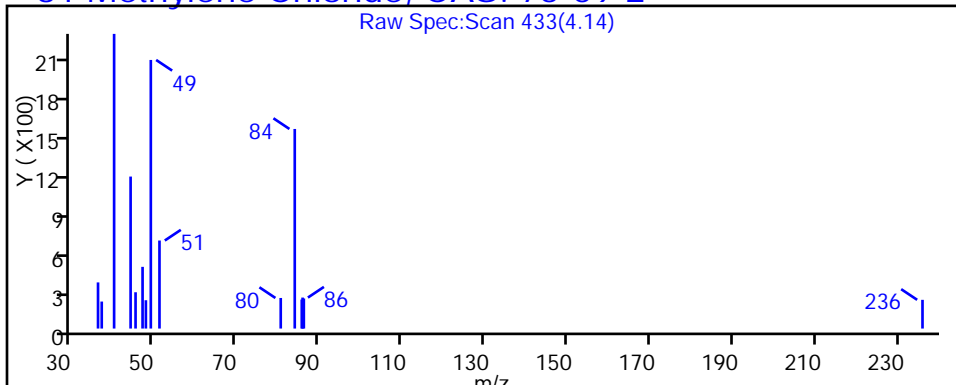
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2



TestAmerica Pittsburgh

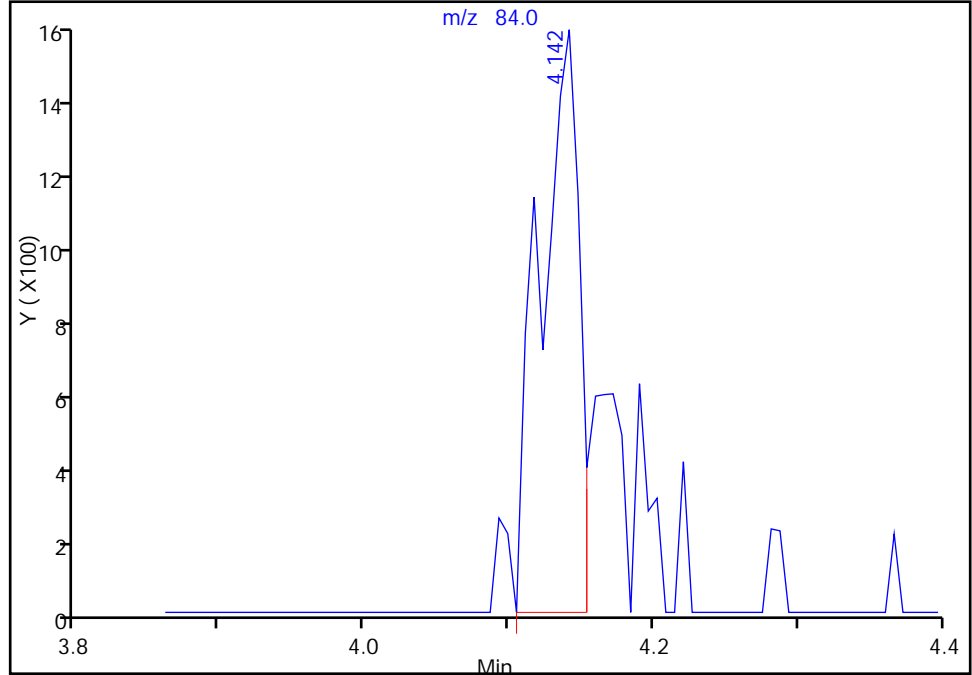
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Injection Date: 13-Oct-2016 14:17:30 Instrument ID: CHHP5
Lims ID: 180-59576-A-7 Lab Sample ID: 180-59576-7
Client ID: HD-QC4-0/1-2
Operator ID: 001562 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2

Signal: 1

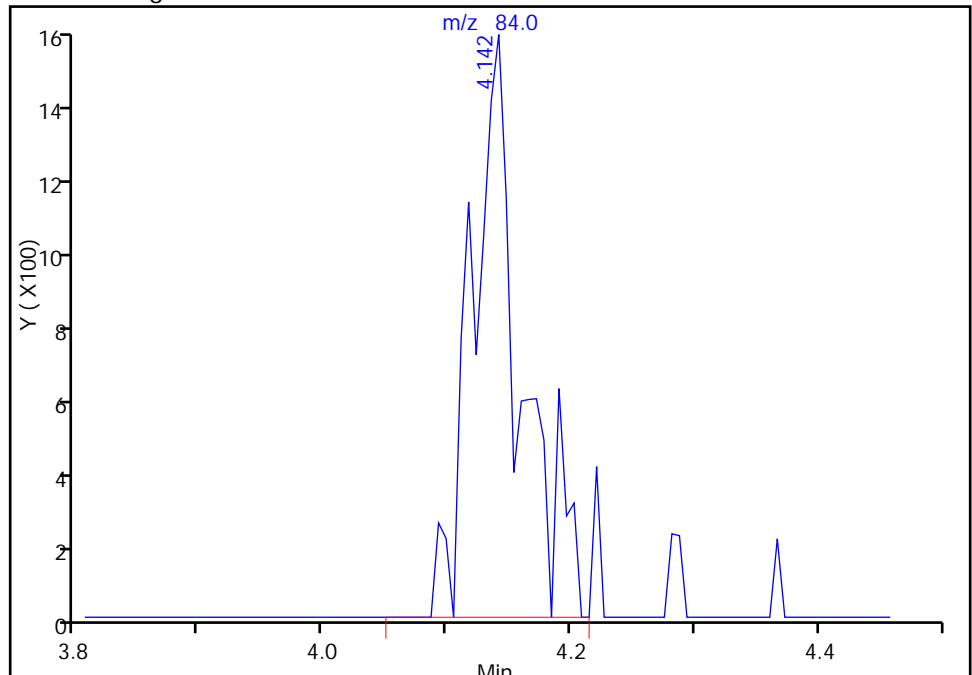
RT: 4.14
Area: 2822
Amount: 1.284413
Amount Units: ng

Processing Integration Results



RT: 4.14
Area: 4183
Amount: 1.903862
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 13-Oct-2016 15:00:49
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1 Analy Batch No.: 189445

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/28/2016 14:27 Calibration End Date: 09/28/2016 18:27 Calibration ID: 33005

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-189445/15	50928015.D
Level 2	IC 180-189445/5	50928005.D
Level 3	ICIS 180-189445/6	50928006.D
Level 4	IC 180-189445/7	50928007.D
Level 5	IC 180-189445/8	50928008.D
Level 6	IC 180-189445/9	50928009.D
Level 7	IC 180-189445/10	50928010.D
Level 8	IC 180-189445/11	50928011.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	0.2847 0.3321	0.3183 0.3360	0.3472 0.3152	0.3647	0.3348	Ave		0.3291			0.1000	7.2	20.0				
Chloromethane	0.3967 0.3833	0.3641 0.3914	0.3875 0.3794	0.3770	0.3737	Ave		0.3816			0.1000	2.7	20.0				
Vinyl chloride	0.2964 0.3119	0.2980 0.3165	0.3300 0.3045	0.3213	0.3030	Ave		0.3102			0.1000	3.8	20.0				
1,3-Butadiene	0.3097 0.3504	0.3630 0.3531	0.3705 0.3423	0.3620	0.3442	Ave		0.3494			0.0100	5.4	20.0				
Bromomethane	0.1711 0.1299	0.1259 0.1307	0.1325 0.1320	0.1337	0.1206	Ave		0.1345			0.0500	11.4	20.0				
Chloroethane	0.2259 0.1900	0.1833 0.1995	0.1926 0.1958	0.1881	0.1809	Ave		0.1945			0.0500	7.2	20.0				
Dichlorofluoromethane	0.4572 0.4056	0.3811 0.4229	0.3956 0.4127	0.4140	0.3895	Ave		0.4098			0.0100	5.8	20.0				
Trichlorofluoromethane	0.2681 0.2922	0.2875 0.3034	0.3046 0.2954	0.3097	0.2840	Ave		0.2931			0.1000	4.6	20.0				
Ethyl ether	0.2661 0.2577	0.2253 0.2551	0.2446 0.2824	0.2416	0.2575	Ave		0.2538			0.0100	6.7	20.0				
Acrolein	0.0599 0.0589	0.0561 0.0580	0.0591 0.0651	0.0518	0.0574	Ave		0.0583			0.0100	6.4	20.0				
1,1-Dichloroethene	0.2737 0.2878	0.2791 0.2911	0.2912 0.2846	0.2817	0.2789	Ave		0.2835			0.1000	2.2	20.0				
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2557 0.2892	0.2739 0.2937	0.3038 0.2818	0.2969	0.2874	Ave		0.2853			0.1000	5.3	20.0				
Acetone	0.0954 0.0912	0.1026 0.0893	0.1084 0.1138	0.0882	0.0955	Ave		0.0981			0.0500	9.5	20.0				
Iodomethane	0.4217 0.4028	0.3946 0.4103	0.4072 0.4133	0.4060	0.3878	Ave		0.4055			0.0100	2.6	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.: 180-59576-1 Analy Batch No.: 189445

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/28/2016 14:27 Calibration End Date: 09/28/2016 18:27 Calibration ID: 33005

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														
Carbon disulfide	0.7234 0.7718	0.7461 0.7776	0.8013 0.7676	0.7724	0.7439	Ave		0.7630			0.1000	3.2	20.0				
Allyl chloride	0.1959 0.1870	0.1767 0.1889	0.1884 0.1915	0.1778	0.1846	Ave		0.1864			0.0100	3.5	20.0				
Methyl acetate	0.2780 0.2390	0.2207 0.2398	0.2387 0.2633	0.2198	0.2311	Ave		0.2413			0.1000	8.3	20.0				
Methylene Chloride	0.4696 0.3088	0.3127 0.3160	0.3168 0.3187	0.2998	0.2908	Ave		0.3291			0.1000	17.5	20.0				
tert-Butyl alcohol	1.1010 1.1227	1.1957 1.0770	1.1922 1.1646	0.9928	1.1028	Ave		1.1186			0.0100	6.0	20.0				
Acrylonitrile	0.1255 0.1156	0.1116 0.1160	0.1176 0.1271	0.1076	0.1150	Ave		0.1170			0.0100	5.6	20.0				
trans-1,2-Dichloroethene	0.2889 0.2893	0.2841 0.2945	0.2976 0.2896	0.2922	0.2834	Ave		0.2899			0.1000	1.7	20.0				
Methyl tert-butyl ether	0.8730 0.8239	0.7474 0.8300	0.8170 0.8480	0.7800	0.7812	Ave		0.8126			0.1000	5.0	20.0				
Hexane	0.4573 0.4647	0.4393 0.4746	0.4687 0.4579	0.4607	0.4463	Ave		0.4587			0.0100	2.5	20.0				
1,1-Dichloroethane	0.6042 0.5733	0.5525 0.5800	0.5824 0.5820	0.5597	0.5411	Ave		0.5719			0.2000	3.5	20.0				
Vinyl acetate	0.5918 0.5896	0.5531 0.5977	0.5749 0.6190	0.5545	0.5641	Ave		0.5806			0.0100	4.0	20.0				
2,2-Dichloropropane	0.3425 0.3337	0.3632 0.3345	0.3534 0.3250	0.3446	0.3309	Ave		0.3410			0.0100	3.7	20.0				
cis-1,2-Dichloroethene	0.3424 0.3325	0.3115 0.3349	0.3268 0.3386	0.3172	0.3160	Ave		0.3275			0.1000	3.5	20.0				
2-Butanone (MEK)	0.1562 0.1470	0.1554 0.1409	0.1431 0.1596	0.1267	0.1420	Ave		0.1464			0.0500	7.3	20.0				
Bromochloromethane	0.1467 0.1356	0.1275 0.1393	0.1295 0.1429	0.1313	0.1263	Ave		0.1349			0.0100	5.6	20.0				
Tetrahydrofuran	0.1344 0.0916	0.0906 0.0951	0.0981 0.1078	0.0800	0.0952	Ave		0.0991			0.0100	16.4	20.0				
Chloroform	0.5637 0.5083	0.4712 0.5162	0.5088 0.5214	0.4971	0.4886	Ave		0.5094			0.2000	5.3	20.0				
1,1,1-Trichloroethane	0.4070 0.3999	0.3975 0.4144	0.4173 0.4060	0.4172	0.3900	Ave		0.4062			0.1000	2.4	20.0				
Cyclohexane	0.5960 0.5982	0.5877 0.6110	0.6284 0.5781	0.6157	0.5840	Ave		0.5999			0.1000	2.9	20.0				
Carbon tetrachloride	0.2872 0.3364	0.3191 0.3510	0.3363 0.3430	0.3296	0.3267	Ave		0.3287			0.1000	5.9	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.: 180-59576-1

Analy Batch No.: 189445

SDG No.: _____

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 09/28/2016 14:27

Calibration End Date: 09/28/2016 18:27

Calibration ID: 33005

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														
1,1-Dichloropropene	0.4045 0.4094	0.3905 0.4180	0.4147 0.4069	0.4140	0.3965	Ave		0.4068			0.0100	2.3	20.0				
Isobutyl alcohol	0.0091 0.0066	0.0066 0.0067	0.0076 0.0080	0.0061	0.0072	Ave		0.0072		*	0.0100	13.3	20.0				
Benzene	1.2499 1.1394	1.1255 1.1419	1.1812 1.1386	1.1175	1.0930	Ave		1.1484			0.5000	4.2	20.0				
1,2-Dichloroethane	0.4401 0.4085	0.3683 0.4192	0.3907 0.4323	0.3782	0.3851	Ave		0.4028			0.1000	6.5	20.0				
n-Heptane	0.3588 0.3898	0.3756 0.3874	0.3930 0.3889	0.3766	0.3750	Ave		0.3806			0.0100	3.0	20.0				
Trichloroethene	0.2832 0.2835	0.2646 0.2873	0.2887 0.2945	0.2736	0.2727	Ave		0.2810			0.2000	3.5	20.0				
Methylcyclohexane	0.4435 0.5004	0.4947 0.5090	0.5289 0.4857	0.5055	0.4942	Ave		0.4952			0.1000	5.0	20.0				
1,2-Dichloropropane	0.3217 0.2999	0.2678 0.2988	0.2965 0.3097	0.2776	0.2808	Ave		0.2941			0.1000	6.0	20.0				
1,4-Dioxane	0.0018 0.0021	0.0017 0.0022	0.0022 0.0024	0.0020	0.0021	Ave		0.0021		*	0.0100	10.8	20.0				
Dibromomethane	0.1523 0.1614	0.1374 0.1604	0.1499 0.1692	0.1439	0.1497	Ave		0.1530			0.0100	6.7	20.0				
Bromodichloromethane	0.3121 0.3398	0.2904 0.3430	0.3129 0.3534	0.3067	0.3148	Ave		0.3217			0.2000	6.7	20.0				
2-Chloroethyl vinyl ether	0.1568 0.1626	0.1470 0.1591	0.1510 0.1694	0.1413	0.1477	Ave		0.1544			0.0100	6.0	20.0				
cis-1,3-Dichloropropene	0.4078 0.4366	0.3826 0.4310	0.4179 0.4546	0.3935	0.3993	Ave		0.4154			0.2000	5.8	20.0				
4-Methyl-2-pentanone (MIBK)	1.3300 1.2449	1.3028 1.2835	1.2990 1.3376	1.2146	1.2244	Ave		1.2796			0.1000	3.7	20.0				
Toluene	5.5176 4.8097	5.3247 4.6596	5.4471 4.6725	5.0749	4.8495	Ave		5.0445			0.4000	6.9	20.0				
trans-1,3-Dichloropropene	1.4733 1.6008	1.5067 1.6188	1.6048 1.7152	1.5140	1.5255	Ave		1.5699			0.1000	5.1	20.0				
Ethyl methacrylate	1.6330 1.5554	1.5225 1.5112	1.5599 1.6238	1.4847	1.4742	Ave		1.5456			0.0100	3.8	20.0				
1,1,2-Trichloroethane	1.0303 0.9240	0.9267 0.9028	0.9492 0.9564	0.9144	0.8902	Ave		0.9368			0.1000	4.7	20.0				
Tetrachloroethene	0.8882 0.8937	0.9800 0.8932	1.0165 0.8856	0.9281	0.8918	Ave		0.9221			0.2000	5.4	20.0				
1,3-Dichloropropane	1.9571 1.7418	1.7086 1.7051	1.8377 1.8072	1.7127	1.6703	Ave		1.7675			0.0100	5.4	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.: 180-59576-1 Analy Batch No.: 189445

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/28/2016 14:27 Calibration End Date: 09/28/2016 18:27 Calibration ID: 33005

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-Hexanone	0.9948 1.0005	1.0138 1.0070	1.0558 1.0672	0.9738	0.9965	Ave		1.0137			0.1000	3.1	20.0				
Dibromochloromethane	0.8204 0.8895	0.8133 0.8930	0.8580 0.9574	0.8434	0.8340	Ave		0.8636			0.1000	5.5	20.0				
1,2-Dibromoethane (EDB)	0.9561 0.9439	0.9307 0.9329	1.0025 0.9842	0.9279	0.9043	Ave		0.9478			0.1000	3.4	20.0				
3-Chlorobenzotrifluoride	1.6823 1.5641	1.8298 1.5756	1.7786 1.5313	1.6079	1.6587	Ave		1.6535			0.0100	6.4	20.0				
Chlorobenzene	3.2166 2.9207	3.2217 2.8758	3.2576 2.9134	3.0092	2.9255	Ave		3.0426			0.5000	5.3	20.0				
4-Chlorobenzotrifluoride	1.5390 1.4821	1.6777 1.4830	1.6720 1.4402	1.5534	1.5449	Ave		1.5491			0.0100	5.6	20.0				
1,1,1,2-Tetrachloroethane	0.8993 0.9422	0.9320 0.9411	0.9938 0.9794	0.9373	0.9398	Ave		0.9456			0.0100	3.1	20.0				
Ethylbenzene	1.9537 1.6722	1.9081 1.6312	1.9001 1.6436	1.7245	1.7248	Ave		1.7698			0.1000	7.4	20.0				
m-Xylene & p-Xylene	2.3955 2.0616	2.2131 2.0280	2.3364 2.0290	2.1382	2.0945	Ave		2.1620			0.1000	6.5	20.0				
o-Xylene	2.1442 1.8932	2.0729 1.8542	2.2103 1.8623	1.9728	1.9734	Ave		1.9979			0.3000	6.6	20.0				
Styrene	3.6473 3.1970	3.4171 3.1503	3.5945 3.1172	3.3000	3.2692	Ave		3.3366			0.3000	6.0	20.0				
Bromoform	0.4518 0.5422	0.4553 0.5456	0.4929 0.5688	0.4790	0.5028	Ave		0.5048			0.1000	8.6	20.0				
2-Chlorobenzotrifluoride	1.5714 1.3913	1.6387 1.4290	1.6307 1.3642	1.4924	1.5247	Ave		1.5053			0.0100	7.0	20.0				
Isopropylbenzene	5.1249 4.4907	5.4138 4.4369	5.5319 4.2120	4.9286	4.9271	Ave		4.8832			0.1000	9.7	20.0				
Bromobenzene	1.1802 1.0563	1.0041 1.0157	1.0837 1.1262	1.0232	1.0077	Ave		1.0621			0.0100	6.0	20.0				
1,1,2,2-Tetrachloroethane	1.1464 1.0954	1.1364 1.0770	1.1926 1.0859	1.0998	1.0938	Ave		1.1159			0.3000	3.5	20.0				
trans-1,4-Dichloro-2-butene	0.3117 0.4478	0.3642 0.4424	0.3882 0.4916	0.3867	0.3937	Ave		0.4033			0.0100	13.8	20.0				
1,2,3-Trichloropropane	0.3432 0.3807	0.3595 0.3691	0.3688 0.4124	0.3319	0.3498	Ave		0.3644			0.0100	6.8	20.0				
N-Propylbenzene	1.3224 1.2329	1.2478 1.2256	1.3449 1.2824	1.2292	1.2472	Ave		1.2665			0.0100	3.6	20.0				
2-Chlorotoluene	1.1553 1.0361	1.0213 0.9998	1.0924 1.0690	1.0017	1.0292	Ave		1.0506			0.0100	5.0	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.: 180-59576-1 Analy Batch No.: 189445

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/28/2016 14:27 Calibration End Date: 09/28/2016 18:27 Calibration ID: 33005

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														
3-Chlorotoluene	1.1306 1.0938	1.1503 1.1113	1.1714 1.1732	1.0796	1.0952	Ave	1.1257			0.0100	3.2		20.0				
1,3,5-Trimethylbenzene	3.3044 3.2506	3.4234 3.1906	3.7154 3.2809	3.3576	3.3046	Ave	3.3534			0.0100	4.8		20.0				
4-Chlorotoluene	1.1796 1.0769	1.0844 1.0585	1.1282 1.1123	1.1063	1.0409	Ave	1.0984			0.0100	4.0		20.0				
tert-Butylbenzene	2.8643 2.6754	2.9344 2.6618	3.0969 2.7221	2.8484	2.7620	Ave	2.8207			0.0100	5.2		20.0				
1,2,4-Trimethylbenzene	3.4022 3.2336	3.3150 3.2250	3.5948 3.2808	3.3411	3.2961	Ave	3.3361			0.0100	3.6		20.0				
3,4-Dichlorobenzotrifluoride	0.9604 0.8677	0.9626 0.9071	0.9468 0.8949	0.8893	0.9179	Ave	0.9183			0.0100	3.8		20.0				
sec-Butylbenzene	3.9473 3.6714	4.0403 3.6718	4.2779 3.6836	3.9748	3.8375	Ave	3.8881			0.0100	5.5		20.0				
1,3-Dichlorobenzene	1.8631 1.6612	1.6358 1.6843	1.7592 1.7268	1.6654	1.6494	Ave	1.7057			0.6000	4.4		20.0				
4-Isopropyltoluene	2.9843 2.9075	3.1498 2.9480	3.3952 2.9294	3.1434	3.0366	Ave	3.0618			0.0100	5.3		20.0				
1,4-Dichlorobenzene	1.8787 1.6786	1.6047 1.6893	1.7329 1.7184	1.6545	1.6085	Ave	1.6957			0.5000	5.1		20.0				
2,4-Dichlorobenzotrifluoride	0.7157 0.7453	0.8337 0.7859	0.8397 0.7599	0.7726	0.7943	Ave	0.7809			0.0100	5.4		20.0				
2,5-Dichlorobenzotrifluoride	1.0279 0.8679	0.8553 0.8879	0.9182 0.8698	0.8858	0.8892	Ave	0.9002			0.0100	6.1		20.0				
n-Butylbenzene	2.3254 2.5214	2.5529 2.6015	2.7701 2.5146	2.6372	2.5502	Ave	2.5592			0.0100	4.9		20.0				
1,2-Dichlorobenzene	1.5835 1.3847	1.3441 1.4352	1.4600 1.4155	1.4245	1.3722	Ave	1.4275			0.4000	5.1		20.0				
1,2-Dibromo-3-Chloropropane	0.1162 0.1638	0.1237 0.1630	0.1417 0.1619	0.1411	0.1354	Ave	0.1433			0.0500	12.8		20.0				
2,4- & 2,5- & 2,6- Dichlorotoluene	0.8904 0.9411	0.8585 1.0312	0.9099 0.8899	0.9573	0.8696	Ave	0.9185			0.0100	6.2		20.0				
2,3- & 3,4- Dichlorotoluene	0.8253 0.9654	0.8041 1.0648	0.8510 0.9015	0.9374	0.8260	Ave	0.8969			0.0100	9.9		20.0				
1,2,4-Trichlorobenzene	0.6088 0.7087	0.5307 0.7720	0.5496 0.6664	0.6648	0.5286	Ave	0.6287			0.2000	14.2		20.0				
Hexachlorobutadiene	0.2867 0.3411	0.2609 0.3493	0.2876 0.3068	0.3480	0.2648	Ave	0.3056			0.0100	11.9		20.0				
Naphthalene	1.5853 2.1229	1.5116 2.2323	1.5837 2.0109	1.9860	1.6323	Ave	1.8331			0.0100	15.5		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.: 180-59576-1 Analy Batch No.: 189445

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/28/2016 14:27 Calibration End Date: 09/28/2016 18:27 Calibration ID: 33005

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														
1,2,3-Trichlorobenzene	0.4741 0.6717	0.4747 0.7158	0.4765 0.6242	0.6215	0.4594	Ave		0.5647			0.0100	18.5		20.0			
2,4,5-Trichlorotoluene	0.3887 0.5715	0.3746 0.5758	0.3794 0.6397	0.5156	0.4065	Qua	0.0483	0.3496	0.0011627		0.0100				0.9960		0.9900
2,3,6-Trichlorotoluene	0.4168 0.5044	0.3684 0.5385	0.3731 0.5829	0.4731	0.3673	Ave		0.4531			0.0100	18.5		20.0			
Dibromofluoromethane (Surr)	0.2494 0.2213	0.2212 0.2290	0.2227 0.2328	0.2123	0.2143	Ave		0.2254				5.3		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3728 0.2984	0.2960 0.3048	0.2975 0.3187	0.2830	0.2799	Ave		0.3064				9.6		20.0			
Toluene-d8 (Surr)	4.7811 3.5328	4.4473 3.5414	4.2179 3.5628	3.8089	3.5805	Ave		3.9341				12.4		20.0			
4-Bromofluorobenzene (Surr)	1.9176 1.2974	1.5482 1.3152	1.5428 1.3052	1.3554	1.3471	Ave		1.4536				14.7		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.: 180-59576-1 Analy Batch No.: 189445

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/28/2016 14:27 Calibration End Date: 09/28/2016 18:27 Calibration ID: 33005

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-189445/15	50928015.D
Level 2	IC 180-189445/5	50928005.D
Level 3	ICIS 180-189445/6	50928006.D
Level 4	IC 180-189445/7	50928007.D
Level 5	IC 180-189445/8	50928008.D
Level 6	IC 180-189445/9	50928009.D
Level 7	IC 180-189445/10	50928010.D
Level 8	IC 180-189445/11	50928011.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	10690 458360	71866 517273	149434 594622	233239	286586	5.00 175	25.0 200	50.0 250	75.0	100
Chloromethane	FB	Ave	14896 529035	82217 602464	166785 715799	241116	319936	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl chloride	FB	Ave	11131 430527	67290 487261	142059 574513	205496	259398	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Butadiene	FB	Ave	11630 483690	81965 543545	159499 645769	231496	294630	5.00 175	25.0 200	50.0 250	75.0	100
Bromomethane	FB	Ave	6425 179335	28423 201143	57020 249057	85488	103284	5.00 175	25.0 200	50.0 250	75.0	100
Chloroethane	FB	Ave	8482 262204	41381 307056	82913 369458	120292	154860	5.00 175	25.0 200	50.0 250	75.0	100
Dichlorofluoromethane	FB	Ave	17168 559873	86050 650922	170288 778608	264797	333435	5.00 175	25.0 200	50.0 250	75.0	100
Trichlorofluoromethane	FB	Ave	10067 403311	64906 466981	131129 557326	198057	243151	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl ether	FB	Ave	9992 355655	50880 392719	105303 532822	154531	220471	5.00 175	25.0 200	50.0 250	75.0	100
Acrolein	FB	Ave	44990 104587	63295 111599	76305 135147	77266	98265	100 225	125 250	150 275	175	200
1,1-Dichloroethene	FB	Ave	10276 397280	63024 448034	125340 536898	180155	238772	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	9603 399231	61838 452132	130777 531712	189868	246005	5.00 175	25.0 200	50.0 250	75.0	100
Acetone	FB	Ave	17917 251763	46330 275016	93351 429187	112819	163522	25.0 350	50.0 400	100 500	150	200
Iodomethane	FB	Ave	15834 556019	89104 631551	175284 779677	259664	331996	5.00 175	25.0 200	50.0 250	75.0	100
Carbon disulfide	FB	Ave	27165 1065277	168464 1197032	344904 1448012	493985	636790	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.: 180-59576-1

Analy Batch No.: 189445

SDG No.: _____

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 09/28/2016 14:27

Calibration End Date: 09/28/2016 18:27

Calibration ID: 33005

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
Allyl chloride	FB	Ave	7357 258155	39908 290699	81088 361279	113739	158003	5.00 175	25.0 200	50.0 250	75.0	100
Methyl acetate	FB	Ave	52192 1649696	249111 1845387	513733 2483416	702937	989286	25.0 875	125 1000	250 1250	375	500
Methylene Chloride	FB	Ave	17634 426263	70608 486344	136351 601264	191714	248945	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butyl alcohol	TBAd 9	Ave	7031 226412	43687 248639	91791 424180	100842	175170	50.0 1750	250 2000	500 2500	750	1000
Acrylonitrile	FB	Ave	47134 1595619	251919 1785952	506135 2398340	688371	984865	50.0 1750	250 2000	500 2500	750	1000
trans-1,2-Dichloroethene	FB	Ave	10848 399345	64137 453303	128097 546321	186846	242614	5.00 175	25.0 200	50.0 250	75.0	100
Methyl tert-butyl ether	FB	Ave	32782 1137208	168750 1277687	351687 1599850	498829	668767	5.00 175	25.0 200	50.0 250	75.0	100
Hexane	FB	Ave	17173 641372	99179 730587	201761 863925	294623	382026	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethane	FB	Ave	22688 791340	124748 892754	250709 1097957	357941	463249	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl acetate	FB	Ave	22224 813773	124882 920108	247447 1167757	354644	482877	5.00 175	25.0 200	50.0 250	75.0	100
2,2-Dichloropropane	FB	Ave	12860 460557	82003 514868	152109 613165	220411	283273	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,2-Dichloroethene	FB	Ave	12859 458996	70338 515559	140653 638803	202864	270490	5.00 175	25.0 200	50.0 250	75.0	100
2-Butanone (MEK)	FB	Ave	29322 405849	70196 433920	123236 602303	162114	243152	25.0 350	50.0 400	100 500	150	200
Bromochloromethane	FB	Ave	5510 187177	28786 214350	55765 269656	83995	108079	5.00 175	25.0 200	50.0 250	75.0	100
Tetrahydrofuran	FB	Ave	10096 252879	40908 292739	84484 406653	102313	162987	10.0 350	50.0 400	100 500	150	200
Chloroform	FB	Ave	21166 701553	106387 794529	219008 983614	317928	418252	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1-Trichloroethane	FB	Ave	15282 551963	89741 637944	179626 765914	266824	333856	5.00 175	25.0 200	50.0 250	75.0	100
Cyclohexane	FB	Ave	22381 825734	132691 940533	270504 1090502	393783	499925	5.00 175	25.0 200	50.0 250	75.0	100
Carbon tetrachloride	FB	Ave	10784 464285	72050 540246	144754 647100	210787	279676	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloropropene	FB	Ave	15189 565138	88172 643461	178499 767529	264793	339413	5.00 175	25.0 200	50.0 250	75.0	100
Isobutyl alcohol	FB	Ave	8501 229140	36993 259634	81817 379056	96836	155112	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.: 180-59576-1

Analy Batch No.: 189445

SDG No.: _____

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 09/28/2016 14:27

Calibration End Date: 09/28/2016 18:27

Calibration ID: 33005

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
Benzene	FB	Ave	46937 1572726	254127 1757741	508467 2148048	714707	935681	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane	FB	Ave	16526 563911	83155 645294	168180 815576	241844	329629	5.00 175	25.0 200	50.0 250	75.0	100
n-Heptane	FB	Ave	13473 538032	84810 596259	169187 733636	240879	321049	5.00 175	25.0 200	50.0 250	75.0	100
Trichloroethene	FB	Ave	10635 391355	59752 442295	124282 555599	174968	233451	5.00 175	25.0 200	50.0 250	75.0	100
Methylcyclohexane	FB	Ave	16654 690668	111705 783449	227665 916346	323290	423059	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloropropane	FB	Ave	12079 413907	60459 459878	127630 584173	177506	240411	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dioxane	FB	Ave	1385 57759	7674 68092	18703 91056	25174	35757	100 3500	500 4000	1000 5000	1500	2000
Dibromomethane	FB	Ave	5718 222830	31017 246884	64533 319168	92045	128114	5.00 175	25.0 200	50.0 250	75.0	100
Bromodichloromethane	FB	Ave	11721 469062	65568 528051	134689 666672	196174	269493	5.00 175	25.0 200	50.0 250	75.0	100
2-Chloroethyl vinyl ether	FB	Ave	11777 448780	66368 489958	129983 639029	180791	252919	10.0 350	50.0 400	100 500	150	200
cis-1,3-Dichloropropene	FB	Ave	15312 602623	86393 663457	179881 857554	251659	341854	5.00 175	25.0 200	50.0 250	75.0	100
4-Methyl-2-pentanone (MIBK)	CBNZ d5	Ave	54694 797589	122588 926821	244850 1178935	335198	480094	25.0 350	50.0 400	100 500	150	200
Toluene	CBNZ d5	Ave	45382 1540826	250517 1682347	513370 2059034	700271	950725	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,3-Dichloropropene	CBNZ d5	Ave	12118 512837	70888 584449	151244 755849	208912	299065	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl methacrylate	CBNZ d5	Ave	13431 498267	71631 545625	147016 715550	204867	289004	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloroethane	CBNZ d5	Ave	8474 296021	43600 325970	89462 421462	126179	174528	5.00 175	25.0 200	50.0 250	75.0	100
Tetrachloroethene	CBNZ d5	Ave	7305 286294	46107 322489	95806 390254	128065	174830	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichloropropane	CBNZ d5	Ave	16097 557979	80387 615623	173194 796390	236331	327449	5.00 175	25.0 200	50.0 250	75.0	100
2-Hexanone	CBNZ d5	Ave	40910 641023	95392 727168	199013 940605	268740	390723	25.0 350	50.0 400	100 500	150	200
Dibromochloromethane	CBNZ d5	Ave	6748 284965	38264 322398	80861 421891	116382	163509	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromoethane (EDB)	CBNZ d5	Ave	7864 302382	43786 336816	94484 433724	128036	177281	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.: 180-59576-1

Analy Batch No.: 189445

SDG No.: _____

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 09/28/2016 14:27

Calibration End Date: 09/28/2016 18:27

Calibration ID: 33005

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-Chlorobenzotrifluoride	CBNZ d5	Ave	13837 501052	86089 568861	167629 674810	221872	325187	5.00 175	25.0 200	50.0 250	75.0	100
Chlorobenzene	CBNZ d5	Ave	26456 935674	151578 1038308	307016 1283875	415228	573529	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorobenzotrifluoride	CBNZ d5	Ave	12658 474811	78935 535427	157585 634675	214343	302880	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	7397 301837	43847 339798	93667 431610	129328	184241	5.00 175	25.0 200	50.0 250	75.0	100
Ethylbenzene	CBNZ d5	Ave	16069 535707	89774 588956	179081 724283	237960	338139	5.00 175	25.0 200	50.0 250	75.0	100
m-Xylene & p-Xylene	CBNZ d5	Ave	19703 660431	104122 732214	220203 894138	295041	410611	5.00 175	25.0 200	50.0 250	75.0	100
o-Xylene	CBNZ d5	Ave	17636 606481	97527 669468	208318 820686	272213	386886	5.00 175	25.0 200	50.0 250	75.0	100
Styrene	CBNZ d5	Ave	29999 1024166	160769 1137392	338771 1373671	455350	640914	5.00 175	25.0 200	50.0 250	75.0	100
Bromoform	CBNZ d5	Ave	3716 173705	21420 196974	46454 250642	66096	98575	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorobenzotrifluoride	CBNZ d5	Ave	12925 445699	77098 515937	153686 601185	205934	298914	5.00 175	25.0 200	50.0 250	75.0	100
Isopropylbenzene	CBNZ d5	Ave	42152 1438617	254712 1601919	521363 1856126	680086	965945	5.00 175	25.0 200	50.0 250	75.0	100
Bromobenzene	DCBd 4	Ave	10402 335108	51813 372499	111101 457221	148563	210327	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2,2-Tetrachloroethane	CBNZ d5	Ave	9429 350916	53467 388860	112400 478532	151754	214426	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	2747 142073	18793 162235	39794 199562	56147	82182	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichloropropane	DCBd 4	Ave	3025 120795	18550 135370	37807 167416	48188	73005	5.00 175	25.0 200	50.0 250	75.0	100
N-Propylbenzene	DCBd 4	Ave	11655 391139	64388 449479	137883 520622	178470	260318	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorotoluene	DCBd 4	Ave	10182 328722	52704 366676	111988 433970	145432	214825	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorotoluene	DCBd 4	Ave	9964 347023	59357 407541	120089 476276	156751	228591	5.00 175	25.0 200	50.0 250	75.0	100
1,3,5-Trimethylbenzene	DCBd 4	Ave	29123 1031283	176655 1170104	380898 1331948	487495	689771	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorotoluene	DCBd 4	Ave	10396 341659	55960 388183	115660 451546	160629	217267	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butylbenzene	DCBd 4	Ave	25244 848792	151423 976167	317495 1105106	413561	576505	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.: 180-59576-1

Analy Batch No.: 189445

SDG No.: _____

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 09/28/2016 14:27

Calibration End Date: 09/28/2016 18:27

Calibration ID: 33005

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
1,2,4-Trimethylbenzene	DCBd 4	Ave	29985 1025893	171063 1182727	368535 1331907	485092	687986	5.00 175	25.0 200	50.0 250	75.0	100
3,4-Dichlorobenzotrifluoride	DCBd 4	Ave	8464 275283	49672 332649	97070 363317	129124	191586	5.00 175	25.0 200	50.0 250	75.0	100
sec-Butylbenzene	DCBd 4	Ave	34789 1164794	208489 1346555	438571 1495442	577107	801000	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichlorobenzene	DCBd 4	Ave	16420 527038	84410 617701	180357 701021	241806	344274	5.00 175	25.0 200	50.0 250	75.0	100
4-Isopropyltoluene	DCBd 4	Ave	26302 922428	162536 1081141	348072 1189271	456389	633830	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dichlorobenzene	DCBd 4	Ave	16558 532535	82805 619510	177659 697625	240218	335734	5.00 175	25.0 200	50.0 250	75.0	100
2,4-Dichlorobenzotrifluoride	DCBd 4	Ave	6308 236466	43021 288217	86084 308481	112177	165788	5.00 175	25.0 200	50.0 250	75.0	100
2,5-Dichlorobenzotrifluoride	DCBd 4	Ave	9059 275343	44137 325609	94133 353135	128604	185607	5.00 175	25.0 200	50.0 250	75.0	100
n-Butylbenzene	DCBd 4	Ave	20495 799943	131735 954056	283992 1020867	382904	532308	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichlorobenzene	DCBd 4	Ave	13956 439306	69358 526341	149684 574668	206824	286425	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	1024 51968	6383 59793	14522 65712	20490	28259	5.00 175	25.0 200	50.0 250	75.0	100
2,4- & 2,5- & 2,6- Dichlorotoluene	DCBd 4	Ave	23542 895681	132895 1134530	279843 1083822	416963	544542	15.0 525	75.0 600	150 750	225	300
2,3- & 3,4- Dichlorotoluene	DCBd 4	Ave	14548 612541	82991 781028	174489 731951	272209	344803	10.0 350	50.0 400	100 500	150	200
1,2,4-Trichlorobenzene	DCBd 4	Ave	5366 224849	27384 283129	56350 270525	96525	110342	5.00 175	25.0 200	50.0 250	75.0	100
Hexachlorobutadiene	DCBd 4	Ave	2527 108209	13462 128089	29481 124544	50527	55279	5.00 175	25.0 200	50.0 250	75.0	100
Naphthalene	DCBd 4	Ave	13972 673501	78002 818645	162362 816381	288344	340708	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichlorobenzene	DCBd 4	Ave	4178 213098	24495 262521	48849 253424	90239	95882	5.00 175	25.0 200	50.0 250	75.0	100
2,4,5-Trichlorotoluene	DCBd 4	Qua	3426 181305	19332 211177	38901 259688	74862	84846	5.00 175	25.0 200	50.0 250	75.0	100
2,3,6-Trichlorotoluene	DCBd 4	Ave	3673 160030	19008 197483	38254 236633	68694	76660	5.00 175	25.0 200	50.0 250	75.0	100
Dibromofluoromethane (Surr)	FB	Ave	9367 305502	49937 352514	95843 439137	135786	183477	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	14000 411914	66838 469162	128063 601271	180965	239641	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.: 180-59576-1 Analy Batch No.: 189445

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/28/2016 14:27 Calibration End Date: 09/28/2016 18:27 Calibration ID: 33005

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		
Toluene-d8 (Surr)	CBNZ d5	Ave	39324 1131749	209241 1278630	397523 1570018	525578	701950	5.00 175	25.0 200	50.0 250	75.0	100
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	15772 415635	72842 474859	145407 575151	187031	264099	5.00 175	25.0 200	50.0 250	75.0	100

Curve Type Legend:

Ave = Average ISTD
Qua = Quadratic ISTD

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1 Analy Batch No.: 189445

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/28/2016 14:27 Calibration End Date: 09/28/2016 18:27 Calibration ID: 33005

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-189445/15	50928015.D
Level 2	IC 180-189445/5	50928005.D
Level 3	ICIS 180-189445/6	50928006.D
Level 4	IC 180-189445/7	50928007.D
Level 5	IC 180-189445/8	50928008.D
Level 6	IC 180-189445/9	50928009.D
Level 7	IC 180-189445/10	50928010.D
Level 8	IC 180-189445/11	50928011.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				
2,4,5-Trichlorotoluene	6.5	-1.5	-6.3	14.6	-10.5	2.4	70	70	70	70	70	70
	-0.8	-0.1					70	70				

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928005.D
 Lims ID: IC VSTD5
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 28-Sep-2016 14:27:30 ALS Bottle#: 5 Worklist Smp#: 5
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013640-005
 Misc. Info.: IC VSTD5
 Operator ID: 001562 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 29-Sep-2016 11:05:14 Calib Date: 28-Sep-2016 18:27:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928015.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK034

First Level Reviewer: fergusond

Date: 29-Sep-2016 09:00:57

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.278	4.275	0.003	0	146143	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.278	7.280	-0.002	97	451578	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.380	10.376	0.004	89	94097	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.725	0.003	98	103205	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.554	6.556	-0.002	93	49937	25.0	24.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.925	6.927	-0.002	0	66838	25.0	24.2	
\$ 7 Toluene-d8 (Surr)	98	8.926	8.922	0.004	93	209241	25.0	28.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.566	11.563	0.003	85	72842	25.0	26.6	
11 Dichlorodifluoromethane	85	1.620	1.616	0.004	98	71866	25.0	24.2	
12 Chloromethane	50	1.766	1.756	0.010	99	82217	25.0	23.9	
13 Vinyl chloride	62	1.900	1.896	0.004	98	67290	25.0	24.0	
14 Butadiene	39	1.936	1.926	0.010	99	81965	25.0	26.0	
15 Bromomethane	94	2.247	2.249	-0.003	91	28423	25.0	23.4	
16 Chloroethane	64	2.374	2.377	-0.003	98	41381	25.0	23.6	
17 Dichlorofluoromethane	67	2.660	2.657	0.004	97	86050	25.0	23.2	
18 Trichlorofluoromethane	101	2.685	2.669	0.016	90	64906	25.0	24.5	
20 Ethyl ether	59	3.050	3.046	0.004	95	50880	25.0	22.2	
21 Acrolein	56	3.226	3.222	0.004	97	63295	125.0	120.2	
22 1,1-Dichloroethene	96	3.335	3.338	-0.003	96	63024	25.0	24.6	
23 1,1,2-Trichloro-1,2,2-trif	101	3.390	3.393	-0.003	93	61838	25.0	24.0	
24 Acetone	43	3.445	3.441	0.004	98	46330	50.0	52.3	
25 Iodomethane	142	3.530	3.533	-0.003	98	89104	25.0	24.3	
26 Carbon disulfide	76	3.621	3.624	-0.003	99	168464	25.0	24.4	
28 3-Chloro-1-propene	76	3.901	3.916	-0.015	87	39908	25.0	23.7	
30 Methyl acetate	43	3.938	3.934	0.004	99	249111	125.0	114.3	
31 Methylene Chloride	84	4.132	4.135	-0.003	98	70608	25.0	23.8	
32 2-Methyl-2-propanol	59	4.418	4.402	0.016	97	43687	250.0	267.2	
33 Acrylonitrile	53	4.522	4.518	0.004	98	251919	250.0	238.4	
34 trans-1,2-Dichloroethene	96	4.552	4.555	-0.003	96	64137	25.0	24.5	
35 Methyl tert-butyl ether	73	4.576	4.573	0.003	99	168750	25.0	23.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.972	4.974	-0.002	95	99179	25.0	23.9	
37 1,1-Dichloroethane	63	5.191	5.187	0.004	97	124748	25.0	24.2	
38 Vinyl acetate	43	5.240	5.242	-0.002	97	124882	25.0	23.8	
44 2,2-Dichloropropane	77	5.933	5.935	-0.002	67	82003	25.0	26.6	
45 cis-1,2-Dichloroethene	96	5.939	5.942	-0.003	85	70338	25.0	23.8	
46 2-Butanone (MEK)	43	5.957	5.960	-0.003	98	70196	50.0	53.1	
49 Chlorobromomethane	128	6.225	6.221	0.004	95	28786	25.0	23.6	
51 Tetrahydrofuran	42	6.249	6.246	0.003	93	40908	50.0	45.7	
52 Chloroform	83	6.371	6.374	-0.003	96	106387	25.0	23.1	
53 1,1,1-Trichloroethane	97	6.529	6.526	0.003	98	89741	25.0	24.5	
54 Cyclohexane	56	6.596	6.599	-0.003	95	132691	25.0	24.5	
56 Carbon tetrachloride	117	6.700	6.702	-0.002	91	72050	25.0	24.3	
55 1,1-Dichloropropene	75	6.718	6.714	0.004	90	88172	25.0	24.0	
57 Isobutyl alcohol	41	6.925	6.927	-0.002	43	36993	625.0	565.5	
58 Benzene	78	6.931	6.933	-0.002	97	254127	25.0	24.5	
59 1,2-Dichloroethane	62	7.010	7.012	-0.002	97	83155	25.0	22.9	
62 n-Heptane	43	7.290	7.292	-0.002	95	84810	25.0	24.7	
64 Trichloroethene	130	7.661	7.663	-0.002	95	59752	25.0	23.5	
66 Methylcyclohexane	83	7.898	7.900	-0.002	92	111705	25.0	25.0	
67 1,2-Dichloropropane	63	7.941	7.937	0.004	93	60459	25.0	22.8	
68 Dibromomethane	93	8.026	8.028	-0.002	96	31017	25.0	22.4	
70 1,4-Dioxane	88	8.026	8.022	0.004	40	7674	500.0	412.2	
71 Dichlorobromomethane	83	8.220	8.223	-0.003	97	65568	25.0	22.6	
73 2-Chloroethyl vinyl ether	63	8.519	8.521	-0.002	92	66368	50.0	47.6	
74 cis-1,3-Dichloropropene	75	8.665	8.667	-0.002	91	86393	25.0	23.0	
75 4-Methyl-2-pentanone (MIBK)	43	8.823	8.819	0.004	99	122588	50.0	50.9	
76 Toluene	91	8.993	8.989	0.004	97	250517	25.0	26.4	
77 trans-1,3-Dichloropropene	75	9.242	9.239	0.003	99	70888	25.0	24.0	
78 Ethyl methacrylate	69	9.303	9.300	0.003	92	71631	25.0	24.6	
79 1,1,2-Trichloroethane	97	9.437	9.433	0.004	93	43600	25.0	24.7	
80 Tetrachloroethene	164	9.504	9.506	-0.002	94	46107	25.0	26.6	
81 1,3-Dichloropropane	76	9.595	9.592	0.003	97	80387	25.0	24.2	
82 2-Hexanone	43	9.650	9.652	-0.002	98	95392	50.0	50.0	
84 Chlorodibromomethane	129	9.808	9.811	-0.003	91	38264	25.0	23.5	
85 Ethylene Dibromide	107	9.924	9.920	0.004	99	43786	25.0	24.5	
86 3-Chlorobenzotrifluoride	180	10.380	10.383	-0.002	90	86089	25.0	27.7	
87 Chlorobenzene	112	10.411	10.407	0.004	93	151578	25.0	26.5	
88 4-Chlorobenzotrifluoride	180	10.471	10.468	0.003	96	78935	25.0	27.1	
89 1,1,1,2-Tetrachloroethane	131	10.508	10.498	0.010	89	43847	25.0	24.6	
90 Ethylbenzene	106	10.508	10.504	0.004	98	89774	25.0	27.0	
91 m-Xylene & p-Xylene	106	10.642	10.638	0.004	0	104122	25.0	25.6	
92 o-Xylene	106	11.019	11.015	0.004	97	97527	25.0	25.9	
93 Styrene	104	11.043	11.040	0.003	95	160769	25.0	25.6	
94 Bromoform	173	11.226	11.228	-0.002	95	21420	25.0	22.5	
96 2-Chlorobenzotrifluoride	180	11.293	11.289	0.004	96	77098	25.0	27.2	
97 Isopropylbenzene	105	11.384	11.386	-0.002	96	254712	25.0	27.7	
100 Bromobenzene	156	11.700	11.703	-0.003	96	51813	25.0	23.6	
99 1,1,2,2-Tetrachloroethane	83	11.700	11.703	-0.003	74	53467	25.0	25.5	
102 trans-1,4-Dichloro-2-buten	53	11.737	11.733	0.004	81	18793	25.0	22.6	
101 1,2,3-Trichloropropane	110	11.761	11.757	0.004	88	18550	25.0	24.7	
103 N-Propylbenzene	120	11.804	11.806	-0.002	99	64388	25.0	24.6	
104 2-Chlorotoluene	126	11.895	11.891	0.004	95	52704	25.0	24.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.956	11.958	-0.002	96	59357	25.0	25.5	
106 1,3,5-Trimethylbenzene	105	11.986	11.989	-0.003	95	176655	25.0	25.5	
107 4-Chlorotoluene	126	12.017	12.013	0.004	99	55960	25.0	24.7	
108 tert-Butylbenzene	119	12.302	12.299	0.003	93	151423	25.0	26.0	
110 1,2,4-Trimethylbenzene	105	12.363	12.360	0.003	98	171063	25.0	24.8	
111 1,2-dichloro-4-(trifluorom	214	12.406	12.402	0.004	97	49672	25.0	26.2	
112 sec-Butylbenzene	105	12.521	12.524	-0.003	95	208489	25.0	26.0	
113 1,3-Dichlorobenzene	146	12.643	12.639	0.004	96	84410	25.0	24.0	
114 4-Isopropyltoluene	119	12.680	12.682	-0.002	96	162536	25.0	25.7	
115 1,4-Dichlorobenzene	146	12.747	12.749	-0.002	94	82805	25.0	23.7	
116 2,4-Dichloro-1-(trifluorom	214	12.771	12.773	-0.002	95	43021	25.0	26.7	
118 2,5-Dichlorobenzotrifluori	214	12.813	12.816	-0.003	0	44137	25.0	23.8	
120 n-Butylbenzene	91	13.087	13.090	-0.003	98	131735	25.0	24.9	
121 1,2-Dichlorobenzene	146	13.099	13.102	-0.003	93	69358	25.0	23.5	
122 1,2-Dibromo-3-Chloropropan	75	13.890	13.899	-0.009	76	6383	25.0	21.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.036	14.033	0.003	0	132895	75.0	70.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.456	14.452	0.004	0	82991	50.0	44.8	
126 1,2,4-Trichlorobenzene	180	14.718	14.720	-0.002	93	27384	25.0	21.1	
127 Hexachlorobutadiene	225	14.858	14.866	-0.008	95	13462	25.0	21.3	
128 Naphthalene	128	14.985	14.982	0.003	97	78002	25.0	20.6	
129 1,2,3-Trichlorobenzene	180	15.210	15.207	0.003	95	24495	25.0	21.0	
131 2,4,5-Trichlorotoluene	159	15.989	15.985	0.004	0	19332	25.0	24.6	
130 2,3,6-Trichlorotoluene	159	16.086	16.083	0.003	96	19008	25.0	20.3	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		50.0	51.5	
S 134 1,2-Dichloroethene, Total	96				0		50.0	48.3	
S 135 1,3-Dichloropropene, Total	1				0		50.0	47.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWAcro1stRe_00008	Amount Added: 5.00	Units: uL	
VOA8260SURR_00059	Amount Added: 1.00	Units: uL	
voaWVA1stRest_00008	Amount Added: 1.00	Units: uL	
voaWKetPriRes_00002	Amount Added: 1.00	Units: uL	
voaWEEmixRest_00001	Amount Added: 1.00	Units: uL	
voaW2CLEReste_00001	Amount Added: 1.00	Units: uL	
VOA8260VOAPRI_00213	Amount Added: 1.00	Units: uL	
VOA8260INT_00061	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928005.D

Injection Date: 28-Sep-2016 14:27:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD5

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

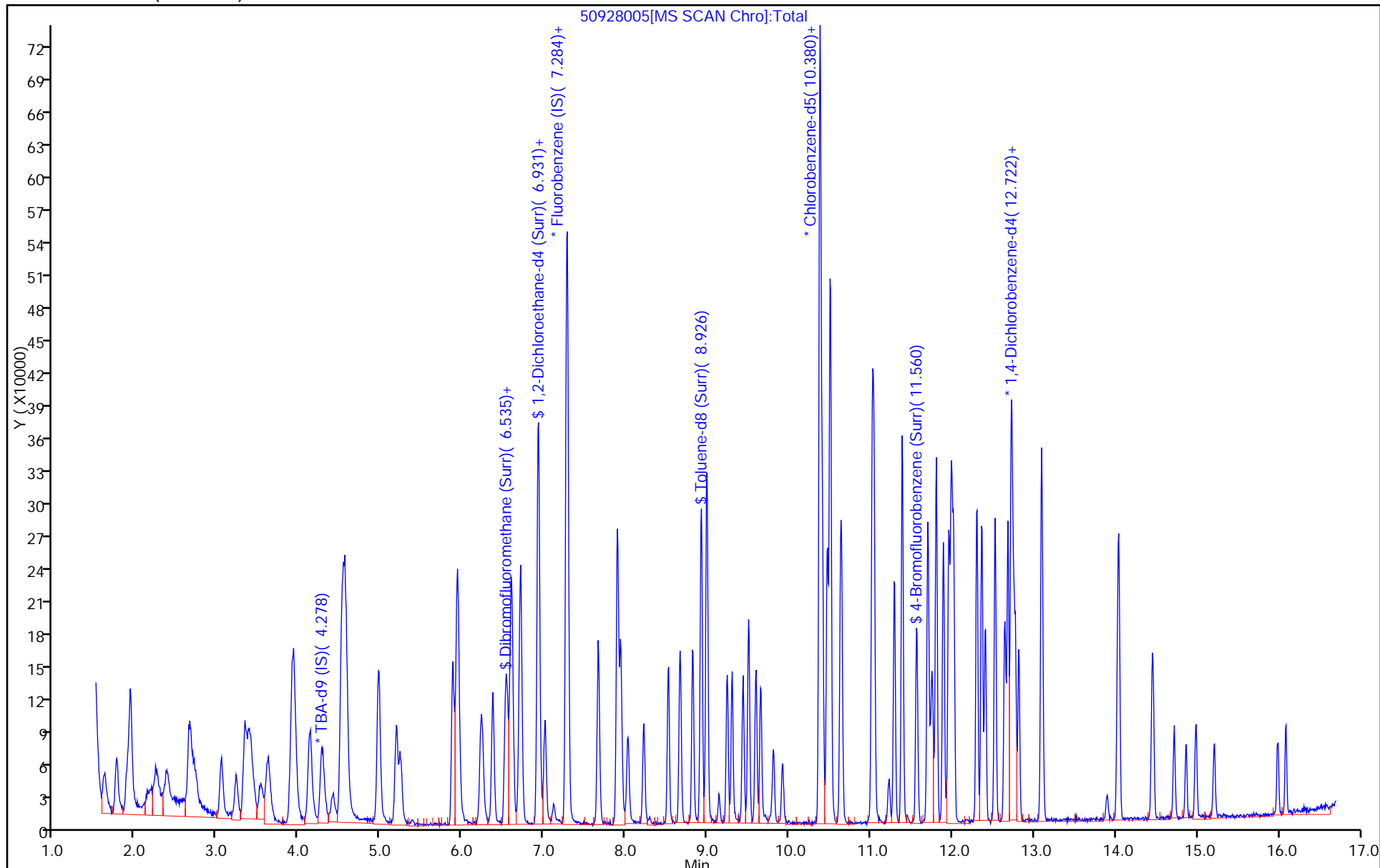
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928006.D
 Lims ID: ICIS VSTD10
 Client ID:
 Sample Type: ICIS Calib Level: 3
 Inject. Date: 28-Sep-2016 14:51:30 ALS Bottle#: 6 Worklist Smp#: 6
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013640-006
 Misc. Info.: ICIS VSTD10
 Operator ID: 001562 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 29-Sep-2016 11:04:48 Calib Date: 28-Sep-2016 18:27:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928015.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK034

First Level Reviewer: fergusond

Date: 29-Sep-2016 08:02:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.271	4.271	0.000	0	153984	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.276	7.276	0.000	98	430453	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.379	10.379	0.000	89	94247	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.721	12.721	0.000	96	102520	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.552	6.552	0.000	92	95843	50.0	49.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.923	6.923	0.000	0	128063	50.0	48.5	
\$ 7 Toluene-d8 (Surr)	98	8.925	8.925	0.000	94	397523	50.0	53.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.565	11.565	0.000	87	145407	50.0	53.1	
11 Dichlorodifluoromethane	85	1.613	1.613	0.000	98	149434	50.0	52.7	
12 Chloromethane	50	1.765	1.765	0.000	99	166785	50.0	50.8	
13 Vinyl chloride	62	1.899	1.899	0.000	98	142059	50.0	53.2	
14 Butadiene	39	1.935	1.935	0.000	96	159499	50.0	53.0	
15 Bromomethane	94	2.251	2.251	0.000	92	57020	50.0	49.2	
16 Chloroethane	64	2.385	2.385	0.000	99	82913	50.0	49.5	
17 Dichlorofluoromethane	67	2.659	2.659	0.000	96	170288	50.0	48.3	
18 Trichlorofluoromethane	101	2.665	2.665	0.000	56	131129	50.0	52.0	
20 Ethyl ether	59	3.042	3.042	0.000	96	105303	50.0	48.2	
21 Acrolein	56	3.225	3.225	0.000	99	76305	150.0	152.1	
22 1,1-Dichloroethene	96	3.340	3.340	0.000	95	125340	50.0	51.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.401	3.401	0.000	95	130777	50.0	53.2	
24 Acetone	43	3.450	3.450	0.000	100	93351	100.0	110.6	
25 Iodomethane	142	3.523	3.523	0.000	98	175284	50.0	50.2	
26 Carbon disulfide	76	3.620	3.620	0.000	100	344904	50.0	52.5	
28 3-Chloro-1-propene	76	3.918	3.918	0.000	88	81088	50.0	50.5	
30 Methyl acetate	43	3.936	3.936	0.000	99	513733	250.0	247.3	
31 Methylene Chloride	84	4.125	4.125	0.000	98	136351	50.0	48.1	
32 2-Methyl-2-propanol	59	4.405	4.405	0.000	97	91791	500.0	532.9	
33 Acrylonitrile	53	4.520	4.520	0.000	99	506135	500.0	502.4	
34 trans-1,2-Dichloroethene	96	4.551	4.551	0.000	96	128097	50.0	51.3	
35 Methyl tert-butyl ether	73	4.575	4.575	0.000	99	351687	50.0	50.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.971	4.971	0.000	95	201761	50.0	51.1	
37 1,1-Dichloroethane	63	5.190	5.190	0.000	97	250709	50.0	50.9	
38 Vinyl acetate	43	5.244	5.244	0.000	97	247447	50.0	49.5	
44 2,2-Dichloropropane	77	5.932	5.932	0.000	86	152109	50.0	51.8	
45 cis-1,2-Dichloroethene	96	5.938	5.938	0.000	85	140653	50.0	49.9	
46 2-Butanone (MEK)	43	5.956	5.956	0.000	99	123236	100.0	97.8	
49 Chlorobromomethane	128	6.224	6.224	0.000	93	55765	50.0	48.0	
51 Tetrahydrofuran	42	6.242	6.242	0.000	90	84484	100.0	99.0	
52 Chloroform	83	6.370	6.370	0.000	96	219008	50.0	49.9	
53 1,1,1-Trichloroethane	97	6.528	6.528	0.000	98	179626	50.0	51.4	
54 Cyclohexane	56	6.595	6.595	0.000	95	270504	50.0	52.4	
56 Carbon tetrachloride	117	6.698	6.698	0.000	94	144754	50.0	51.2	
55 1,1-Dichloropropene	75	6.717	6.717	0.000	91	178499	50.0	51.0	
57 Isobutyl alcohol	41	6.930	6.930	0.000	81	81817	1250.0	1312.2	M
58 Benzene	78	6.930	6.930	0.000	98	508467	50.0	51.4	
59 1,2-Dichloroethane	62	7.009	7.009	0.000	97	168180	50.0	48.5	
62 n-Heptane	43	7.288	7.288	0.000	93	169187	50.0	51.6	
64 Trichloroethene	130	7.666	7.666	0.000	97	124282	50.0	51.4	
66 Methylcyclohexane	83	7.897	7.897	0.000	96	227665	50.0	53.4	
67 1,2-Dichloropropane	63	7.939	7.939	0.000	93	127630	50.0	50.4	
70 1,4-Dioxane	88	8.018	8.018	0.000	40	18703	1000.0	1054.0	M
68 Dibromomethane	93	8.018	8.018	0.000	97	64533	50.0	49.0	
71 Dichlorobromomethane	83	8.219	8.219	0.000	98	134689	50.0	48.6	
73 2-Chloroethyl vinyl ether	63	8.523	8.523	0.000	94	129983	100.0	97.8	
74 cis-1,3-Dichloropropene	75	8.663	8.663	0.000	91	179881	50.0	50.3	
75 4-Methyl-2-pentanone (MIBK)	43	8.822	8.822	0.000	99	244850	100.0	101.5	
76 Toluene	91	8.992	8.992	0.000	98	513370	50.0	54.0	
77 trans-1,3-Dichloropropene	75	9.241	9.241	0.000	99	151244	50.0	51.1	
78 Ethyl methacrylate	69	9.302	9.302	0.000	91	147016	50.0	50.5	
79 1,1,2-Trichloroethane	97	9.436	9.436	0.000	93	89462	50.0	50.7	
80 Tetrachloroethene	164	9.503	9.503	0.000	94	95806	50.0	55.1	
81 1,3-Dichloropropane	76	9.594	9.594	0.000	96	173194	50.0	52.0	
82 2-Hexanone	43	9.649	9.649	0.000	98	199013	100.0	104.2	
84 Chlorodibromomethane	129	9.807	9.807	0.000	92	80861	50.0	49.7	
85 Ethylene Dibromide	107	9.917	9.917	0.000	97	94484	50.0	52.9	
86 3-Chlorobenzotrifluoride	180	10.379	10.379	0.000	87	167629	50.0	53.8	
87 Chlorobenzene	112	10.409	10.409	0.000	93	307016	50.0	53.5	
88 4-Chlorobenzotrifluoride	180	10.470	10.470	0.000	96	157585	50.0	54.0	
89 1,1,1,2-Tetrachloroethane	131	10.501	10.501	0.000	91	93667	50.0	52.6	
90 Ethylbenzene	106	10.507	10.507	0.000	99	179081	50.0	53.7	
91 m-Xylene & p-Xylene	106	10.640	10.640	0.000	0	220203	50.0	54.0	
92 o-Xylene	106	11.018	11.018	0.000	98	208318	50.0	55.3	
93 Styrene	104	11.042	11.042	0.000	96	338771	50.0	53.9	
94 Bromoform	173	11.224	11.224	0.000	93	46454	50.0	48.8	
96 2-Chlorobenzotrifluoride	180	11.291	11.291	0.000	96	153686	50.0	54.2	
97 Isopropylbenzene	105	11.389	11.389	0.000	97	521363	50.0	56.6	
100 Bromobenzene	156	11.699	11.699	0.000	96	111101	50.0	51.0	
99 1,1,2,2-Tetrachloroethane	83	11.705	11.705	0.000	94	112400	50.0	53.4	
102 trans-1,4-Dichloro-2-buten	53	11.735	11.735	0.000	83	39794	50.0	48.1	
101 1,2,3-Trichloropropane	110	11.760	11.760	0.000	87	37807	50.0	50.6	
103 N-Propylbenzene	120	11.802	11.802	0.000	99	137883	50.0	53.1	
104 2-Chlorotoluene	126	11.894	11.894	0.000	95	111988	50.0	52.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.954	11.954	0.000	96	120089	50.0	52.0	
106 1,3,5-Trimethylbenzene	105	11.985	11.985	0.000	93	380898	50.0	55.4	
107 4-Chlorotoluene	126	12.015	12.015	0.000	99	115660	50.0	51.4	
108 tert-Butylbenzene	119	12.301	12.301	0.000	93	317495	50.0	54.9	
110 1,2,4-Trimethylbenzene	105	12.362	12.362	0.000	98	368535	50.0	53.9	
111 1,2-dichloro-4-(trifluorom	214	12.405	12.405	0.000	97	97070	50.0	51.6	
112 sec-Butylbenzene	105	12.520	12.520	0.000	95	438571	50.0	55.0	
113 1,3-Dichlorobenzene	146	12.642	12.642	0.000	97	180357	50.0	51.6	
114 4-Isopropyltoluene	119	12.678	12.678	0.000	97	348072	50.0	55.4	
115 1,4-Dichlorobenzene	146	12.745	12.745	0.000	94	177659	50.0	51.1	
116 2,4-Dichloro-1-(trifluorom	214	12.770	12.770	0.000	96	86084	50.0	53.8	
118 2,5-Dichlorobenzotrifluori	214	12.812	12.812	0.000	0	94133	50.0	51.0	
120 n-Butylbenzene	91	13.092	13.092	0.000	98	283992	50.0	54.1	
121 1,2-Dichlorobenzene	146	13.104	13.104	0.000	95	149684	50.0	51.1	
122 1,2-Dibromo-3-Chloropropan	75	13.895	13.895	0.000	74	14522	50.0	49.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.035	14.035	0.000	0	279843	150.0	148.6	
125 2,3- & 3,4- Dichlorotoluen	125	14.455	14.455	0.000	0	174489	100.0	94.9	
126 1,2,4-Trichlorobenzene	180	14.716	14.716	0.000	94	56350	50.0	43.7	
127 Hexachlorobutadiene	225	14.862	14.862	0.000	95	29481	50.0	47.0	
128 Naphthalene	128	14.984	14.984	0.000	98	162362	50.0	43.2	
129 1,2,3-Trichlorobenzene	180	15.209	15.209	0.000	94	48849	50.0	42.2	
131 2,4,5-Trichlorotoluene	159	15.988	15.988	0.000	0	38901	50.0	46.8	
130 2,3,6-Trichlorotoluene	159	16.085	16.085	0.000	94	38254	50.0	41.2	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	109.3	
S 134 1,2-Dichloroethene, Total	96				0		100.0	101.2	
S 135 1,3-Dichloropropene, Total	1				0		100.0	101.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWAcro1stRe_00008	Amount Added: 6.00	Units: uL	
voaWVA1stRest_00008	Amount Added: 2.00	Units: uL	
voaWKetPriRes_00002	Amount Added: 2.00	Units: uL	
voaWEEmixRest_00001	Amount Added: 2.00	Units: uL	
voaW2CLEReste_00001	Amount Added: 2.00	Units: uL	
VOA8260VOAPRI_00213	Amount Added: 2.00	Units: uL	
VOA8260SURR_00059	Amount Added: 2.00	Units: uL	
VOA8260INT_00061	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928006.D

Injection Date: 28-Sep-2016 14:51:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: ICIS VSTD10

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

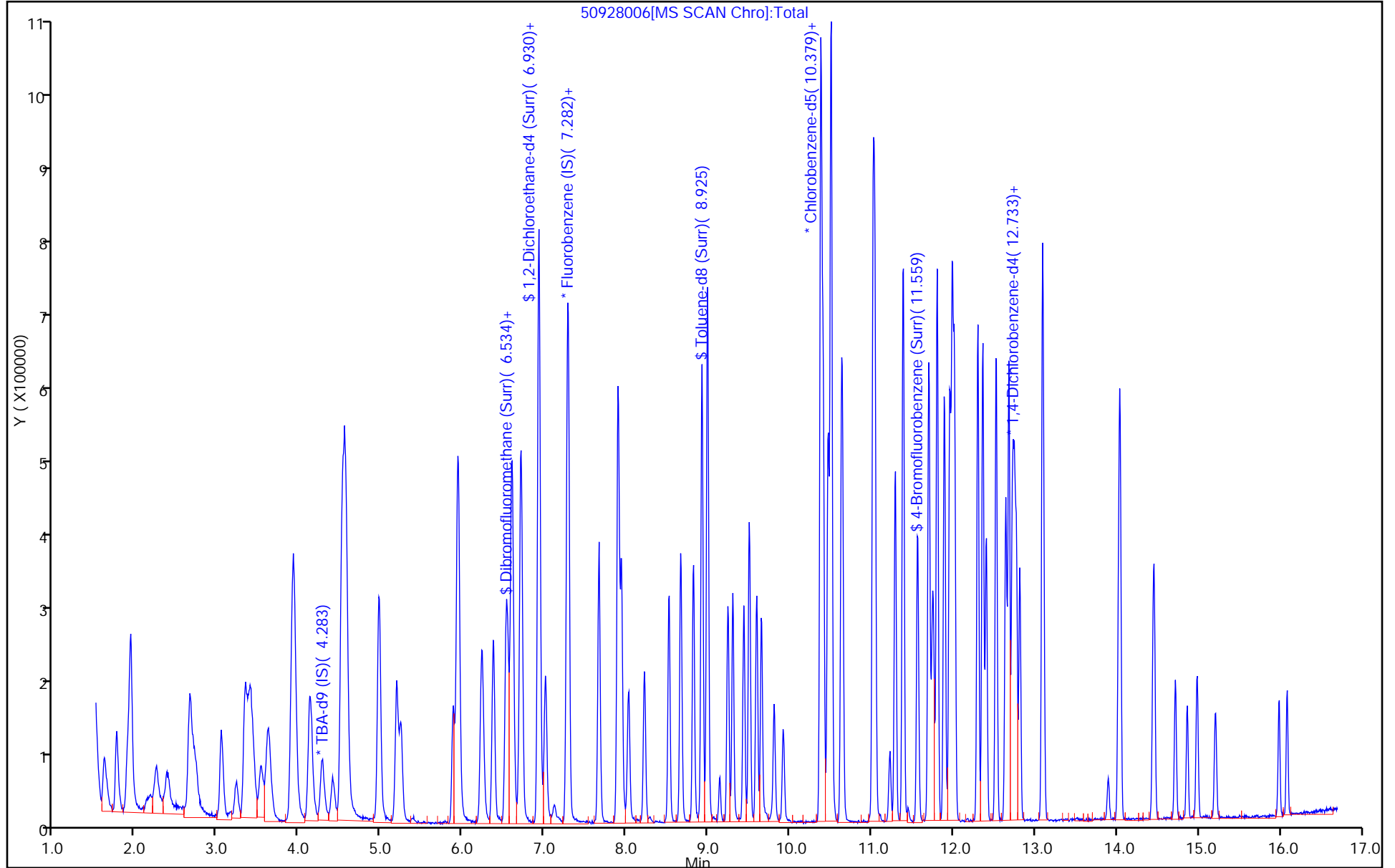
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

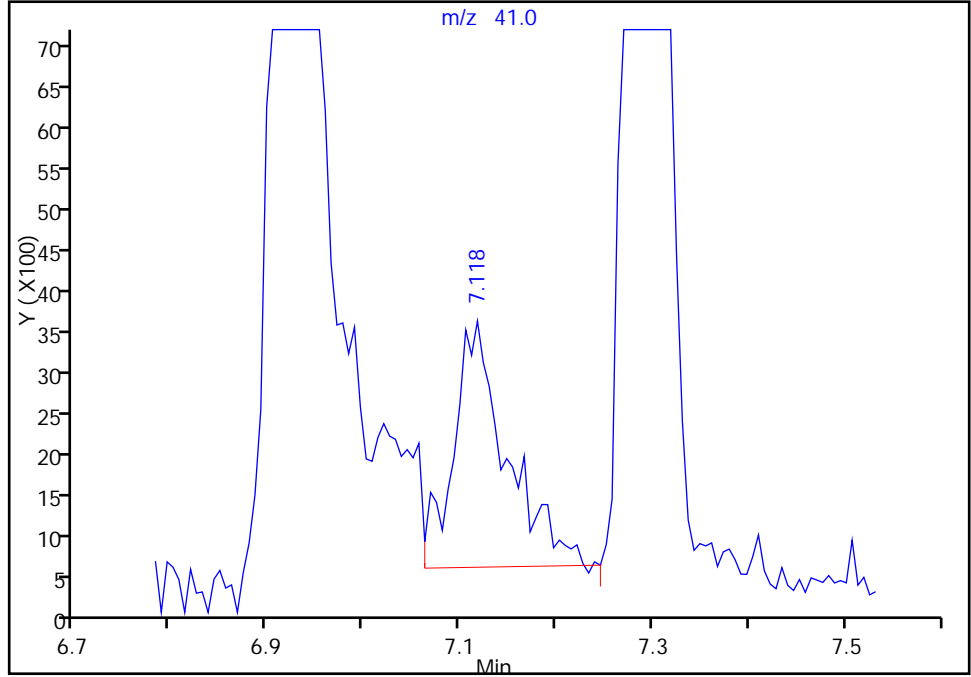
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Injection Date: 28-Sep-2016 14:51:30 Instrument ID: CHHP5
Lims ID: ICIS VSTD10
Client ID:
Operator ID: 001562 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

57 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

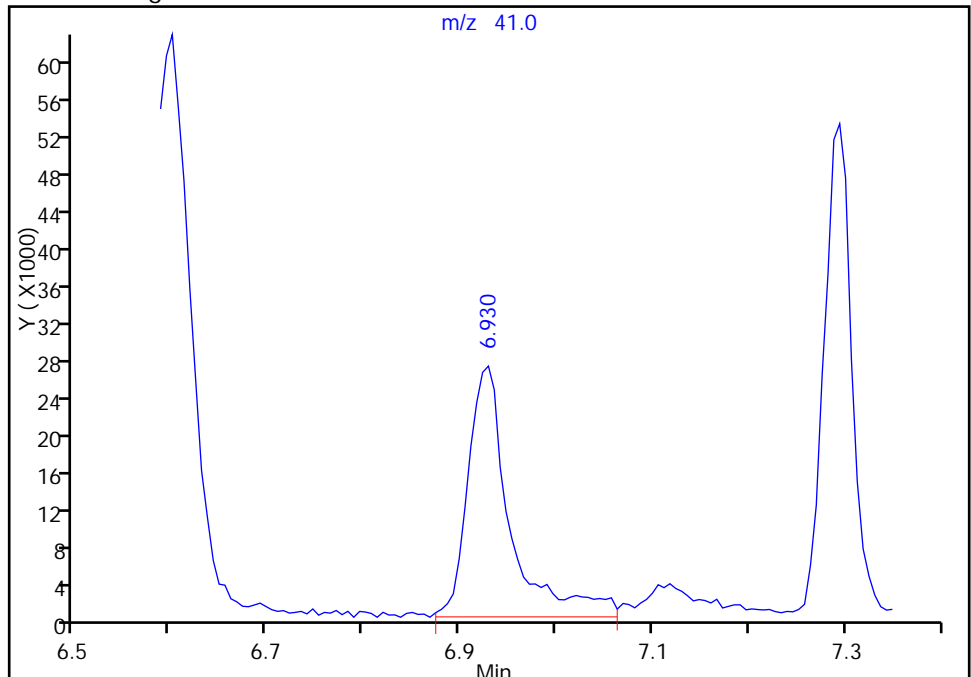
RT: 7.12
Area: 11560
Amount: 717.7616
Amount Units: ng

Processing Integration Results



RT: 6.93
Area: 81817
Amount: 1312.1903
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 29-Sep-2016 08:24:47

Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

TestAmerica Pittsburgh

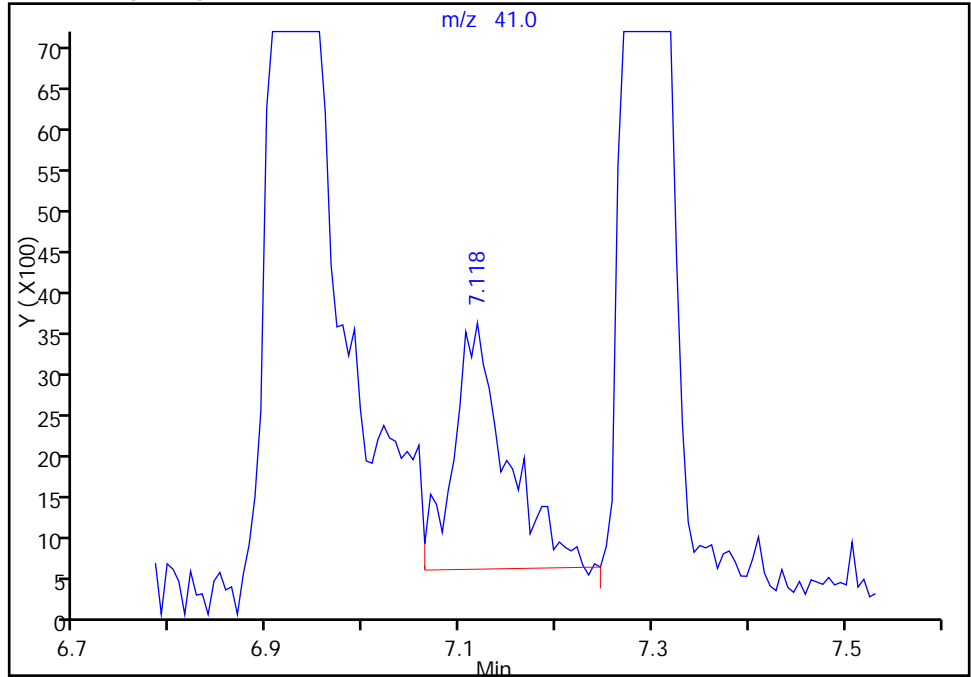
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Injection Date: 28-Sep-2016 14:51:30 Instrument ID: CHHP5
Lims ID: ICIS VSTD10
Client ID:
Operator ID: 001562 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

57 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

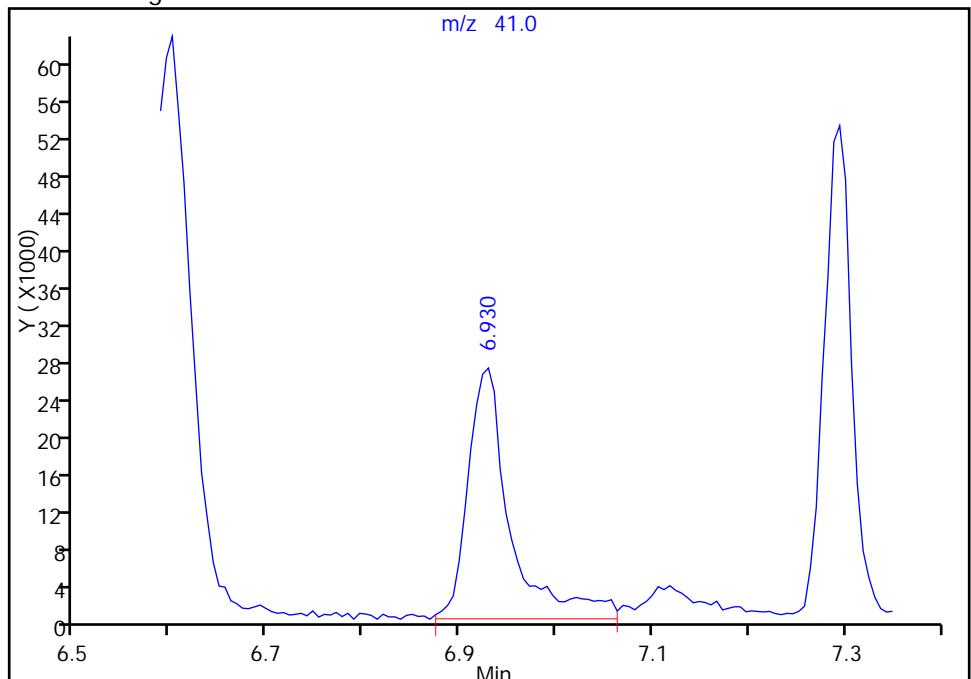
RT: 7.12
Area: 11560
Amount: 717.7616
Amount Units: ng

Processing Integration Results



RT: 6.93
Area: 81817
Amount: 1312.1903
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 29-Sep-2016 08:24:47

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

TestAmerica Pittsburgh

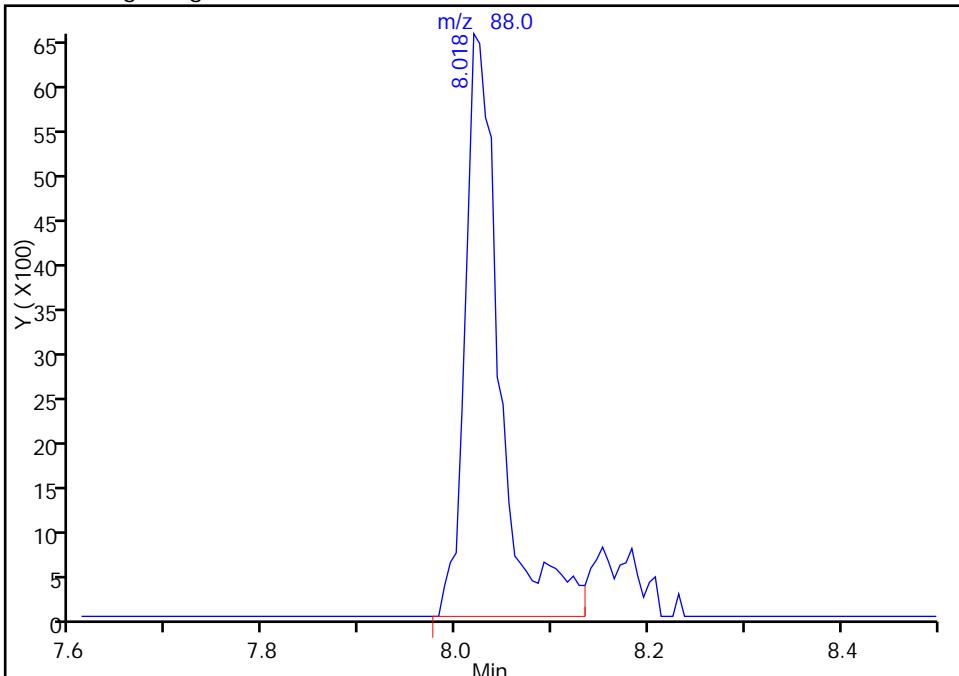
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Injection Date: 28-Sep-2016 14:51:30 Instrument ID: CHHP5
Lims ID: ICIS VSTD10
Client ID:
Operator ID: 001562 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

Signal: 1

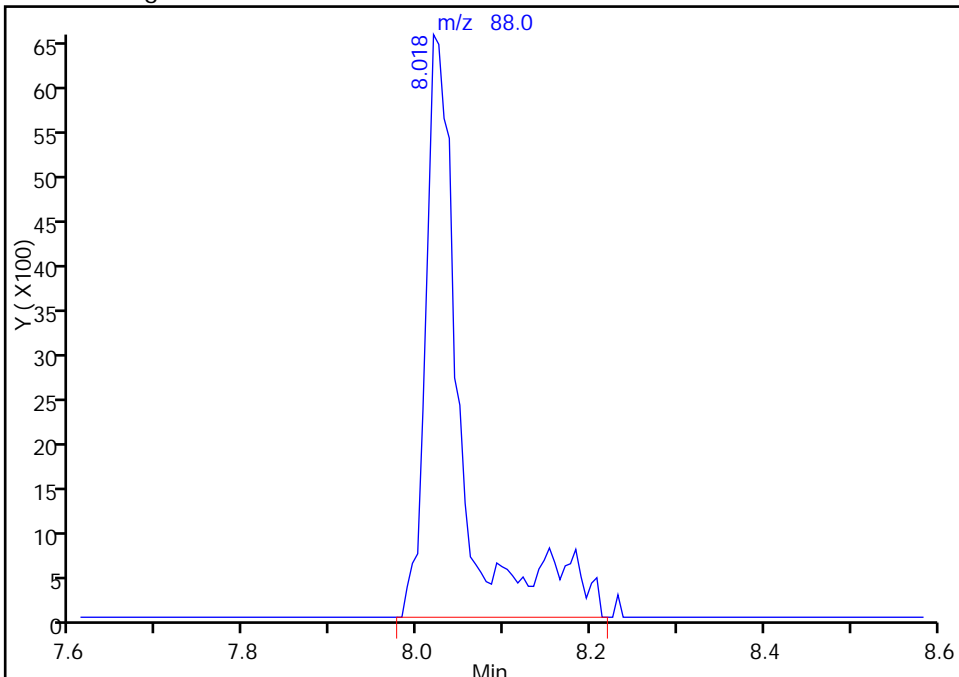
RT: 8.02
Area: 16360
Amount: 965.0116
Amount Units: ng

Processing Integration Results



RT: 8.02
Area: 18703
Amount: 1053.9638
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 29-Sep-2016 08:24:47
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928007.D
 Lims ID: IC VSTD15
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 28-Sep-2016 15:15:30 ALS Bottle#: 7 Worklist Smp#: 7
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013640-007
 Misc. Info.: IC VSTD15
 Operator ID: 001562 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 29-Sep-2016 10:33:41 Calib Date: 28-Sep-2016 18:27:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928015.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK034

First Level Reviewer: fergusond

Date: 29-Sep-2016 09:04:50

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.275	4.275	0.000	0	135429	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.280	7.280	0.000	98	426361	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.376	10.376	0.000	88	91991	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.725	12.725	0.000	94	96794	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.556	6.556	0.000	93	135786	75.0	70.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.927	6.927	0.000	0	180965	75.0	69.3	
\$ 7 Toluene-d8 (Surr)	98	8.922	8.922	0.000	94	525578	75.0	72.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.563	11.563	0.000	84	187031	75.0	69.9	
11 Dichlorodifluoromethane	85	1.616	1.616	0.000	99	233239	75.0	83.1	
12 Chloromethane	50	1.756	1.756	0.000	99	241116	75.0	74.1	
13 Vinyl chloride	62	1.896	1.896	0.000	84	205496	75.0	77.7	
14 Butadiene	39	1.926	1.926	0.000	96	231496	75.0	77.7	
15 Bromomethane	94	2.249	2.249	0.000	91	85488	75.0	74.5	
16 Chloroethane	64	2.377	2.377	0.000	99	120292	75.0	72.5	
17 Dichlorofluoromethane	67	2.657	2.657	0.000	97	264797	75.0	75.8	
18 Trichlorofluoromethane	101	2.669	2.669	0.000	75	198057	75.0	79.2	
20 Ethyl ether	59	3.046	3.046	0.000	95	154531	75.0	71.4	
21 Acrolein	56	3.222	3.222	0.000	98	77266	175.0	155.5	
22 1,1-Dichloroethene	96	3.338	3.338	0.000	96	180155	75.0	74.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.393	3.393	0.000	95	189868	75.0	78.0	
24 Acetone	43	3.441	3.441	0.000	99	112819	150.0	134.9	
25 Iodomethane	142	3.533	3.533	0.000	98	259664	75.0	75.1	
26 Carbon disulfide	76	3.624	3.624	0.000	100	493985	75.0	75.9	
28 3-Chloro-1-propene	76	3.916	3.916	0.000	89	113739	75.0	71.6	
30 Methyl acetate	43	3.934	3.934	0.000	99	702937	375.0	341.6	
31 Methylene Chloride	84	4.135	4.135	0.000	98	191714	75.0	68.3	
32 2-Methyl-2-propanol	59	4.402	4.402	0.000	97	100842	750.0	665.7	
33 Acrylonitrile	53	4.518	4.518	0.000	99	688371	750.0	689.9	
34 trans-1,2-Dichloroethene	96	4.555	4.555	0.000	96	186846	75.0	75.6	
35 Methyl tert-butyl ether	73	4.573	4.573	0.000	98	498829	75.0	72.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.974	4.974	0.000	95	294623	75.0	75.3	
37 1,1-Dichloroethane	63	5.187	5.187	0.000	97	357941	75.0	73.4	
38 Vinyl acetate	43	5.242	5.242	0.000	98	354644	75.0	71.6	
44 2,2-Dichloropropane	77	5.935	5.935	0.000	86	220411	75.0	75.9	M
45 cis-1,2-Dichloroethene	96	5.942	5.942	0.000	86	202864	75.0	72.6	
46 2-Butanone (MEK)	43	5.960	5.960	0.000	100	162114	150.0	129.9	
49 Chlorobromomethane	128	6.221	6.221	0.000	94	83995	75.0	73.0	
51 Tetrahydrofuran	42	6.246	6.246	0.000	90	102313	150.0	121.1	
52 Chloroform	83	6.374	6.374	0.000	95	317928	75.0	73.2	
53 1,1,1-Trichloroethane	97	6.526	6.526	0.000	97	266824	75.0	77.0	
54 Cyclohexane	56	6.599	6.599	0.000	95	393783	75.0	77.0	
56 Carbon tetrachloride	117	6.702	6.702	0.000	95	210787	75.0	75.2	
55 1,1-Dichloropropene	75	6.714	6.714	0.000	91	264793	75.0	76.3	
57 Isobutyl alcohol	41	6.927	6.927	0.000	65	96836	1875.0	1656.0	
58 Benzene	78	6.933	6.933	0.000	98	714707	75.0	73.0	
59 1,2-Dichloroethane	62	7.012	7.012	0.000	97	241844	75.0	70.4	
62 n-Heptane	43	7.292	7.292	0.000	96	240879	75.0	74.2	
64 Trichloroethene	130	7.663	7.663	0.000	96	174968	75.0	73.0	
66 Methylcyclohexane	83	7.900	7.900	0.000	93	323290	75.0	76.6	
67 1,2-Dichloropropane	63	7.937	7.937	0.000	90	177506	75.0	70.8	
70 1,4-Dioxane	88	8.022	8.022	0.000	39	25174	1500.0	1432.2	M
68 Dibromomethane	93	8.028	8.028	0.000	97	92045	75.0	70.5	
71 Dichlorobromomethane	83	8.223	8.223	0.000	98	196174	75.0	71.5	
73 2-Chloroethyl vinyl ether	63	8.521	8.521	0.000	93	180791	150.0	137.3	
74 cis-1,3-Dichloropropene	75	8.667	8.667	0.000	90	251659	75.0	71.0	
75 4-Methyl-2-pentanone (MIBK)	43	8.819	8.819	0.000	98	335198	150.0	142.4	
76 Toluene	91	8.989	8.989	0.000	98	700271	75.0	75.5	
77 trans-1,3-Dichloropropene	75	9.239	9.239	0.000	99	208912	75.0	72.3	
78 Ethyl methacrylate	69	9.300	9.300	0.000	90	204867	75.0	72.0	
79 1,1,2-Trichloroethane	97	9.433	9.433	0.000	93	126179	75.0	73.2	
80 Tetrachloroethene	164	9.506	9.506	0.000	94	128065	75.0	75.5	
81 1,3-Dichloropropane	76	9.592	9.592	0.000	96	236331	75.0	72.7	
82 2-Hexanone	43	9.652	9.652	0.000	97	268740	150.0	144.1	
84 Chlorodibromomethane	129	9.811	9.811	0.000	91	116382	75.0	73.2	
85 Ethylene Dibromide	107	9.920	9.920	0.000	96	128036	75.0	73.4	
86 3-Chlorobenzotrifluoride	180	10.383	10.383	0.000	92	221872	75.0	72.9	
87 Chlorobenzene	112	10.407	10.407	0.000	92	415228	75.0	74.2	
88 4-Chlorobenzotrifluoride	180	10.468	10.468	0.000	98	214343	75.0	75.2	
89 1,1,1,2-Tetrachloroethane	131	10.498	10.498	0.000	92	129328	75.0	74.3	
90 Ethylbenzene	106	10.504	10.504	0.000	99	237960	75.0	73.1	
91 m-Xylene & p-Xylene	106	10.638	10.638	0.000	0	295041	75.0	74.2	
92 o-Xylene	106	11.015	11.015	0.000	97	272213	75.0	74.1	
93 Styrene	104	11.040	11.040	0.000	95	455350	75.0	74.2	
94 Bromoform	173	11.228	11.228	0.000	95	66096	75.0	71.2	
96 2-Chlorobenzotrifluoride	180	11.289	11.289	0.000	95	205934	75.0	74.4	
97 Isopropylbenzene	105	11.386	11.386	0.000	97	680086	75.0	75.7	
100 Bromobenzene	156	11.703	11.703	0.000	97	148563	75.0	72.3	
99 1,1,2,2-Tetrachloroethane	83	11.703	11.703	0.000	93	151754	75.0	73.9	
102 trans-1,4-Dichloro-2-buten	53	11.733	11.733	0.000	82	56147	75.0	71.9	
101 1,2,3-Trichloropropane	110	11.757	11.757	0.000	87	48188	75.0	68.3	
103 N-Propylbenzene	120	11.806	11.806	0.000	99	178470	75.0	72.8	
104 2-Chlorotoluene	126	11.891	11.891	0.000	95	145432	75.0	71.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.958	11.958	0.000	96	156751	75.0	71.9	
106 1,3,5-Trimethylbenzene	105	11.989	11.989	0.000	93	487495	75.0	75.1	
107 4-Chlorotoluene	126	12.013	12.013	0.000	99	160629	75.0	75.5	
108 tert-Butylbenzene	119	12.299	12.299	0.000	93	413561	75.0	75.7	
110 1,2,4-Trimethylbenzene	105	12.360	12.360	0.000	98	485092	75.0	75.1	
111 1,2-dichloro-4-(trifluorom	214	12.402	12.402	0.000	97	129124	75.0	72.6	
112 sec-Butylbenzene	105	12.524	12.524	0.000	95	577107	75.0	76.7	
113 1,3-Dichlorobenzene	146	12.639	12.639	0.000	96	241806	75.0	73.2	
114 4-Isopropyltoluene	119	12.682	12.682	0.000	97	456389	75.0	77.0	
115 1,4-Dichlorobenzene	146	12.749	12.749	0.000	92	240218	75.0	73.2	
116 2,4-Dichloro-1-(trifluorom	214	12.773	12.773	0.000	96	112177	75.0	74.2	
118 2,5-Dichlorobenzotrifluori	214	12.816	12.816	0.000	0	128604	75.0	73.8	
120 n-Butylbenzene	91	13.090	13.090	0.000	98	382904	75.0	77.3	
121 1,2-Dichlorobenzene	146	13.102	13.102	0.000	94	206824	75.0	74.8	
122 1,2-Dibromo-3-Chloropropan	75	13.899	13.899	0.000	76	20490	75.0	73.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.033	14.033	0.000	0	416963	225.0	234.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.452	14.452	0.000	0	272209	150.0	156.8	
126 1,2,4-Trichlorobenzene	180	14.720	14.720	0.000	94	96525	75.0	79.3	
127 Hexachlorobutadiene	225	14.866	14.866	0.000	91	50527	75.0	85.4	
128 Naphthalene	128	14.982	14.982	0.000	98	288344	75.0	81.3	
129 1,2,3-Trichlorobenzene	180	15.207	15.207	0.000	94	90239	75.0	93.0	
131 2,4,5-Trichlorotoluene	159	15.985	15.985	0.000	0	74862	75.0	85.9	
130 2,3,6-Trichlorotoluene	159	16.083	16.083	0.000	95	68694	75.0	78.3	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		150.0	148.2	
S 134 1,2-Dichloroethene, Total	96				0		150.0	148.2	
S 135 1,3-Dichloropropene, Total	1				0		150.0	143.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWAcro1stRe_00008	Amount Added: 7.00	Units: uL	
VOA8260SURR_00059	Amount Added: 3.00	Units: uL	
voaWVA1stRest_00008	Amount Added: 3.00	Units: uL	
voaWKetPriRes_00002	Amount Added: 3.00	Units: uL	
voaWEEmixRest_00001	Amount Added: 3.00	Units: uL	
voaW2CLEReste_00001	Amount Added: 3.00	Units: uL	
VOA8260VOAPRI_00213	Amount Added: 3.00	Units: uL	
VOA8260INT_00061	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928007.D

Injection Date: 28-Sep-2016 15:15:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD15

Worklist Smp#: 7

Client ID:

Purge Vol: 5.000 mL

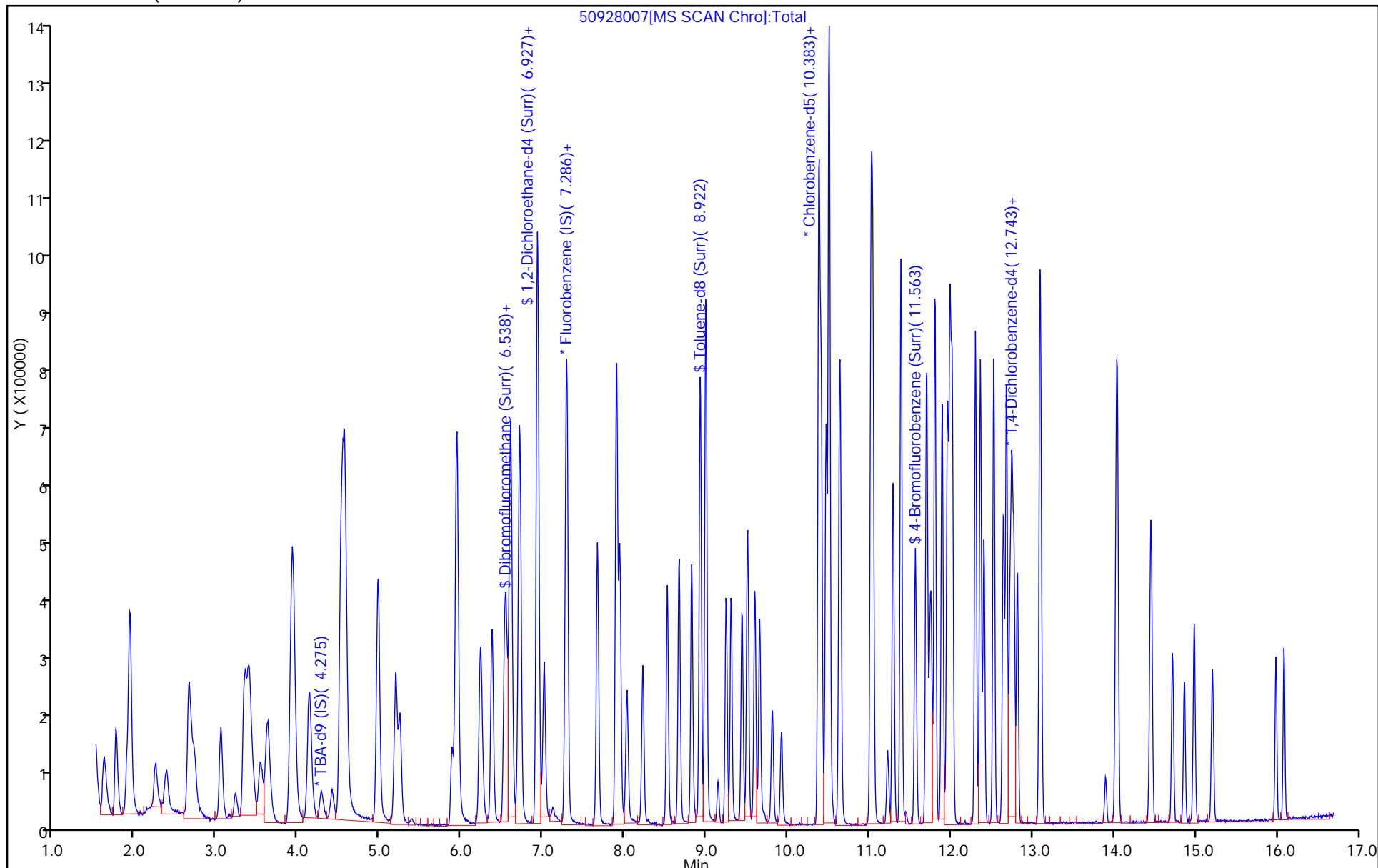
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

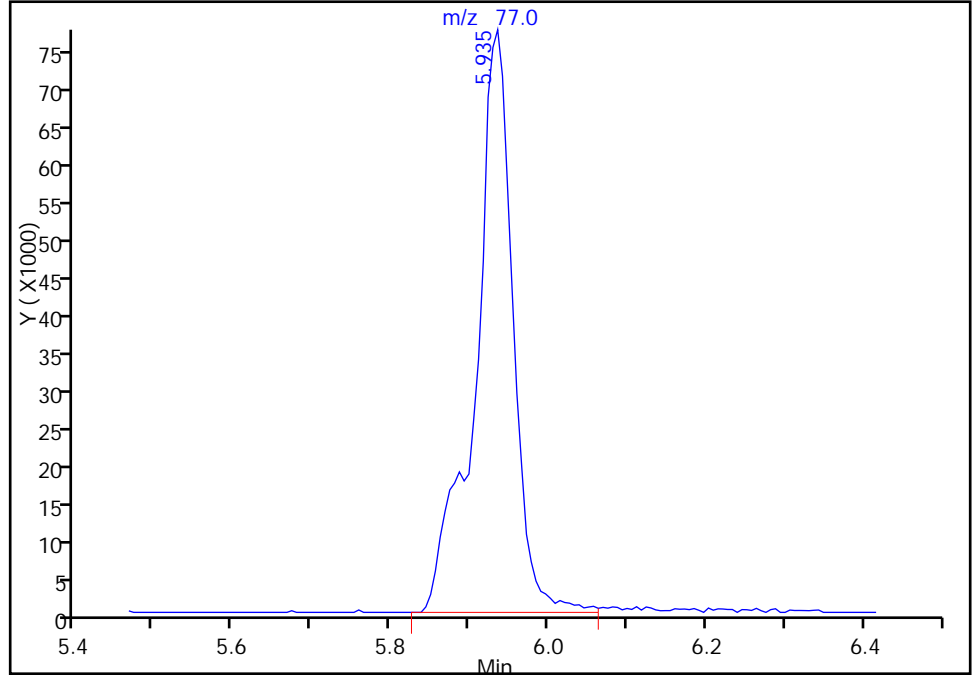
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928007.D
Injection Date: 28-Sep-2016 15:15:30 Instrument ID: CHHP5
Lims ID: IC VSTD15
Client ID:
Operator ID: 001562 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

44 2,2-Dichloropropane, CAS: 594-20-7

Signal: 1

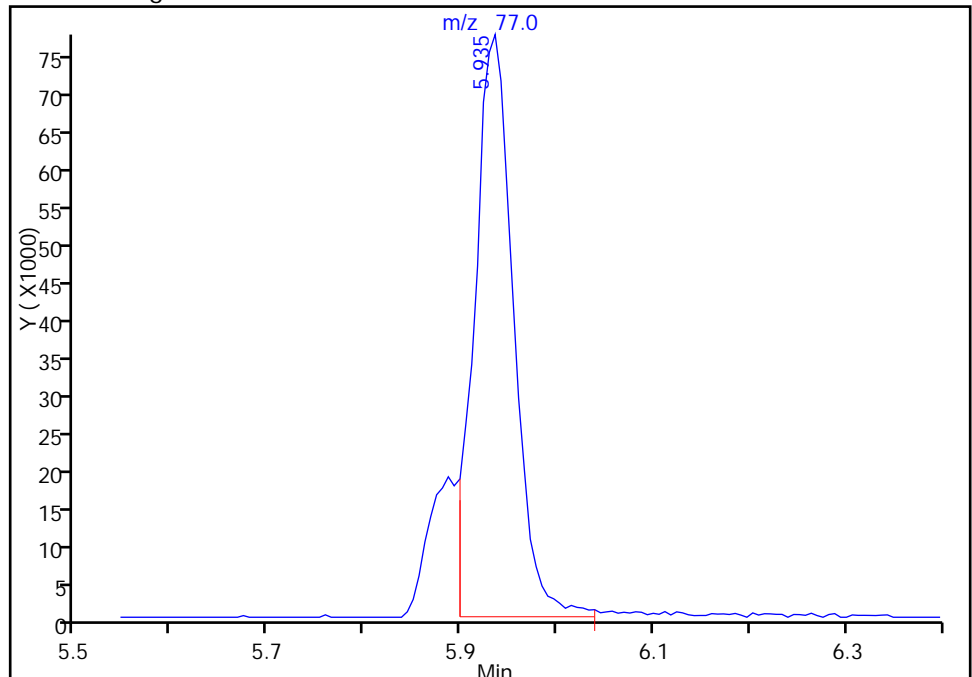
RT: 5.94
Area: 259269
Amount: 83.404485
Amount Units: ng

Processing Integration Results



RT: 5.94
Area: 220411
Amount: 75.855500
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 29-Sep-2016 09:04:50

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh

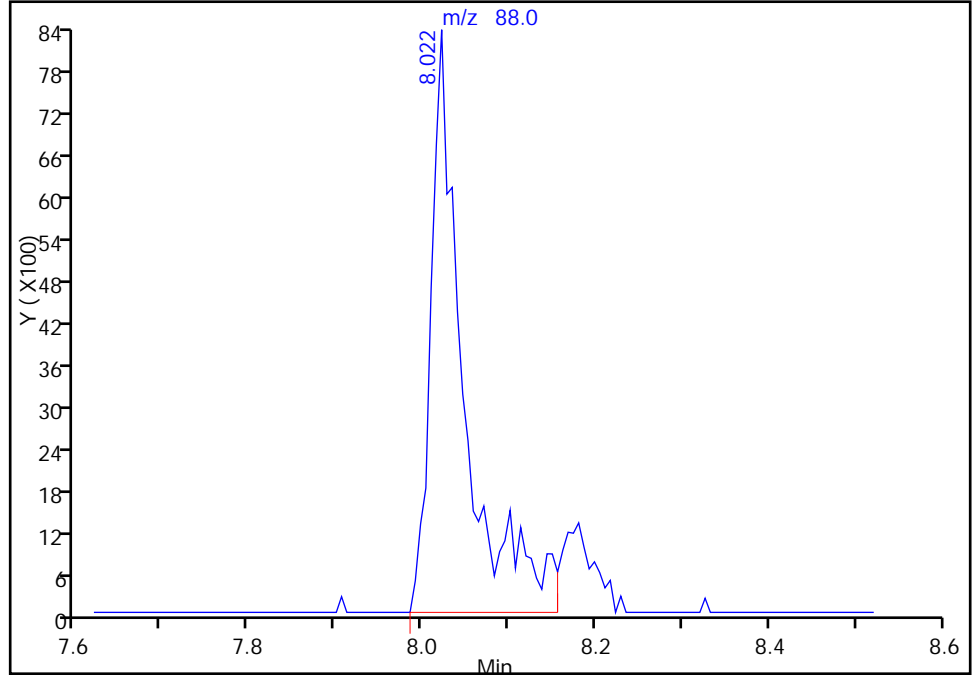
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928007.D
Injection Date: 28-Sep-2016 15:15:30 Instrument ID: CHHP5
Lims ID: IC VSTD15
Client ID:
Operator ID: 001562 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

Signal: 1

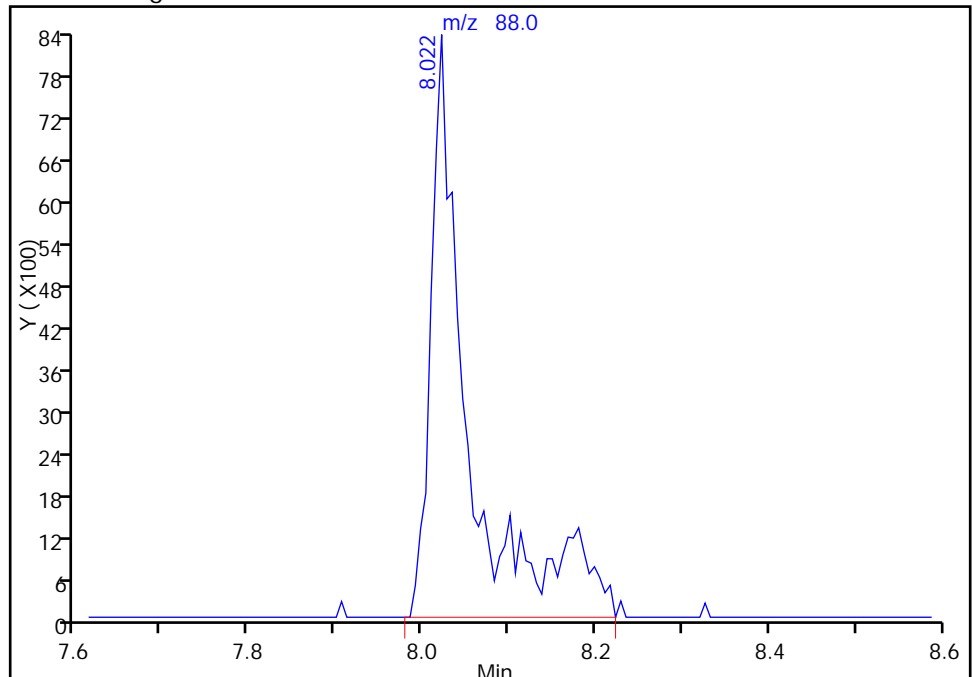
RT: 8.02
Area: 22211
Amount: 1311.0733
Amount Units: ng

Processing Integration Results



RT: 8.02
Area: 25174
Amount: 1432.2371
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 29-Sep-2016 09:04:50
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928008.D
 Lims ID: IC VSTD20
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 28-Sep-2016 15:39:30 ALS Bottle#: 8 Worklist Smp#: 8
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013640-008
 Misc. Info.: IC VSTD20
 Operator ID: 001562 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 29-Sep-2016 11:06:04 Calib Date: 28-Sep-2016 18:27:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928015.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK034

First Level Reviewer: fergusond

Date: 29-Sep-2016 11:06:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.275	4.275	0.000	0	158838	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.274	7.280	-0.006	98	428033	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.377	10.376	0.001	89	98023	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.719	12.725	-0.006	95	104365	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.551	6.556	-0.005	93	183477	100.0	95.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.928	6.927	0.001	0	239641	100.0	91.4	
\$ 7 Toluene-d8 (Surr)	98	8.923	8.922	0.001	94	701950	100.0	91.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.563	11.563	0.000	84	264099	100.0	92.7	
11 Dichlorodifluoromethane	85	1.617	1.616	0.001	99	286586	100.0	101.7	
12 Chloromethane	50	1.763	1.756	0.007	99	319936	100.0	97.9	
13 Vinyl chloride	62	1.903	1.896	0.007	98	259398	100.0	97.7	
14 Butadiene	39	1.939	1.926	0.013	97	294630	100.0	98.5	
15 Bromomethane	94	2.262	2.249	0.013	92	103284	100.0	89.7	
16 Chloroethane	64	2.389	2.377	0.012	99	154860	100.0	93.0	
17 Dichlorofluoromethane	67	2.657	2.657	0.001	97	333435	100.0	95.0	
18 Trichlorofluoromethane	101	2.681	2.669	0.012	95	243151	100.0	96.9	
20 Ethyl ether	59	3.046	3.046	0.000	95	220471	100.0	101.5	
21 Acrolein	56	3.229	3.222	0.007	99	98265	200.0	196.9	
22 1,1-Dichloroethene	96	3.326	3.338	-0.012	96	238772	100.0	98.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.405	3.393	0.012	94	246005	100.0	100.7	
24 Acetone	43	3.448	3.441	0.007	99	163522	200.0	194.8	
25 Iodomethane	142	3.527	3.533	-0.006	99	331996	100.0	95.6	
26 Carbon disulfide	76	3.618	3.624	-0.006	100	636790	100.0	97.5	
28 3-Chloro-1-propene	76	3.910	3.916	-0.006	89	158003	100.0	99.0	
30 Methyl acetate	43	3.935	3.934	0.001	98	989286	500.0	478.9	
31 Methylene Chloride	84	4.129	4.135	-0.006	97	248945	100.0	88.4	
32 2-Methyl-2-propanol	59	4.409	4.402	0.007	96	175170	1000.0	985.9	
33 Acrylonitrile	53	4.519	4.518	0.001	100	984865	1000.0	983.2	
34 trans-1,2-Dichloroethene	96	4.549	4.555	-0.006	96	242614	100.0	97.7	
35 Methyl tert-butyl ether	73	4.573	4.573	0.000	99	668767	100.0	96.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.975	4.974	0.001	95	382026	100.0	97.3	
37 1,1-Dichloroethane	63	5.188	5.187	0.001	97	463249	100.0	94.6	
38 Vinyl acetate	43	5.243	5.242	0.001	97	482877	100.0	97.2	
44 2,2-Dichloropropane	77	5.930	5.935	-0.005	85	283273	100.0	97.0	M
45 cis-1,2-Dichloroethene	96	5.936	5.942	-0.006	85	270490	100.0	96.5	
46 2-Butanone (MEK)	43	5.954	5.960	-0.006	99	243152	200.0	194.0	
49 Chlorobromomethane	128	6.228	6.221	0.007	95	108079	100.0	93.6	
51 Tetrahydrofuran	42	6.246	6.246	0.000	89	162987	200.0	192.1	
52 Chloroform	83	6.368	6.374	-0.006	96	418252	100.0	95.9	
53 1,1,1-Trichloroethane	97	6.526	6.526	0.000	98	333856	100.0	96.0	
54 Cyclohexane	56	6.599	6.599	0.000	96	499925	100.0	97.3	
56 Carbon tetrachloride	117	6.697	6.702	-0.005	95	279676	100.0	99.4	
55 1,1-Dichloropropene	75	6.715	6.714	0.001	91	339413	100.0	97.5	
57 Isobutyl alcohol	41	6.928	6.927	0.001	81	155112	2500.0	2501.8	
58 Benzene	78	6.934	6.933	0.001	97	935681	100.0	95.2	
59 1,2-Dichloroethane	62	7.013	7.012	0.001	98	329629	100.0	95.6	
62 n-Heptane	43	7.293	7.292	0.001	95	321049	100.0	98.5	
64 Trichloroethene	130	7.664	7.663	0.001	97	233451	100.0	97.0	
66 Methylcyclohexane	83	7.901	7.900	0.001	94	423059	100.0	99.8	
67 1,2-Dichloropropane	63	7.938	7.937	0.001	93	240411	100.0	95.5	
70 1,4-Dioxane	88	8.023	8.022	0.001	39	35757	2000.0	2026.4	
68 Dibromomethane	93	8.029	8.028	0.001	96	128114	100.0	97.8	
71 Dichlorobromomethane	83	8.217	8.223	-0.006	98	269493	100.0	97.9	
73 2-Chloroethyl vinyl ether	63	8.522	8.521	0.001	94	252919	200.0	191.4	
74 cis-1,3-Dichloropropene	75	8.661	8.667	-0.006	91	341854	100.0	96.1	
75 4-Methyl-2-pentanone (MIBK)	43	8.820	8.819	0.001	97	480094	200.0	191.4	
76 Toluene	91	8.990	8.989	0.001	98	950725	100.0	96.1	
77 trans-1,3-Dichloropropene	75	9.239	9.239	0.000	99	299065	100.0	97.2	
78 Ethyl methacrylate	69	9.300	9.300	0.000	91	289004	100.0	95.4	
79 1,1,2-Trichloroethane	97	9.440	9.433	0.007	93	174528	100.0	95.0	
80 Tetrachloroethene	164	9.507	9.506	0.001	94	174830	100.0	96.7	
81 1,3-Dichloropropane	76	9.592	9.592	0.000	98	327449	100.0	94.5	
82 2-Hexanone	43	9.653	9.652	0.001	98	390723	200.0	196.6	
84 Chlorodibromomethane	129	9.805	9.811	-0.006	91	163509	100.0	96.6	
85 Ethylene Dibromide	107	9.921	9.920	0.001	99	177281	100.0	95.4	
86 3-Chlorobenzotrifluoride	180	10.377	10.383	-0.005	94	325187	100.0	100.3	
87 Chlorobenzene	112	10.407	10.407	0.000	92	573529	100.0	96.2	
88 4-Chlorobenzotrifluoride	180	10.468	10.468	0.000	97	302880	100.0	99.7	
89 1,1,1,2-Tetrachloroethane	131	10.499	10.498	0.001	92	184241	100.0	99.4	
90 Ethylbenzene	106	10.505	10.504	0.001	99	338139	100.0	97.5	
91 m-Xylene & p-Xylene	106	10.639	10.638	0.001	0	410611	100.0	96.9	
92 o-Xylene	106	11.016	11.015	0.001	97	386886	100.0	98.8	
93 Styrene	104	11.040	11.040	0.000	95	640914	100.0	98.0	
94 Bromoform	173	11.223	11.228	-0.005	95	98575	100.0	99.6	
96 2-Chlorobenzotrifluoride	180	11.290	11.289	0.001	95	298914	100.0	101.3	
97 Isopropylbenzene	105	11.387	11.386	0.001	97	965945	100.0	100.9	
100 Bromobenzene	156	11.697	11.703	-0.006	97	210327	100.0	94.9	
99 1,1,2,2-Tetrachloroethane	83	11.703	11.703	0.000	95	214426	100.0	98.0	
102 trans-1,4-Dichloro-2-buten	53	11.740	11.733	0.007	74	82182	100.0	97.6	
101 1,2,3-Trichloropropane	110	11.758	11.757	0.001	86	73005	100.0	96.0	
103 N-Propylbenzene	120	11.801	11.806	-0.005	99	260318	100.0	98.5	
104 2-Chlorotoluene	126	11.892	11.891	0.001	95	214825	100.0	98.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.959	11.958	0.001	96	228591	100.0	97.3	
106 1,3,5-Trimethylbenzene	105	11.989	11.989	0.000	94	689771	100.0	98.5	
107 4-Chlorotoluene	126	12.013	12.013	0.000	99	217267	100.0	94.8	
108 tert-Butylbenzene	119	12.299	12.299	0.000	93	576505	100.0	97.9	
110 1,2,4-Trimethylbenzene	105	12.360	12.360	0.000	99	687986	100.0	98.8	
111 1,2-dichloro-4-(trifluorom	214	12.403	12.402	0.001	97	191586	100.0	99.9	
112 sec-Butylbenzene	105	12.524	12.524	0.000	95	801000	100.0	98.7	
113 1,3-Dichlorobenzene	146	12.640	12.639	0.001	96	344274	100.0	96.7	
114 4-Isopropyltoluene	119	12.683	12.682	0.001	97	633830	100.0	99.2	
115 1,4-Dichlorobenzene	146	12.744	12.749	-0.005	93	335734	100.0	94.9	
116 2,4-Dichloro-1-(trifluorom	214	12.774	12.773	0.001	96	165788	100.0	101.7	
118 2,5-Dichlorobenzotrifluori	214	12.817	12.816	0.000	0	185607	100.0	98.8	
120 n-Butylbenzene	91	13.090	13.090	0.000	99	532308	100.0	99.6	
121 1,2-Dichlorobenzene	146	13.102	13.102	0.000	95	286425	100.0	96.1	
122 1,2-Dibromo-3-Chloropropan	75	13.893	13.899	-0.006	76	28259	100.0	94.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.033	14.033	0.000	0	544542	300.0	284.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.453	14.452	0.001	0	344803	200.0	184.2	
126 1,2,4-Trichlorobenzene	180	14.721	14.720	0.001	92	110342	100.0	84.1	
127 Hexachlorobutadiene	225	14.861	14.866	-0.005	96	55279	100.0	86.6	
128 Naphthalene	128	14.982	14.982	0.000	98	340708	100.0	89.0	
129 1,2,3-Trichlorobenzene	180	15.207	15.207	0.000	94	95882	100.0	81.3	
131 2,4,5-Trichlorotoluene	159	15.986	15.985	0.001	0	84846	100.0	89.5	
130 2,3,6-Trichlorotoluene	159	16.083	16.083	0.000	94	76660	100.0	81.1	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		200.0	195.6	
S 134 1,2-Dichloroethene, Total	96				0		200.0	194.2	
S 135 1,3-Dichloropropene, Total	1				0		200.0	193.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWVA1stRest_00008	Amount Added: 4.00	Units: uL	
voaWKetPriRes_00002	Amount Added: 4.00	Units: uL	
voaWEEmixRest_00001	Amount Added: 4.00	Units: uL	
voaW2CLEReste_00001	Amount Added: 4.00	Units: uL	
VOA8260VOAPRI_00213	Amount Added: 4.00	Units: uL	
VOA8260SURRE_00059	Amount Added: 4.00	Units: uL	
voaWAcro1stRe_00008	Amount Added: 8.00	Units: uL	
VOA8260INT_00061	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928008.D

Injection Date: 28-Sep-2016 15:39:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD20

Worklist Smp#: 8

Client ID:

Purge Vol: 5.000 mL

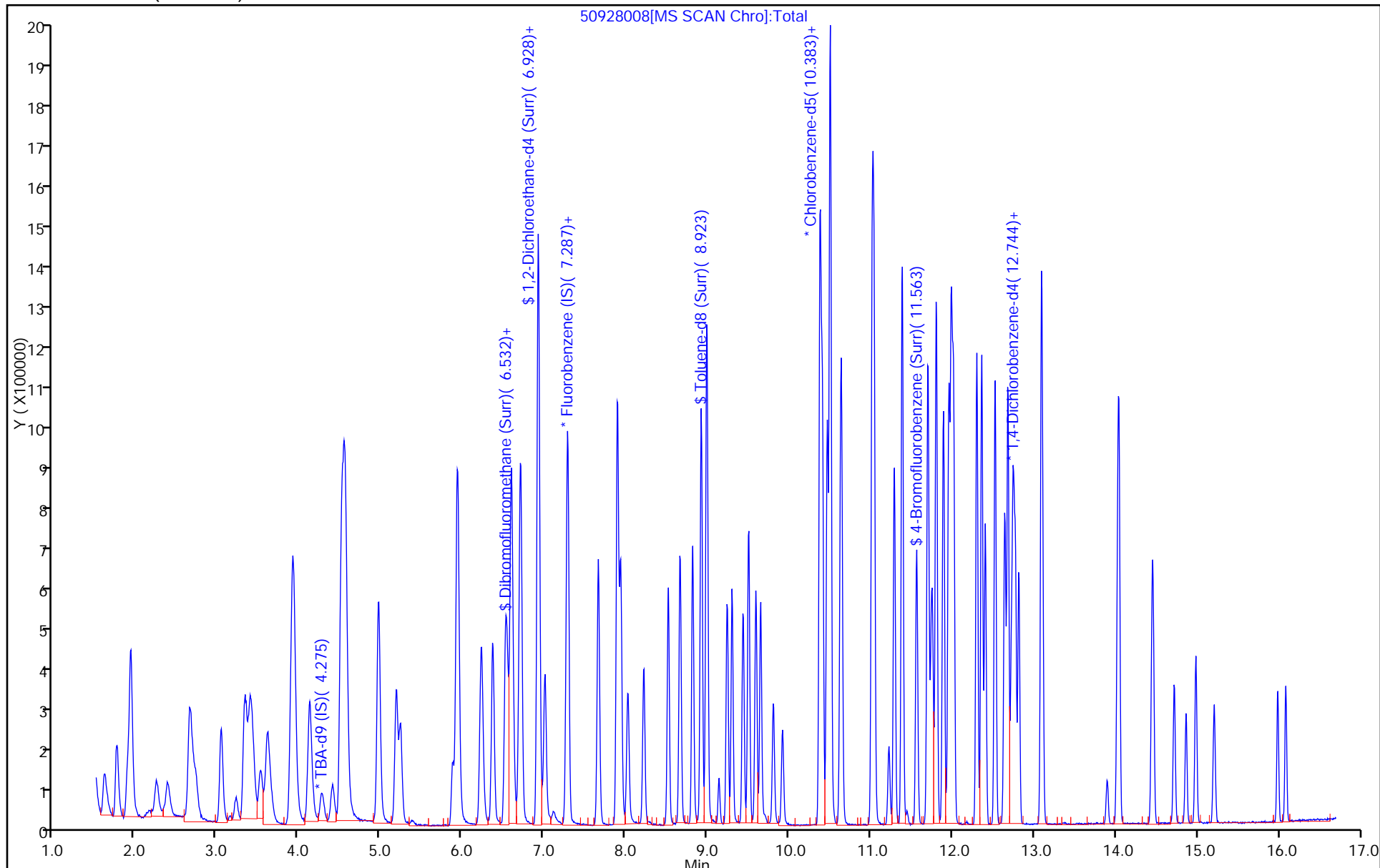
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

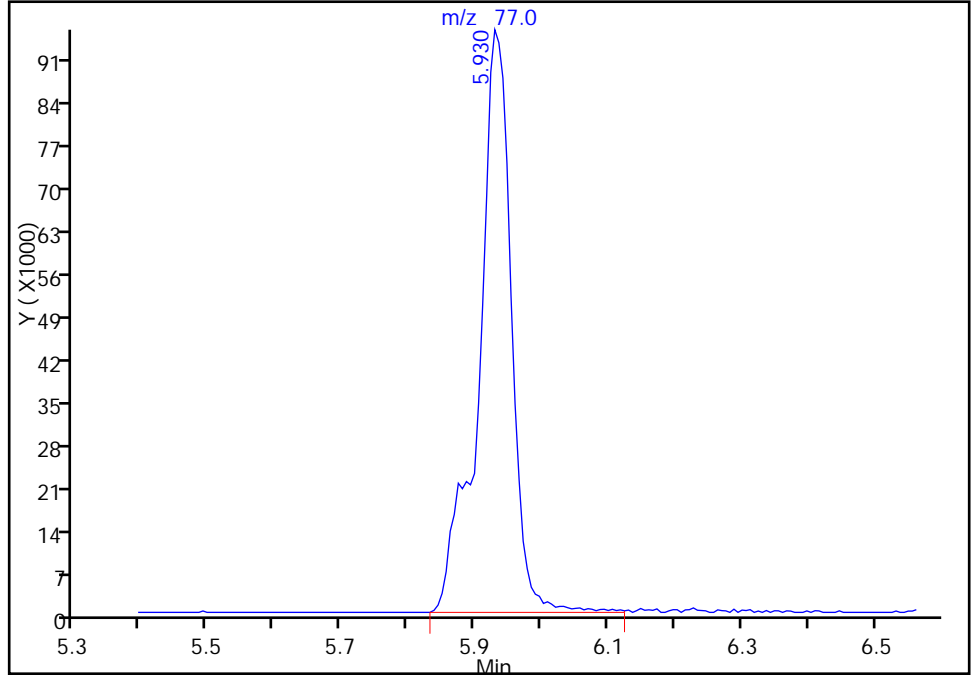
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Injection Date: 28-Sep-2016 15:39:30 Instrument ID: CHHP5
Lims ID: IC VSTD20
Client ID:
Operator ID: 001562 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

44 2,2-Dichloropropane, CAS: 594-20-7

Signal: 1

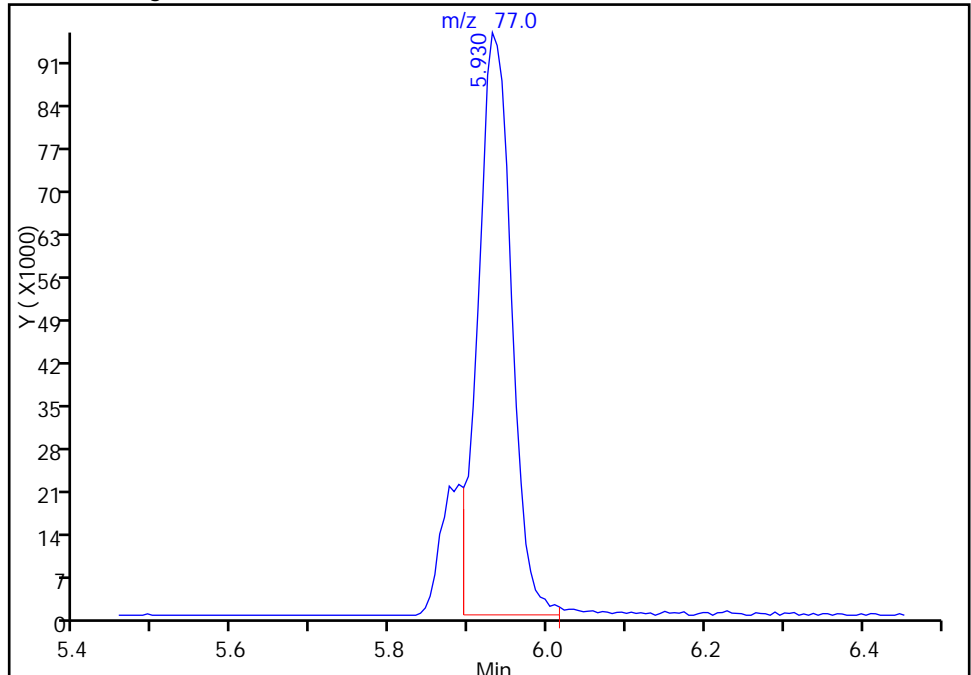
RT: 5.93
Area: 325272
Amount: 106.7705
Amount Units: ng

Processing Integration Results



RT: 5.93
Area: 283273
Amount: 97.047937
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 29-Sep-2016 09:09:58

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928009.D
 Lims ID: IC VSTD35
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 28-Sep-2016 16:03:30 ALS Bottle#: 9 Worklist Smp#: 9
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013640-009
 Misc. Info.: IC VSTD35
 Operator ID: 001562 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 29-Sep-2016 11:06:20 Calib Date: 28-Sep-2016 18:27:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928015.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK034

First Level Reviewer: fergusond

Date: 29-Sep-2016 09:13:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.286	4.275	0.011	0	115235	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.280	-0.007	98	394371	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.376	10.376	0.000	88	91530	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.718	12.725	-0.007	94	90645	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.555	6.556	-0.001	93	305502	175.0	171.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.926	6.927	-0.001	0	411914	175.0	170.4	
\$ 7 Toluene-d8 (Surr)	98	8.928	8.922	0.006	94	1131749	175.0	157.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.562	11.563	-0.001	84	415635	175.0	156.2	
11 Dichlorodifluoromethane	85	1.622	1.616	0.006	99	458360	175.0	176.6	
12 Chloromethane	50	1.768	1.756	0.012	99	529035	175.0	175.8	
13 Vinyl chloride	62	1.908	1.896	0.012	98	430527	175.0	176.0	
14 Butadiene	39	1.938	1.926	0.012	98	483690	175.0	175.5	
15 Bromomethane	94	2.254	2.249	0.005	90	179335	175.0	169.0	
16 Chloroethane	64	2.388	2.377	0.011	99	262204	175.0	170.9	
17 Dichlorofluoromethane	67	2.662	2.657	0.006	98	559873	175.0	173.2	
18 Trichlorofluoromethane	101	2.686	2.669	0.017	96	403311	175.0	174.5	
20 Ethyl ether	59	3.045	3.046	-0.001	95	355655	175.0	177.7	
21 Acrolein	56	3.222	3.222	0.000	97	104587	225.0	227.5	
22 1,1-Dichloroethene	96	3.343	3.338	0.005	96	397280	175.0	177.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.398	3.393	0.005	94	399231	175.0	177.4	
24 Acetone	43	3.447	3.441	0.006	98	251763	350.0	325.5	
25 Iodomethane	142	3.538	3.533	0.005	99	556019	175.0	173.9	
26 Carbon disulfide	76	3.623	3.624	-0.001	100	1065277	175.0	177.0	
28 3-Chloro-1-propene	76	3.909	3.916	-0.007	89	258155	175.0	175.6	
30 Methyl acetate	43	3.939	3.934	0.005	98	1649696	875.0	866.8	
31 Methylene Chloride	84	4.134	4.135	-0.001	98	426263	175.0	164.2	
32 2-Methyl-2-propanol	59	4.414	4.402	0.012	97	226412	1750.0	1756.4	
33 Acrylonitrile	53	4.523	4.518	0.005	98	1595619	1750.0	1728.9	
34 trans-1,2-Dichloroethene	96	4.554	4.555	-0.001	96	399345	175.0	174.6	
35 Methyl tert-butyl ether	73	4.578	4.573	0.005	99	1137208	175.0	177.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.974	4.974	0.000	95	641372	175.0	177.3	
37 1,1-Dichloroethane	63	5.193	5.187	0.006	97	791340	175.0	175.4	
38 Vinyl acetate	43	5.241	5.242	-0.001	97	813773	175.0	177.7	
44 2,2-Dichloropropane	77	5.935	5.935	0.000	89	460557	175.0	171.3	M
45 cis-1,2-Dichloroethene	96	5.941	5.942	-0.001	85	458996	175.0	177.7	
46 2-Butanone (MEK)	43	5.959	5.960	-0.001	100	405849	350.0	351.5	
49 Chlorobromomethane	128	6.227	6.221	0.006	95	187177	175.0	175.9	
51 Tetrahydrofuran	42	6.245	6.246	-0.001	89	252879	350.0	323.5	
52 Chloroform	83	6.373	6.374	-0.001	95	701553	175.0	174.6	
53 1,1,1-Trichloroethane	97	6.531	6.526	0.005	97	551963	175.0	172.3	
54 Cyclohexane	56	6.598	6.599	-0.001	96	825734	175.0	174.5	
56 Carbon tetrachloride	117	6.701	6.702	-0.001	94	464285	175.0	179.1	
55 1,1-Dichloropropene	75	6.714	6.714	0.000	91	565138	175.0	176.1	
57 Isobutyl alcohol	41	6.926	6.927	-0.001	74	229140	4375.0	4011.2	
58 Benzene	78	6.933	6.933	-0.001	99	1572726	175.0	173.6	
59 1,2-Dichloroethane	62	7.012	7.012	0.000	97	563911	175.0	177.5	
62 n-Heptane	43	7.291	7.292	-0.001	94	538032	175.0	179.2	
64 Trichloroethene	130	7.663	7.663	0.000	97	391355	175.0	176.6	
66 Methylcyclohexane	83	7.900	7.900	0.000	95	690668	175.0	176.8	
67 1,2-Dichloropropane	63	7.936	7.937	-0.001	94	413907	175.0	178.4	
70 1,4-Dioxane	88	8.021	8.022	-0.001	38	57759	3500.0	3552.7	M
68 Dibromomethane	93	8.028	8.028	0.000	96	222830	175.0	184.6	
71 Dichlorobromomethane	83	8.222	8.223	-0.001	98	469062	175.0	184.9	
73 2-Chloroethyl vinyl ether	63	8.520	8.521	-0.001	94	448780	350.0	368.6	
74 cis-1,3-Dichloropropene	75	8.666	8.667	-0.001	91	602623	175.0	183.9	
75 4-Methyl-2-pentanone (MIBK)	43	8.818	8.819	-0.001	98	797589	350.0	340.5	
76 Toluene	91	8.995	8.989	0.006	98	1540826	175.0	166.9	
77 trans-1,3-Dichloropropene	75	9.244	9.239	0.005	99	512837	175.0	178.5	
78 Ethyl methacrylate	69	9.305	9.300	0.005	92	498267	175.0	176.1	
79 1,1,2-Trichloroethane	97	9.439	9.433	0.006	93	296021	175.0	172.6	
80 Tetrachloroethene	164	9.506	9.506	0.000	94	286294	175.0	169.6	
81 1,3-Dichloropropane	76	9.597	9.592	0.005	97	557979	175.0	172.4	
82 2-Hexanone	43	9.652	9.652	0.000	98	641023	350.0	345.4	
84 Chlorodibromomethane	129	9.804	9.811	-0.007	91	284965	175.0	180.2	
85 Ethylene Dibromide	107	9.919	9.920	-0.001	98	302382	175.0	174.3	
86 3-Chlorobenzotrifluoride	180	10.382	10.383	0.000	94	501052	175.0	165.5	
87 Chlorobenzene	112	10.406	10.407	-0.001	91	935674	175.0	168.0	
88 4-Chlorobenzotrifluoride	180	10.467	10.468	-0.001	97	474811	175.0	167.4	
89 1,1,1,2-Tetrachloroethane	131	10.497	10.498	-0.001	94	301837	175.0	174.4	
90 Ethylbenzene	106	10.504	10.504	0.000	99	535707	175.0	165.4	
91 m-Xylene & p-Xylene	106	10.637	10.638	-0.001	0	660431	175.0	166.9	
92 o-Xylene	106	11.021	11.015	0.006	96	606481	175.0	165.8	
93 Styrene	104	11.039	11.040	-0.001	94	1024166	175.0	167.7	
94 Bromoform	173	11.221	11.228	-0.007	95	173705	175.0	188.0	
96 2-Chlorobenzotrifluoride	180	11.288	11.289	-0.001	95	445699	175.0	161.7	
97 Isopropylbenzene	105	11.386	11.386	0.000	97	1438617	175.0	160.9	
100 Bromobenzene	156	11.702	11.703	-0.001	97	335108	175.0	174.0	
99 1,1,2,2-Tetrachloroethane	83	11.702	11.703	-0.001	94	350916	175.0	171.8	
102 trans-1,4-Dichloro-2-buten	53	11.738	11.733	0.005	84	142073	175.0	194.3	
101 1,2,3-Trichloropropane	110	11.757	11.757	0.000	86	120795	175.0	182.8	
103 N-Propylbenzene	120	11.805	11.806	-0.001	98	391139	175.0	170.3	
104 2-Chlorotoluene	126	11.891	11.891	0.000	95	328722	175.0	172.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.957	11.958	-0.001	96	347023	175.0	170.1	
106 1,3,5-Trimethylbenzene	105	11.988	11.989	-0.001	96	1031283	175.0	169.6	
107 4-Chlorotoluene	126	12.012	12.013	-0.001	99	341659	175.0	171.6	
108 tert-Butylbenzene	119	12.298	12.299	-0.001	93	848792	175.0	166.0	
110 1,2,4-Trimethylbenzene	105	12.359	12.360	-0.001	99	1025893	175.0	169.6	
111 1,2-dichloro-4-(trifluorom	214	12.402	12.402	0.000	97	275283	175.0	165.4	
112 sec-Butylbenzene	105	12.523	12.524	-0.001	95	1164794	175.0	165.2	
113 1,3-Dichlorobenzene	146	12.645	12.639	0.006	96	527038	175.0	170.4	
114 4-Isopropyltoluene	119	12.681	12.682	-0.001	96	922428	175.0	166.2	
115 1,4-Dichlorobenzene	146	12.748	12.749	-0.001	94	532535	175.0	173.2	
116 2,4-Dichloro-1-(trifluorom	214	12.773	12.773	0.000	96	236466	175.0	167.0	
118 2,5-Dichlorobenzotrifluori	214	12.815	12.816	-0.001	0	275343	175.0	168.7	
120 n-Butylbenzene	91	13.089	13.090	-0.001	97	799943	175.0	172.4	
121 1,2-Dichlorobenzene	146	13.101	13.102	-0.001	96	439306	175.0	169.8	
122 1,2-Dibromo-3-Chloropropan	75	13.892	13.899	-0.007	77	51968	175.0	200.0	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.032	14.033	-0.001	0	895681	525.0	537.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.452	14.452	0.000	0	612541	350.0	376.7	
126 1,2,4-Trichlorobenzene	180	14.719	14.720	-0.001	94	224849	175.0	197.3	
127 Hexachlorobutadiene	225	14.865	14.866	-0.001	95	108209	175.0	195.3	
128 Naphthalene	128	14.981	14.982	-0.001	98	673501	175.0	202.7	
129 1,2,3-Trichlorobenzene	180	15.206	15.207	-0.001	93	213098	175.0	208.1	
131 2,4,5-Trichlorotoluene	159	15.985	15.985	0.000	0	181305	175.0	179.2	
130 2,3,6-Trichlorotoluene	159	16.082	16.083	-0.001	95	160030	175.0	194.8	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		350.0	352.3	
S 133 Xylenes, Total	106				0		350.0	332.7	
S 135 1,3-Dichloropropene, Total	1				0		350.0	362.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWAcro1stRe_00008	Amount Added: 9.00	Units: uL	
VOA8260SURR_00059	Amount Added: 7.00	Units: uL	
voaWVA1stRest_00008	Amount Added: 7.00	Units: uL	
voaWKetPriRes_00002	Amount Added: 7.00	Units: uL	
voaWEEmixRest_00001	Amount Added: 7.00	Units: uL	
VOA8260VOAPRI_00213	Amount Added: 7.00	Units: uL	
voaW2CLEReste_00001	Amount Added: 7.00	Units: uL	
VOA8260INT_00061	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928009.D

Injection Date: 28-Sep-2016 16:03:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD35

Worklist Smp#: 9

Client ID:

Purge Vol: 5.000 mL

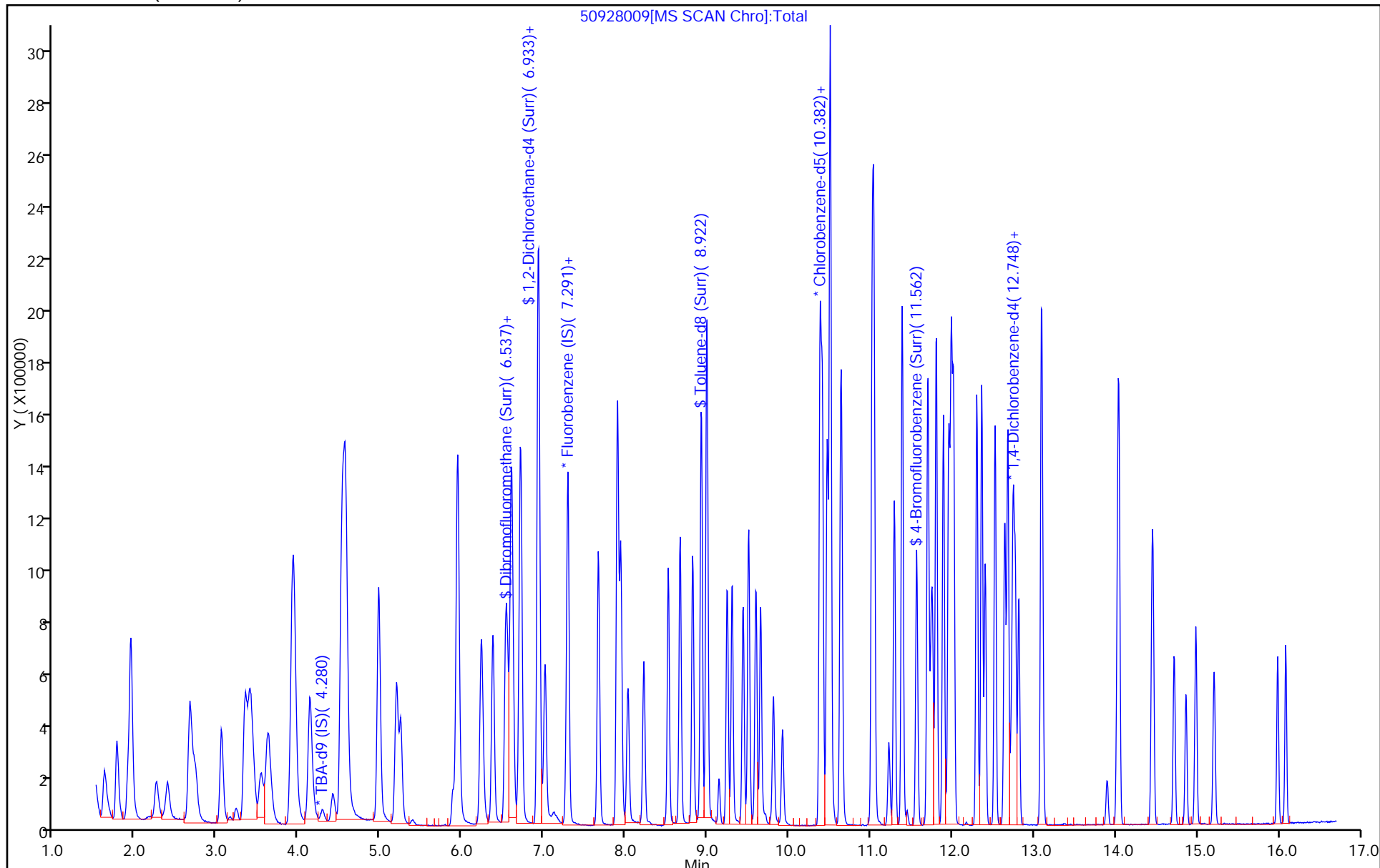
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

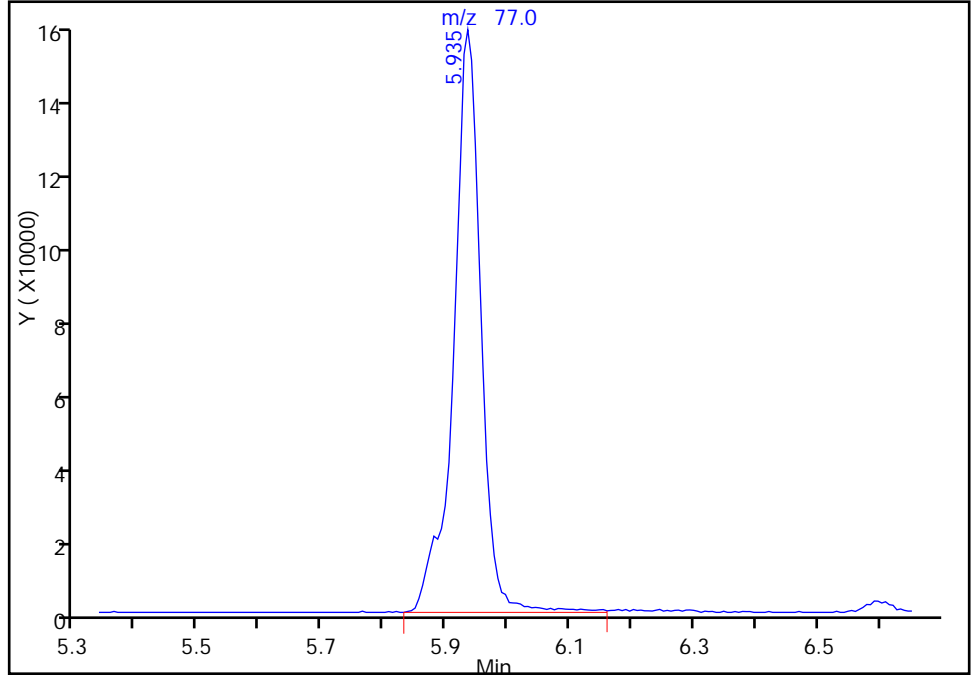
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Injection Date: 28-Sep-2016 16:03:30 Instrument ID: CHHP5
Lims ID: IC VSTD35
Client ID:
Operator ID: 001562 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

44 2,2-Dichloropropane, CAS: 594-20-7

Signal: 1

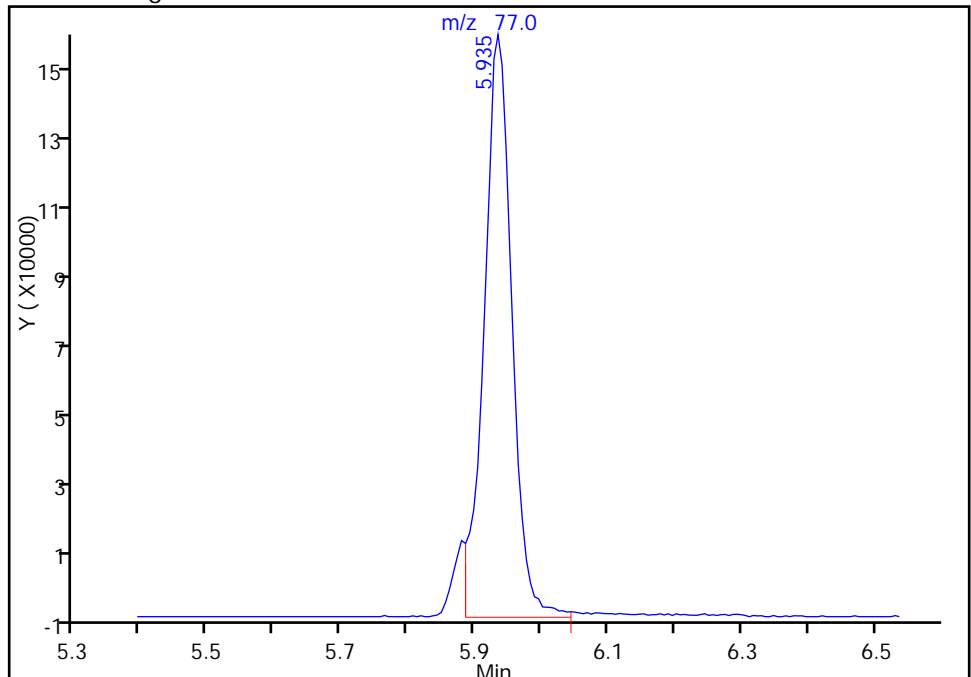
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Area: 487339
Amount: 177.1115
Amount Units: ng

Processing Integration Results



RT: 5.93
Area: 460557
Amount: 171.2525
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 29-Sep-2016 09:13:12
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh

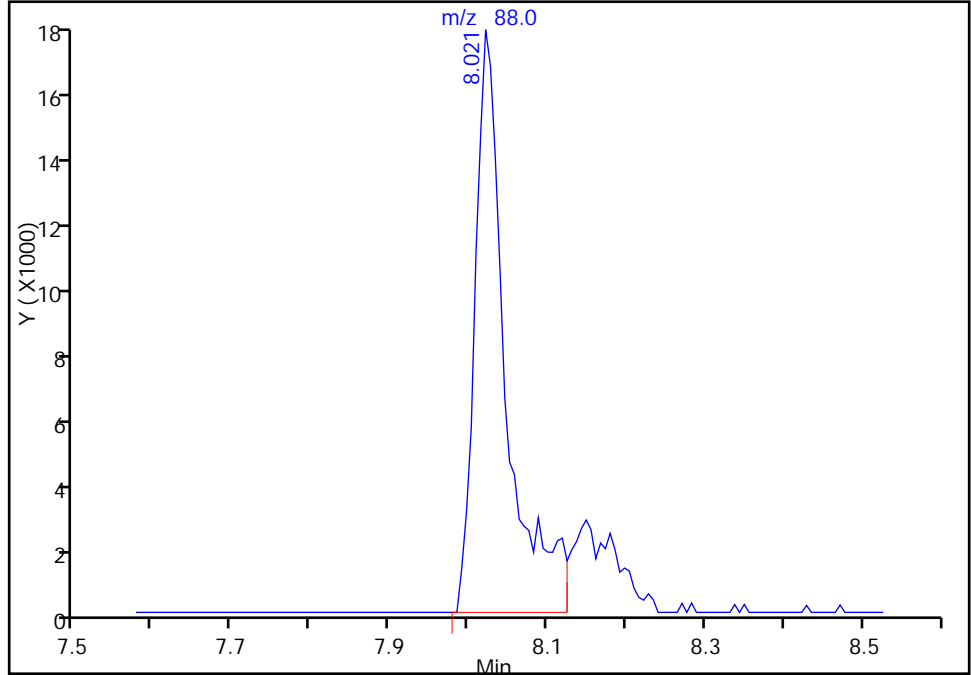
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Injection Date: 28-Sep-2016 16:03:30 Instrument ID: CHHP5
Lims ID: IC VSTD35
Client ID:
Operator ID: 001562 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

Signal: 1

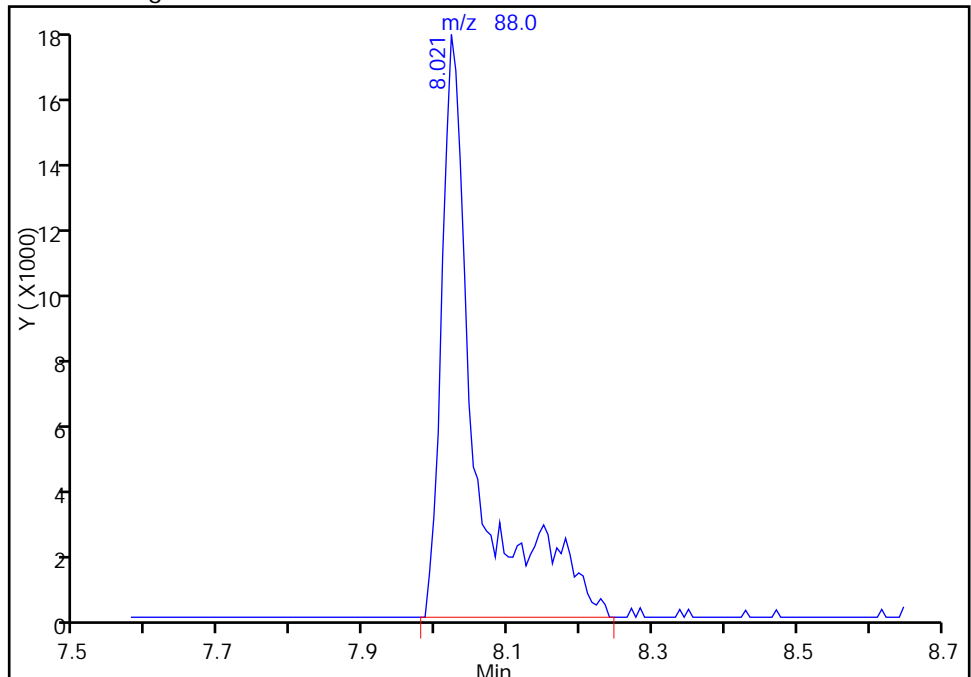
RT: 8.02
Area: 47692
Amount: 2999.8030
Amount Units: ng

Processing Integration Results



RT: 8.02
Area: 57759
Amount: 3552.6700
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 29-Sep-2016 09:13:12

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928010.D
 Lims ID: IC VSTD40
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 28-Sep-2016 16:27:30 ALS Bottle#: 10 Worklist Smp#: 10
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013640-010
 Misc. Info.: IC VSTD40
 Operator ID: 001562 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 29-Sep-2016 11:06:36 Calib Date: 28-Sep-2016 18:27:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928015.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK034

First Level Reviewer: fergusond Date: 29-Sep-2016 09:21:50

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.287	4.275	0.012	0	115427	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.274	7.280	-0.006	93	384826	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.376	10.376	0.000	88	90262	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.718	12.725	-0.007	92	91683	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.550	6.556	-0.006	93	352514	200.0	203.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.927	6.927	0.000	0	469162	200.0	198.9	
\$ 7 Toluene-d8 (Surr)	98	8.922	8.922	0.000	94	1278630	200.0	180.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.563	11.563	0.000	84	474859	200.0	181.0	
11 Dichlorodifluoromethane	85	1.616	1.616	0.000	98	517273	200.0	204.2	
12 Chloromethane	50	1.768	1.756	0.012	100	602464	200.0	205.1	
13 Vinyl chloride	62	1.914	1.896	0.018	99	487261	200.0	204.1	
14 Butadiene	39	1.945	1.926	0.019	96	543545	200.0	202.1	
15 Bromomethane	94	2.249	2.249	0.000	89	201143	200.0	194.2	
16 Chloroethane	64	2.389	2.377	0.012	99	307056	200.0	205.1	
17 Dichlorofluoromethane	67	2.662	2.657	0.006	98	650922	200.0	206.4	
18 Trichlorofluoromethane	101	2.687	2.669	0.018	98	466981	200.0	207.0	
20 Ethyl ether	59	3.052	3.046	0.006	95	392719	200.0	201.0	
21 Acrolein	56	3.228	3.222	0.006	99	111599	250.0	248.8	
22 1,1-Dichloroethene	96	3.332	3.338	-0.006	98	448034	200.0	205.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.411	3.393	0.018	95	452132	200.0	205.9	
24 Acetone	43	3.447	3.441	0.006	99	275016	400.0	364.4	
25 Iodomethane	142	3.532	3.533	-0.001	99	631551	200.0	202.4	
26 Carbon disulfide	76	3.624	3.624	0.000	100	1197032	200.0	203.8	
28 3-Chloro-1-propene	76	3.916	3.916	0.000	88	290699	200.0	202.7	
30 Methyl acetate	43	3.940	3.934	0.006	98	1845387	1000.0	993.7	
31 Methylene Chloride	84	4.129	4.135	-0.006	98	486344	200.0	192.0	
32 2-Methyl-2-propanol	59	4.421	4.402	0.019	97	248639	2000.0	1925.7	
33 Acrylonitrile	53	4.524	4.518	0.006	98	1785952	2000.0	1983.1	
34 trans-1,2-Dichloroethene	96	4.548	4.555	-0.007	96	453303	200.0	203.1	
35 Methyl tert-butyl ether	73	4.579	4.573	0.006	99	1277687	200.0	204.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.974	4.974	0.000	96	730587	200.0	206.9	
37 1,1-Dichloroethane	63	5.193	5.187	0.006	96	892754	200.0	202.8	
38 Vinyl acetate	43	5.242	5.242	0.000	98	920108	200.0	205.9	
44 2,2-Dichloropropane	77	5.935	5.935	0.000	90	514868	200.0	196.2	M
45 cis-1,2-Dichloroethene	96	5.941	5.942	-0.001	84	515559	200.0	204.5	
46 2-Butanone (MEK)	43	5.960	5.960	0.000	99	433920	400.0	385.1	
49 Chlorobromomethane	128	6.227	6.221	0.006	94	214350	200.0	206.5	
51 Tetrahydrofuran	42	6.246	6.246	0.000	89	292739	400.0	383.8	
52 Chloroform	83	6.373	6.374	-0.001	95	794529	200.0	202.7	
53 1,1,1-Trichloroethane	97	6.532	6.526	0.006	98	637944	200.0	204.1	
54 Cyclohexane	56	6.598	6.599	-0.001	96	940533	200.0	203.7	
56 Carbon tetrachloride	117	6.702	6.702	0.000	94	540246	200.0	213.6	
55 1,1-Dichloropropene	75	6.714	6.714	0.000	91	643461	200.0	205.5	
57 Isobutyl alcohol	41	6.927	6.927	0.000	87	259634	5000.0	4657.7	M
58 Benzene	78	6.933	6.933	0.000	99	1757741	200.0	198.9	
59 1,2-Dichloroethane	62	7.012	7.012	0.000	97	645294	200.0	208.2	
62 n-Heptane	43	7.292	7.292	0.000	95	596259	200.0	203.5	
64 Trichloroethene	130	7.663	7.663	0.000	97	442295	200.0	204.5	
66 Methylcyclohexane	83	7.900	7.900	0.000	95	783449	200.0	205.5	
67 1,2-Dichloropropane	63	7.937	7.937	0.000	95	459878	200.0	203.2	
70 1,4-Dioxane	88	8.028	8.022	0.006	39	68092	4000.0	4292.1	
68 Dibromomethane	93	8.028	8.028	0.000	97	246884	200.0	209.6	
71 Dichlorobromomethane	83	8.223	8.223	0.000	98	528051	200.0	213.3	
73 2-Chloroethyl vinyl ether	63	8.521	8.521	0.000	93	489958	400.0	412.4	
74 cis-1,3-Dichloropropene	75	8.667	8.667	0.000	91	663457	200.0	207.5	
75 4-Methyl-2-pentanone (MIBK)	43	8.819	8.819	0.000	98	926821	400.0	401.2	
76 Toluene	91	8.995	8.989	0.006	97	1682347	200.0	184.7	
77 trans-1,3-Dichloropropene	75	9.245	9.239	0.006	99	584449	200.0	206.2	
78 Ethyl methacrylate	69	9.300	9.300	0.000	92	545625	200.0	195.6	
79 1,1,2-Trichloroethane	97	9.439	9.433	0.006	94	325970	200.0	192.8	
80 Tetrachloroethene	164	9.506	9.506	0.000	94	322489	200.0	193.7	
81 1,3-Dichloropropane	76	9.598	9.592	0.006	97	615623	200.0	192.9	
82 2-Hexanone	43	9.652	9.652	0.000	98	727168	400.0	397.4	
84 Chlorodibromomethane	129	9.804	9.811	-0.007	90	322398	200.0	206.8	
85 Ethylene Dibromide	107	9.920	9.920	0.000	98	336816	200.0	196.9	
86 3-Chlorobenzotrifluoride	180	10.382	10.383	0.000	93	568861	200.0	190.6	
87 Chlorobenzene	112	10.407	10.407	0.000	91	1038308	200.0	189.0	
88 4-Chlorobenzotrifluoride	180	10.468	10.468	0.000	97	535427	200.0	191.5	
89 1,1,1,2-Tetrachloroethane	131	10.498	10.498	0.000	91	339798	200.0	199.1	
90 Ethylbenzene	106	10.504	10.504	0.000	99	588956	200.0	184.3	
91 m-Xylene & p-Xylene	106	10.638	10.638	0.000	0	732214	200.0	187.6	
92 o-Xylene	106	11.015	11.015	0.000	97	669468	200.0	185.6	
93 Styrene	104	11.039	11.040	-0.001	95	1137392	200.0	188.8	
94 Bromoform	173	11.222	11.228	-0.006	95	196974	200.0	216.2	
96 2-Chlorobenzotrifluoride	180	11.289	11.289	0.000	94	515937	200.0	189.9	
97 Isopropylbenzene	105	11.386	11.386	0.000	97	1601919	200.0	181.7	
100 Bromobenzene	156	11.703	11.703	0.000	97	372499	200.0	191.3	
99 1,1,2,2-Tetrachloroethane	83	11.703	11.703	0.000	95	388860	200.0	193.0	
102 trans-1,4-Dichloro-2-buten	53	11.739	11.733	0.006	84	162235	200.0	219.4	
101 1,2,3-Trichloropropane	110	11.757	11.757	0.000	87	135370	200.0	202.6	
103 N-Propylbenzene	120	11.806	11.806	0.000	98	449479	200.0	193.5	
104 2-Chlorotoluene	126	11.891	11.891	0.000	95	366676	200.0	190.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.958	11.958	0.000	96	407541	200.0	197.4	
106 1,3,5-Trimethylbenzene	105	11.988	11.989	-0.001	97	1170104	200.0	190.3	
107 4-Chlorotoluene	126	12.013	12.013	0.000	99	388183	200.0	192.7	
108 tert-Butylbenzene	119	12.299	12.299	0.000	93	976167	200.0	188.7	
110 1,2,4-Trimethylbenzene	105	12.360	12.360	0.000	99	1182727	200.0	193.3	
111 1,2-dichloro-4-(trifluorom	214	12.402	12.402	0.000	97	332649	200.0	197.5	
112 sec-Butylbenzene	105	12.524	12.524	0.000	96	1346555	200.0	188.9	
113 1,3-Dichlorobenzene	146	12.639	12.639	0.000	96	617701	200.0	197.5	
114 4-Isopropyltoluene	119	12.682	12.682	0.000	96	1081141	200.0	192.6	
115 1,4-Dichlorobenzene	146	12.743	12.749	-0.006	94	619510	200.0	199.2	
116 2,4-Dichloro-1-(trifluorom	214	12.773	12.773	0.000	97	288217	200.0	201.3	
118 2,5-Dichlorobenzotrifluori	214	12.816	12.816	0.000	0	325609	200.0	197.2	
120 n-Butylbenzene	91	13.090	13.090	0.000	98	954056	200.0	203.3	
121 1,2-Dichlorobenzene	146	13.102	13.102	0.000	94	526341	200.0	201.1	
122 1,2-Dibromo-3-Chloropropan	75	13.893	13.899	-0.006	78	59793	200.0	227.5	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.032	14.033	-0.001	0	1134530	600.0	673.6	
125 2,3- & 3,4- Dichlorotoluen	125	14.452	14.452	0.000	0	781028	400.0	474.9	
126 1,2,4-Trichlorobenzene	180	14.714	14.720	-0.006	94	283129	200.0	245.6	
127 Hexachlorobutadiene	225	14.860	14.866	-0.006	97	128089	200.0	228.6	
128 Naphthalene	128	14.982	14.982	0.000	98	818645	200.0	243.5	
129 1,2,3-Trichlorobenzene	180	15.207	15.207	0.000	94	262521	200.0	253.5	
131 2,4,5-Trichlorotoluene	159	15.985	15.985	0.000	0	211177	200.0	198.4	
130 2,3,6-Trichlorotoluene	159	16.083	16.083	0.000	94	197483	200.0	237.7	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		400.0	373.2	
S 134 1,2-Dichloroethene, Total	96				0		400.0	407.7	
S 135 1,3-Dichloropropene, Total	1				0		400.0	413.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaW2CLEReste_00001	Amount Added: 8.00	Units: uL	
VOA8260SURR_00059	Amount Added: 8.00	Units: uL	
voaWVA1stRest_00008	Amount Added: 8.00	Units: uL	
voaWKetPriRes_00002	Amount Added: 8.00	Units: uL	
voaWEEmixRest_00001	Amount Added: 8.00	Units: uL	
VOA8260VOAPRI_00213	Amount Added: 8.00	Units: uL	
voaWAcro1stRe_00008	Amount Added: 10.00	Units: uL	
VOA8260INT_00061	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928010.D

Injection Date: 28-Sep-2016 16:27:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD40

Worklist Smp#: 10

Client ID:

Purge Vol: 5.000 mL

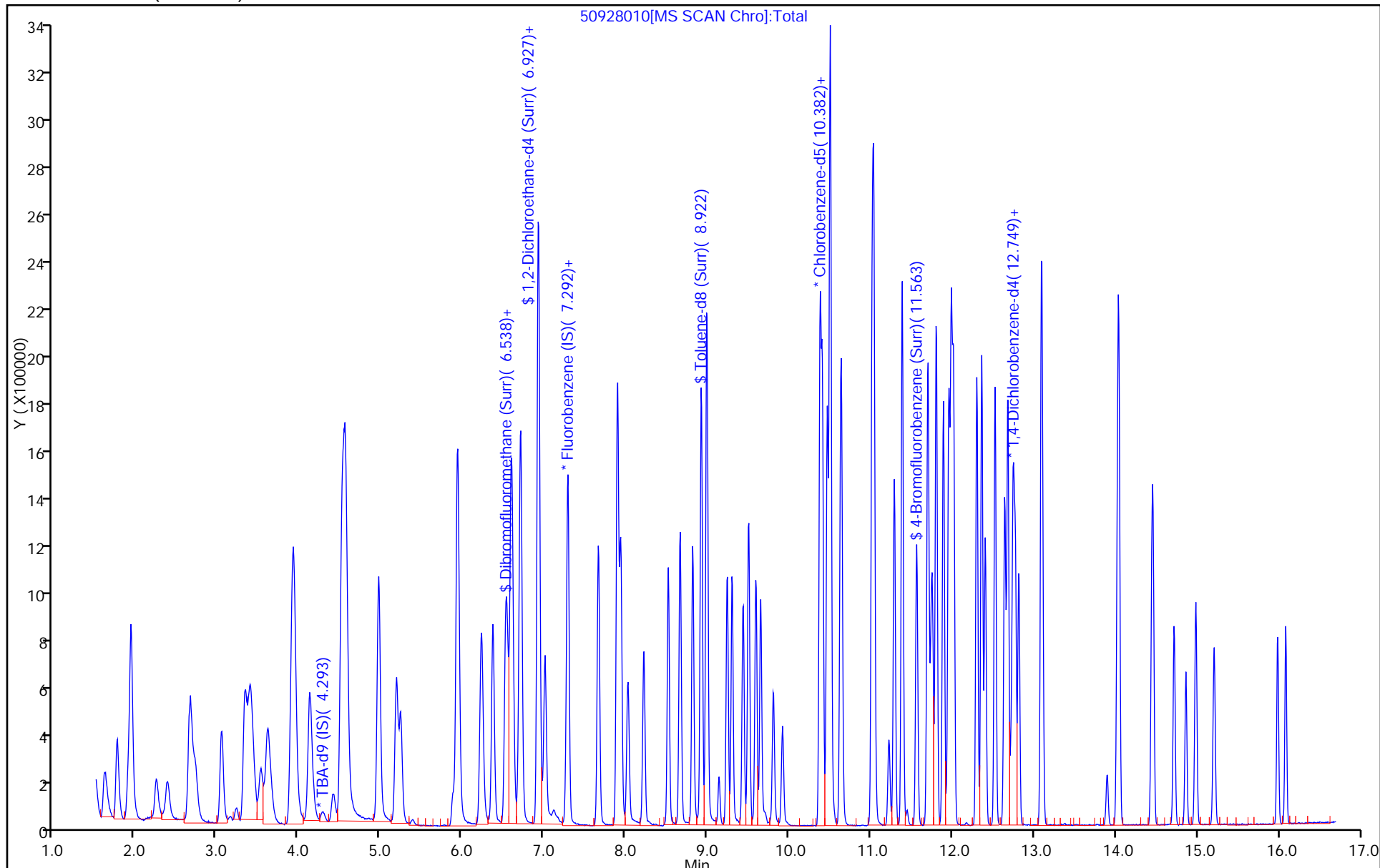
Dil. Factor: 1.0000

ALS Bottle#: 10

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

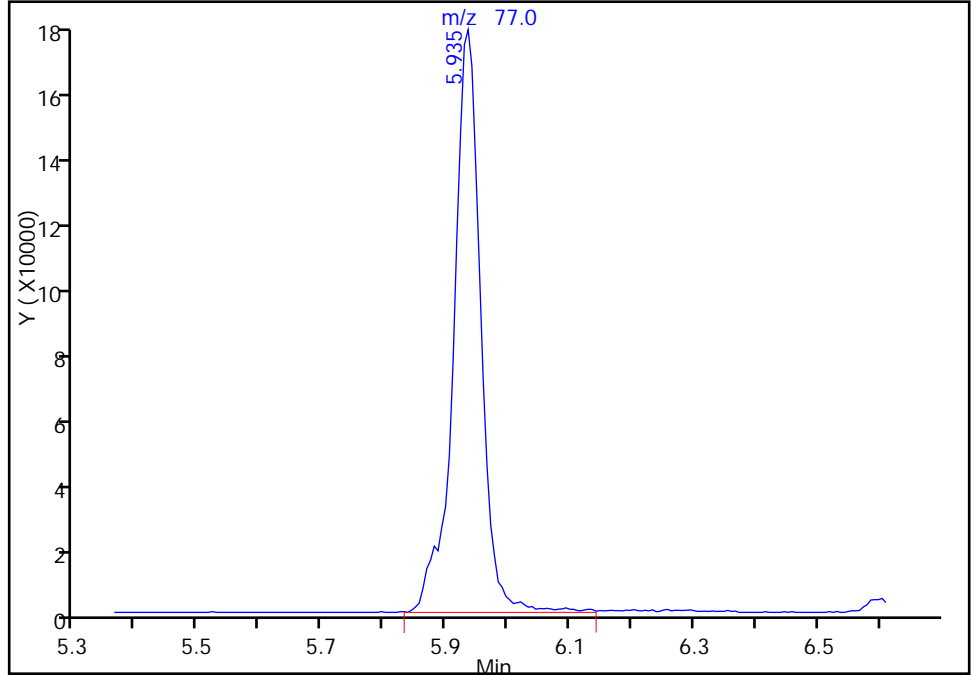
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Injection Date: 28-Sep-2016 16:27:30 Instrument ID: CHHP5
Lims ID: IC VSTD40
Client ID:
Operator ID: 001562 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

44 2,2-Dichloropropane, CAS: 594-20-7

Signal: 1

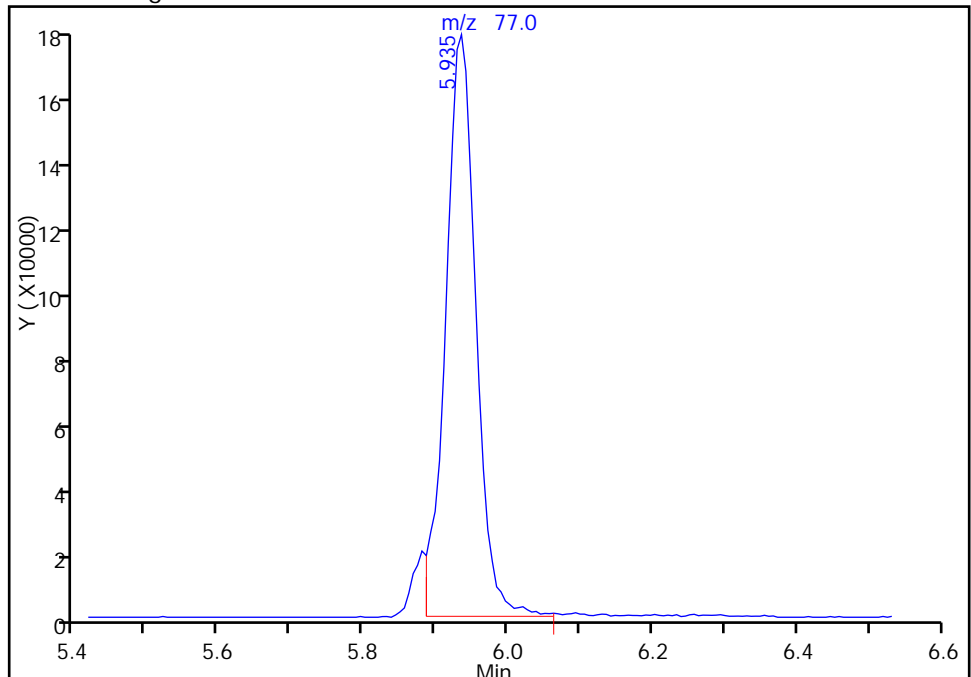
RT: 5.94
Area: 544561
Amount: 204.4406
Amount Units: ng

Processing Integration Results



RT: 5.94
Area: 514868
Amount: 196.1959
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 29-Sep-2016 09:21:50

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh

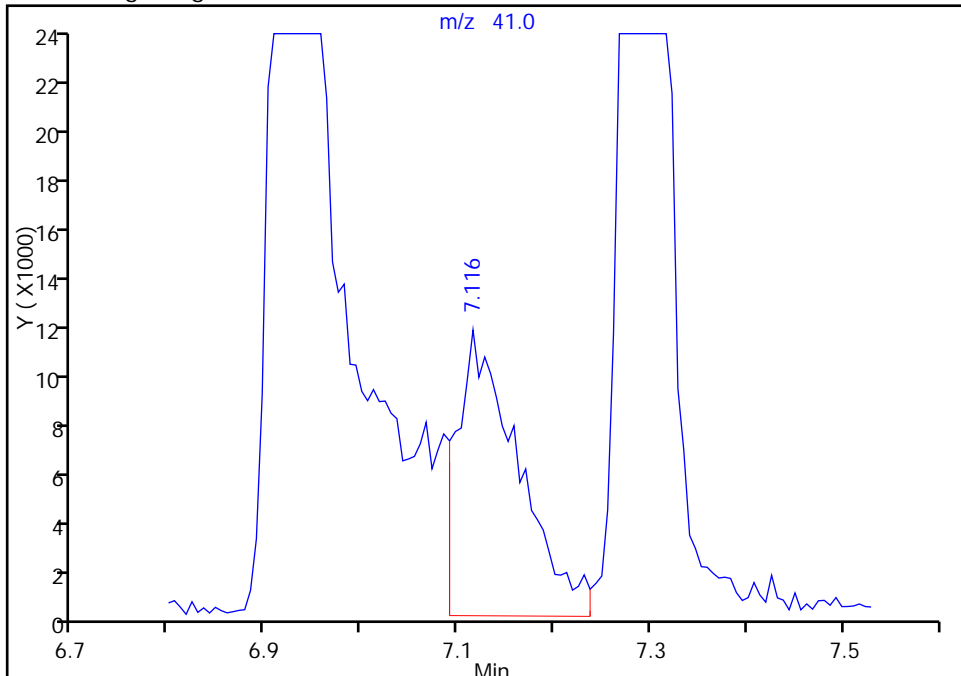
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928010.D
Injection Date: 28-Sep-2016 16:27:30 Instrument ID: CHHP5
Lims ID: IC VSTD40
Client ID:
Operator ID: 001562 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

57 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

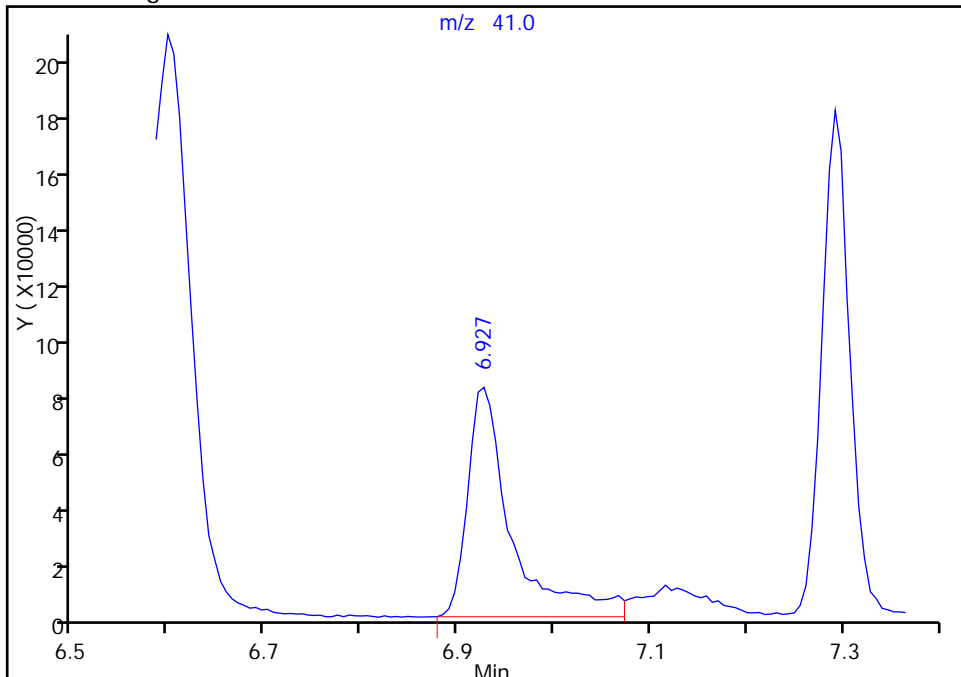
RT: 7.12
Area: 50877
Amount: 1247.5195
Amount Units: ng

Processing Integration Results



RT: 6.93
Area: 259634
Amount: 4657.7498
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 29-Sep-2016 09:21:50
Audit Action: Assigned Compound ID

Audit Reason: Poor chromatography

TestAmerica Pittsburgh

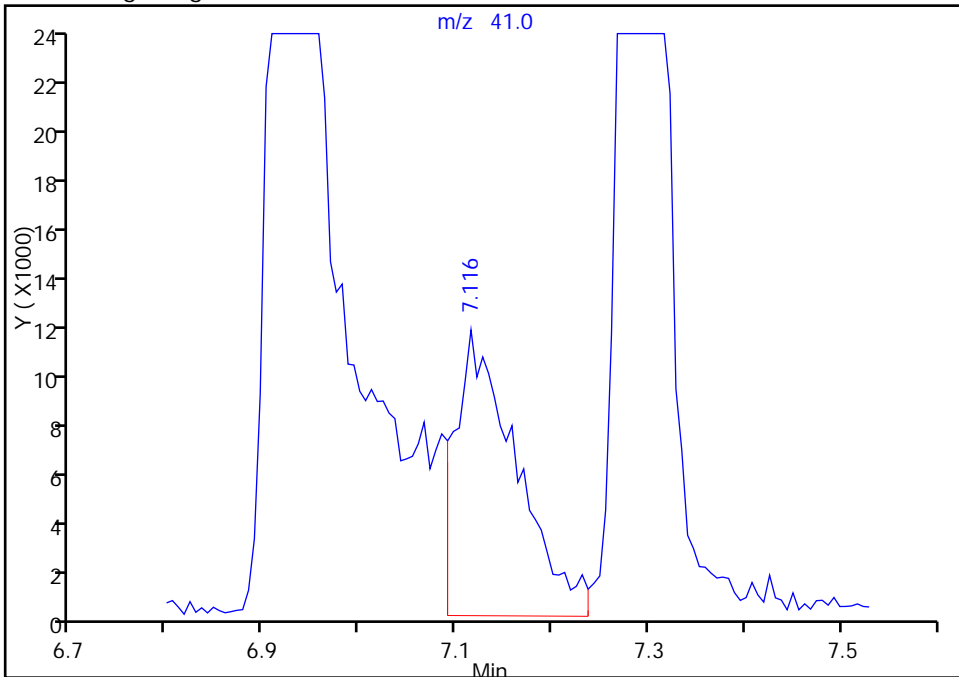
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928010.D
Injection Date: 28-Sep-2016 16:27:30 Instrument ID: CHHP5
Lims ID: IC VSTD40
Client ID:
Operator ID: 001562 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

57 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

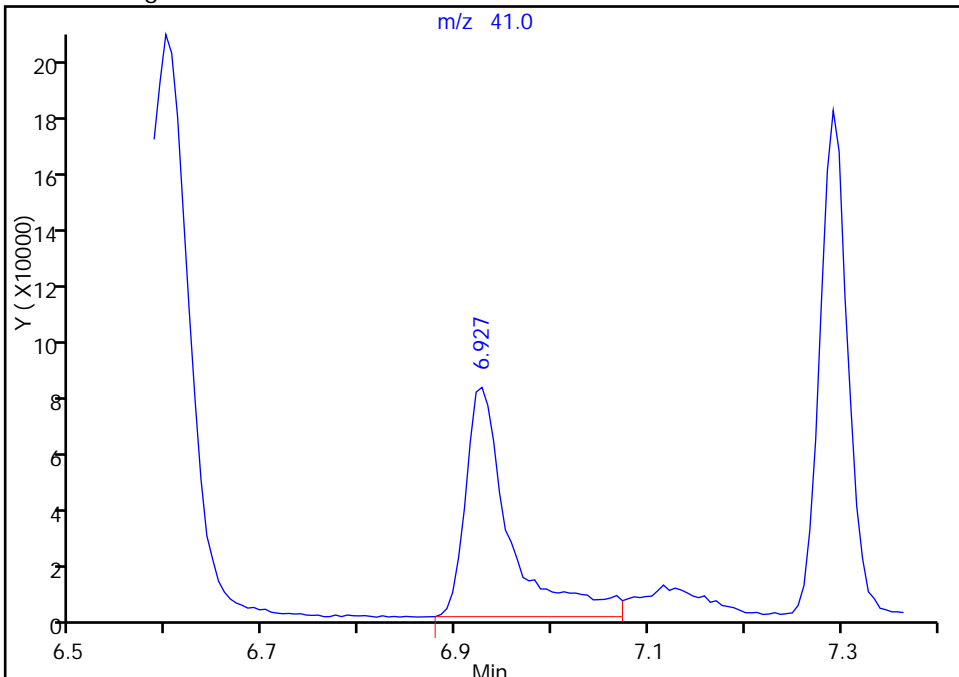
RT: 7.12
Area: 50877
Amount: 1247.5195
Amount Units: ng

Processing Integration Results



RT: 6.93
Area: 259634
Amount: 4657.7498
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 29-Sep-2016 09:21:50

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928011.D
 Lims ID: IC VSTD50
 Client ID:
 Sample Type: IC Calib Level: 8
 Inject. Date: 28-Sep-2016 16:51:30 ALS Bottle#: 11 Worklist Smp#: 11
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013640-011
 Misc. Info.: IC VSTD50
 Operator ID: 001562 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 29-Sep-2016 11:08:31 Calib Date: 28-Sep-2016 18:27:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928015.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK034

First Level Reviewer: fergusond

Date: 29-Sep-2016 11:08:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.287	4.275	0.012	0	145693	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.274	7.280	-0.006	98	377302	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.376	10.376	0.000	88	88135	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.724	12.725	-0.001	89	81195	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.550	6.556	-0.006	93	439137	250.0	258.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.921	6.927	-0.006	0	601271	250.0	260.1	
\$ 7 Toluene-d8 (Surr)	98	8.922	8.922	0.000	94	1570018	250.0	226.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.563	11.563	-0.001	87	575151	250.0	224.5	
11 Dichlorodifluoromethane	85	1.616	1.616	0.000	99	594622	250.0	239.4	
12 Chloromethane	50	1.768	1.756	0.012	99	715799	250.0	248.6	
13 Vinyl chloride	62	1.908	1.896	0.012	98	574513	250.0	245.4	
14 Butadiene	39	1.932	1.926	0.006	97	645769	250.0	244.9	
15 Bromomethane	94	2.243	2.249	-0.006	91	249057	250.0	245.3	
16 Chloroethane	64	2.376	2.377	-0.001	100	369458	250.0	251.7	
17 Dichlorofluoromethane	67	2.656	2.657	0.000	97	778608	250.0	251.8	
18 Trichlorofluoromethane	101	2.687	2.669	0.018	98	557326	250.0	252.0	
20 Ethyl ether	59	3.046	3.046	0.000	95	532822	250.0	278.2	
21 Acrolein	56	3.234	3.222	0.012	98	135147	275.0	307.3	
22 1,1-Dichloroethene	96	3.332	3.338	-0.006	96	536898	250.0	251.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.398	3.393	0.005	94	531712	250.0	247.0	
24 Acetone	43	3.441	3.441	0.000	99	429187	500.0	580.0	
25 Iodomethane	142	3.526	3.533	-0.007	100	779677	250.0	254.8	
26 Carbon disulfide	76	3.611	3.624	-0.013	100	1448012	250.0	251.5	
28 3-Chloro-1-propene	76	3.903	3.916	-0.013	88	361279	250.0	256.9	
30 Methyl acetate	43	3.934	3.934	0.000	98	2483416	1250.0	1363.9	
31 Methylene Chloride	84	4.129	4.135	-0.007	98	601264	250.0	242.1	
32 2-Methyl-2-propanol	59	4.421	4.402	0.018	97	424180	2500.0	2602.7	
33 Acrylonitrile	53	4.518	4.518	0.000	97	2398340	2500.0	2716.2	
34 trans-1,2-Dichloroethene	96	4.548	4.555	-0.007	96	546321	250.0	249.7	
35 Methyl tert-butyl ether	73	4.573	4.573	0.000	99	1599850	250.0	260.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.968	4.974	-0.006	96	863925	250.0	249.6	
37 1,1-Dichloroethane	63	5.187	5.187	0.000	96	1097957	250.0	254.4	
38 Vinyl acetate	43	5.242	5.242	0.000	98	1167757	250.0	266.5	
44 2,2-Dichloropropane	77	5.935	5.935	0.000	89	613165	250.0	238.3	M
45 cis-1,2-Dichloroethene	96	5.935	5.942	-0.007	85	638803	250.0	258.5	
46 2-Butanone (MEK)	43	5.960	5.960	0.000	100	602303	500.0	545.2	
49 Chlorobromomethane	128	6.221	6.221	0.000	94	269656	250.0	264.9	
51 Tetrahydrofuran	42	6.246	6.246	0.000	90	406653	500.0	543.8	
52 Chloroform	83	6.373	6.374	-0.001	95	983614	250.0	255.9	
53 1,1,1-Trichloroethane	97	6.525	6.526	-0.001	97	765914	250.0	249.9	
54 Cyclohexane	56	6.592	6.599	-0.007	96	1090502	250.0	240.9	
56 Carbon tetrachloride	117	6.702	6.702	0.000	94	647100	250.0	260.9	
55 1,1-Dichloropropene	75	6.714	6.714	0.000	91	767529	250.0	250.0	
57 Isobutyl alcohol	41	6.927	6.927	0.000	94	379056	6250.0	6935.7	
58 Benzene	78	6.933	6.933	0.000	98	2148048	250.0	247.9	
59 1,2-Dichloroethane	62	7.012	7.012	0.000	97	815576	250.0	268.3	
62 n-Heptane	43	7.292	7.292	0.000	94	733636	250.0	255.4	
64 Trichloroethene	130	7.663	7.663	0.000	97	555599	250.0	262.0	
66 Methylcyclohexane	83	7.894	7.900	-0.006	95	916346	250.0	245.2	
67 1,2-Dichloropropane	63	7.937	7.937	0.000	94	584173	250.0	263.2	
70 1,4-Dioxane	88	8.022	8.022	0.000	71	91056	5000.0	5854.1	
68 Dibromomethane	93	8.028	8.028	0.000	96	319168	250.0	276.4	
71 Dichlorobromomethane	83	8.223	8.223	0.000	98	666672	250.0	274.7	
73 2-Chloroethyl vinyl ether	63	8.521	8.521	0.000	93	639029	500.0	548.6	
74 cis-1,3-Dichloropropene	75	8.667	8.667	0.000	91	857554	250.0	273.6	
75 4-Methyl-2-pentanone (MIBK)	43	8.819	8.819	0.000	97	1178935	500.0	522.7	M
76 Toluene	91	8.989	8.989	0.000	97	2059034	250.0	231.6	
77 trans-1,3-Dichloropropene	75	9.239	9.239	0.000	99	755849	250.0	273.1	
78 Ethyl methacrylate	69	9.299	9.300	-0.001	92	715550	250.0	262.6	
79 1,1,2-Trichloroethane	97	9.433	9.433	0.000	94	421462	250.0	255.2	
80 Tetrachloroethene	164	9.506	9.506	0.000	94	390254	250.0	240.1	
81 1,3-Dichloropropane	76	9.591	9.592	-0.001	97	796390	250.0	255.6	
82 2-Hexanone	43	9.652	9.652	0.000	97	940605	500.0	526.4	
84 Chlorodibromomethane	129	9.810	9.811	-0.001	90	421891	250.0	277.1	
85 Ethylene Dibromide	107	9.920	9.920	0.000	99	433724	250.0	259.6	
86 3-Chlorobenzotrifluoride	180	10.382	10.383	0.000	93	674810	250.0	231.5	
87 Chlorobenzene	112	10.407	10.407	0.000	91	1283875	250.0	239.4	
88 4-Chlorobenzotrifluoride	180	10.467	10.468	-0.001	97	634675	250.0	232.4	
89 1,1,1,2-Tetrachloroethane	131	10.504	10.498	0.006	92	431610	250.0	258.9	
90 Ethylbenzene	106	10.504	10.504	0.000	99	724283	250.0	232.2	
91 m-Xylene & p-Xylene	106	10.638	10.638	0.000	0	894138	250.0	234.6	
92 o-Xylene	106	11.015	11.015	0.000	97	820686	250.0	233.0	
93 Styrene	104	11.039	11.040	-0.001	94	1373671	250.0	233.6	
94 Bromoform	173	11.222	11.228	-0.006	95	250642	250.0	281.7	
96 2-Chlorobenzotrifluoride	180	11.289	11.289	0.000	95	601185	250.0	226.6	
97 Isopropylbenzene	105	11.386	11.386	0.000	98	1856126	250.0	215.6	
100 Bromobenzene	156	11.696	11.703	-0.007	98	457221	250.0	265.1	
99 1,1,2,2-Tetrachloroethane	83	11.702	11.703	-0.001	94	478532	250.0	243.3	
102 trans-1,4-Dichloro-2-buten	53	11.739	11.733	0.006	86	199562	250.0	304.7	
101 1,2,3-Trichloropropane	110	11.757	11.757	0.000	87	167416	250.0	282.9	
103 N-Propylbenzene	120	11.800	11.806	-0.006	98	520622	250.0	253.1	
104 2-Chlorotoluene	126	11.891	11.891	0.000	95	433970	250.0	254.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.952	11.958	-0.006	96	476276	250.0	260.6	
106 1,3,5-Trimethylbenzene	105	11.988	11.989	-0.001	96	1331948	250.0	244.6	
107 4-Chlorotoluene	126	12.013	12.013	0.000	99	451546	250.0	253.2	
108 tert-Butylbenzene	119	12.299	12.299	0.000	93	1105106	250.0	241.3	
110 1,2,4-Trimethylbenzene	105	12.359	12.360	-0.001	99	1331907	250.0	245.9	
111 1,2-dichloro-4-(trifluorom	214	12.402	12.402	0.000	97	363317	250.0	243.6	
112 sec-Butylbenzene	105	12.524	12.524	0.000	96	1495442	250.0	236.9	
113 1,3-Dichlorobenzene	146	12.639	12.639	0.000	96	701021	250.0	253.1	
114 4-Isopropyltoluene	119	12.676	12.682	-0.006	96	1189271	250.0	239.2	
115 1,4-Dichlorobenzene	146	12.743	12.749	-0.006	91	697625	250.0	253.3	
116 2,4-Dichloro-1-(trifluorom	214	12.773	12.773	0.000	95	308481	250.0	243.3	
118 2,5-Dichlorobenzotrifluori	214	12.816	12.816	0.000	0	353135	250.0	241.6	
120 n-Butylbenzene	91	13.089	13.090	-0.001	97	1020867	250.0	245.6	
121 1,2-Dichlorobenzene	146	13.102	13.102	0.000	93	574668	250.0	247.9	
122 1,2-Dibromo-3-Chloropropan	75	13.892	13.899	-0.007	82	65712	250.0	282.3	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.032	14.033	-0.001	0	1083822	750.0	726.7	
125 2,3- & 3,4- Dichlorotoluen	125	14.446	14.452	-0.006	0	731951	500.0	502.5	
126 1,2,4-Trichlorobenzene	180	14.720	14.720	0.000	94	270525	250.0	265.0	
127 Hexachlorobutadiene	225	14.860	14.866	-0.006	97	124544	250.0	250.9	
128 Naphthalene	128	14.981	14.982	-0.001	98	816381	250.0	274.2	
129 1,2,3-Trichlorobenzene	180	15.207	15.207	-0.001	94	253424	250.0	276.3	
131 2,4,5-Trichlorotoluene	159	15.985	15.985	0.000	0	259688	250.0	249.8	
130 2,3,6-Trichlorotoluene	159	16.083	16.083	0.000	94	236633	250.0	321.6	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		500.0	467.7	
S 134 1,2-Dichloroethene, Total	96				0		500.0	508.2	
S 135 1,3-Dichloropropene, Total	1				0		500.0	546.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWAcro1stRe_00008	Amount Added: 11.00	Units: uL	
VOA8260SURR_00059	Amount Added: 10.00	Units: uL	
voaWVA1stRest_00008	Amount Added: 10.00	Units: uL	
voaWKetPriRes_00002	Amount Added: 10.00	Units: uL	
voaWEEmixRest_00001	Amount Added: 10.00	Units: uL	
voaW2CLEReste_00001	Amount Added: 10.00	Units: uL	
VOA8260VOAPRI_00213	Amount Added: 10.00	Units: uL	
VOA8260INT_00061	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928011.D

Injection Date: 28-Sep-2016 16:51:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD50

Worklist Smp#: 11

Client ID:

Purge Vol: 5.000 mL

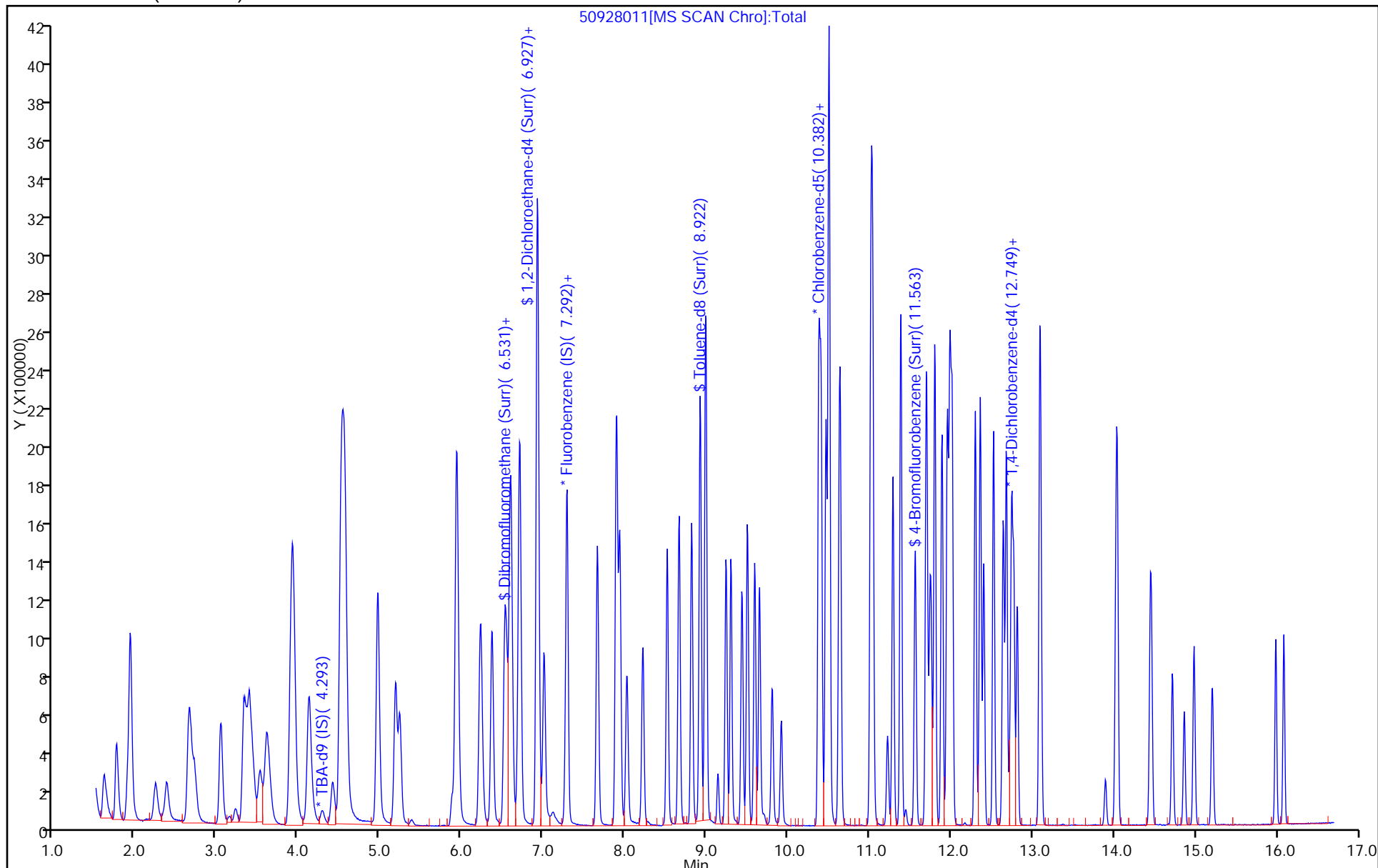
Dil. Factor: 1.0000

ALS Bottle#: 11

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

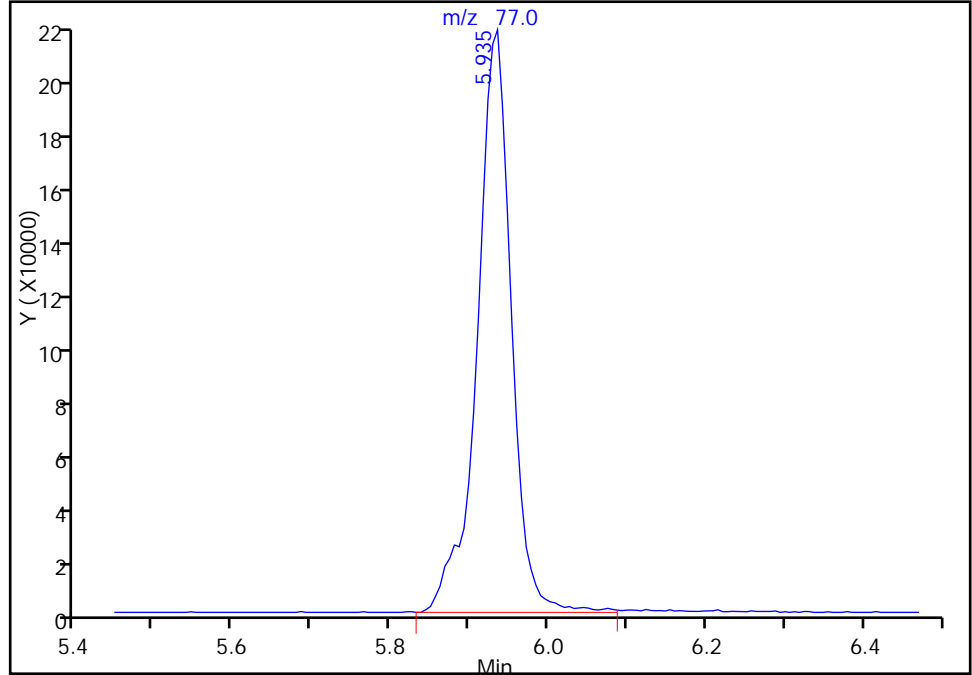
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Injection Date: 28-Sep-2016 16:51:30 Instrument ID: CHHP5
Lims ID: IC VSTD50
Client ID:
Operator ID: 001562 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

44 2,2-Dichloropropane, CAS: 594-20-7

Signal: 1

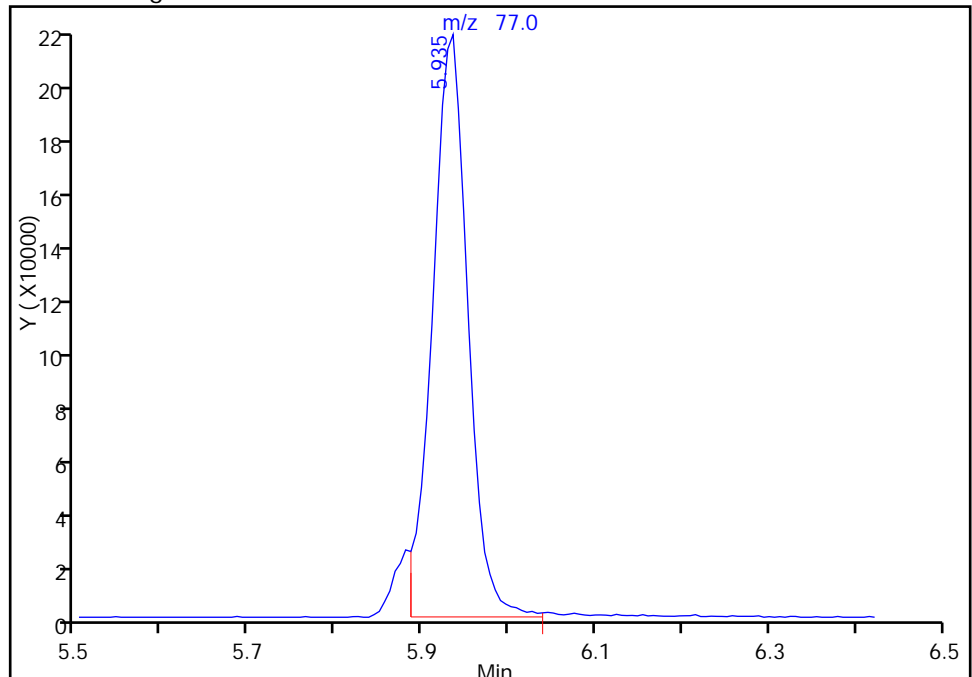
RT: 5.94
Area: 647220
Amount: 249.8157
Amount Units: ng

Processing Integration Results



RT: 5.94
Area: 613165
Amount: 238.3124
Amount Units: ng

Manual Integration Results



TestAmerica Pittsburgh

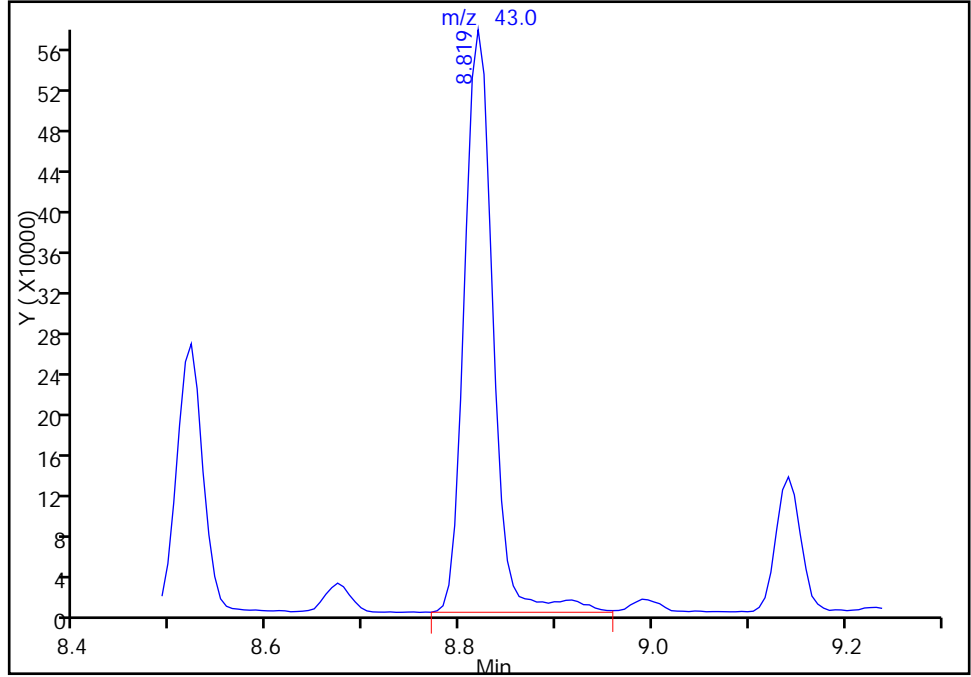
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928011.D
Injection Date: 28-Sep-2016 16:51:30 Instrument ID: CHHP5
Lims ID: IC VSTD50
Client ID:
Operator ID: 001562 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

75 4-Methyl-2-pentanone (MIBK), CAS: 108-10-1

Signal: 1

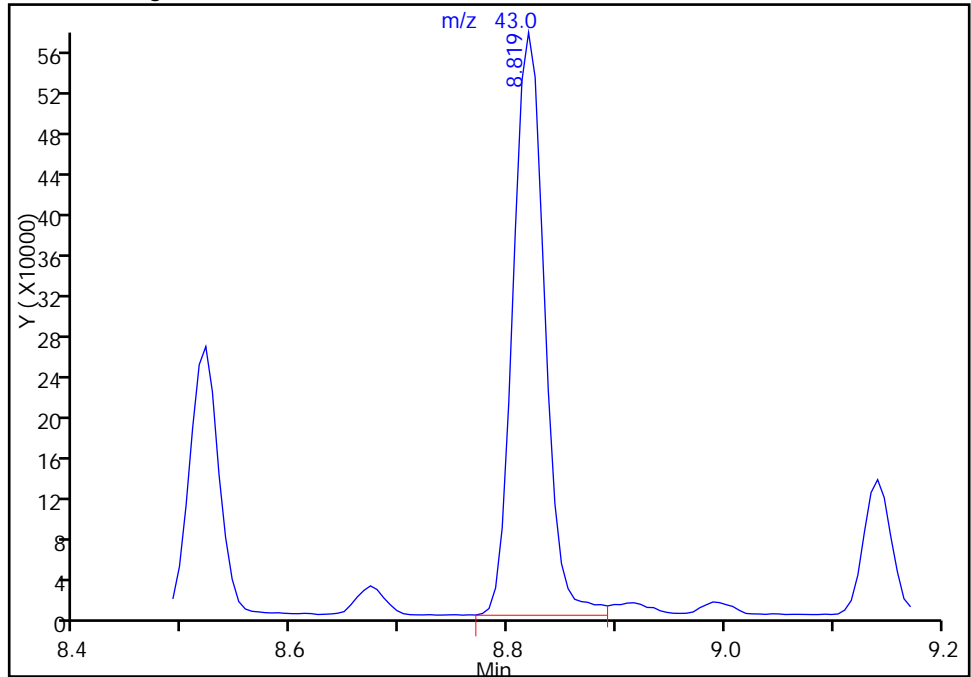
RT: 8.82
Area: 1206643
Amount: 533.3288
Amount Units: ng

Processing Integration Results



RT: 8.82
Area: 1178935
Amount: 522.6824
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 29-Sep-2016 09:28:18

Audit Action: Manually Integrated

Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928015.D
 Lims ID: IC VSTD1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 28-Sep-2016 18:27:30 ALS Bottle#: 15 Worklist Smp#: 15
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013640-015
 Misc. Info.: IC VSTD1
 Operator ID: 001562 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 29-Sep-2016 11:03:20 Calib Date: 28-Sep-2016 18:27:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928015.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK034

First Level Reviewer: fergusond

Date: 29-Sep-2016 11:02:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.280	4.275	0.005	0	127717	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.280	-0.007	98	375512	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.376	10.376	0.000	89	82249	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.718	12.725	-0.007	97	88134	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.555	6.556	-0.001	91	9367	5.00	5.53	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.926	6.927	-0.001	0	14000	5.00	6.08	
\$ 7 Toluene-d8 (Surr)	98	8.922	8.922	0.000	94	39324	5.00	6.08	
\$ 8 4-Bromofluorobenzene (Surr	95	11.562	11.563	-0.001	86	15772	5.00	6.60	
11 Dichlorodifluoromethane	85	1.616	1.616	0.000	96	10690	5.00	4.32	
12 Chloromethane	50	1.762	1.756	0.006	98	14896	5.00	5.20	
13 Vinyl chloride	62	1.889	1.896	-0.007	69	11131	5.00	4.78	
14 Butadiene	39	1.938	1.926	0.012	96	11630	5.00	4.43	
15 Bromomethane	94	2.242	2.249	-0.007	85	6425	5.00	6.36	
16 Chloroethane	64	2.388	2.377	0.011	94	8482	5.00	5.81	
17 Dichlorofluoromethane	67	2.656	2.657	0.000	96	17168	5.00	5.58	
18 Trichlorofluoromethane	101	2.674	2.669	0.005	55	10067	5.00	4.57	
20 Ethyl ether	59	3.039	3.046	-0.007	92	9992	5.00	5.24	
21 Acrolein	56	3.234	3.222	0.012	97	44990	100.0	102.8	
22 1,1-Dichloroethene	96	3.325	3.338	-0.013	96	10276	5.00	4.83	
23 1,1,2-Trichloro-1,2,2-trif	101	3.386	3.393	-0.007	72	9603	5.00	4.48	
24 Acetone	43	3.453	3.441	0.012	99	17917	25.0	24.3	
25 Iodomethane	142	3.538	3.533	0.005	84	15834	5.00	5.20	
26 Carbon disulfide	76	3.629	3.624	0.005	99	27165	5.00	4.74	
28 3-Chloro-1-propene	76	3.909	3.916	-0.007	90	7357	5.00	5.26	
30 Methyl acetate	43	3.939	3.934	0.005	97	52192	25.0	28.8	
31 Methylene Chloride	84	4.128	4.135	-0.007	98	17634	5.00	7.13	
32 2-Methyl-2-propanol	59	4.402	4.402	0.000	33	7031	50.0	49.2	
33 Acrylonitrile	53	4.523	4.518	0.005	100	47134	50.0	53.6	
34 trans-1,2-Dichloroethene	96	4.548	4.555	-0.007	97	10848	5.00	4.98	
35 Methyl tert-butyl ether	73	4.578	4.573	0.005	98	32782	5.00	5.37	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.974	4.974	0.000	94	17173	5.00	4.99	
37 1,1-Dichloroethane	63	5.187	5.187	0.000	95	22688	5.00	5.28	
38 Vinyl acetate	43	5.235	5.242	-0.007	97	22224	5.00	5.10	
44 2,2-Dichloropropane	77	5.935	5.935	0.000	0	12860	5.00	5.02	M
45 cis-1,2-Dichloroethene	96	5.947	5.942	0.005	84	12859	5.00	5.23	
46 2-Butanone (MEK)	43	5.959	5.960	-0.001	99	29322	25.0	26.7	
49 Chlorobromomethane	128	6.227	6.221	0.006	94	5510	5.00	5.44	
51 Tetrahydrofuran	42	6.251	6.246	0.005	75	10096	10.0	13.6	
52 Chloroform	83	6.367	6.374	-0.007	94	21166	5.00	5.53	
53 1,1,1-Trichloroethane	97	6.531	6.526	0.005	97	15282	5.00	5.01	
54 Cyclohexane	56	6.598	6.599	-0.001	93	22381	5.00	4.97	
56 Carbon tetrachloride	117	6.707	6.702	0.005	96	10784	5.00	4.37	
55 1,1-Dichloropropene	75	6.707	6.714	-0.007	90	15189	5.00	4.97	
57 Isobutyl alcohol	41	6.926	6.927	-0.001	84	8501	125.0	156.3	M
58 Benzene	78	6.933	6.933	0.000	97	46937	5.00	5.44	
59 1,2-Dichloroethane	62	7.012	7.012	0.000	96	16526	5.00	5.46	
62 n-Heptane	43	7.291	7.292	-0.001	91	13473	5.00	4.71	
64 Trichloroethene	130	7.669	7.663	0.006	97	10635	5.00	5.04	
66 Methylcyclohexane	83	7.900	7.900	0.000	92	16654	5.00	4.48	
67 1,2-Dichloropropane	63	7.930	7.937	-0.007	90	12079	5.00	5.47	
70 1,4-Dioxane	88	8.040	8.022	0.018	38	1385	100.0	89.5	
68 Dibromomethane	93	8.021	8.028	-0.007	91	5718	5.00	4.98	
71 Dichlorobromomethane	83	8.216	8.223	-0.007	97	11721	5.00	4.85	
73 2-Chloroethyl vinyl ether	63	8.520	8.521	-0.001	92	11777	10.0	10.2	
74 cis-1,3-Dichloropropene	75	8.660	8.667	-0.007	89	15312	5.00	4.91	
75 4-Methyl-2-pentanone (MIBK)	43	8.818	8.819	-0.001	99	54694	25.0	26.0	
76 Toluene	91	8.995	8.989	0.006	97	45382	5.00	5.47	
77 trans-1,3-Dichloropropene	75	9.244	9.239	0.005	96	12118	5.00	4.69	
78 Ethyl methacrylate	69	9.299	9.300	-0.001	88	13431	5.00	5.28	
79 1,1,2-Trichloroethane	97	9.433	9.433	0.000	90	8474	5.00	5.50	
80 Tetrachloroethene	164	9.506	9.506	0.000	94	7305	5.00	4.82	
81 1,3-Dichloropropane	76	9.591	9.592	-0.001	94	16097	5.00	5.54	
82 2-Hexanone	43	9.652	9.652	0.000	98	40910	25.0	24.5	
84 Chlorodibromomethane	129	9.810	9.811	-0.001	87	6748	5.00	4.75	
85 Ethylene Dibromide	107	9.913	9.920	-0.007	98	7864	5.00	5.04	
86 3-Chlorobenzotrifluoride	180	10.382	10.383	0.000	56	13837	5.00	5.09	
87 Chlorobenzene	112	10.400	10.407	-0.007	88	26456	5.00	5.29	
88 4-Chlorobenzotrifluoride	180	10.467	10.468	-0.001	95	12658	5.00	4.97	
89 1,1,1,2-Tetrachloroethane	131	10.497	10.498	-0.001	41	7397	5.00	4.76	
90 Ethylbenzene	106	10.504	10.504	0.000	98	16069	5.00	5.52	
91 m-Xylene & p-Xylene	106	10.637	10.638	-0.001	0	19703	5.00	5.54	
92 o-Xylene	106	11.021	11.015	0.006	96	17636	5.00	5.37	
93 Styrene	104	11.039	11.040	-0.001	95	29999	5.00	5.47	
94 Bromoform	173	11.221	11.228	-0.007	91	3716	5.00	4.48	
96 2-Chlorobenzotrifluoride	180	11.288	11.289	-0.001	93	12925	5.00	5.22	
97 Isopropylbenzene	105	11.386	11.386	0.000	96	42152	5.00	5.25	
100 Bromobenzene	156	11.696	11.703	-0.007	96	10402	5.00	5.56	
99 1,1,2,2-Tetrachloroethane	83	11.702	11.703	-0.001	72	9429	5.00	5.14	
102 trans-1,4-Dichloro-2-buten	53	11.738	11.733	0.005	65	2747	5.00	3.86	
101 1,2,3-Trichloropropane	110	11.751	11.757	-0.006	85	3025	5.00	4.71	
103 N-Propylbenzene	120	11.799	11.806	-0.007	99	11655	5.00	5.22	
104 2-Chlorotoluene	126	11.891	11.891	0.000	95	10182	5.00	5.50	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.957	11.958	-0.001	97	9964	5.00	5.02	
106 1,3,5-Trimethylbenzene	105	11.988	11.989	-0.001	92	29123	5.00	4.93	
107 4-Chlorotoluene	126	12.018	12.013	0.005	98	10396	5.00	5.37	
108 tert-Butylbenzene	119	12.298	12.299	-0.001	94	25244	5.00	5.08	
110 1,2,4-Trimethylbenzene	105	12.359	12.360	-0.001	98	29985	5.00	5.10	
111 1,2-dichloro-4-(trifluorom	214	12.402	12.402	0.000	97	8464	5.00	5.23	
112 sec-Butylbenzene	105	12.523	12.524	-0.001	94	34789	5.00	5.08	
113 1,3-Dichlorobenzene	146	12.639	12.639	0.000	97	16420	5.00	5.46	
114 4-Isopropyltoluene	119	12.681	12.682	-0.001	95	26302	5.00	4.87	
115 1,4-Dichlorobenzene	146	12.748	12.749	-0.001	91	16558	5.00	5.54	
116 2,4-Dichloro-1-(trifluorom	214	12.773	12.773	0.000	51	6308	5.00	4.58	
118 2,5-Dichlorobenzotrifluori	214	12.809	12.816	-0.007	0	9059	5.00	5.71	
120 n-Butylbenzene	91	13.089	13.090	-0.001	97	20495	5.00	4.54	
121 1,2-Dichlorobenzene	146	13.095	13.102	-0.007	95	13956	5.00	5.55	
122 1,2-Dibromo-3-Chloropropan	75	13.904	13.899	0.005	73	1024	5.00	4.05	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.032	14.033	-0.001	0	23542	15.0	14.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.452	14.452	0.000	0	14548	10.0	9.20	
126 1,2,4-Trichlorobenzene	180	14.713	14.720	-0.007	93	5366	5.00	4.84	
127 Hexachlorobutadiene	225	14.865	14.866	-0.001	88	2527	5.00	4.69	
128 Naphthalene	128	14.981	14.982	-0.001	97	13972	5.00	4.32	
129 1,2,3-Trichlorobenzene	180	15.200	15.207	-0.007	93	4178	5.00	4.20	
131 2,4,5-Trichlorotoluene	159	15.985	15.985	0.000	0	3426	5.00	5.33	
130 2,3,6-Trichlorotoluene	159	16.076	16.083	-0.007	84	3673	5.00	4.60	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		10.0	10.9	
S 134 1,2-Dichloroethene, Total	96				0		10.0	10.2	
S 135 1,3-Dichloropropene, Total	1				0		10.0	9.60	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWAcro1stRe_00008	Amount Added: 4.00	Units: uL	
voaWVA1stRest_00008	Amount Added: 0.20	Units: uL	
voaWKetPriRes_00002	Amount Added: 0.80	Units: uL	
voaWEEmixRest_00001	Amount Added: 0.20	Units: uL	
VOA8260SURR_00059	Amount Added: 0.20	Units: uL	
VOA8260VOAPRI_00213	Amount Added: 0.20	Units: uL	
voaW2CLEReste_00001	Amount Added: 0.20	Units: uL	
VOA8260INT_00061	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928015.D

Injection Date: 28-Sep-2016 18:27:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD1

Worklist Smp#: 15

Client ID:

Purge Vol: 5.000 mL

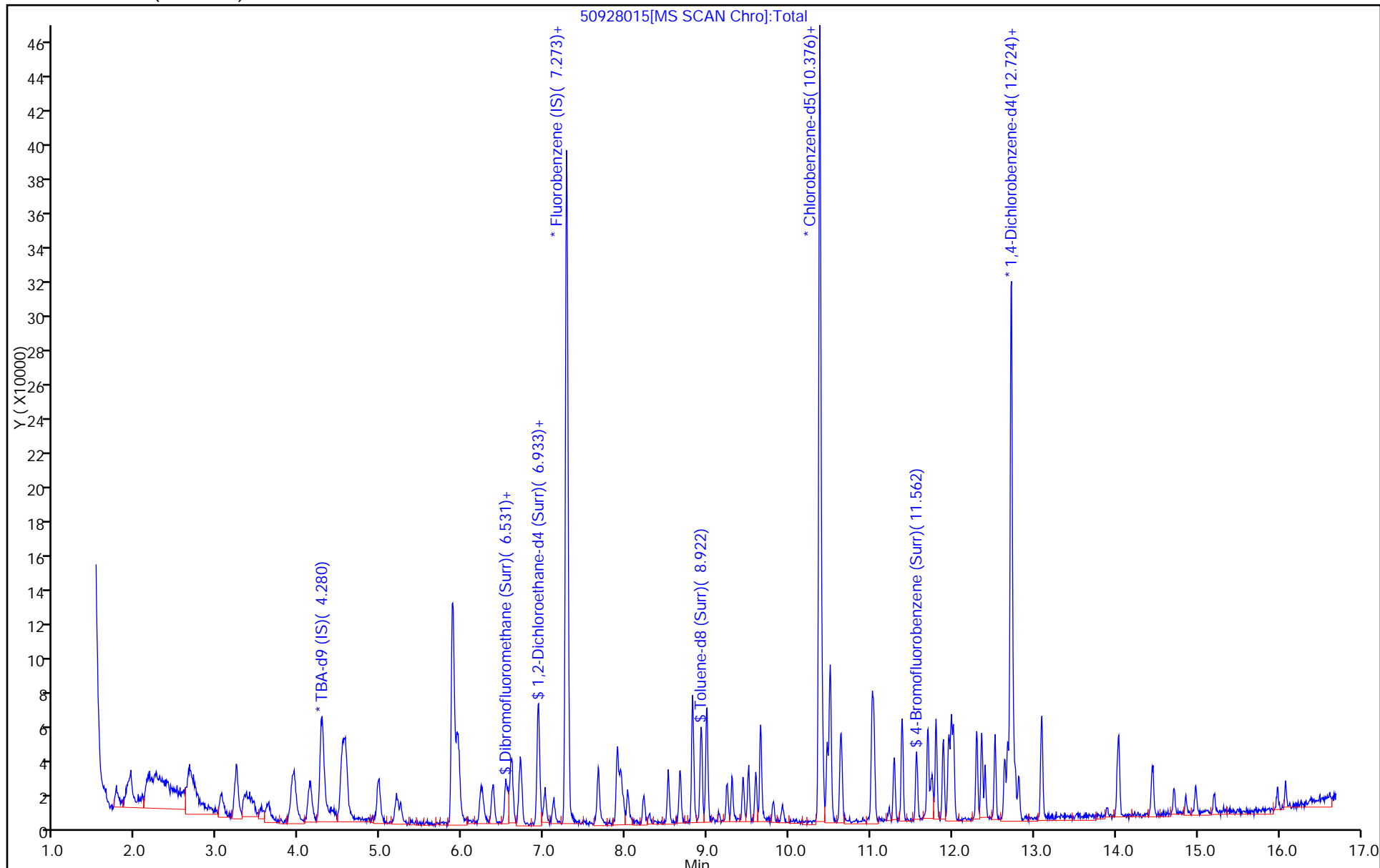
Dil. Factor: 1.0000

ALS Bottle#: 15

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

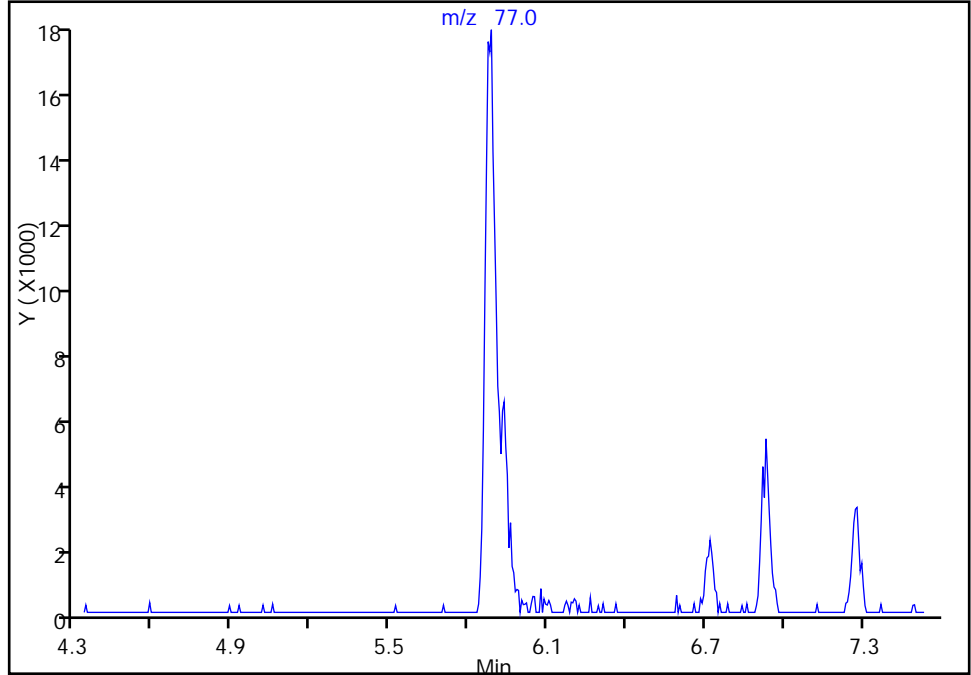
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Injection Date: 28-Sep-2016 18:27:30 Instrument ID: CHHP5
Lims ID: IC VSTD1
Client ID:
Operator ID: 001562 ALS Bottle#: 15 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

44 2,2-Dichloropropane, CAS: 594-20-7

Signal: 1

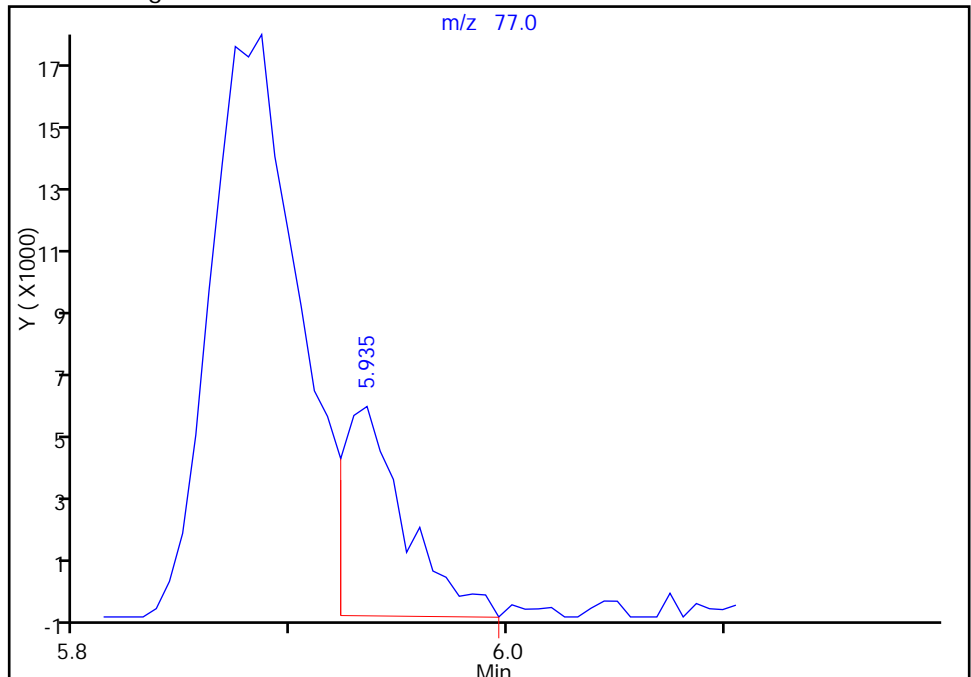
Not Detected
Expected RT: 5.94

Processing Integration Results



Manual Integration Results

RT: 5.93
Area: 12860
Amount: 5.021986
Amount Units: ng



Reviewer: fergusond, 29-Sep-2016 11:02:40
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh

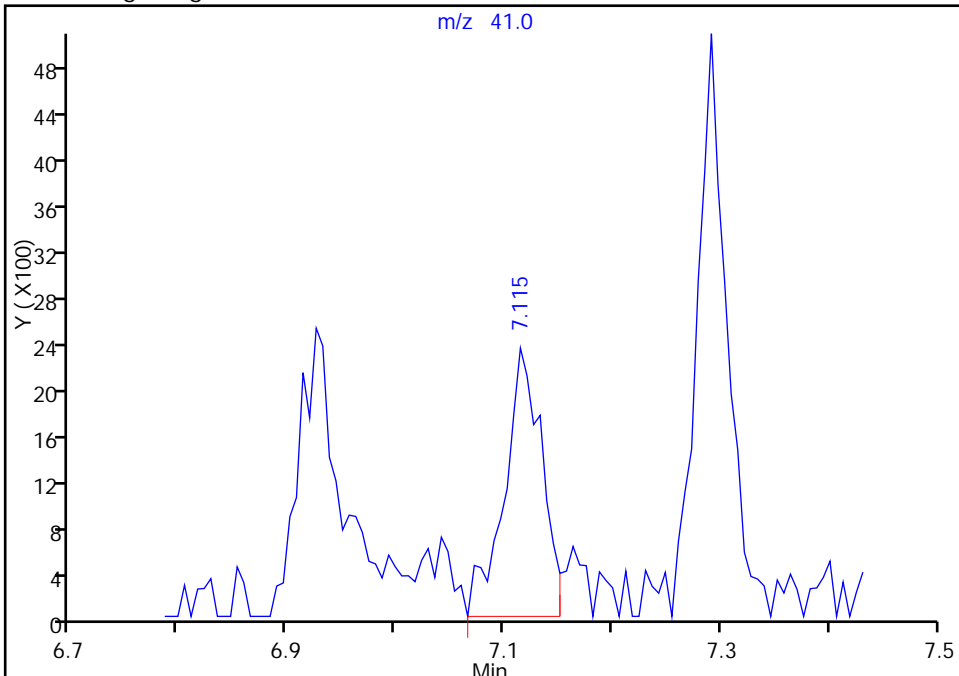
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Injection Date: 28-Sep-2016 18:27:30 Instrument ID: CHHP5
Lims ID: IC VSTD1
Client ID:
Operator ID: 001562 ALS Bottle#: 15 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

57 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

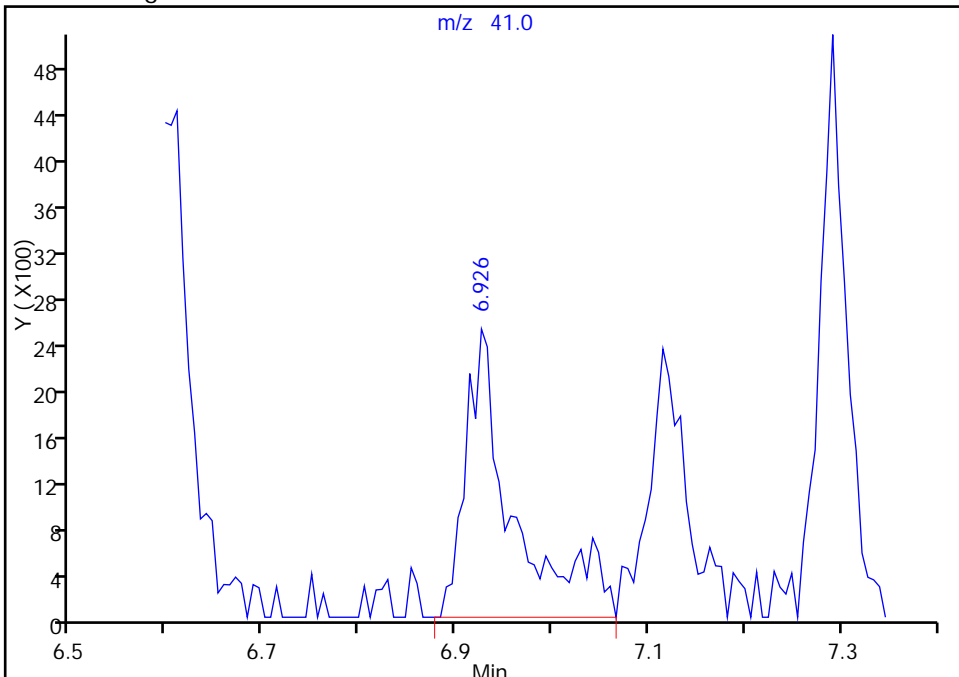
RT: 7.12
Area: 5610
Amount: 108.9273
Amount Units: ng

Processing Integration Results



RT: 6.93
Area: 8501
Amount: 156.2878
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 29-Sep-2016 11:02:40
Audit Action: Assigned Compound ID

Audit Reason: Poor chromatography

TestAmerica Pittsburgh

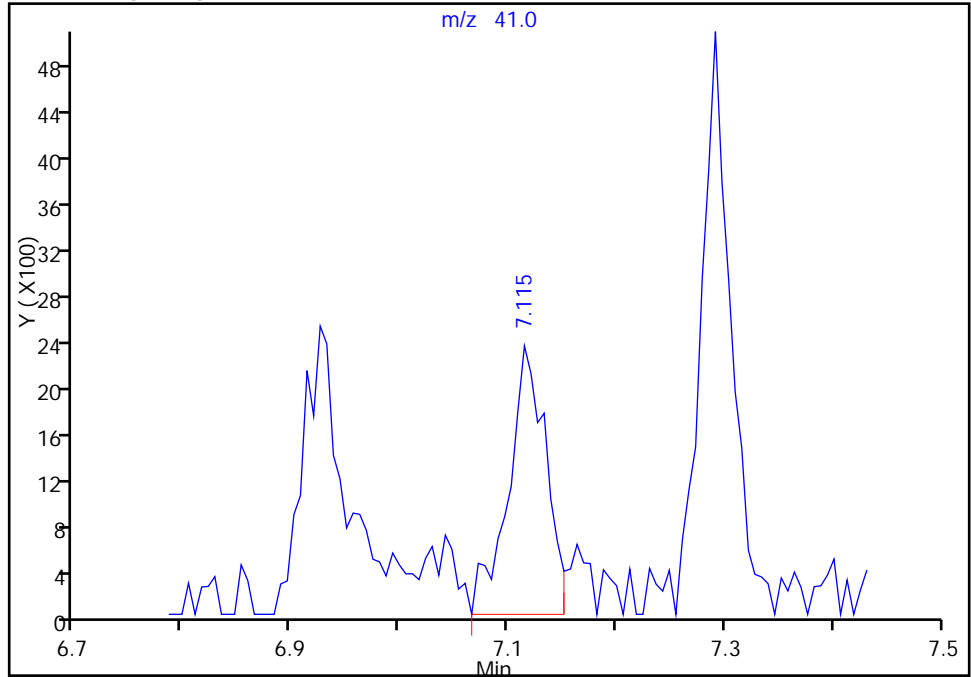
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Injection Date: 28-Sep-2016 18:27:30 Instrument ID: CHHP5
Lims ID: IC VSTD1
Client ID:
Operator ID: 001562 ALS Bottle#: 15 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

57 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

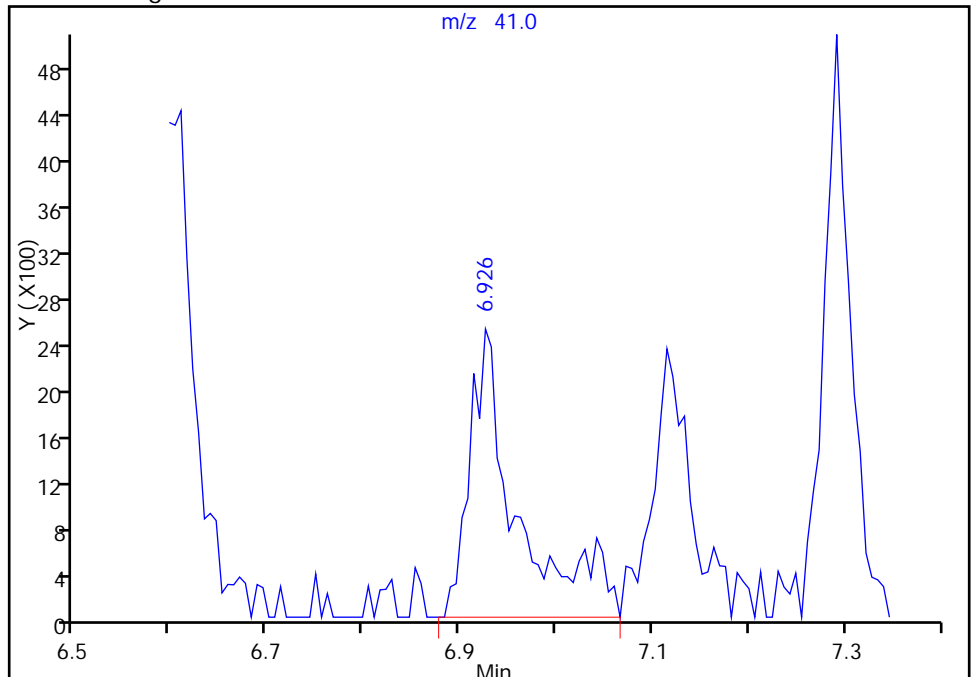
RT: 7.12
Area: 5610
Amount: 108.9273
Amount Units: ng

Processing Integration Results



RT: 6.93
Area: 8501
Amount: 156.2878
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 29-Sep-2016 11:02:40

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-191047/5 Calibration Date: 10/13/2016 12:21
 Instrument ID: CHHP5 Calib Start Date: 09/28/2016 14:27
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 09/28/2016 18:27
 Lab File ID: 51013005.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	0.3291	0.3160	0.1000	9.60	10.0	-4.0	20.0
Chloromethane	Ave	0.3816	0.4877	0.1000	12.8	10.0	27.8*	20.0
Vinyl chloride	Ave	0.3102	0.3668	0.1000	11.8	10.0	18.2	20.0
1,3-Butadiene	Ave	0.3494	0.5068	0.0100	14.5	10.0	45.0*	20.0
Bromomethane	Ave	0.1345	0.1057	0.0500	7.86	10.0	-21.4*	20.0
Chloroethane	Ave	0.1945	0.2051	0.0500	10.5	10.0	5.4	20.0
Dichlorofluoromethane	Ave	0.4098	0.3923	0.0100	9.57	10.0	-4.3	20.0
Trichlorofluoromethane	Ave	0.2931	0.3112	0.1000	10.6	10.0	6.2	20.0
Ethyl ether	Ave	0.2538	0.2915	0.0100	11.5	10.0	14.8	20.0
Acrolein	Ave	0.0583	0.0413	0.0100	21.2	30.0	-29.2*	20.0
1,1-Dichloroethene	Ave	0.2835	0.2484	0.1000	8.76	10.0	-12.4	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2853	0.2687	0.1000	9.42	10.0	-5.8	20.0
Acetone	Ave	0.0981	0.1260	0.0500	25.7	20.0	28.5*	20.0
Iodomethane	Ave	0.4055	0.3640	0.0100	8.98	10.0	-10.2	20.0
Carbon disulfide	Ave	0.7630	0.7124	0.1000	9.34	10.0	-6.6	20.0
Allyl chloride	Ave	0.1864	0.1545	0.0100	8.29	10.0	-17.1	20.0
Methyl acetate	Ave	0.2413	0.2814	0.1000	58.3	50.0	16.6	20.0
Methylene Chloride	Ave	0.3291	0.2946	0.1000	8.95	10.0	-10.5	20.0
tert-Butyl alcohol	Ave	1.119	1.143	0.0100	102	100	2.2	20.0
Acrylonitrile	Ave	0.1170	0.1357	0.0100	116	100	16.0	20.0
trans-1,2-Dichloroethene	Ave	0.2899	0.2664	0.1000	9.19	10.0	-8.1	20.0
Methyl tert-butyl ether	Ave	0.8126	0.6612	0.1000	8.14	10.0	-18.6	20.0
Hexane	Ave	0.4587	0.4867	0.0100	10.6	10.0	6.1	20.0
1,1-Dichloroethane	Ave	0.5719	0.5562	0.2000	9.73	10.0	-2.7	20.0
Vinyl acetate	Ave	0.5806	0.5843	0.0100	10.1	10.0	0.6	20.0
2,2-Dichloropropane	Ave	0.3410	0.2062	0.0100	6.05	10.0	-39.5*	20.0
cis-1,2-Dichloroethene	Ave	0.3275	0.2894	0.1000	8.84	10.0	-11.6	20.0
2-Butanone (MEK)	Ave	0.1464	0.1732	0.0500	23.7	20.0	18.3	20.0
Bromochloromethane	Ave	0.1349	0.1168	0.0100	8.66	10.0	-13.4	20.0
Tetrahydrofuran	Ave	0.0991	0.1155	0.0100	23.3	20.0	16.6	20.0
Chloroform	Ave	0.5094	0.4754	0.2000	9.33	10.0	-6.7	20.0
1,1,1-Trichloroethane	Ave	0.4062	0.3546	0.1000	8.73	10.0	-12.7	20.0
Cyclohexane	Ave	0.5999	0.6191	0.1000	10.3	10.0	3.2	20.0
Carbon tetrachloride	Ave	0.3287	0.2852	0.1000	8.68	10.0	-13.2	20.0
1,1-Dichloropropene	Ave	0.4068	0.3965	0.0100	9.75	10.0	-2.5	20.0
Benzene	Ave	1.148	1.102	0.5000	9.60	10.0	-4.0	20.0
Isobutyl alcohol	Ave	0.0072	0.0074*	0.0100	254	250	1.6	20.0
1,2-Dichloroethane	Ave	0.4028	0.4228	0.1000	10.5	10.0	5.0	20.0
n-Heptane	Ave	0.3806	0.4699	0.0100	12.3	10.0	23.5*	20.0
Trichloroethene	Ave	0.2810	0.2464	0.2000	8.77	10.0	-12.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-191047/5 Calibration Date: 10/13/2016 12:21
 Instrument ID: CHHP5 Calib Start Date: 09/28/2016 14:27
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 09/28/2016 18:27
 Lab File ID: 51013005.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
Methylcyclohexane	Ave	0.4952	0.4656	0.1000	9.40	10.0	-6.0	20.0
1,2-Dichloropropane	Ave	0.2941	0.2852	0.1000	9.70	10.0	-3.0	20.0
Dibromomethane	Ave	0.1530	0.1505	0.0100	9.83	10.0	-1.7	20.0
1,4-Dioxane	Ave	0.0021	0.0021*	0.0100	203	200	1.3	20.0
Bromodichloromethane	Ave	0.3217	0.3162	0.2000	9.83	10.0	-1.7	20.0
2-Chloroethyl vinyl ether	Ave	0.1544	0.1542	0.0100	20.0	20.0	-0.1	20.0
cis-1,3-Dichloropropene	Ave	0.4154	0.3455	0.2000	8.32	10.0	-16.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.280	1.143	0.1000	17.9	20.0	-10.7	20.0
Toluene	Ave	5.044	5.027	0.4000	9.96	10.0	-0.4	20.0
trans-1,3-Dichloropropene	Ave	1.570	1.222	0.1000	7.78	10.0	-22.2*	20.0
Ethyl methacrylate	Ave	1.546	1.257	0.0100	8.13	10.0	-18.7	20.0
1,1,2-Trichloroethane	Ave	0.9368	0.8810	0.1000	9.40	10.0	-6.0	20.0
Tetrachloroethene	Ave	0.9221	0.9478	0.2000	10.3	10.0	2.8	20.0
1,3-Dichloropropane	Ave	1.768	1.780	0.0100	10.1	10.0	0.7	20.0
2-Hexanone	Ave	1.014	0.9778	0.1000	19.3	20.0	-3.5	20.0
Dibromochloromethane	Ave	0.8636	0.8090	0.1000	9.37	10.0	-6.3	20.0
1,2-Dibromoethane (EDB)	Ave	0.9478	0.9087	0.1000	9.59	10.0	-4.1	20.0
3-Chlorobenzotrifluoride	Ave	1.654	1.788	0.0100	10.8	10.0	8.1	20.0
Chlorobenzene	Ave	3.043	3.053	0.5000	10.0	10.0	0.3	20.0
4-Chlorobenzotrifluoride	Ave	1.549	1.703	0.0100	11.0	10.0	9.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.9456	0.9062	0.0100	9.58	10.0	-4.2	20.0
Ethylbenzene	Ave	1.770	1.745	0.1000	9.86	10.0	-1.4	20.0
m-Xylene & p-Xylene	Ave	2.162	2.195	0.1000	10.2	10.0	1.5	20.0
o-Xylene	Ave	1.998	2.098	0.3000	10.5	10.0	5.0	20.0
Styrene	Ave	3.337	3.475	0.3000	10.4	10.0	4.1	20.0
Bromoform	Ave	0.5048	0.4584	0.1000	9.08	10.0	-9.2	20.0
2-Chlorobenzotrifluoride	Ave	1.505	1.715	0.0100	11.4	10.0	13.9	20.0
Isopropylbenzene	Ave	4.883	5.487	0.1000	11.2	10.0	12.4	20.0
1,1,2,2-Tetrachloroethane	Ave	1.116	1.207	0.3000	10.8	10.0	8.2	20.0
Bromobenzene	Ave	1.062	0.9340	0.0100	8.79	10.0	-12.1	20.0
trans-1,4-Dichloro-2-butene	Ave	0.4033	0.2613	0.0100	6.48	10.0	-35.2*	20.0
1,2,3-Trichloropropane	Ave	0.3644	0.3334	0.0100	9.15	10.0	-8.5	20.0
N-Propylbenzene	Ave	1.267	1.101	0.0100	8.69	10.0	-13.1	20.0
2-Chlorotoluene	Ave	1.051	0.9479	0.0100	9.02	10.0	-9.8	20.0
3-Chlorotoluene	Ave	1.126	1.034	0.0100	9.19	10.0	-8.1	20.0
1,3,5-Trimethylbenzene	Ave	3.353	3.298	0.0100	9.83	10.0	-1.7	20.0
4-Chlorotoluene	Ave	1.098	0.9769	0.0100	8.89	10.0	-11.1	20.0
tert-Butylbenzene	Ave	2.821	2.692	0.0100	9.54	10.0	-4.6	20.0
1,2,4-Trimethylbenzene	Ave	3.336	3.321	0.0100	9.96	10.0	-0.4	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.9183	0.9121	0.0100	9.93	10.0	-0.7	20.0
sec-Butylbenzene	Ave	3.888	3.853	0.0100	9.91	10.0	-0.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-191047/5 Calibration Date: 10/13/2016 12:21
 Instrument ID: CHHP5 Calib Start Date: 09/28/2016 14:27
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 09/28/2016 18:27
 Lab File ID: 51013005.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
1,3-Dichlorobenzene	Ave	1.706	1.602	0.6000	9.39	10.0	-6.1	20.0
4-Isopropyltoluene	Ave	3.062	2.990	0.0100	9.77	10.0	-2.3	20.0
1,4-Dichlorobenzene	Ave	1.696	1.635	0.5000	9.64	10.0	-3.6	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7809	0.8025	0.0100	10.3	10.0	2.8	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.9002	0.9037	0.0100	10.0	10.0	0.4	20.0
n-Butylbenzene	Ave	2.559	2.640	0.0100	10.3	10.0	3.2	20.0
1,2-Dichlorobenzene	Ave	1.427	1.371	0.4000	9.60	10.0	-4.0	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1433	0.1277	0.0500	8.91	10.0	-10.9	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	0.9185	0.8605	0.0100	28.1	30.0	-6.3	20.0
2,3- & 3,4- Dichlorotoluene	Ave	0.8969	0.7763	0.0100	17.3	20.0	-13.5	20.0
1,2,4-Trichlorobenzene	Ave	0.6287	0.5114	0.2000	8.13	10.0	-18.7	20.0
Hexachlorobutadiene	Ave	0.3056	0.2412	0.0100	7.89	10.0	-21.1*	20.0
Naphthalene	Ave	1.833	1.265	0.0100	6.90	10.0	-31.0*	20.0
1,2,3-Trichlorobenzene	Ave	0.5647	0.3848	0.0100	6.81	10.0	-31.9*	20.0
2,4,5-Trichlorotoluene	Qua		0.1884	0.0100	4.95	10.0	-50.5*	20.0
2,3,6-Trichlorotoluene	Ave	0.4531	0.1810	0.0100	4.00	10.0	-60.0*	20.0
Dibromofluoromethane (Surr)	Ave	0.2254	0.2007		8.90	10.0	-11.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3064	0.3171		10.3	10.0	3.5	20.0
Toluene-d8 (Surr)	Ave	3.934	3.750		9.53	10.0	-4.7	20.0
4-Bromofluorobenzene (Surr)	Ave	1.454	1.471		10.1	10.0	1.2	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013005.D
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 13-Oct-2016 12:21:30 ALS Bottle#: 3 Worklist Smp#: 5
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013857-005
 Misc. Info.: CCVIS
 Operator ID: 001562 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 13-Oct-2016 14:13:08 Calib Date: 04-Oct-2016 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161004-13721.b\51004011.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK016

First Level Reviewer: fergusond

Date: 13-Oct-2016 13:09:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.284	4.284	0.000	0	114886	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.271	7.271	0.000	97	359057	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.374	10.374	0.000	92	79298	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.716	12.716	0.000	97	97828	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.547	6.547	0.000	93	72056	50.0	44.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.919	6.919	0.000	0	113852	50.0	51.7	
\$ 7 Toluene-d8 (Surr)	98	8.920	8.920	0.000	96	297364	50.0	47.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.560	11.560	0.000	82	116664	50.0	50.6	
11 Dichlorodifluoromethane	85	1.614	1.614	0.000	98	113458	50.0	48.0	
12 Chloromethane	50	1.772	1.772	0.000	99	175124	50.0	63.9	
13 Vinyl chloride	62	1.900	1.900	0.000	98	131694	50.0	59.1	
14 Butadiene	39	1.942	1.942	0.000	98	181962	50.0	72.5	
15 Bromomethane	94	2.234	2.234	0.000	90	37949	50.0	39.3	
16 Chloroethane	64	2.380	2.380	0.000	99	73636	50.0	52.7	
17 Dichlorofluoromethane	67	2.660	2.660	0.000	95	140853	50.0	47.9	
18 Trichlorofluoromethane	101	2.672	2.672	0.000	60	111721	50.0	53.1	
20 Ethyl ether	59	3.049	3.049	0.000	99	104649	50.0	57.4	
21 Acrolein	56	3.226	3.226	0.000	99	44458	150.0	106.2	
22 1,1-Dichloroethene	96	3.335	3.335	0.000	94	89189	50.0	43.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.396	3.396	0.000	94	96493	50.0	47.1	
24 Acetone	43	3.439	3.439	0.000	97	90458	100.0	128.5	
25 Iodomethane	142	3.524	3.524	0.000	99	130695	50.0	44.9	
26 Carbon disulfide	76	3.621	3.621	0.000	100	255801	50.0	46.7	
28 3-Chloro-1-propene	76	3.913	3.913	0.000	86	55466	50.0	41.4	
30 Methyl acetate	43	3.938	3.938	0.000	100	505272	250.0	291.6	
31 Methylene Chloride	84	4.126	4.126	0.000	95	105792	50.0	44.8	
32 2-Methyl-2-propanol	59	4.406	4.406	0.000	86	65661	500.0	510.9	
33 Acrylonitrile	53	4.516	4.516	0.000	97	487273	500.0	579.9	
34 trans-1,2-Dichloroethene	96	4.546	4.546	0.000	93	95656	50.0	45.9	
35 Methyl tert-butyl ether	73	4.570	4.570	0.000	94	237404	50.0	40.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.972	4.972	0.000	96	174739	50.0	53.0	
37 1,1-Dichloroethane	63	5.185	5.185	0.000	97	199718	50.0	48.6	
38 Vinyl acetate	43	5.239	5.239	0.000	97	209781	50.0	50.3	
44 2,2-Dichloropropane	77	5.921	5.921	0.000	63	74027	50.0	30.2	
45 cis-1,2-Dichloroethene	96	5.933	5.933	0.000	86	103892	50.0	44.2	
46 2-Butanone (MEK)	43	5.945	5.945	0.000	98	124359	100.0	118.3	
49 Chlorobromomethane	128	6.225	6.225	0.000	87	41924	50.0	43.3	
51 Tetrahydrofuran	42	6.237	6.237	0.000	93	82953	100.0	116.6	
52 Chloroform	83	6.371	6.371	0.000	95	170678	50.0	46.7	
53 1,1,1-Trichloroethane	97	6.523	6.523	0.000	95	127317	50.0	43.7	
54 Cyclohexane	56	6.596	6.596	0.000	98	222307	50.0	51.6	
56 Carbon tetrachloride	117	6.693	6.693	0.000	92	102400	50.0	43.4	
55 1,1-Dichloropropene	75	6.712	6.712	0.000	86	142375	50.0	48.7	
58 Benzene	78	6.925	6.925	0.000	97	395819	50.0	48.0	
57 Isobutyl alcohol	41	6.925	6.925	0.000	48	66065	1250.0	1270.2	
59 1,2-Dichloroethane	62	7.004	7.004	0.000	97	151809	50.0	52.5	
62 n-Heptane	43	7.290	7.290	0.000	97	168731	50.0	61.7	
64 Trichloroethene	130	7.661	7.661	0.000	94	88468	50.0	43.8	
66 Methylcyclohexane	83	7.898	7.898	0.000	97	167192	50.0	47.0	
67 1,2-Dichloropropane	63	7.934	7.934	0.000	93	102385	50.0	48.5	
68 Dibromomethane	93	8.020	8.020	0.000	94	54027	50.0	49.2	
70 1,4-Dioxane	88	8.026	8.026	0.000	44	14996	1000.0	1013.1	
71 Dichlorobromomethane	83	8.220	8.220	0.000	97	113548	50.0	49.2	
73 2-Chloroethyl vinyl ether	63	8.512	8.512	0.000	89	110709	100.0	99.9	
74 cis-1,3-Dichloropropene	75	8.658	8.658	0.000	86	124041	50.0	41.6	
75 4-Methyl-2-pentanone (MIBK)	43	8.817	8.817	0.000	100	181270	100.0	89.3	
76 Toluene	91	8.987	8.987	0.000	97	398592	50.0	49.8	
77 trans-1,3-Dichloropropene	75	9.242	9.242	0.000	95	96904	50.0	38.9	
78 Ethyl methacrylate	69	9.303	9.303	0.000	93	99685	50.0	40.7	
79 1,1,2-Trichloroethane	97	9.431	9.431	0.000	95	69862	50.0	47.0	
80 Tetrachloroethene	164	9.504	9.504	0.000	93	75162	50.0	51.4	
81 1,3-Dichloropropane	76	9.589	9.589	0.000	93	141144	50.0	50.3	
82 2-Hexanone	43	9.650	9.650	0.000	97	155082	100.0	96.5	
84 Chlorodibromomethane	129	9.802	9.802	0.000	90	64153	50.0	46.8	
85 Ethylene Dibromide	107	9.918	9.918	0.000	96	72058	50.0	47.9	
86 3-Chlorobenzotrifluoride	180	10.374	10.374	0.000	87	141775	50.0	54.1	
87 Chlorobenzene	112	10.404	10.404	0.000	89	242060	50.0	50.2	
88 4-Chlorobenzotrifluoride	180	10.465	10.465	0.000	96	135008	50.0	55.0	
89 1,1,1,2-Tetrachloroethane	131	10.496	10.496	0.000	87	71858	50.0	47.9	
90 Ethylbenzene	106	10.502	10.502	0.000	99	138360	50.0	49.3	
91 m-Xylene & p-Xylene	106	10.636	10.636	0.000	0	174060	50.0	50.8	
92 o-Xylene	106	11.013	11.013	0.000	98	166400	50.0	52.5	
93 Styrene	104	11.037	11.037	0.000	93	275548	50.0	52.1	
94 Bromoform	173	11.220	11.220	0.000	93	36351	50.0	45.4	
96 2-Chlorobenzotrifluoride	180	11.286	11.286	0.000	95	135991	50.0	57.0	
97 Isopropylbenzene	105	11.384	11.384	0.000	98	435127	50.0	56.2	
100 Bromobenzene	156	11.694	11.694	0.000	97	91368	50.0	44.0	
99 1,1,2,2-Tetrachloroethane	83	11.694	11.694	0.000	73	95704	50.0	54.1	
102 trans-1,4-Dichloro-2-buten	53	11.737	11.737	0.000	68	25563	50.0	32.4	
101 1,2,3-Trichloropropane	110	11.749	11.749	0.000	90	32619	50.0	45.7	
103 N-Propylbenzene	120	11.804	11.804	0.000	99	107691	50.0	43.5	
104 2-Chlorotoluene	126	11.889	11.889	0.000	94	92730	50.0	45.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.956	11.956	0.000	97	101164	50.0	45.9	
106 1,3,5-Trimethylbenzene	105	11.986	11.986	0.000	94	322617	50.0	49.2	
107 4-Chlorotoluene	126	12.010	12.010	0.000	99	95567	50.0	44.5	
108 tert-Butylbenzene	119	12.296	12.296	0.000	94	263343	50.0	47.7	
110 1,2,4-Trimethylbenzene	105	12.357	12.357	0.000	99	324921	50.0	49.8	
111 1,2-dichloro-4-(trifluorom	214	12.400	12.400	0.000	97	89230	50.0	49.7	
112 sec-Butylbenzene	105	12.521	12.521	0.000	96	376954	50.0	49.6	
113 1,3-Dichlorobenzene	146	12.637	12.637	0.000	95	156710	50.0	47.0	
114 4-Isopropyltoluene	119	12.680	12.680	0.000	97	292526	50.0	48.8	
115 1,4-Dichlorobenzene	146	12.740	12.740	0.000	92	159951	50.0	48.2	
116 2,4-Dichloro-1-(trifluorom	214	12.771	12.771	0.000	95	78502	50.0	51.4	
118 2,5-Dichlorobenzotrifluori	214	12.813	12.813	0.000	0	88410	50.0	50.2	
120 n-Butylbenzene	91	13.087	13.087	0.000	98	258267	50.0	51.6	
121 1,2-Dichlorobenzene	146	13.099	13.099	0.000	93	134108	50.0	48.0	
122 1,2-Dibromo-3-Chloropropan	75	13.890	13.890	0.000	71	12488	50.0	44.5	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.030	14.030	0.000	0	252547	150.0	140.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.450	14.450	0.000	0	151882	100.0	86.5	
126 1,2,4-Trichlorobenzene	180	14.711	14.711	0.000	93	50024	50.0	40.7	
127 Hexachlorobutadiene	225	14.864	14.864	0.000	95	23593	50.0	39.5	
128 Naphthalene	128	14.979	14.979	0.000	99	123791	50.0	34.5	
129 1,2,3-Trichlorobenzene	180	15.210	15.210	0.000	93	37644	50.0	34.1	
131 2,4,5-Trichlorotoluene	159	15.983	15.983	0.000	0	18432	50.0	24.8	
130 2,3,6-Trichlorotoluene	159	16.080	16.080	0.000	92	17711	50.0	20.0	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	90.1	
S 133 Xylenes, Total	106				0		100.0	103.3	
S 135 1,3-Dichloropropene, Total	1				0		100.0	80.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260VOAPRI_00215	Amount Added: 2.00	Units: uL	
voaWKetPriRes_00002	Amount Added: 2.00	Units: uL	
voaWEEmixRest_00001	Amount Added: 2.00	Units: uL	
VOACEVEPRI_00017	Amount Added: 2.00	Units: uL	
voaWva2ndRest_00007	Amount Added: 2.00	Units: uL	
voaWacro2ndRe_00007	Amount Added: 6.00	Units: uL	
VOA8260INT_00061	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00059	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013005.D

Injection Date: 13-Oct-2016 12:21:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

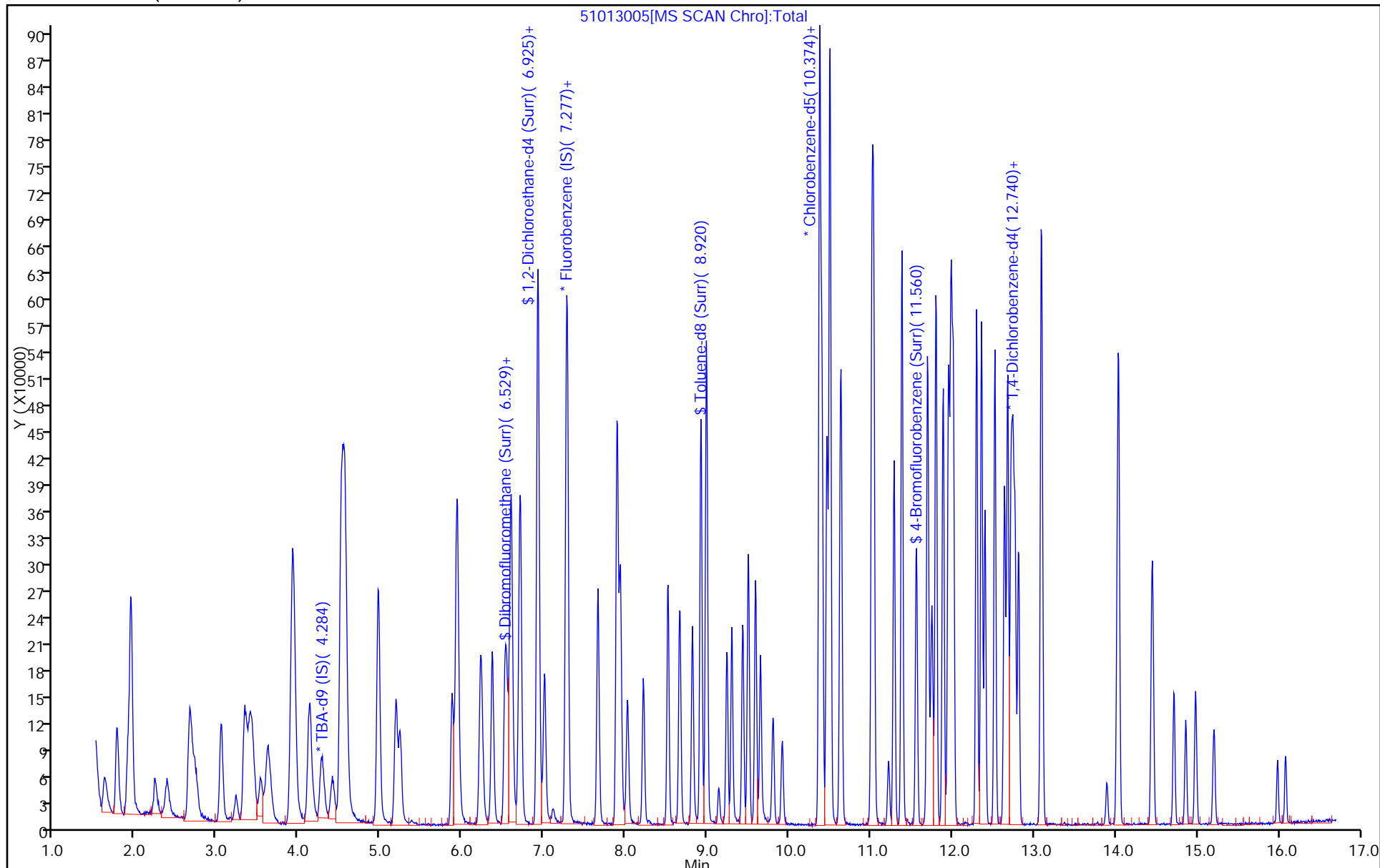
Dil. Factor: 1.0000

ALS Bottle#: 3

Method: MSVOA_LL_CHHP5

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.: 180-59576-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-191190/2 Calibration Date: 10/14/2016 10:56
 Instrument ID: CHHP5 Calib Start Date: 09/28/2016 14:27
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 09/28/2016 18:27
 Lab File ID: 51014002.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	0.3291	0.3259	0.1000	9.90	10.0	-1.0	20.0
Chloromethane	Ave	0.3816	0.4831	0.1000	12.7	10.0	26.6*	20.0
Vinyl chloride	Ave	0.3102	0.3757	0.1000	12.1	10.0	21.1*	20.0
1,3-Butadiene	Ave	0.3494	0.5637	0.0100	16.1	10.0	61.3*	20.0
Bromomethane	Ave	0.1345	0.1001	0.0500	7.44	10.0	-25.6*	20.0
Chloroethane	Ave	0.1945	0.2083	0.0500	10.7	10.0	7.1	20.0
Dichlorofluoromethane	Ave	0.4098	0.4325	0.0100	10.6	10.0	5.5	20.0
Trichlorofluoromethane	Ave	0.2931	0.3219	0.1000	11.0	10.0	9.8	20.0
Ethyl ether	Ave	0.2538	0.3092	0.0100	12.2	10.0	21.8*	20.0
Acrolein	Ave	0.0583	0.0623	0.0100	32.1	30.0	6.9	20.0
1,1-Dichloroethene	Ave	0.2835	0.2730	0.1000	9.63	10.0	-3.7	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2853	0.2796	0.1000	9.80	10.0	-2.0	20.0
Acetone	Ave	0.0981	0.1218	0.0500	24.8	20.0	24.2*	20.0
Iodomethane	Ave	0.4055	0.3806	0.0100	9.39	10.0	-6.1	20.0
Carbon disulfide	Ave	0.7630	0.7587	0.1000	9.94	10.0	-0.6	20.0
Allyl chloride	Ave	0.1864	0.1667	0.0100	8.95	10.0	-10.5	20.0
Methyl acetate	Ave	0.2413	0.2859	0.1000	59.2	50.0	18.5	20.0
Methylene Chloride	Ave	0.3291	0.2990	0.1000	9.08	10.0	-9.2	20.0
tert-Butyl alcohol	Ave	1.119	1.438	0.0100	129	100	28.6*	20.0
Acrylonitrile	Ave	0.1170	0.1408	0.0100	120	100	20.3*	20.0
trans-1,2-Dichloroethene	Ave	0.2899	0.2874	0.1000	9.91	10.0	-0.9	20.0
Methyl tert-butyl ether	Ave	0.8126	0.7087	0.1000	8.72	10.0	-12.8	20.0
Hexane	Ave	0.4587	0.5272	0.0100	11.5	10.0	14.9	20.0
1,1-Dichloroethane	Ave	0.5719	0.5990	0.2000	10.5	10.0	4.7	20.0
Vinyl acetate	Ave	0.5806	0.6050	0.0100	10.4	10.0	4.2	20.0
2,2-Dichloropropane	Ave	0.3410	0.3365	0.0100	9.87	10.0	-1.3	20.0
cis-1,2-Dichloroethene	Ave	0.3275	0.3031	0.1000	9.26	10.0	-7.4	20.0
2-Butanone (MEK)	Ave	0.1464	0.1696	0.0500	23.2	20.0	15.9	20.0
Bromochloromethane	Ave	0.1349	0.1256	0.0100	9.31	10.0	-6.9	20.0
Tetrahydrofuran	Ave	0.0991	0.1168	0.0100	23.6	20.0	17.9	20.0
Chloroform	Ave	0.5094	0.5216	0.2000	10.2	10.0	2.4	20.0
1,1,1-Trichloroethane	Ave	0.4062	0.3881	0.1000	9.56	10.0	-4.4	20.0
Cyclohexane	Ave	0.5999	0.6819	0.1000	11.4	10.0	13.7	20.0
Carbon tetrachloride	Ave	0.3287	0.3209	0.1000	9.76	10.0	-2.4	20.0
1,1-Dichloropropene	Ave	0.4068	0.4328	0.0100	10.6	10.0	6.4	20.0
Isobutyl alcohol	Ave	0.0072	0.0087*	0.0100	299	250	19.4	20.0
Benzene	Ave	1.148	1.193	0.5000	10.4	10.0	3.9	20.0
1,2-Dichloroethane	Ave	0.4028	0.4587	0.1000	11.4	10.0	13.9	20.0
n-Heptane	Ave	0.3806	0.5122	0.0100	13.5	10.0	34.6*	20.0
Trichloroethene	Ave	0.2810	0.2644	0.2000	9.41	10.0	-5.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-191190/2 Calibration Date: 10/14/2016 10:56
 Instrument ID: CHHP5 Calib Start Date: 09/28/2016 14:27
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 09/28/2016 18:27
 Lab File ID: 51014002.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
Methylcyclohexane	Ave	0.4952	0.5033	0.1000	10.2	10.0	1.6	20.0
1,2-Dichloropropane	Ave	0.2941	0.3171	0.1000	10.8	10.0	7.8	20.0
1,4-Dioxane	Ave	0.0021	0.0027*	0.0100	259	200	29.6*	20.0
Dibromomethane	Ave	0.1530	0.1553	0.0100	10.2	10.0	1.5	20.0
Bromodichloromethane	Ave	0.3217	0.3504	0.2000	10.9	10.0	8.9	20.0
2-Chloroethyl vinyl ether	Ave	0.1544	0.1690	0.0100	21.9	20.0	9.5	20.0
cis-1,3-Dichloropropene	Ave	0.4154	0.3886	0.2000	9.35	10.0	-6.5	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.280	1.195	0.1000	18.7	20.0	-6.6	20.0
Toluene	Ave	5.044	5.329	0.4000	10.6	10.0	5.6	20.0
trans-1,3-Dichloropropene	Ave	1.570	1.367	0.1000	8.71	10.0	-12.9	20.0
Ethyl methacrylate	Ave	1.546	1.354	0.0100	8.76	10.0	-12.4	20.0
1,1,2-Trichloroethane	Ave	0.9368	0.9634	0.1000	10.3	10.0	2.8	20.0
Tetrachloroethene	Ave	0.9221	0.9812	0.2000	10.6	10.0	6.4	20.0
1,3-Dichloropropane	Ave	1.768	1.886	0.0100	10.7	10.0	6.7	20.0
2-Hexanone	Ave	1.014	0.9278	0.1000	18.3	20.0	-8.5	20.0
Dibromochloromethane	Ave	0.8636	0.8935	0.1000	10.3	10.0	3.5	20.0
1,2-Dibromoethane (EDB)	Ave	0.9478	0.9376	0.1000	9.89	10.0	-1.1	20.0
3-Chlorobenzotrifluoride	Ave	1.654	1.806	0.0100	10.9	10.0	9.2	20.0
Chlorobenzene	Ave	3.043	3.289	0.5000	10.8	10.0	8.1	20.0
4-Chlorobenzotrifluoride	Ave	1.549	1.741	0.0100	11.2	10.0	12.4	20.0
1,1,1,2-Tetrachloroethane	Ave	0.9456	1.005	0.0100	10.6	10.0	6.3	20.0
Ethylbenzene	Ave	1.770	1.938	0.1000	11.0	10.0	9.5	20.0
m-Xylene & p-Xylene	Ave	2.162	2.300	0.1000	10.6	10.0	6.4	20.0
o-Xylene	Ave	1.998	2.205	0.3000	11.0	10.0	10.4	20.0
Styrene	Ave	3.337	3.764	0.3000	11.3	10.0	12.8	20.0
Bromoform	Ave	0.5048	0.5090	0.1000	10.1	10.0	0.8	20.0
2-Chlorobenzotrifluoride	Ave	1.505	1.703	0.0100	11.3	10.0	13.1	20.0
Isopropylbenzene	Ave	4.883	5.868	0.1000	12.0	10.0	20.2*	20.0
1,1,2,2-Tetrachloroethane	Ave	1.116	1.311	0.3000	11.7	10.0	17.4	20.0
Bromobenzene	Ave	1.062	0.9364	0.0100	8.82	10.0	-11.8	20.0
trans-1,4-Dichloro-2-butene	Ave	0.4033	0.2805	0.0100	6.95	10.0	-30.5*	20.0
1,2,3-Trichloropropane	Ave	0.3644	0.3014	0.0100	8.27	10.0	-17.3	20.0
N-Propylbenzene	Ave	1.267	1.127	0.0100	8.89	10.0	-11.1	20.0
2-Chlorotoluene	Ave	1.051	0.9120	0.0100	8.68	10.0	-13.2	20.0
3-Chlorotoluene	Ave	1.126	0.9754	0.0100	8.67	10.0	-13.3	20.0
1,3,5-Trimethylbenzene	Ave	3.353	3.445	0.0100	10.3	10.0	2.7	20.0
4-Chlorotoluene	Ave	1.098	0.9814	0.0100	8.94	10.0	-10.6	20.0
tert-Butylbenzene	Ave	2.821	2.777	0.0100	9.85	10.0	-1.5	20.0
1,2,4-Trimethylbenzene	Ave	3.336	3.412	0.0100	10.2	10.0	2.3	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.9183	0.8992	0.0100	9.79	10.0	-2.1	20.0
sec-Butylbenzene	Ave	3.888	4.054	0.0100	10.4	10.0	4.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-191190/2 Calibration Date: 10/14/2016 10:56
 Instrument ID: CHHP5 Calib Start Date: 09/28/2016 14:27
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 09/28/2016 18:27
 Lab File ID: 51014002.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
1,3-Dichlorobenzene	Ave	1.706	1.702	0.6000	9.98	10.0	-0.2	20.0
4-Isopropyltoluene	Ave	3.062	3.312	0.0100	10.8	10.0	8.2	20.0
1,4-Dichlorobenzene	Ave	1.696	1.728	0.5000	10.2	10.0	1.9	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7809	0.8160	0.0100	10.4	10.0	4.5	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.9002	0.8947	0.0100	9.94	10.0	-0.6	20.0
n-Butylbenzene	Ave	2.559	2.878	0.0100	11.2	10.0	12.5	20.0
1,2-Dichlorobenzene	Ave	1.427	1.493	0.4000	10.5	10.0	4.6	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1433	0.1374	0.0500	9.59	10.0	-4.1	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	0.9185	0.9470	0.0100	30.9	30.0	3.1	20.0
2,3- & 3,4- Dichlorotoluene	Ave	0.8969	0.8601	0.0100	19.2	20.0	-4.1	20.0
1,2,4-Trichlorobenzene	Ave	0.6287	0.5543	0.2000	8.82	10.0	-11.8	20.0
Hexachlorobutadiene	Ave	0.3056	0.2929	0.0100	9.58	10.0	-4.2	20.0
Naphthalene	Ave	1.833	1.318	0.0100	7.19	10.0	-28.1*	20.0
1,2,3-Trichlorobenzene	Ave	0.5647	0.4190	0.0100	7.42	10.0	-25.8*	20.0
2,4,5-Trichlorotoluene	Qua		0.1778	0.0100	4.69	10.0	-53.1*	20.0
2,3,6-Trichlorotoluene	Ave	0.4531	0.1794	0.0100	3.96	10.0	-60.4*	20.0
Dibromofluoromethane (Surr)	Ave	0.2254	0.2030		9.01	10.0	-9.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3064	0.3192		10.4	10.0	4.2	20.0
Toluene-d8 (Surr)	Ave	3.934	3.781		9.61	10.0	-3.9	20.0
4-Bromofluorobenzene (Surr)	Ave	1.454	1.497		10.3	10.0	3.0	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161014-13878.b\51014002.D
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 14-Oct-2016 10:56:30 ALS Bottle#: 2 Worklist Smp#: 2
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013878-002
 Misc. Info.: CCVIS
 Operator ID: 001562 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161014-13878.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 14-Oct-2016 12:57:28 Calib Date: 04-Oct-2016 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161004-13721.b\51004011.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: fergusond

Date: 14-Oct-2016 11:32:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.286	4.286	0.000	0	107101	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.267	7.267	0.000	97	344914	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.376	10.376	0.000	92	78358	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.718	12.718	0.000	95	106022	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.549	6.549	0.000	93	70029	50.0	45.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.920	6.920	0.000	0	110112	50.0	52.1	
\$ 7 Toluene-d8 (Surr)	98	8.922	8.922	0.000	95	296276	50.0	48.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.562	11.562	0.000	82	117271	50.0	51.5	
11 Dichlorodifluoromethane	85	1.616	1.616	0.000	99	112404	50.0	49.5	
12 Chloromethane	50	1.768	1.768	0.000	99	166623	50.0	63.3	
13 Vinyl chloride	62	1.901	1.901	0.000	83	129566	50.0	60.5	
14 Butadiene	39	1.938	1.938	0.000	100	194414	50.0	80.7	
15 Bromomethane	94	2.230	2.230	0.000	92	34527	50.0	37.2	
16 Chloroethane	64	2.376	2.376	0.000	98	71836	50.0	53.5	
17 Dichlorofluoromethane	67	2.662	2.662	0.000	96	149169	50.0	52.8	
18 Trichlorofluoromethane	101	2.680	2.680	0.000	96	111037	50.0	54.9	
20 Ethyl ether	59	3.039	3.039	0.000	98	106656	50.0	60.9	
21 Acrolein	56	3.222	3.222	0.000	96	64496	150.0	160.4	
22 1,1-Dichloroethene	96	3.325	3.325	0.000	92	94157	50.0	48.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.410	3.410	0.000	93	96447	50.0	49.0	
24 Acetone	43	3.447	3.447	0.000	91	84031	100.0	124.2	
25 Iodomethane	142	3.526	3.526	0.000	99	131278	50.0	46.9	
26 Carbon disulfide	76	3.611	3.611	0.000	99	261686	50.0	49.7	
28 3-Chloro-1-propene	76	3.909	3.909	0.000	87	57500	50.0	44.7	
30 Methyl acetate	43	3.933	3.933	0.000	100	493073	250.0	296.2	
31 Methylene Chloride	84	4.128	4.128	0.000	94	103119	50.0	45.4	
32 2-Methyl-2-propanol	59	4.420	4.420	0.000	86	77019	500.0	642.9	
33 Acrylonitrile	53	4.517	4.517	0.000	99	485672	500.0	601.7	
34 trans-1,2-Dichloroethene	96	4.554	4.554	0.000	91	99125	50.0	49.6	
35 Methyl tert-butyl ether	73	4.566	4.566	0.000	96	244441	50.0	43.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.968	4.968	0.000	96	181823	50.0	57.5	
37 1,1-Dichloroethane	63	5.180	5.180	0.000	96	206598	50.0	52.4	
38 Vinyl acetate	43	5.235	5.235	0.000	98	208674	50.0	52.1	
44 2,2-Dichloropropane	77	5.929	5.929	0.000	74	116074	50.0	49.3	
45 cis-1,2-Dichloroethene	96	5.935	5.935	0.000	87	104549	50.0	46.3	
46 2-Butanone (MEK)	43	5.947	5.947	0.000	97	117022	100.0	115.9	
49 Chlorobromomethane	128	6.215	6.215	0.000	87	43330	50.0	46.6	
51 Tetrahydrofuran	42	6.233	6.233	0.000	93	80579	100.0	117.9	
52 Chloroform	83	6.367	6.367	0.000	97	179921	50.0	51.2	
53 1,1,1-Trichloroethane	97	6.519	6.519	0.000	94	133862	50.0	47.8	
54 Cyclohexane	56	6.586	6.586	0.000	98	235188	50.0	56.8	
56 Carbon tetrachloride	117	6.695	6.695	0.000	92	110683	50.0	48.8	
55 1,1-Dichloropropene	75	6.707	6.707	0.000	87	149273	50.0	53.2	
57 Isobutyl alcohol	41	6.920	6.920	0.000	45	74576	1250.0	1492.7	
58 Benzene	78	6.926	6.926	0.000	95	411359	50.0	51.9	
59 1,2-Dichloroethane	62	6.999	6.999	0.000	96	158225	50.0	56.9	
62 n-Heptane	43	7.285	7.285	0.000	97	176663	50.0	67.3	
64 Trichloroethene	130	7.662	7.662	0.000	94	91201	50.0	47.0	
66 Methylcyclohexane	83	7.894	7.894	0.000	98	173603	50.0	50.8	
67 1,2-Dichloropropane	63	7.930	7.930	0.000	93	109379	50.0	53.9	
70 1,4-Dioxane	88	8.015	8.015	0.000	47	18430	1000.0	1296.1	
68 Dibromomethane	93	8.015	8.015	0.000	95	53579	50.0	50.8	
71 Dichlorobromomethane	83	8.216	8.216	0.000	97	120866	50.0	54.5	
73 2-Chloroethyl vinyl ether	63	8.514	8.514	0.000	89	116551	100.0	109.5	
74 cis-1,3-Dichloropropene	75	8.660	8.660	0.000	86	134027	50.0	46.8	
75 4-Methyl-2-pentanone (MIBK)	43	8.818	8.818	0.000	98	187258	100.0	93.4	
76 Toluene	91	8.989	8.989	0.000	98	417542	50.0	52.8	
77 trans-1,3-Dichloropropene	75	9.238	9.238	0.000	95	107137	50.0	43.5	
78 Ethyl methacrylate	69	9.299	9.299	0.000	94	106106	50.0	43.8	
79 1,1,2-Trichloroethane	97	9.433	9.433	0.000	93	75492	50.0	51.4	
80 Tetrachloroethene	164	9.500	9.500	0.000	93	76885	50.0	53.2	
81 1,3-Dichloropropane	76	9.591	9.591	0.000	96	147784	50.0	53.4	
82 2-Hexanone	43	9.646	9.646	0.000	98	145407	100.0	91.5	
84 Chlorodibromomethane	129	9.804	9.804	0.000	89	70009	50.0	51.7	
85 Ethylene Dibromide	107	9.913	9.913	0.000	97	73465	50.0	49.5	
86 3-Chlorobenzotrifluoride	180	10.376	10.376	0.000	88	141530	50.0	54.6	
87 Chlorobenzene	112	10.406	10.406	0.000	89	257719	50.0	54.0	
88 4-Chlorobenzotrifluoride	180	10.467	10.467	0.000	96	136392	50.0	56.2	
89 1,1,1,2-Tetrachloroethane	131	10.497	10.497	0.000	89	78747	50.0	53.1	
90 Ethylbenzene	106	10.503	10.503	0.000	99	151868	50.0	54.8	
91 m-Xylene & p-Xylene	106	10.631	10.631	0.000	0	180194	50.0	53.2	
92 o-Xylene	106	11.014	11.014	0.000	99	172771	50.0	55.2	
93 Styrene	104	11.039	11.039	0.000	92	294931	50.0	56.4	
94 Bromoform	173	11.221	11.221	0.000	93	39882	50.0	50.4	
96 2-Chlorobenzotrifluoride	180	11.288	11.288	0.000	94	133453	50.0	56.6	
97 Isopropylbenzene	105	11.386	11.386	0.000	98	459827	50.0	60.1	
99 1,1,2,2-Tetrachloroethane	83	11.696	11.696	0.000	92	102688	50.0	58.7	
100 Bromobenzene	156	11.702	11.702	0.000	96	99282	50.0	44.1	
102 trans-1,4-Dichloro-2-buten	53	11.732	11.732	0.000	67	29735	50.0	34.8	
101 1,2,3-Trichloropropane	110	11.757	11.757	0.000	91	31952	50.0	41.3	
103 N-Propylbenzene	120	11.799	11.799	0.000	99	119437	50.0	44.5	
104 2-Chlorotoluene	126	11.890	11.890	0.000	94	96694	50.0	43.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.957	11.957	0.000	97	103417	50.0	43.3	
106 1,3,5-Trimethylbenzene	105	11.982	11.982	0.000	94	365233	50.0	51.4	
107 4-Chlorotoluene	126	12.012	12.012	0.000	99	104054	50.0	44.7	
108 tert-Butylbenzene	119	12.298	12.298	0.000	94	294462	50.0	49.2	
110 1,2,4-Trimethylbenzene	105	12.359	12.359	0.000	99	361763	50.0	51.1	
111 1,2-dichloro-4-(trifluorom	214	12.401	12.401	0.000	95	95333	50.0	49.0	
112 sec-Butylbenzene	105	12.517	12.517	0.000	96	429766	50.0	52.1	
113 1,3-Dichlorobenzene	146	12.639	12.639	0.000	96	180488	50.0	49.9	
114 4-Isopropyltoluene	119	12.675	12.675	0.000	97	351135	50.0	54.1	
115 1,4-Dichlorobenzene	146	12.742	12.742	0.000	91	183256	50.0	51.0	
116 2,4-Dichloro-1-(trifluorom	214	12.773	12.773	0.000	96	86514	50.0	52.2	
118 2,5-Dichlorobenzotrifluori	214	12.809	12.809	0.000	0	94860	50.0	49.7	
120 n-Butylbenzene	91	13.083	13.083	0.000	98	305118	50.0	56.2	
121 1,2-Dichlorobenzene	146	13.101	13.101	0.000	94	158301	50.0	52.3	
122 1,2-Dibromo-3-Chloropropan	75	13.898	13.898	0.000	71	14571	50.0	47.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.032	14.032	0.000	0	301205	150.0	154.7	
125 2,3- & 3,4- Dichlorotoluen	125	14.452	14.452	0.000	0	182388	100.0	95.9	
126 1,2,4-Trichlorobenzene	180	14.713	14.713	0.000	93	58772	50.0	44.1	
127 Hexachlorobutadiene	225	14.865	14.865	0.000	95	31049	50.0	47.9	
128 Naphthalene	128	14.981	14.981	0.000	98	139747	50.0	36.0	
129 1,2,3-Trichlorobenzene	180	15.206	15.206	0.000	94	44424	50.0	37.1	
131 2,4,5-Trichlorotoluene	159	15.985	15.985	0.000	0	18855	50.0	23.5	
130 2,3,6-Trichlorotoluene	159	16.082	16.082	0.000	92	19023	50.0	19.8	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	95.8	
S 133 Xylenes, Total	106				0		100.0	108.4	
S 135 1,3-Dichloropropene, Total	1				0		100.0	90.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260VOAPRI_00216	Amount Added: 2.00	Units: uL	
voaWKetPriRes_00002	Amount Added: 2.00	Units: uL	
voaWEEmixRest_00001	Amount Added: 2.00	Units: uL	
voaWva2ndRest_00007	Amount Added: 2.00	Units: uL	
VOACEVEPRI_00017	Amount Added: 2.00	Units: uL	
voaWacro2ndRe_00007	Amount Added: 6.00	Units: uL	
VOA8260INT_00061	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00059	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161014-13878.b\51014002.D

Injection Date: 14-Oct-2016 10:56:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

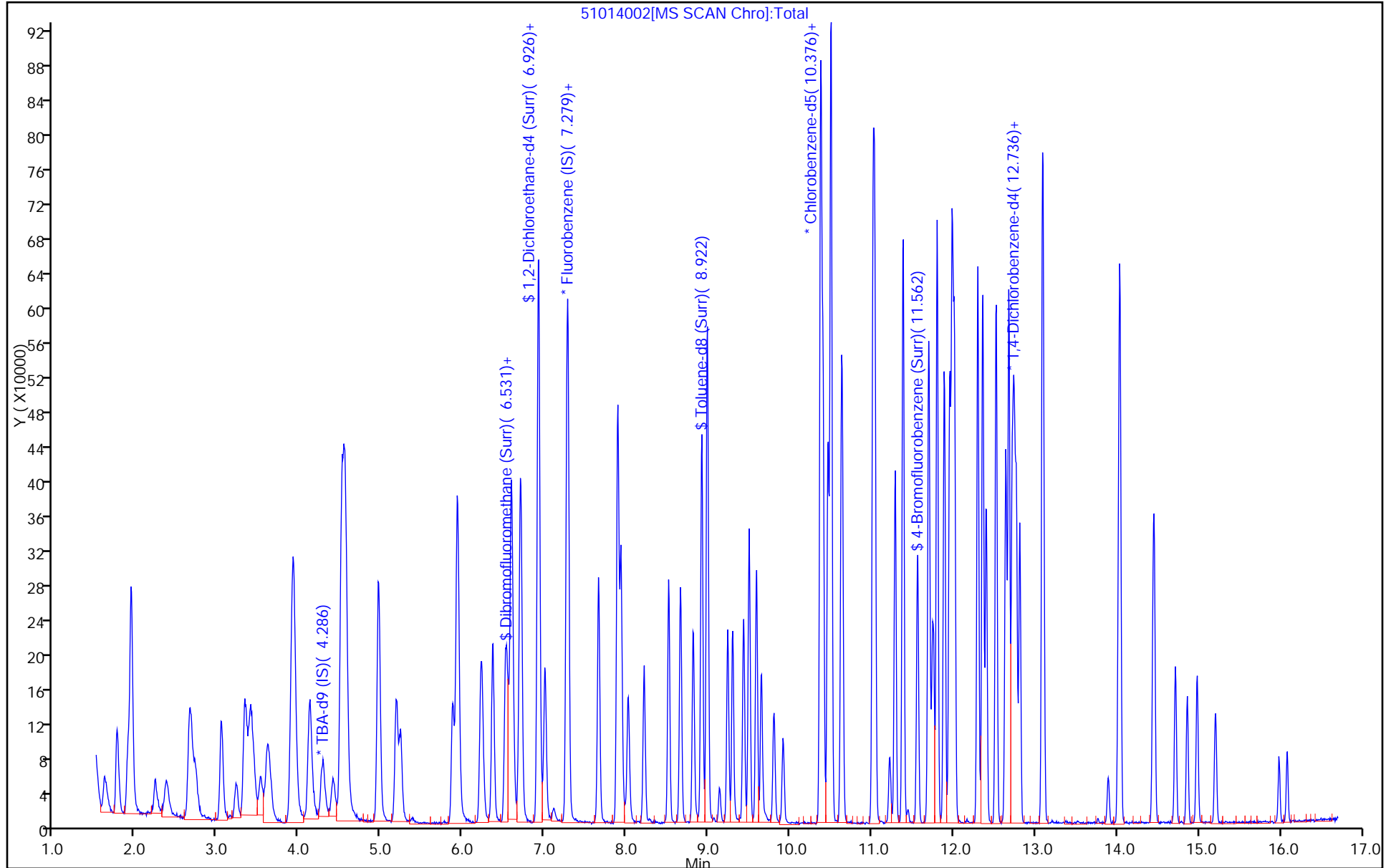
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928002.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 28-Sep-2016 12:00:30 ALS Bottle#: 2 Worklist Smp#: 2
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Sample Info: 180-0013640-002
 Misc. Info.: BFB
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 29-Sep-2016 09:37:17 Calib Date: 28-Sep-2016 18:27:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928015.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK034

First Level Reviewer: fergusond Date: 28-Sep-2016 12:24:05

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	8.365	8.365	0.000	0	77450	NR	NR	
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QC Flag Legend

Processing Flags

NR - Missing Quant Standard

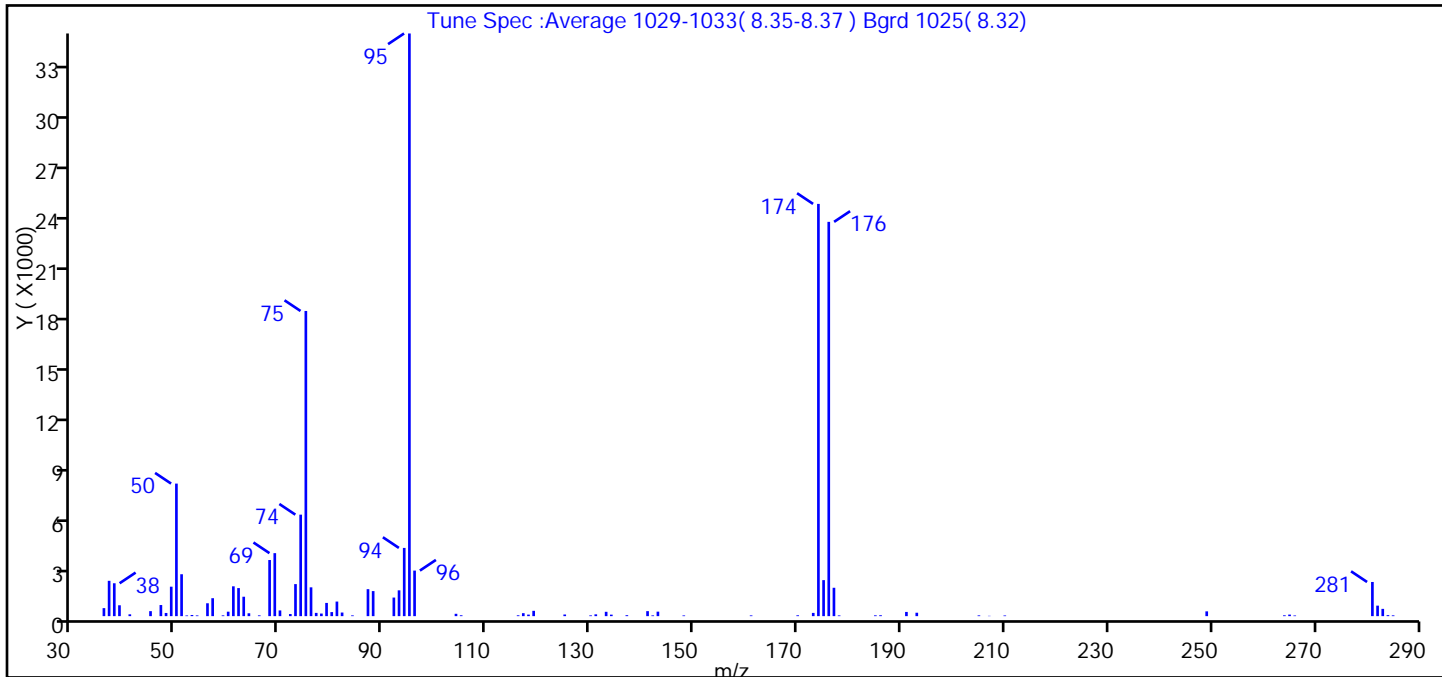
Reagents:

VOABFB25_00079 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928002.D
 Injection Date: 28-Sep-2016 12:00:30 Instrument ID: CHHP5
 Lims ID: BFB
 Client ID:
 Operator ID: 001562 ALS Bottle#: 2 Worklist Smp#: 2
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Method: MSVOA_LL_CHHP5 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	22.7
75	30 to 60% of m/z 95	52.4
96	5 to 9% of m/z 95	7.8
173	Less than 2% of m/z 174	0.6 (0.8)
174	50 to 120% of m/z 95	70.8
175	5 to 9% of m/z 174	6.2 (8.7)
176	Greater than 95% but less than 101% of m/z 174	67.7 (95.6)
177	5 to 9% of m/z 176	4.9 (7.2)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928002.D\MMSVOA_LL_CHHP5.rsl\spect
 Injection Date: 28-Sep-2016 12:00:30
 Spectrum: Tune Spec :Average 1029-1033(8.35-8.37) Bgrd 1025(8.32)
 Base Peak: 95.00
 Minimum % Base Peak: 0
 Number of Points: 85

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	475	66.00	46	96.00	2699	176.00	23360
37.00	2093	68.00	3325	104.00	139	177.00	1681
38.00	1948	69.00	3732	105.00	51	178.00	43
39.00	644	70.00	339	116.00	50	185.00	48
41.00	108	72.00	124	117.00	176	186.00	53
45.00	296	73.00	1898	118.00	91	191.00	249
47.00	658	74.00	6013	119.00	315	193.00	202
48.00	188	75.00	18080	125.00	97	205.00	45
49.00	1745	76.00	1707	130.00	45	207.00	18
50.00	7853	77.00	193	131.00	107	210.00	40
51.00	2483	78.00	154	133.00	257	249.00	284
52.00	41	79.00	783	134.00	89	264.00	50
53.00	68	80.00	240	137.00	56	265.00	92
54.00	43	81.00	864	141.00	296	266.00	40
56.00	763	82.00	214	142.00	45	281.00	2024
57.00	1063	84.00	45	143.00	266	282.00	622
59.00	46	87.00	1598	148.00	42	283.00	431
60.00	264	88.00	1484	161.00	44	284.00	59
61.00	1767	92.00	1101	170.00	50	285.00	47
62.00	1662	93.00	1529	173.00	192		
63.00	1150	94.00	4042	174.00	24424		
64.00	170	95.00	34520	175.00	2134		

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20160928-13640.b\50928002.D

Injection Date: 28-Sep-2016 12:00:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 2

Client ID:

Injection Vol: 5.0 mL

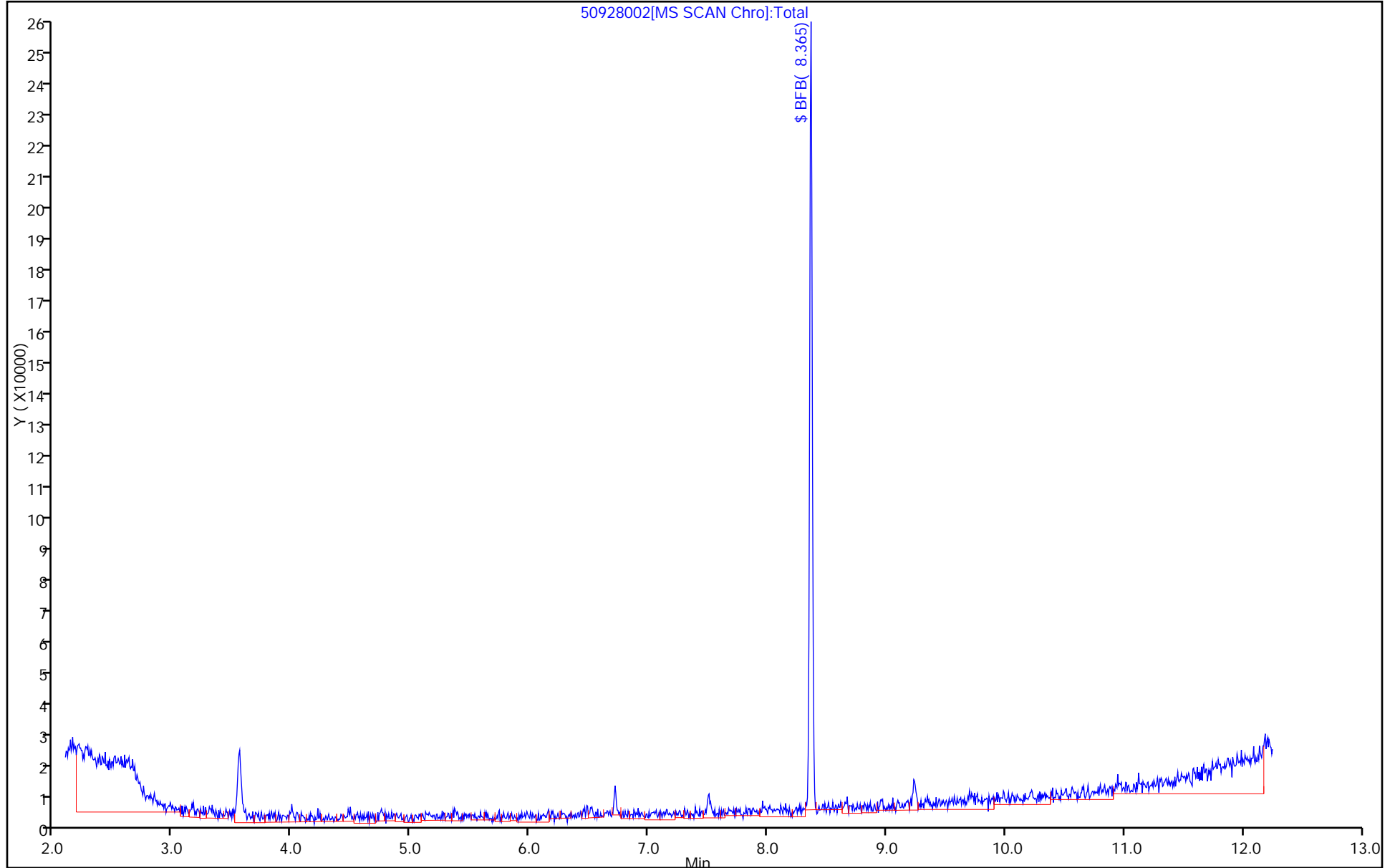
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013004.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 13-Oct-2016 10:55:30 ALS Bottle#: 1 Worklist Smp#: 4
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Sample Info: 180-0013857-004
 Misc. Info.: BFB
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 13-Oct-2016 14:13:06 Calib Date: 04-Oct-2016 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161004-13721.b\51004011.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK016

First Level Reviewer: fergusond Date: 13-Oct-2016 11:26:24

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	8.357	8.357	0.000	0	42320	NR	NR	
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QC Flag Legend

Processing Flags

NR - Missing Quant Standard

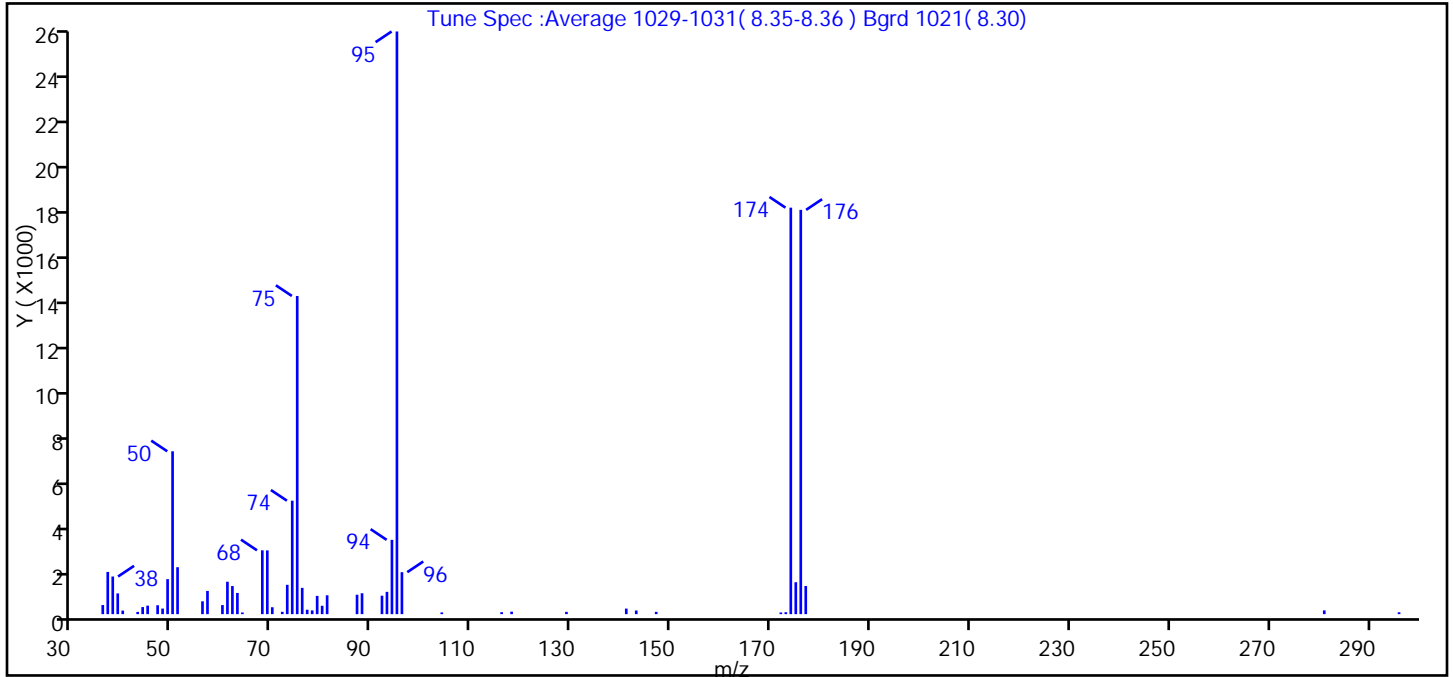
Reagents:

VOABFB25_00080 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013004.D
 Injection Date: 13-Oct-2016 10:55:30 Instrument ID: CHHP5
 Lims ID: BFB
 Client ID:
 Operator ID: 001562 ALS Bottle#: 1 Worklist Smp#: 4
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Method: MSVOA_LL_CHHP5 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	27.9
75	30 to 60% of m/z 95	54.6
96	5 to 9% of m/z 95	7.2
173	Less than 2% of m/z 174	0.3 (0.5)
174	50 to 120% of m/z 95	69.8
175	5 to 9% of m/z 174	5.5 (7.9)
176	Greater than 95% but less than 101% of m/z 174	69.4 (99.5)
177	5 to 9% of m/z 176	4.8 (7.0)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013004.D\MSVOA_LL_CHHP5.rsl\spect
Injection Date: 13-Oct-2016 10:55:30
Spectrum: Tune Spec :Average 1029-1031(8.35-8.36) Bgrd 1021(8.30)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 55

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	396	57.00	1007	77.00	192	118.00	108
37.00	1833	60.00	394	78.00	163	129.00	99
38.00	1634	61.00	1407	79.00	793	141.00	241
39.00	901	62.00	1220	80.00	363	143.00	158
40.00	155	63.00	921	81.00	818	147.00	100
43.00	98	64.00	72	87.00	843	172.00	73
44.00	307	68.00	2771	88.00	907	173.00	84
45.00	368	69.00	2768	92.00	800	174.00	17648
47.00	386	70.00	300	93.00	968	175.00	1386
48.00	243	72.00	101	94.00	3226	176.00	17552
49.00	1520	73.00	1273	95.00	25296	177.00	1223
50.00	7070	74.00	4926	96.00	1822	281.00	163
51.00	2038	75.00	13813	104.00	75	296.00	81
56.00	557	76.00	1141	116.00	86		

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013004.D

Injection Date: 13-Oct-2016 10:55:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 4

Client ID:

Injection Vol: 5.0 mL

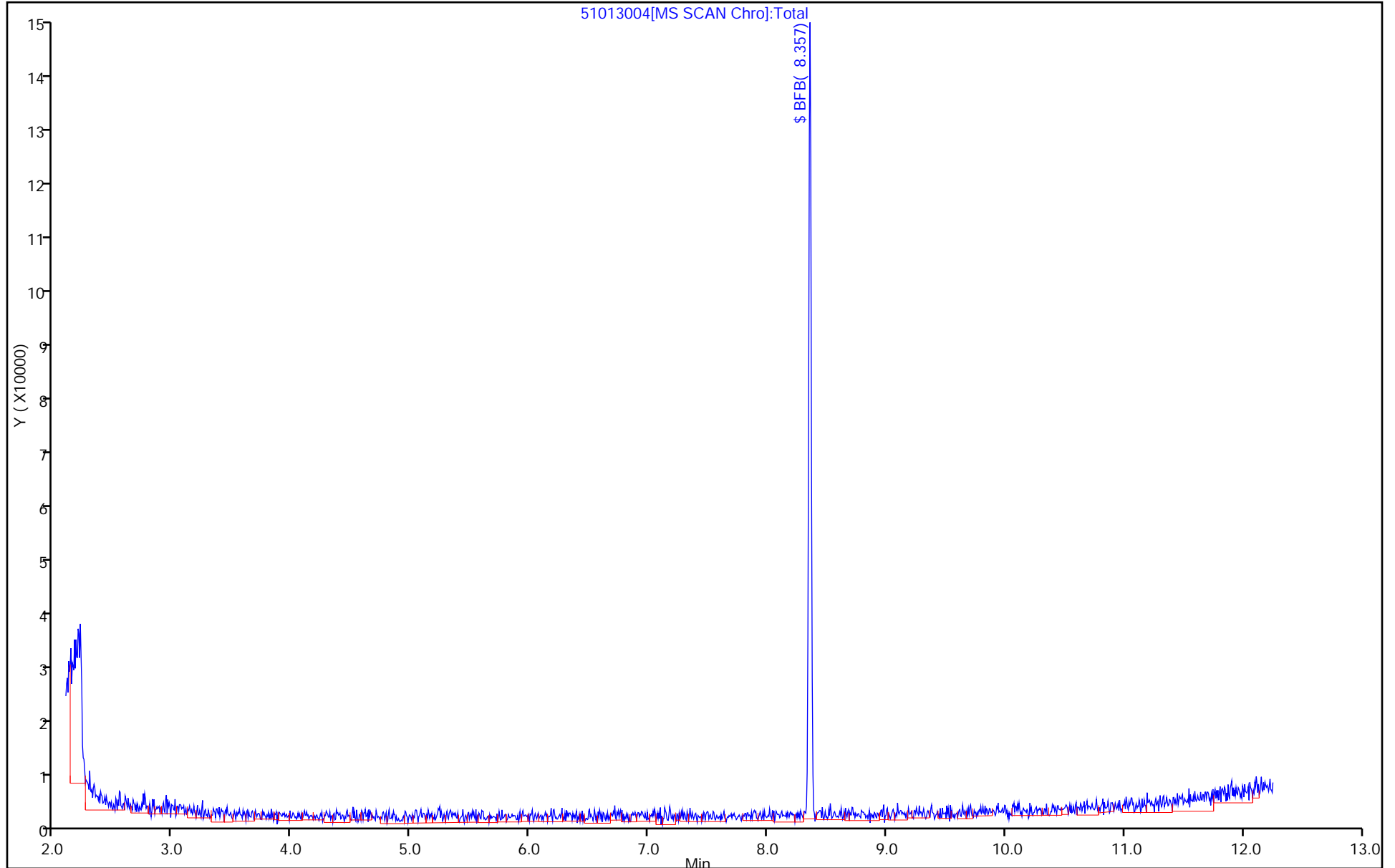
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161014-13878.b\51014001.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 14-Oct-2016 10:18:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Sample Info: 180-0013878-001
 Misc. Info.: BFB
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161014-13878.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 14-Oct-2016 12:57:26 Calib Date: 04-Oct-2016 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161004-13721.b\51004011.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: fergusond Date: 14-Oct-2016 10:35:02

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	8.359	8.359	0.000	0	54522	NR	NR	
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QC Flag Legend

Processing Flags

NR - Missing Quant Standard

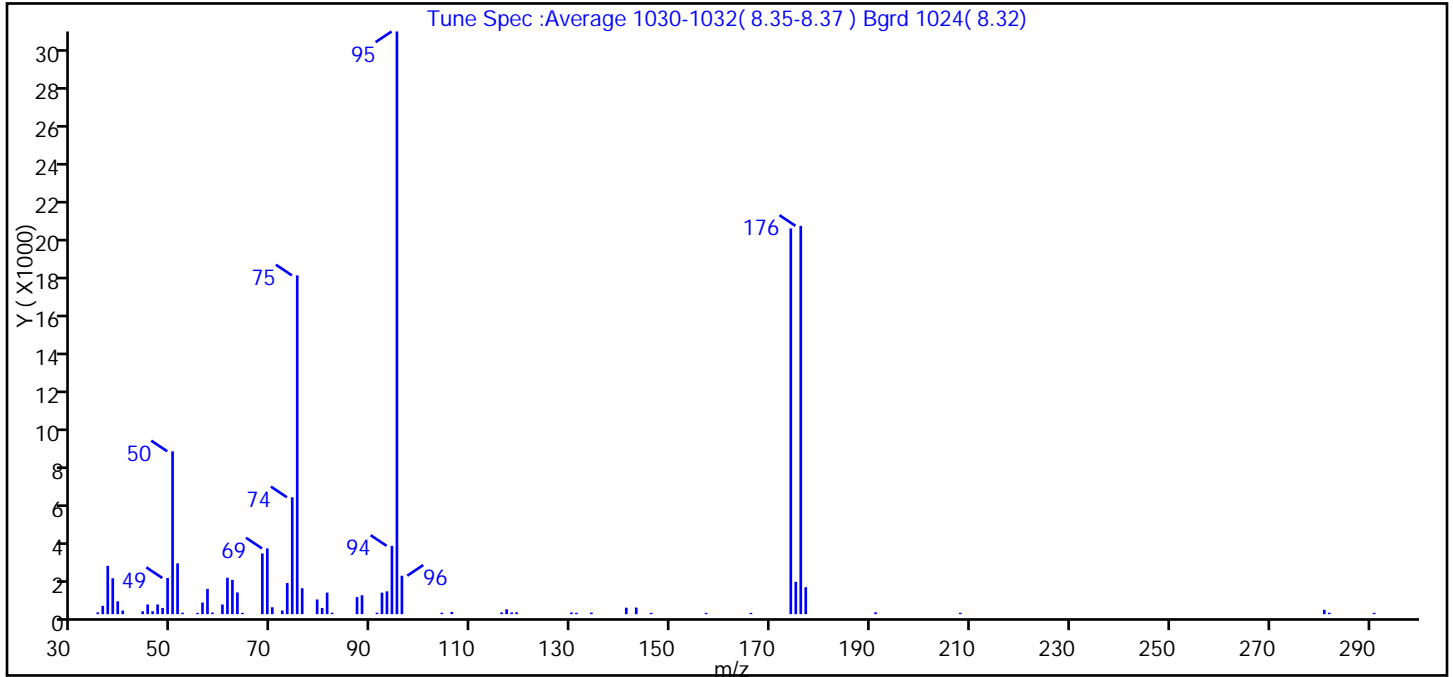
Reagents:

VOABFB25_00080 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161014-13878.b\51014001.D
 Injection Date: 14-Oct-2016 10:18:30 Instrument ID: CHHP5
 Lims ID: BFB
 Client ID:
 Operator ID: 001562 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Method: MSVOA_LL_CHHP5 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	27.9
75	30 to 60% of m/z 95	58.1
96	5 to 9% of m/z 95	6.6
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	66.2
175	5 to 9% of m/z 174	5.6 (8.4)
176	Greater than 95% but less than 101% of m/z 174	66.6 (100.7)
177	5 to 9% of m/z 176	4.6 (6.9)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161014-13878.b\51014001.D\MSVOA_LL_CHHP5.rsl\spect
 Injection Date: 14-Oct-2016 10:18:30
 Spectrum: Tune Spec :Average 1030-1032(8.35-8.37) Bgrd 1024(8.32)
 Base Peak: 95.00
 Minimum % Base Peak: 0
 Number of Points: 67

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	92	57.00	1343	81.00	1144	131.00	73
36.00	443	58.00	85	82.00	78	134.00	85
37.00	2566	60.00	511	87.00	904	141.00	343
38.00	1909	61.00	1935	88.00	1005	143.00	350
39.00	682	62.00	1822	91.00	79	146.00	68
40.00	192	63.00	1153	92.00	1142	157.00	70
44.00	152	64.00	72	93.00	1212	166.00	69
45.00	515	68.00	3226	94.00	3628	174.00	20496
46.00	154	69.00	3492	95.00	30960	175.00	1719
47.00	514	70.00	366	96.00	2042	176.00	20632
48.00	329	72.00	193	104.00	75	177.00	1430
49.00	1920	73.00	1653	106.00	113	191.00	94
50.00	8651	74.00	6210	116.00	90	208.00	73
51.00	2699	75.00	18000	117.00	257	281.00	232
52.00	78	76.00	1377	118.00	92	282.00	77
55.00	67	79.00	782	119.00	97	291.00	70
56.00	616	80.00	325	130.00	90		

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161014-13878.b\51014001.D

Injection Date: 14-Oct-2016 10:18:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA_LL_CHHP5

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.: 180-59576-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 180-191047/6
 Matrix: Water Lab File ID: 51013006.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2016 13:17
 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.: 191047 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.23
75-01-4	Vinyl chloride	1.0	U	1.0	0.32
74-83-9	Bromomethane	1.0	U	1.0	0.36
75-00-3	Chloroethane	1.0	U	1.0	0.26
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.29
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.18
75-09-2	Methylene Chloride	1.0	U	1.0	0.36
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.29
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.24
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.24
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.29
74-97-5	Bromochloromethane	1.0	U	1.0	0.38
78-93-3	2-Butanone (MEK)	5.0	U	5.0	1.2
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.24
71-43-2	Benzene	1.0	U	1.0	0.26
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.25
79-01-6	Trichloroethene	1.0	U	1.0	0.26
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.23
75-27-4	Bromodichloromethane	1.0	U	1.0	0.23
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.21
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.59
108-88-3	Toluene	1.0	U	1.0	0.28
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.24
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.35
127-18-4	Tetrachloroethene	1.0	U	1.0	0.27
591-78-6	2-Hexanone	5.0	U	5.0	0.74
124-48-1	Dibromochloromethane	1.0	U	1.0	0.40
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.29
108-90-7	Chlorobenzene	1.0	U	1.0	0.31
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.20
100-41-4	Ethylbenzene	1.0	U	1.0	0.27
1330-20-7	Xylenes, Total	2.0	U	2.0	0.48
100-42-5	Styrene	1.0	U	1.0	0.26

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 180-191047/6
 Matrix: Water Lab File ID: 51013006.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2016 13:17
 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.: 191047 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.29
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.35
107-13-1	Acrylonitrile	20	U	20	2.8
123-91-1	1,4-Dioxane	200	U	200	7.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	117		72-134
2037-26-5	Toluene-d8 (Surr)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	108		72-120
1868-53-7	Dibromofluoromethane (Surr)	103		77-127

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013006.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 13-Oct-2016 13:17:30 ALS Bottle#: 5 Worklist Smp#: 6
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013857-006
 Misc. Info.: MB
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 13-Oct-2016 14:51:59 Calib Date: 04-Oct-2016 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161004-13721.b\51004011.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK016

First Level Reviewer: fergusond

Date: 13-Oct-2016 14:51:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.272	4.284	-0.012	0	113480	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.271	7.271	0.000	97	343395	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.380	10.374	0.006	93	72573	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.716	12.716	0.000	97	82800	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.553	6.547	0.006	92	79895	50.0	51.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.918	6.919	0.000	0	123075	50.0	58.5	
\$ 7 Toluene-d8 (Surr)	98	8.920	8.920	0.000	95	301252	50.0	52.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.560	11.560	0.000	83	114430	50.0	54.2	
11 Dichlorodifluoromethane	85		1.614					ND	
12 Chloromethane	50		1.772					ND	
13 Vinyl chloride	62		1.900					ND	
14 Butadiene	39		1.942					ND	
15 Bromomethane	94		2.234					ND	
16 Chloroethane	64		2.380					ND	
17 Dichlorofluoromethane	67		2.660					ND	
18 Trichlorofluoromethane	101		2.672					ND	
19 Ethanol	45		2.954					ND	
20 Ethyl ether	59		3.049					ND	
21 Acrolein	56		3.226					ND	
22 1,1-Dichloroethene	96		3.335					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.396					ND	
24 Acetone	43		3.439					ND	
25 Iodomethane	142		3.524					ND	
26 Carbon disulfide	76		3.621					ND	
27 Isopropyl alcohol	45		3.721					ND	
29 Acetonitrile	41		3.873					ND	
28 3-Chloro-1-propene	76		3.913					ND	
30 Methyl acetate	43		3.938					ND	
31 Methylene Chloride	84	4.150	4.126	0.024	38	1713		0.7578	
32 2-Methyl-2-propanol	59		4.406					ND	
33 Acrylonitrile	53		4.516					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		4.546					ND	
35 Methyl tert-butyl ether	73		4.570					ND	
36 Hexane	57		4.972					ND	
37 1,1-Dichloroethane	63		5.185					ND	
38 Vinyl acetate	43		5.239					ND	
39 2-Chloro-1,3-butadiene	53		5.284					ND	
41 Isopropyl ether	45		5.290					ND	
40 Isopropyl ether TIC	45		5.410					ND	
42 Tert-butyl ethyl ether	59		5.759					ND	
44 2,2-Dichloropropane	77		5.921					ND	
45 cis-1,2-Dichloroethene	96		5.933					ND	
46 2-Butanone (MEK)	43		5.945					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
47 Propionitrile	54		6.020					ND	
48 Ethyl acetate	43		6.026					ND	
50 Methacrylonitrile	41		6.203					ND	
49 Chlorobromomethane	128		6.225					ND	
51 Tetrahydrofuran	42		6.237					ND	
52 Chloroform	83		6.371					ND	
53 1,1,1-Trichloroethane	97		6.523					ND	
54 Cyclohexane	56		6.596					ND	
56 Carbon tetrachloride	117		6.693					ND	
55 1,1-Dichloropropene	75		6.712					ND	
58 Benzene	78		6.925					ND	
57 Isobutyl alcohol	41		6.925					ND	
59 1,2-Dichloroethane	62		7.004					ND	
151 Isooctane	57		7.085					ND	
61 Tert-amyl methyl ether	73		7.109					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.290					ND	
63 n-Butanol	56		7.632					ND	
64 Trichloroethene	130		7.661					ND	
65 Ethyl acrylate	55		7.785					ND	
66 Methylcyclohexane	83		7.898					ND	
67 1,2-Dichloropropane	63		7.934					ND	
68 Dibromomethane	93		8.020					ND	
69 Methyl methacrylate	69		8.022					ND	
70 1,4-Dioxane	88		8.026					ND	
71 Dichlorobromomethane	83		8.220					ND	
72 2-Nitropropane	41		8.448					ND	
73 2-Chloroethyl vinyl ether	63		8.512					ND	
74 cis-1,3-Dichloropropene	75		8.658					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.817					ND	
76 Toluene	91		8.987					ND	
77 trans-1,3-Dichloropropene	75		9.242					ND	
78 Ethyl methacrylate	69		9.303					ND	
79 1,1,2-Trichloroethane	97		9.431					ND	
80 Tetrachloroethene	164		9.504					ND	
81 1,3-Dichloropropane	76		9.589					ND	
82 2-Hexanone	43		9.650					ND	
83 n-Butyl acetate	43		9.774					ND	
84 Chlorodibromomethane	129		9.802					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
85 Ethylene Dibromide	107		9.918					ND	
86 3-Chlorobenzotrifluoride	180		10.374					ND	
87 Chlorobenzene	112		10.404					ND	
88 4-Chlorobenzotrifluoride	180		10.465					ND	
89 1,1,1,2-Tetrachloroethane	131		10.496					ND	
90 Ethylbenzene	106		10.502					ND	
91 m-Xylene & p-Xylene	106		10.636					ND	
92 o-Xylene	106		11.013					ND	
93 Styrene	104		11.037					ND	
94 Bromoform	173		11.220					ND	
96 2-Chlorobenzotrifluoride	180		11.286					ND	
95 Cyclohexanol	57		11.374					ND	
97 Isopropylbenzene	105		11.384					ND	
98 Cyclohexanone	55		11.477					ND	
100 Bromobenzene	156		11.694					ND	
99 1,1,2,2-Tetrachloroethane	83		11.694					ND	
102 trans-1,4-Dichloro-2-buten	53		11.737					ND	
101 1,2,3-Trichloropropane	110		11.749					ND	
103 N-Propylbenzene	120		11.804					ND	
104 2-Chlorotoluene	126		11.889					ND	
105 3-Chlorotoluene	126		11.956					ND	
106 1,3,5-Trimethylbenzene	105		11.986					ND	
107 4-Chlorotoluene	126		12.010					ND	
108 tert-Butylbenzene	119		12.296					ND	
110 1,2,4-Trimethylbenzene	105		12.357					ND	
111 1,2-dichloro-4-(trifluorom	214		12.400					ND	
109 Pentachloroethane	167		12.402					ND	
112 sec-Butylbenzene	105		12.521					ND	
113 1,3-Dichlorobenzene	146		12.637					ND	
114 4-Isopropyltoluene	119		12.680					ND	
115 1,4-Dichlorobenzene	146		12.740					ND	
117 1,2,3-Trimethylbenzene	105		12.767					ND	
116 2,4-Dichloro-1-(triflourom	214		12.771					ND	
118 2,5-Dichlorobenzotrifluori	214		12.813					ND	
119 Benzyl chloride	91		12.864					ND	
120 n-Butylbenzene	91		13.087					ND	
121 1,2-Dichlorobenzene	146		13.099					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.890					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.030					ND	
124 1,3,5-Trichlorobenzene	180		14.081					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.450					ND	
126 1,2,4-Trichlorobenzene	180		14.711					ND	
127 Hexachlorobutadiene	225		14.864					ND	
128 Naphthalene	128		14.979					ND	
129 1,2,3-Trichlorobenzene	180		15.210					ND	
131 2,4,5-Trichlorotoluene	159		15.983					ND	
130 2,3,6-Trichlorotoluene	159		16.080					ND	
132 2-Methylnaphthalene	142		16.098					ND	
150 2,6-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
146 2,5-Dichlorotoluene	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
147 2,4-Dichlorotoluene	1		0.000					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	
T 137 Tetrahydrofuran TIC	42		6.253					ND	
T 153 1,2 Epoxybutane TIC	42		6.253					ND	

Reagents:

VOA8260INT_00061

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00059

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013006.D

Injection Date: 13-Oct-2016 13:17:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: MB

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

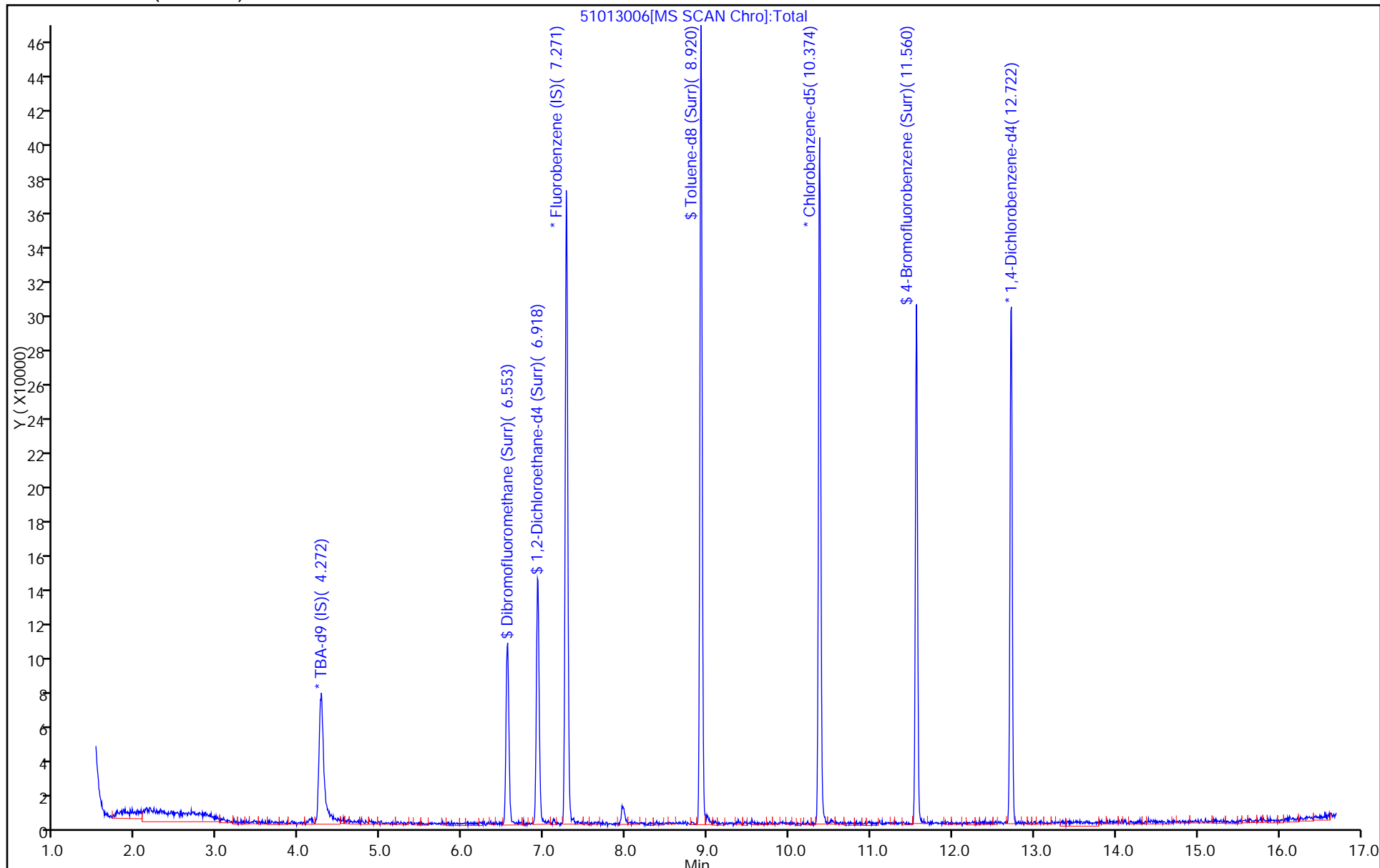
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013006.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 13-Oct-2016 13:17:30 ALS Bottle#: 5 Worklist Smp#: 6
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013857-006
 Misc. Info.: MB
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 13-Oct-2016 14:51:59 Calib Date: 04-Oct-2016 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161004-13721.b\51004011.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK016

First Level Reviewer: fergusond Date: 13-Oct-2016 14:51:59

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	51.6	103.23
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	58.5	116.97
\$ 7 Toluene-d8 (Surr)	50.0	52.8	105.51
\$ 8 4-Bromofluorobenzene (Surr)	50.0	54.2	108.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 180-191190/4
 Matrix: Water Lab File ID: 51014004.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/14/2016 12:00
 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.: 191190 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.23
75-01-4	Vinyl chloride	1.0	U	1.0	0.32
74-83-9	Bromomethane	1.0	U	1.0	0.36
75-00-3	Chloroethane	1.0	U	1.0	0.26
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.29
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.18
75-09-2	Methylene Chloride	1.0	U	1.0	0.36
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.29
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.24
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.24
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.29
74-97-5	Bromochloromethane	1.0	U	1.0	0.38
78-93-3	2-Butanone (MEK)	5.0	U	5.0	1.2
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.24
71-43-2	Benzene	1.0	U	1.0	0.26
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.25
79-01-6	Trichloroethene	1.0	U	1.0	0.26
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.23
75-27-4	Bromodichloromethane	1.0	U	1.0	0.23
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.21
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.59
108-88-3	Toluene	1.0	U	1.0	0.28
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.24
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.35
127-18-4	Tetrachloroethene	1.0	U	1.0	0.27
591-78-6	2-Hexanone	5.0	U	5.0	0.74
124-48-1	Dibromochloromethane	1.0	U	1.0	0.40
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.29
108-90-7	Chlorobenzene	1.0	U	1.0	0.31
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.20
100-41-4	Ethylbenzene	1.0	U	1.0	0.27
1330-20-7	Xylenes, Total	2.0	U	2.0	0.48
100-42-5	Styrene	1.0	U	1.0	0.26

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 180-191190/4
 Matrix: Water Lab File ID: 51014004.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/14/2016 12:00
 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.: 191190 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.29
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.35
107-13-1	Acrylonitrile	20	U	20	2.8
123-91-1	1,4-Dioxane	200	U	200	7.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	121		72-134
2037-26-5	Toluene-d8 (Surr)	108		80-120
460-00-4	4-Bromofluorobenzene (Surr)	114		72-120
1868-53-7	Dibromofluoromethane (Surr)	102		77-127

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161014-13878.b\51014004.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 14-Oct-2016 12:00:30 ALS Bottle#: 4 Worklist Smp#: 4
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013878-004
 Misc. Info.: MB
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161014-13878.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 14-Oct-2016 13:49:21 Calib Date: 04-Oct-2016 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161004-13721.b\51004011.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: fergusond

Date: 14-Oct-2016 13:49:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.275	4.286	-0.011	0	126356	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.274	7.267	0.007	97	353600	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.376	10.376	0.000	93	77925	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.718	12.718	0.000	97	99682	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.550	6.549	0.001	93	81081	50.0	50.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.921	6.920	0.001	0	130601	50.0	60.3	
\$ 7 Toluene-d8 (Surr)	98	8.922	8.922	0.000	95	331819	50.0	54.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.557	11.562	-0.005	83	128661	50.0	56.8	
11 Dichlorodifluoromethane	85		1.616					ND	
12 Chloromethane	50		1.768					ND	
13 Vinyl chloride	62		1.901					ND	
14 Butadiene	39		1.938					ND	
15 Bromomethane	94		2.230					ND	
16 Chloroethane	64		2.376					ND	
17 Dichlorofluoromethane	67		2.662					ND	
18 Trichlorofluoromethane	101		2.680					ND	
19 Ethanol	45		2.954					ND	
20 Ethyl ether	59		3.039					ND	
21 Acrolein	56		3.222					ND	
22 1,1-Dichloroethene	96		3.325					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.410					ND	
24 Acetone	43		3.447					ND	
25 Iodomethane	142		3.526					ND	
26 Carbon disulfide	76		3.611					ND	
27 Isopropyl alcohol	45		3.721					ND	
29 Acetonitrile	41		3.873					ND	
28 3-Chloro-1-propene	76		3.909					ND	
30 Methyl acetate	43		3.933					ND	
31 Methylene Chloride	84	4.135	4.128	0.007	28	2045		0.8786	
32 2-Methyl-2-propanol	59		4.420					ND	
33 Acrylonitrile	53		4.517					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		4.554					ND	
35 Methyl tert-butyl ether	73		4.566					ND	
36 Hexane	57		4.968					ND	
37 1,1-Dichloroethane	63		5.180					ND	
38 Vinyl acetate	43		5.235					ND	
39 2-Chloro-1,3-butadiene	53		5.284					ND	
41 Isopropyl ether	45		5.290					ND	
40 Isopropyl ether TIC	45		5.410					ND	
42 Tert-butyl ethyl ether	59		5.759					ND	
44 2,2-Dichloropropane	77		5.929					ND	
45 cis-1,2-Dichloroethene	96		5.935					ND	
46 2-Butanone (MEK)	43		5.947					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
47 Propionitrile	54		6.020					ND	
48 Ethyl acetate	43		6.026					ND	
50 Methacrylonitrile	41		6.203					ND	
49 Chlorobromomethane	128		6.215					ND	
51 Tetrahydrofuran	42		6.233					ND	
52 Chloroform	83		6.367					ND	
53 1,1,1-Trichloroethane	97		6.519					ND	
54 Cyclohexane	56		6.586					ND	
56 Carbon tetrachloride	117		6.695					ND	
55 1,1-Dichloropropene	75		6.707					ND	
57 Isobutyl alcohol	41		6.920					ND	
58 Benzene	78		6.926					ND	
59 1,2-Dichloroethane	62		6.999					ND	
151 Isooctane	57		7.085					ND	
61 Tert-amyl methyl ether	73		7.109					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.285					ND	
63 n-Butanol	56		7.632					ND	
64 Trichloroethene	130		7.662					ND	
65 Ethyl acrylate	55		7.785					ND	
66 Methylcyclohexane	83		7.894					ND	
67 1,2-Dichloropropane	63		7.930					ND	
70 1,4-Dioxane	88		8.015					ND	
68 Dibromomethane	93		8.015					ND	
69 Methyl methacrylate	69		8.022					ND	
71 Dichlorobromomethane	83		8.216					ND	
72 2-Nitropropane	41		8.448					ND	
73 2-Chloroethyl vinyl ether	63		8.514					ND	
74 cis-1,3-Dichloropropene	75		8.660					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.818					ND	
76 Toluene	91		8.989					ND	
77 trans-1,3-Dichloropropene	75		9.238					ND	
78 Ethyl methacrylate	69		9.299					ND	
79 1,1,2-Trichloroethane	97		9.433					ND	
80 Tetrachloroethene	164		9.500					ND	
81 1,3-Dichloropropane	76		9.591					ND	
82 2-Hexanone	43		9.646					ND	
83 n-Butyl acetate	43		9.774					ND	
84 Chlorodibromomethane	129		9.804					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
85 Ethylene Dibromide	107		9.913					ND	
86 3-Chlorobenzotrifluoride	180		10.376					ND	
87 Chlorobenzene	112		10.406					ND	
88 4-Chlorobenzotrifluoride	180		10.467					ND	
89 1,1,1,2-Tetrachloroethane	131		10.497					ND	
90 Ethylbenzene	106		10.503					ND	
91 m-Xylene & p-Xylene	106		10.631					ND	
92 o-Xylene	106		11.014					ND	
93 Styrene	104		11.039					ND	
94 Bromoform	173		11.221					ND	
96 2-Chlorobenzotrifluoride	180		11.288					ND	
95 Cyclohexanol	57		11.374					ND	
97 Isopropylbenzene	105		11.386					ND	
98 Cyclohexanone	55		11.477					ND	
99 1,1,2,2-Tetrachloroethane	83		11.696					ND	
100 Bromobenzene	156		11.702					ND	
102 trans-1,4-Dichloro-2-buten	53		11.732					ND	
101 1,2,3-Trichloropropane	110		11.757					ND	
103 N-Propylbenzene	120		11.799					ND	
104 2-Chlorotoluene	126		11.890					ND	
105 3-Chlorotoluene	126		11.957					ND	
106 1,3,5-Trimethylbenzene	105		11.982					ND	
107 4-Chlorotoluene	126		12.012					ND	
108 tert-Butylbenzene	119		12.298					ND	
110 1,2,4-Trimethylbenzene	105		12.359					ND	
111 1,2-dichloro-4-(trifluorom	214		12.401					ND	
109 Pentachloroethane	167		12.402					ND	
112 sec-Butylbenzene	105		12.517					ND	
113 1,3-Dichlorobenzene	146		12.639					ND	
114 4-Isopropyltoluene	119		12.675					ND	
115 1,4-Dichlorobenzene	146		12.742					ND	
117 1,2,3-Trimethylbenzene	105		12.767					ND	
116 2,4-Dichloro-1-(triflourom	214		12.773					ND	
118 2,5-Dichlorobenzotrifluori	214		12.809					ND	
119 Benzyl chloride	91		12.864					ND	
120 n-Butylbenzene	91		13.083					ND	
121 1,2-Dichlorobenzene	146		13.101					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.898					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.032					ND	
124 1,3,5-Trichlorobenzene	180		14.081					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.452					ND	
126 1,2,4-Trichlorobenzene	180		14.713					ND	
127 Hexachlorobutadiene	225		14.865					ND	
128 Naphthalene	128		14.981					ND	
129 1,2,3-Trichlorobenzene	180		15.206					ND	
131 2,4,5-Trichlorotoluene	159		15.985					ND	
130 2,3,6-Trichlorotoluene	159		16.082					ND	
132 2-Methylnaphthalene	142		16.098					ND	
146 2,5-Dichlorotoluene	1		0.000					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
147 2,4-Dichlorotoluene	1		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
152 Formaldehyde TIC	1		0.000					ND	
150 2,6-Dichlorotoluene	1		0.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	
T 153 1,2 Epoxybutane TIC	42		6.253					ND	
T 137 Tetrahydrofuran TIC	42		6.253					ND	

Reagents:

VOA8260INT_00061

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00059

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161014-13878.b\51014004.D

Injection Date: 14-Oct-2016 12:00:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: MB

Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL

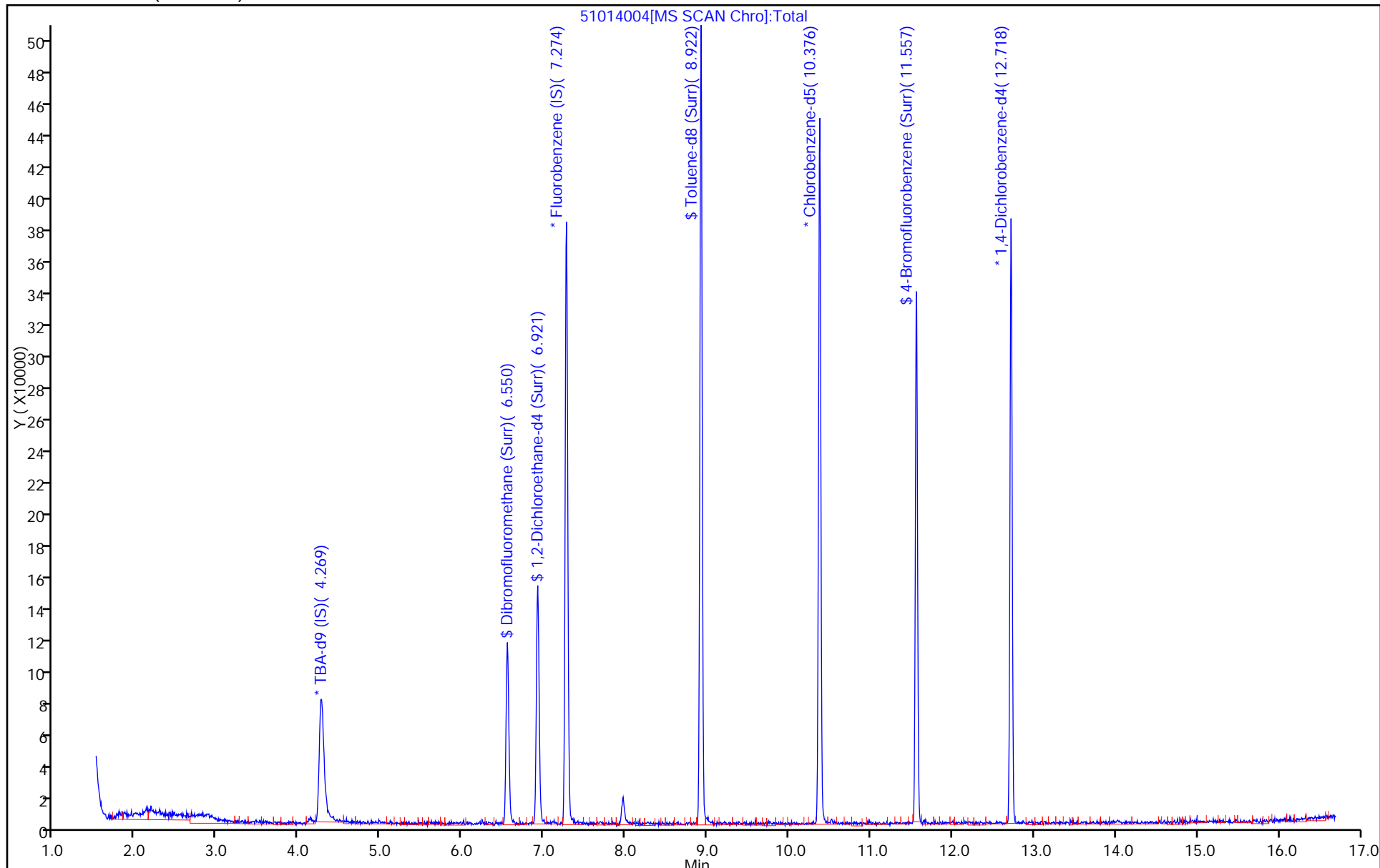
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161014-13878.b\51014004.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 14-Oct-2016 12:00:30 ALS Bottle#: 4 Worklist Smp#: 4
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013878-004
 Misc. Info.: MB
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161014-13878.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 14-Oct-2016 13:49:21 Calib Date: 04-Oct-2016 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161004-13721.b\51004011.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: fergusond Date: 14-Oct-2016 13:49:20

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	50.9	101.74
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	60.3	120.55
\$ 7 Toluene-d8 (Surr)	50.0	54.1	108.24
\$ 8 4-Bromofluorobenzene (Surr)	50.0	56.8	113.58

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 180-191047/9
 Matrix: Water Lab File ID: 51013009.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2016 14:41
 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.: 191047 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	13.2		1.0	0.23
75-01-4	Vinyl chloride	12.7		1.0	0.32
74-83-9	Bromomethane	10.8		1.0	0.36
75-00-3	Chloroethane	11.0		1.0	0.26
75-35-4	1,1-Dichloroethene	9.94		1.0	0.29
67-64-1	Acetone	18.1		5.0	2.5
75-15-0	Carbon disulfide	9.92		1.0	0.18
75-09-2	Methylene Chloride	9.28		1.0	0.36
156-60-5	trans-1,2-Dichloroethene	9.78		1.0	0.29
1634-04-4	Methyl tert-butyl ether	8.74		1.0	0.24
75-34-3	1,1-Dichloroethane	10.6		1.0	0.24
156-59-2	cis-1,2-Dichloroethene	9.43		1.0	0.29
74-97-5	Bromochloromethane	8.73		1.0	0.38
78-93-3	2-Butanone (MEK)	20.2		5.0	1.2
67-66-3	Chloroform	10.1		1.0	0.27
71-55-6	1,1,1-Trichloroethane	9.58		1.0	0.22
56-23-5	Carbon tetrachloride	9.77		1.0	0.24
71-43-2	Benzene	10.2		1.0	0.26
107-06-2	1,2-Dichloroethane	11.0		1.0	0.25
79-01-6	Trichloroethene	9.63		1.0	0.26
78-87-5	1,2-Dichloropropane	10.2		1.0	0.23
75-27-4	Bromodichloromethane	10.1		1.0	0.23
10061-01-5	cis-1,3-Dichloropropene	8.29		1.0	0.21
108-10-1	4-Methyl-2-pentanone (MIBK)	16.8		5.0	0.59
108-88-3	Toluene	10.3		1.0	0.28
10061-02-6	trans-1,3-Dichloropropene	7.51		1.0	0.24
79-00-5	1,1,2-Trichloroethane	10.0		1.0	0.35
127-18-4	Tetrachloroethene	10.6		1.0	0.27
591-78-6	2-Hexanone	15.4		5.0	0.74
124-48-1	Dibromochloromethane	9.17		1.0	0.40
106-93-4	1,2-Dibromoethane (EDB)	9.83		1.0	0.29
108-90-7	Chlorobenzene	10.3		1.0	0.31
630-20-6	1,1,1,2-Tetrachloroethane	9.77		1.0	0.20
100-41-4	Ethylbenzene	10.4		1.0	0.27
1330-20-7	Xylenes, Total	21.3		2.0	0.48
100-42-5	Styrene	10.7		1.0	0.26

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 180-191047/9
 Matrix: Water Lab File ID: 51013009.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2016 14:41
 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.: 191047 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.69		1.0	0.29
79-34-5	1,1,2,2-Tetrachloroethane	10.8		1.0	0.35
107-13-1	Acrylonitrile	122		20	2.8
123-91-1	1,4-Dioxane	164	J	200	7.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		72-134
2037-26-5	Toluene-d8 (Surr)	97		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		72-120
1868-53-7	Dibromofluoromethane (Surr)	94		77-127

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013009.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 13-Oct-2016 14:41:30 ALS Bottle#: 8 Worklist Smp#: 9
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013857-009
 Misc. Info.: LCS
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 13-Oct-2016 15:02:46 Calib Date: 04-Oct-2016 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161004-13721.b\51004011.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK016

First Level Reviewer: fergusond

Date: 13-Oct-2016 15:02:46

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.272	4.284	-0.012	0	101020	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.271	7.271	0.000	97	335148	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.374	10.374	0.000	92	75098	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.716	12.716	0.000	94	84885	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.547	6.547	0.000	93	70906	50.0	46.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.919	6.919	0.000	0	110019	50.0	53.6	
\$ 7 Toluene-d8 (Surr)	98	8.920	8.920	0.000	95	287962	50.0	48.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.560	11.560	0.000	84	106043	50.0	48.6	
11 Dichlorodifluoromethane	85	1.626	1.614	0.012	98	115610	50.0	52.4	
12 Chloromethane	50	1.772	1.772	0.000	99	169073	50.0	66.1	
13 Vinyl chloride	62	1.906	1.900	0.006	82	131969	50.0	63.5	
14 Butadiene	39	1.942	1.942	0.000	99	190960	50.0	81.5	
15 Bromomethane	94	2.252	2.234	0.018	90	48550	50.0	53.8	
16 Chloroethane	64	2.398	2.380	0.018	97	71983	50.0	55.2	
17 Dichlorofluoromethane	67	2.672	2.660	0.012	97	139061	50.0	50.6	
18 Trichlorofluoromethane	101	2.697	2.672	0.025	96	115013	50.0	58.5	
20 Ethyl ether	59	3.056	3.049	0.007	98	102859	50.0	60.5	
21 Acrolein	56	3.226	3.226	0.000	97	62488	150.0	159.9	
22 1,1-Dichloroethene	96	3.341	3.335	0.006	92	94464	50.0	49.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.402	3.396	0.006	94	99600	50.0	52.1	
24 Acetone	43	3.439	3.439	0.000	85	59609	100.0	90.7	
25 Iodomethane	142	3.536	3.524	0.012	100	127081	50.0	46.8	
26 Carbon disulfide	76	3.627	3.621	0.006	99	253699	50.0	49.6	
28 3-Chloro-1-propene	76	3.907	3.913	-0.006	87	54521	50.0	43.6	
30 Methyl acetate	43	3.938	3.938	0.000	100	496573	250.0	307.0	
31 Methylene Chloride	84	4.126	4.126	0.000	95	102358	50.0	46.4	
32 2-Methyl-2-propanol	59	4.406	4.406	0.000	84	58020	500.0	513.4	
33 Acrylonitrile	53	4.522	4.516	0.006	97	479361	500.0	611.2	
34 trans-1,2-Dichloroethene	96	4.552	4.546	0.006	92	94990	50.0	48.9	
35 Methyl tert-butyl ether	73	4.576	4.570	0.006	95	238067	50.0	43.7	
36 Hexane	57	4.972	4.972	0.000	96	179992	50.0	58.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.191	5.185	0.006	97	203612	50.0	53.1	
38 Vinyl acetate	43	5.239	5.239	0.000	97	193052	50.0	49.6	
44 2,2-Dichloropropane	77	5.933	5.921	0.012	61	85757	50.0	37.5	
45 cis-1,2-Dichloroethene	96	5.939	5.933	0.006	87	103540	50.0	47.2	
46 2-Butanone (MEK)	43	5.951	5.945	0.006	98	99122	100.0	101.0	
49 Chlorobromomethane	128	6.225	6.225	0.000	88	39490	50.0	43.7	
51 Tetrahydrofuran	42	6.243	6.237	0.006	92	77561	100.0	116.8	
52 Chloroform	83	6.365	6.371	-0.006	96	172185	50.0	50.4	
53 1,1,1-Trichloroethane	97	6.523	6.523	0.000	94	130396	50.0	47.9	
54 Cyclohexane	56	6.596	6.596	0.000	98	234860	50.0	58.4	
56 Carbon tetrachloride	117	6.693	6.693	0.000	92	107578	50.0	48.8	
55 1,1-Dichloropropene	75	6.712	6.712	0.000	86	144699	50.0	53.1	
58 Benzene	78	6.931	6.925	0.006	98	392378	50.0	51.0	
57 Isobutyl alcohol	41	6.925	6.925	0.000	60	60766	1250.0	1251.7	
59 1,2-Dichloroethane	62	7.004	7.004	0.000	96	148593	50.0	55.0	
62 n-Heptane	43	7.290	7.290	0.000	97	163526	50.0	64.1	
64 Trichloroethene	130	7.661	7.661	0.000	94	90703	50.0	48.2	
66 Methylcyclohexane	83	7.892	7.898	-0.006	96	169844	50.0	51.2	
67 1,2-Dichloropropane	63	7.941	7.934	0.007	92	100441	50.0	51.0	
68 Dibromomethane	93	8.020	8.020	0.000	94	52097	50.0	50.8	
70 1,4-Dioxane	88	8.026	8.026	0.000	40	11354	1000.0	821.8	M
71 Dichlorobromomethane	83	8.214	8.220	-0.006	97	108451	50.0	50.3	
73 2-Chloroethyl vinyl ether	63	8.512	8.512	0.000	88	105405	100.0	101.9	
74 cis-1,3-Dichloropropene	75	8.658	8.658	0.000	87	115392	50.0	41.4	
75 4-Methyl-2-pentanone (MIBK)	43	8.817	8.817	0.000	100	161360	100.0	84.0	
76 Toluene	91	8.987	8.987	0.000	97	391692	50.0	51.7	
77 trans-1,3-Dichloropropene	75	9.242	9.242	0.000	94	88507	50.0	37.5	
78 Ethyl methacrylate	69	9.297	9.303	-0.006	92	99093	50.0	42.7	
79 1,1,2-Trichloroethane	97	9.431	9.431	0.000	94	70671	50.0	50.2	
80 Tetrachloroethene	164	9.504	9.504	0.000	94	73456	50.0	53.0	
81 1,3-Dichloropropane	76	9.589	9.589	0.000	96	136960	50.0	51.6	
82 2-Hexanone	43	9.650	9.650	0.000	98	116978	100.0	76.8	
84 Chlorodibromomethane	129	9.802	9.802	0.000	90	59457	50.0	45.8	
85 Ethylene Dibromide	107	9.918	9.918	0.000	98	69939	50.0	49.1	
86 3-Chlorobenzotrifluoride	180	10.374	10.374	0.000	92	130286	50.0	52.5	
87 Chlorobenzene	112	10.404	10.404	0.000	89	236082	50.0	51.7	
88 4-Chlorobenzotrifluoride	180	10.465	10.465	0.000	97	123884	50.0	53.2	
89 1,1,1,2-Tetrachloroethane	131	10.496	10.496	0.000	86	69375	50.0	48.8	
90 Ethylbenzene	106	10.502	10.502	0.000	99	138768	50.0	52.2	
91 m-Xylene & p-Xylene	106	10.636	10.636	0.000	0	170656	50.0	52.6	
92 o-Xylene	106	11.013	11.013	0.000	98	162440	50.0	54.1	
93 Styrene	104	11.037	11.037	0.000	93	268712	50.0	53.6	
94 Bromoform	173	11.213	11.220	-0.007	92	32943	50.0	43.5	
96 2-Chlorobenzotrifluoride	180	11.286	11.286	0.000	93	118310	50.0	52.3	
97 Isopropylbenzene	105	11.384	11.384	0.000	97	412613	50.0	56.3	
100 Bromobenzene	156	11.694	11.694	0.000	96	86171	50.0	47.8	
99 1,1,2,2-Tetrachloroethane	83	11.694	11.694	0.000	94	90900	50.0	54.2	
102 trans-1,4-Dichloro-2-buten	53	11.731	11.737	-0.006	60	20494	50.0	29.9	
101 1,2,3-Trichloropropane	110	11.755	11.749	0.006	89	29341	50.0	47.4	
103 N-Propylbenzene	120	11.797	11.804	-0.007	99	102742	50.0	47.8	
104 2-Chlorotoluene	126	11.889	11.889	0.000	93	84165	50.0	47.2	
105 3-Chlorotoluene	126	11.950	11.956	-0.006	97	90946	50.0	47.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.986	11.986	0.000	93	299746	50.0	52.7	
107 4-Chlorotoluene	126	12.010	12.010	0.000	99	89980	50.0	48.3	
108 tert-Butylbenzene	119	12.296	12.296	0.000	94	244830	50.0	51.1	
110 1,2,4-Trimethylbenzene	105	12.357	12.357	0.000	99	294018	50.0	51.9	
111 1,2-dichloro-4-(trifluorom	214	12.400	12.400	0.000	96	74788	50.0	48.0	
112 sec-Butylbenzene	105	12.521	12.521	0.000	96	337725	50.0	51.2	
113 1,3-Dichlorobenzene	146	12.643	12.637	0.006	94	135502	50.0	46.8	
114 4-Isopropyltoluene	119	12.673	12.680	-0.007	97	259022	50.0	49.8	
115 1,4-Dichlorobenzene	146	12.746	12.740	0.006	93	141572	50.0	49.2	
116 2,4-Dichloro-1-(trifluorom	214	12.771	12.771	0.000	96	65657	50.0	49.5	
118 2,5-Dichlorobenzotrifluori	214	12.807	12.813	-0.006	0	70981	50.0	46.4	
120 n-Butylbenzene	91	13.081	13.087	-0.006	98	227158	50.0	52.3	
121 1,2-Dichlorobenzene	146	13.099	13.099	0.000	93	120278	50.0	49.6	
122 1,2-Dibromo-3-Chloropropan	75	13.884	13.890	-0.006	71	10192	50.0	41.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.030	14.030	0.000	0	196819	150.0	126.2	
125 2,3- & 3,4- Dichlorotoluen	125	14.450	14.450	0.000	0	117529	100.0	77.2	
126 1,2,4-Trichlorobenzene	180	14.718	14.711	0.007	93	40739	50.0	38.2	
127 Hexachlorobutadiene	225	14.857	14.864	-0.007	94	20691	50.0	39.9	
128 Naphthalene	128	14.979	14.979	0.000	98	101079	50.0	32.5	
129 1,2,3-Trichlorobenzene	180	15.204	15.210	-0.006	92	30916	50.0	32.2	
131 2,4,5-Trichlorotoluene	159	15.983	15.983	0.000	0	15304	50.0	23.8	
130 2,3,6-Trichlorotoluene	159	16.086	16.080	0.006	89	14285	50.0	18.6	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	106.7	
S 134 1,2-Dichloroethene, Total	96				0		100.0	96.0	
S 135 1,3-Dichloropropene, Total	1				0		100.0	79.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWva2ndRest_00007	Amount Added: 2.00	Units: uL	
VOACEVEPRI_00017	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00208	Amount Added: 2.00	Units: uL	
voaWee2ndRest_00009	Amount Added: 2.00	Units: uL	
voaWket2ndRes_00013	Amount Added: 2.00	Units: uL	
voaWacro2ndRe_00007	Amount Added: 6.00	Units: uL	
VOA8260INT_00061	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00059	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013009.D

Injection Date: 13-Oct-2016 14:41:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: LCS

Worklist Smp#: 9

Client ID:

Purge Vol: 5.000 mL

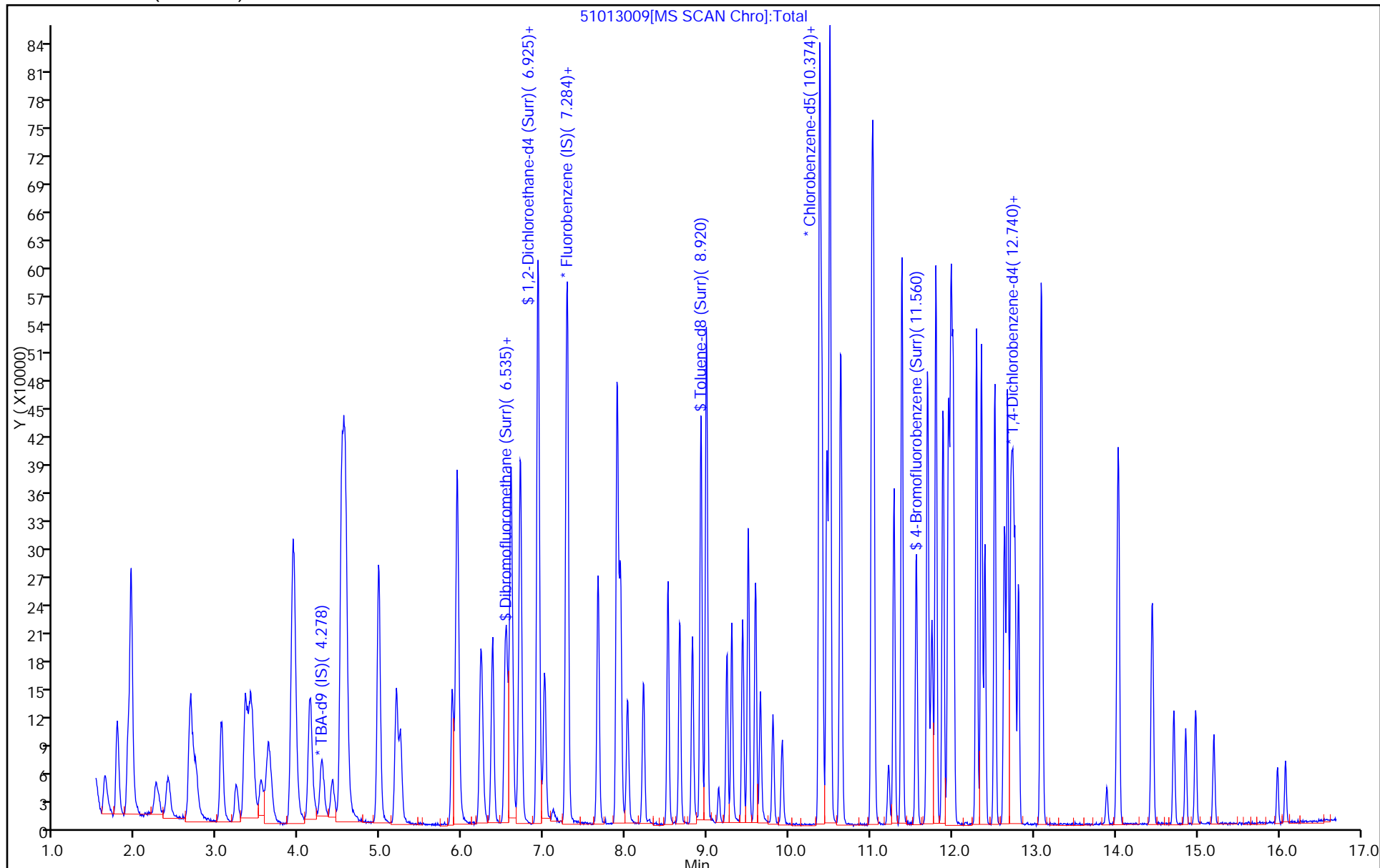
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013009.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 13-Oct-2016 14:41:30 ALS Bottle#: 8 Worklist Smp#: 9
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013857-009
 Misc. Info.: LCS
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 13-Oct-2016 15:02:46 Calib Date: 04-Oct-2016 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161004-13721.b\51004011.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK016

First Level Reviewer: fergusond Date: 13-Oct-2016 15:02:46

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	46.9	93.87
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	53.6	107.14
\$ 7 Toluene-d8 (Surr)	50.0	48.7	97.47
\$ 8 4-Bromofluorobenzene (Surr)	50.0	48.6	97.14

TestAmerica Pittsburgh

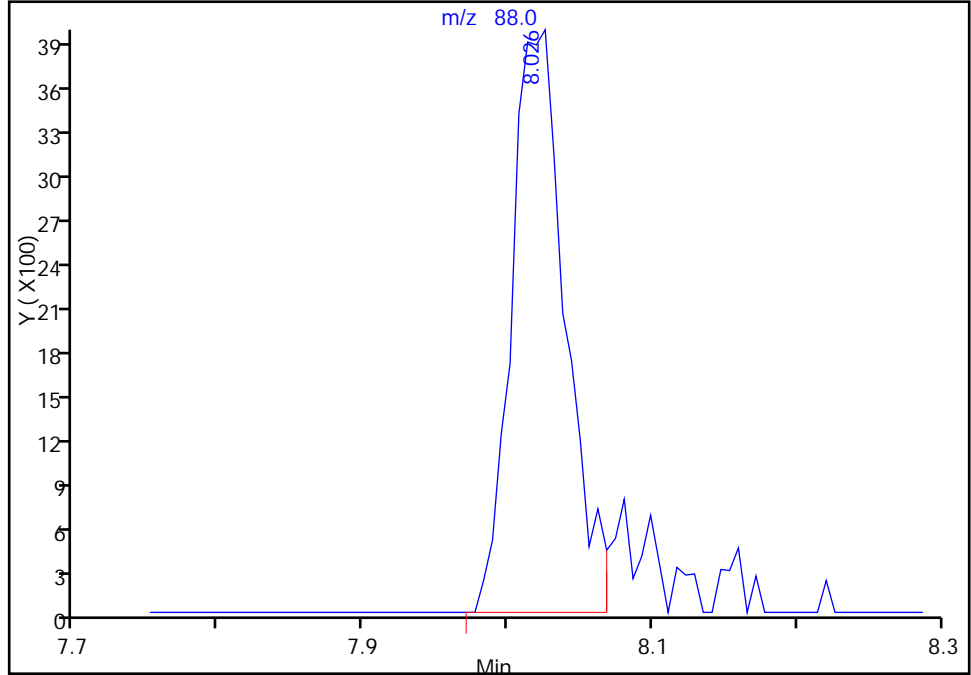
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161013-13857.b\51013009.D
Injection Date: 13-Oct-2016 14:41:30 Instrument ID: CHHP5
Lims ID: LCS
Client ID:
Operator ID: 001562 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

Signal: 1

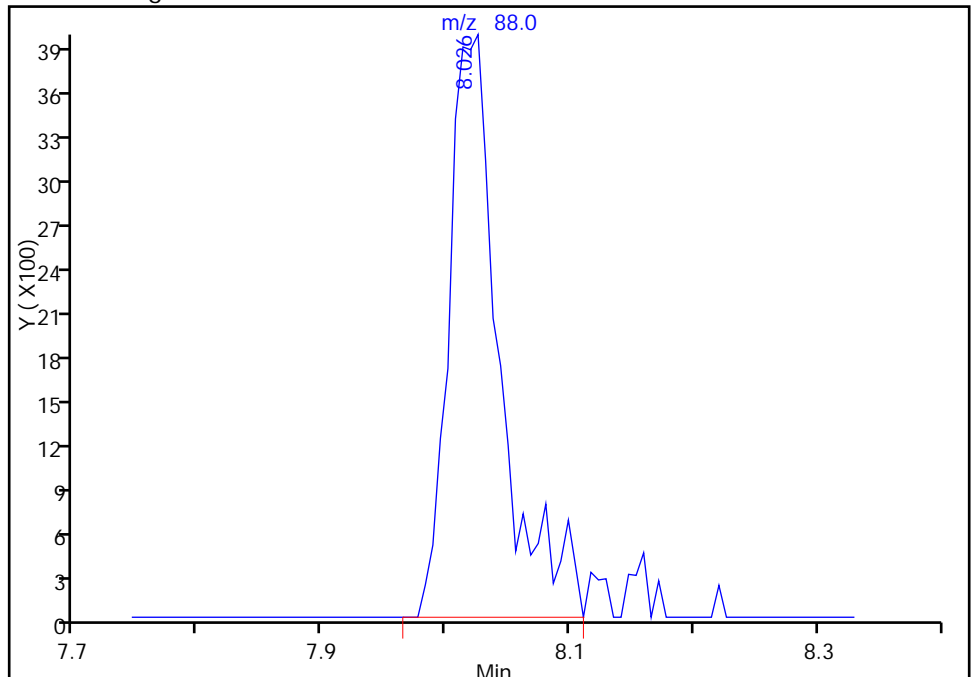
RT: 8.03
Area: 10309
Amount: 746.1396
Amount Units: ng

Processing Integration Results



RT: 8.03
Area: 11354
Amount: 821.7741
Amount Units: ng

Manual Integration Results



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 180-191190/10
 Matrix: Water Lab File ID: 51014010.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/14/2016 14:39
 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.: 191190 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	11.5		1.0	0.23
75-01-4	Vinyl chloride	10.9		1.0	0.32
74-83-9	Bromomethane	10.3		1.0	0.36
75-00-3	Chloroethane	9.78		1.0	0.26
75-35-4	1,1-Dichloroethene	9.17		1.0	0.29
67-64-1	Acetone	21.6		5.0	2.5
75-15-0	Carbon disulfide	8.55		1.0	0.18
75-09-2	Methylene Chloride	10.4		1.0	0.36
156-60-5	trans-1,2-Dichloroethene	9.38		1.0	0.29
1634-04-4	Methyl tert-butyl ether	9.04		1.0	0.24
75-34-3	1,1-Dichloroethane	10.2		1.0	0.24
156-59-2	cis-1,2-Dichloroethene	9.49		1.0	0.29
74-97-5	Bromochloromethane	9.68		1.0	0.38
78-93-3	2-Butanone (MEK)	21.5		5.0	1.2
67-66-3	Chloroform	9.90		1.0	0.27
71-55-6	1,1,1-Trichloroethane	8.80		1.0	0.22
56-23-5	Carbon tetrachloride	8.73		1.0	0.24
71-43-2	Benzene	10.2		1.0	0.26
107-06-2	1,2-Dichloroethane	11.1		1.0	0.25
79-01-6	Trichloroethene	9.16		1.0	0.26
78-87-5	1,2-Dichloropropane	10.7		1.0	0.23
75-27-4	Bromodichloromethane	10.0		1.0	0.23
10061-01-5	cis-1,3-Dichloropropene	8.48		1.0	0.21
108-10-1	4-Methyl-2-pentanone (MIBK)	19.0		5.0	0.59
108-88-3	Toluene	10.6		1.0	0.28
10061-02-6	trans-1,3-Dichloropropene	8.12		1.0	0.24
79-00-5	1,1,2-Trichloroethane	10.7		1.0	0.35
127-18-4	Tetrachloroethene	10.3		1.0	0.27
591-78-6	2-Hexanone	16.7		5.0	0.74
124-48-1	Dibromochloromethane	9.45		1.0	0.40
106-93-4	1,2-Dibromoethane (EDB)	10.2		1.0	0.29
108-90-7	Chlorobenzene	10.6		1.0	0.31
630-20-6	1,1,1,2-Tetrachloroethane	9.96		1.0	0.20
100-41-4	Ethylbenzene	10.3		1.0	0.27
1330-20-7	Xylenes, Total	21.0		2.0	0.48
100-42-5	Styrene	10.8		1.0	0.26

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 180-191190/10
 Matrix: Water Lab File ID: 51014010.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 10/14/2016 14:39
 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.: 191190 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.41		1.0	0.29
79-34-5	1,1,2,2-Tetrachloroethane	10.9		1.0	0.35
107-13-1	Acrylonitrile	125		20	2.8
123-91-1	1,4-Dioxane	199	J	200	7.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		72-134
2037-26-5	Toluene-d8 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	100		72-120
1868-53-7	Dibromofluoromethane (Surr)	97		77-127

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161014-13878.b\51014010.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 14-Oct-2016 14:39:30 ALS Bottle#: 10 Worklist Smp#: 10
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013878-010
 Misc. Info.: LCS
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161014-13878.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 14-Oct-2016 15:01:52 Calib Date: 04-Oct-2016 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161004-13721.b\51004011.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: fergusond

Date: 14-Oct-2016 15:01:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.281	4.286	-0.005	0	117248	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.268	7.267	0.001	95	367004	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.376	10.376	0.000	92	79345	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.719	12.718	0.001	95	86361	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.544	6.549	-0.005	92	80526	50.0	48.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.915	6.920	-0.005	0	124411	50.0	55.3	
\$ 7 Toluene-d8 (Surr)	98	8.916	8.922	-0.006	96	324255	50.0	51.9	
\$ 8 4-Bromofluorobenzene (Surr	95	11.557	11.562	-0.005	82	115178	50.0	49.9	
11 Dichlorodifluoromethane	85	1.628	1.616	0.012	98	107069	50.0	44.3	
12 Chloromethane	50	1.768	1.768	0.000	100	161035	50.0	57.5	
13 Vinyl chloride	62	1.902	1.901	0.001	97	124104	50.0	54.5	
14 Butadiene	39	1.939	1.938	0.001	98	196875	50.0	76.8	
15 Bromomethane	94	2.249	2.230	0.019	90	50793	50.0	51.4	
16 Chloroethane	64	2.389	2.376	0.013	98	69806	50.0	48.9	
17 Dichlorofluoromethane	67	2.663	2.662	0.001	97	143620	50.0	47.7	
18 Trichlorofluoromethane	101	2.687	2.680	0.007	73	103658	50.0	48.2	
20 Ethyl ether	59	3.046	3.039	0.007	98	115753	50.0	62.1	
21 Acrolein	56	3.228	3.222	0.006	96	67257	150.0	157.2	
22 1,1-Dichloroethene	96	3.350	3.325	0.025	91	95442	50.0	45.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.405	3.410	-0.005	94	99543	50.0	47.5	
24 Acetone	43	3.447	3.447	0.000	97	77683	100.0	107.9	
25 Iodomethane	142	3.533	3.526	0.007	99	133201	50.0	44.8	
26 Carbon disulfide	76	3.630	3.611	0.019	100	239328	50.0	42.7	
28 3-Chloro-1-propene	76	3.916	3.909	0.007	86	53477	50.0	39.1	
30 Methyl acetate	43	3.940	3.933	0.007	100	546310	250.0	308.5	
31 Methylene Chloride	84	4.135	4.128	0.007	95	125484	50.0	51.9	
32 2-Methyl-2-propanol	59	4.409	4.420	-0.011	85	67580	500.0	515.3	
33 Acrylonitrile	53	4.524	4.517	0.007	99	537686	500.0	626.0	
34 trans-1,2-Dichloroethene	96	4.548	4.554	-0.006	92	99803	50.0	46.9	
35 Methyl tert-butyl ether	73	4.573	4.566	0.007	95	269490	50.0	45.2	
36 Hexane	57	4.968	4.968	0.000	96	185271	50.0	55.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.187	5.180	0.007	97	214731	50.0	51.2	
38 Vinyl acetate	43	5.242	5.235	0.007	97	208038	50.0	48.8	
44 2,2-Dichloropropane	77	5.929	5.929	0.000	73	82701	50.0	33.0	
45 cis-1,2-Dichloroethene	96	5.936	5.935	0.001	86	114068	50.0	47.5	
46 2-Butanone (MEK)	43	5.954	5.947	0.007	97	115329	100.0	107.3	
49 Chlorobromomethane	128	6.221	6.215	0.006	93	47907	50.0	48.4	
51 Tetrahydrofuran	42	6.240	6.233	0.007	94	90424	100.0	124.3	
52 Chloroform	83	6.367	6.367	0.000	97	185078	50.0	49.5	
53 1,1,1-Trichloroethane	97	6.526	6.519	0.007	95	131134	50.0	44.0	
54 Cyclohexane	56	6.593	6.586	0.007	96	245169	50.0	55.7	
56 Carbon tetrachloride	117	6.696	6.695	0.001	91	105252	50.0	43.6	
55 1,1-Dichloropropene	75	6.708	6.707	0.001	87	149296	50.0	50.0	
57 Isobutyl alcohol	41	6.921	6.920	0.001	42	62294	1250.0	1171.8	
58 Benzene	78	6.927	6.926	0.001	95	430317	50.0	51.1	
59 1,2-Dichloroethane	62	7.006	6.999	0.007	96	164171	50.0	55.5	
62 n-Heptane	43	7.286	7.285	0.001	97	172117	50.0	61.6	
64 Trichloroethene	130	7.657	7.662	-0.005	94	94503	50.0	45.8	
66 Methylcyclohexane	83	7.894	7.894	0.000	96	180116	50.0	49.5	
67 1,2-Dichloropropane	63	7.931	7.930	0.001	94	115097	50.0	53.3	
68 Dibromomethane	93	8.022	8.015	0.007	93	57491	50.0	51.2	
70 1,4-Dioxane	88	8.022	8.015	0.007	43	15081	1000.0	996.8	
71 Dichlorobromomethane	83	8.211	8.216	-0.005	96	118128	50.0	50.0	
73 2-Chloroethyl vinyl ether	63	8.515	8.514	0.001	88	125968	100.0	111.2	
74 cis-1,3-Dichloropropene	75	8.661	8.660	0.001	87	129305	50.0	42.4	
75 4-Methyl-2-pentanone (MIBK)	43	8.813	8.818	-0.005	99	192988	100.0	95.0	
76 Toluene	91	8.989	8.989	0.000	97	425028	50.0	53.1	
77 trans-1,3-Dichloropropene	75	9.239	9.238	0.001	97	101109	50.0	40.6	
78 Ethyl methacrylate	69	9.300	9.299	0.001	93	116973	50.0	47.7	
79 1,1,2-Trichloroethane	97	9.433	9.433	0.000	95	79775	50.0	53.7	
80 Tetrachloroethene	164	9.500	9.500	0.000	95	75170	50.0	51.4	
81 1,3-Dichloropropane	76	9.586	9.591	-0.005	95	153001	50.0	54.5	
82 2-Hexanone	43	9.646	9.646	0.000	98	134087	100.0	83.4	
84 Chlorodibromomethane	129	9.805	9.804	0.001	89	64780	50.0	47.3	
85 Ethylene Dibromide	107	9.914	9.913	0.001	97	76360	50.0	50.8	
86 3-Chlorobenzotrifluoride	180	10.376	10.376	0.000	88	146372	50.0	55.8	
87 Chlorobenzene	112	10.401	10.406	-0.005	89	255865	50.0	53.0	
88 4-Chlorobenzotrifluoride	180	10.462	10.467	-0.005	96	136172	50.0	55.4	
89 1,1,1,2-Tetrachloroethane	131	10.498	10.497	0.001	86	74740	50.0	49.8	
90 Ethylbenzene	106	10.504	10.503	0.001	99	145031	50.0	51.6	
91 m-Xylene & p-Xylene	106	10.632	10.631	0.001	0	180335	50.0	52.6	
92 o-Xylene	106	11.015	11.014	0.001	99	166678	50.0	52.6	
93 Styrene	104	11.033	11.039	-0.006	94	287094	50.0	54.2	
94 Bromoform	173	11.216	11.221	-0.005	93	33679	50.0	42.0	
96 2-Chlorobenzotrifluoride	180	11.283	11.288	-0.005	95	129748	50.0	54.3	
97 Isopropylbenzene	105	11.380	11.386	-0.006	98	409719	50.0	52.9	
99 1,1,2,2-Tetrachloroethane	83	11.697	11.696	0.001	74	96530	50.0	54.5	
100 Bromobenzene	156	11.697	11.702	-0.005	97	89829	50.0	49.0	
102 trans-1,4-Dichloro-2-buten	53	11.733	11.732	0.001	68	11819	50.0	17.0	
101 1,2,3-Trichloropropane	110	11.751	11.757	-0.006	89	30695	50.0	48.8	
103 N-Propylbenzene	120	11.800	11.799	0.001	99	102093	50.0	46.7	
104 2-Chlorotoluene	126	11.891	11.890	0.001	95	86946	50.0	47.9	
105 3-Chlorotoluene	126	11.952	11.957	-0.005	97	96249	50.0	49.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.982	11.982	0.000	94	300759	50.0	51.9	
107 4-Chlorotoluene	126	12.013	12.012	0.001	99	92396	50.0	48.7	
108 tert-Butylbenzene	119	12.293	12.298	-0.005	94	237292	50.0	48.7	
110 1,2,4-Trimethylbenzene	105	12.354	12.359	-0.005	99	293345	50.0	50.9	
111 1,2-dichloro-4-(trifluorom	214	12.402	12.401	0.001	96	77445	50.0	48.8	
112 sec-Butylbenzene	105	12.518	12.517	0.001	96	330348	50.0	49.2	
113 1,3-Dichlorobenzene	146	12.639	12.639	0.000	96	146161	50.0	49.6	
114 4-Isopropyltoluene	119	12.676	12.675	0.001	97	258815	50.0	48.9	
115 1,4-Dichlorobenzene	146	12.743	12.742	0.001	92	143417	50.0	49.0	
116 2,4-Dichloro-1-(trifluorom	214	12.773	12.773	0.000	96	65441	50.0	48.5	
118 2,5-Dichlorobenzotrifluori	214	12.810	12.809	0.001	0	81350	50.0	52.3	
120 n-Butylbenzene	91	13.084	13.083	0.001	98	218702	50.0	49.5	
121 1,2-Dichlorobenzene	146	13.096	13.101	-0.005	93	125611	50.0	50.9	
122 1,2-Dibromo-3-Chloropropan	75	13.887	13.898	-0.011	67	10805	50.0	43.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.033	14.032	0.001	0	216336	150.0	136.4	
125 2,3- & 3,4- Dichlorotoluen	125	14.446	14.452	-0.006	0	128485	100.0	82.9	
126 1,2,4-Trichlorobenzene	180	14.714	14.713	0.001	91	42780	50.0	39.4	
127 Hexachlorobutadiene	225	14.854	14.865	-0.011	94	18564	50.0	35.2	
128 Naphthalene	128	14.976	14.981	-0.005	98	110343	50.0	34.9	
129 1,2,3-Trichlorobenzene	180	15.201	15.206	-0.005	92	33182	50.0	34.0	
131 2,4,5-Trichlorotoluene	159	15.979	15.985	-0.006	0	18827	50.0	28.4	
130 2,3,6-Trichlorotoluene	159	16.077	16.082	-0.005	93	17708	50.0	22.6	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	105.1	
S 134 1,2-Dichloroethene, Total	96				0		100.0	94.3	
S 135 1,3-Dichloropropene, Total	1				0		100.0	83.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWacro2ndRe_00007	Amount Added: 6.00	Units: uL	
voaWket2ndRes_00013	Amount Added: 2.00	Units: uL	
voaWee2ndRest_00009	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00209	Amount Added: 2.00	Units: uL	
VOACEVEPRI_00017	Amount Added: 2.00	Units: uL	
voaWva2ndRest_00007	Amount Added: 2.00	Units: uL	
VOA8260INT_00061	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00059	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161014-13878.b\51014010.D

Injection Date: 14-Oct-2016 14:39:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: LCS

Worklist Smp#: 10

Client ID:

Purge Vol: 5.000 mL

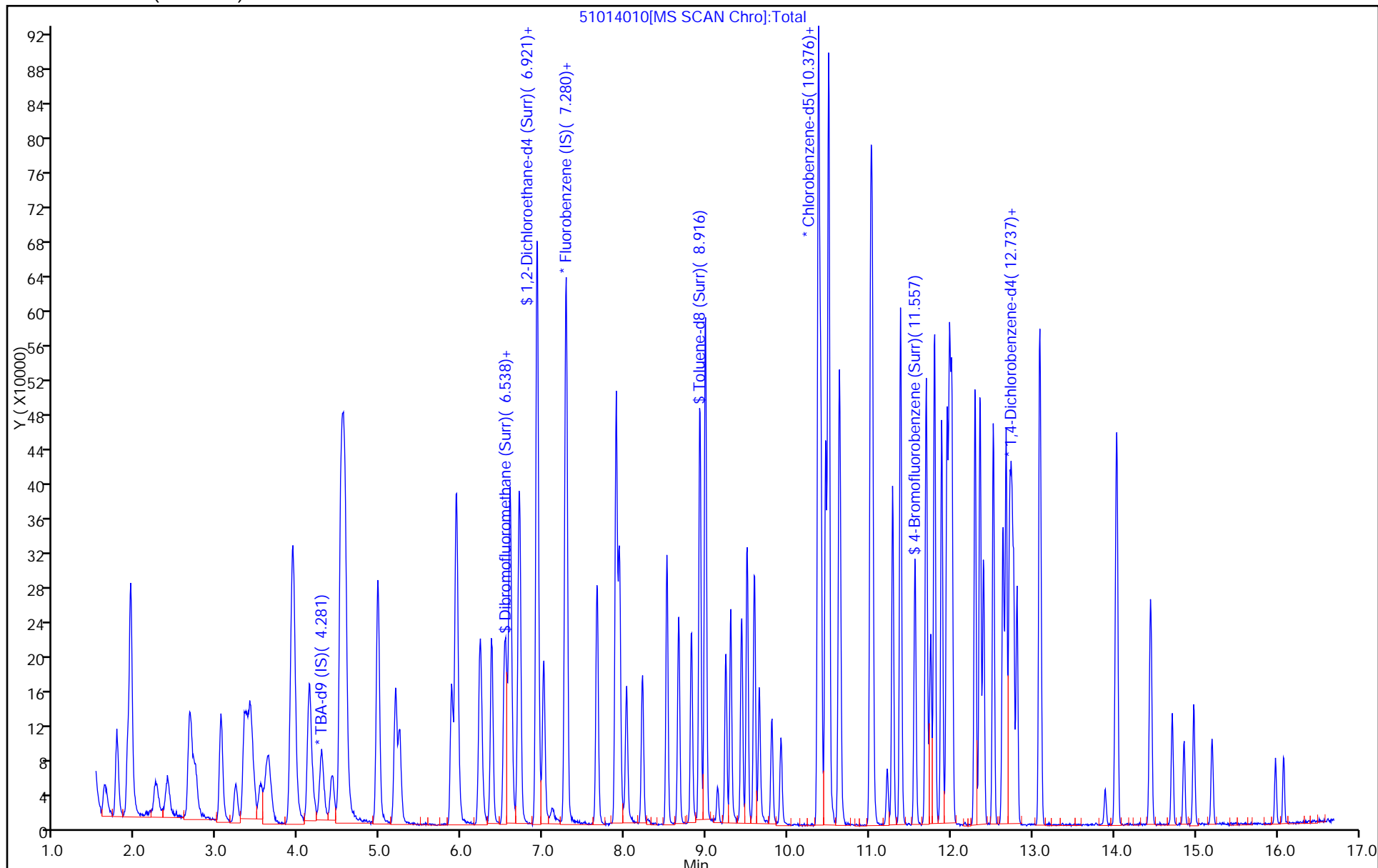
Dil. Factor: 1.0000

ALS Bottle#: 10

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161014-13878.b\51014010.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 14-Oct-2016 14:39:30 ALS Bottle#: 10 Worklist Smp#: 10
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0013878-010
 Misc. Info.: LCS
 Operator ID: 001562 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161014-13878.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 14-Oct-2016 15:01:52 Calib Date: 04-Oct-2016 16:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20161004-13721.b\51004011.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: fergusond Date: 14-Oct-2016 15:01:51

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	48.7	97.35
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	55.3	110.64
\$ 7 Toluene-d8 (Surr)	50.0	51.9	103.88
\$ 8 4-Bromofluorobenzene (Surr)	50.0	49.9	99.86

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1

SDG No.: _____

Instrument ID: CHHP5 Start Date: 09/28/2016 12:00Analysis Batch Number: 189445 End Date: 09/28/2016 18:27

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-189445/2		09/28/2016 12:00	1	50928002.D	DB-624 0.18 (mm)
IC 180-189445/5		09/28/2016 14:27	1	50928005.D	DB-624 0.18 (mm)
ICIS 180-189445/6		09/28/2016 14:51	1	50928006.D	DB-624 0.18 (mm)
IC 180-189445/7		09/28/2016 15:15	1	50928007.D	DB-624 0.18 (mm)
IC 180-189445/8		09/28/2016 15:39	1	50928008.D	DB-624 0.18 (mm)
IC 180-189445/9		09/28/2016 16:03	1	50928009.D	DB-624 0.18 (mm)
IC 180-189445/10		09/28/2016 16:27	1	50928010.D	DB-624 0.18 (mm)
IC 180-189445/11		09/28/2016 16:51	1	50928011.D	DB-624 0.18 (mm)
IC 180-189445/15		09/28/2016 18:27	1	50928015.D	DB-624 0.18 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1

SDG No.: _____

Instrument ID: CHHP5 Start Date: 10/13/2016 10:55Analysis Batch Number: 191047 End Date: 10/13/2016 22:19

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-191047/4		10/13/2016 10:55	1	51013004.D	DB-624 0.18 (mm)
CCVIS 180-191047/5		10/13/2016 12:21	1	51013005.D	DB-624 0.18 (mm)
ZZZZZ		10/13/2016 12:45	1		DB-624 0.18 (mm)
MB 180-191047/6		10/13/2016 13:17	1	51013006.D	DB-624 0.18 (mm)
ZZZZZ		10/13/2016 13:53	1		DB-624 0.18 (mm)
180-59576-7		10/13/2016 14:17	1	51013008.D	DB-624 0.18 (mm)
LCS 180-191047/9		10/13/2016 14:41	1	51013009.D	DB-624 0.18 (mm)
ZZZZZ		10/13/2016 15:05	1		DB-624 0.18 (mm)
ZZZZZ		10/13/2016 15:30	1		DB-624 0.18 (mm)
ZZZZZ		10/13/2016 16:18	1		DB-624 0.18 (mm)
ZZZZZ		10/13/2016 16:42	1		DB-624 0.18 (mm)
180-59576-1		10/13/2016 17:06	1	51013015.D	DB-624 0.18 (mm)
180-59576-3		10/13/2016 18:18	1	51013018.D	DB-624 0.18 (mm)
180-59576-4		10/13/2016 18:42	1	51013019.D	DB-624 0.18 (mm)
180-59576-5		10/13/2016 19:07	1	51013020.D	DB-624 0.18 (mm)
180-59576-6		10/13/2016 19:31	1	51013021.D	DB-624 0.18 (mm)
ZZZZZ		10/13/2016 19:55	1		DB-624 0.18 (mm)
ZZZZZ		10/13/2016 21:07	1		DB-624 0.18 (mm)
ZZZZZ		10/13/2016 22:19	1		DB-624 0.18 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-59576-1

SDG No.: _____

Instrument ID: CHHP5 Start Date: 10/14/2016 10:18Analysis Batch Number: 191190 End Date: 10/14/2016 19:32

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-191190/1		10/14/2016 10:18	1	51014001.D	DB-624 0.18 (mm)
CCVIS 180-191190/2		10/14/2016 10:56	1	51014002.D	DB-624 0.18 (mm)
ZZZZZ		10/14/2016 10:56	1		DB-624 0.18 (mm)
ZZZZZ		10/14/2016 11:36	1		DB-624 0.18 (mm)
MB 180-191190/4		10/14/2016 12:00	1	51014004.D	DB-624 0.18 (mm)
ZZZZZ		10/14/2016 12:36	1		DB-624 0.18 (mm)
ZZZZZ		10/14/2016 13:00	1		DB-624 0.18 (mm)
ZZZZZ		10/14/2016 13:24	1		DB-624 0.18 (mm)
ZZZZZ		10/14/2016 13:48	1		DB-624 0.18 (mm)
ZZZZZ		10/14/2016 14:12	1		DB-624 0.18 (mm)
LCS 180-191190/10		10/14/2016 14:39	1	51014010.D	DB-624 0.18 (mm)
180-59576-2		10/14/2016 18:20	1	51014018.D	DB-624 0.18 (mm)
ZZZZZ		10/14/2016 18:44	2		DB-624 0.18 (mm)
ZZZZZ		10/14/2016 19:08	1		DB-624 0.18 (mm)
ZZZZZ		10/14/2016 19:32	1		DB-624 0.18 (mm)

Shipping and Receiving Documents

TestAmerica Pittsburgh
 301 Alpha Drive
 Pittsburgh, PA 15238
 phone 412-963-7058 fax 412-963-2470

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact
 Groundwater Sciences Corporation
 2501 Market Place St. Suite 310
 Harrisburg, PA 17110
 Phone (717) 901-8180
 FAX (717) 657-1611

Project Manager: Christopher D. O'neil
 Tel/Fax: 717-901-8176 / (717) 657-1611

Analysis Turnaround Time
 Calendar (C) or Work Days (W)
 2 weeks
 1 week
 5 days
 1 day

Project Name: 2016 Comprehensive Event
Site: Harley-Davidson, York PA
Quote #: 18000557

Site Contact: Jennifer S. Reese **CDO**
Lab Contact: Carrie Gamber

Date Submitted: 10/7/16
Carrier: FEDEX

COC No.: TAP2016/06701 of COCs
Job No.: 10012.30
Container No.: 1



Sample Identification

Sample Date	Sample Time	Sample Type	Matrix	# of Cont.
10/7/16	0940	GW	W	3
10/7/16	1225	GW	W	3
10/7/16	1345	GW	W	3
10/7/16	1807	GW	W	3
10/7/16	1155	GW	W	3
10/7/16	1436	GW	W	3
10/7/16	1200	1 rpsam	W	2

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	Return To Client	Disposal By Lab	Months
3	1	1	2
2	1	1	1
N	N	Y	N
N	N	Y	N

Number of Containers
 Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Unpreserved, 7= Zinc Acetate & NaOH

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

Special Instructions/QC Requirements & Comments: CLP Like Deliverables

Relinquished by (Print and Sign):	Company: GSC	Date/Time: 10/7/16 1530	Received by: <i>Julie Watson</i>	Company: AP	Date/Time: 10-7-16
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time: 9:00
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

ORIGIN ID:THVA (717) 652-6832
GROUNDWATER SCIENCES CORP
2601 MARKET PL STE 310
HARRISBURG, PA 171109340
UNITED STATES US

SHIP DATE: 07OCT16
ACTWTG: 36.00 LB MAN
CAD: /POS1722
DIMS: 24x14x13 IN
BILL SENDER

Part #: 1567-435 RIZ EXN 04/11
937-73531-145 10/01 62829
11/10/07 54411/ES2E/14E

TO **SAMPLE RECEIVING
TEST AMERICA
301 ALPHA DR
RIDC PARK
PITTSBURGH PA 15238**

(412) 963-7068
INU: PD:

REF: DEPT:



180-59576 Waybill

**FedEx
Express**



8 2066

Form ID No.

4 Expre
NOTE: S

Next B

FedEx F
Earliest deliv location, Monday

FedEx F
Next business day delivered

FedEx S
Next business day Saturday

5 Packa

FedEx Ei

6 Specia

SATURD
NOT available

No Signa
Package may obtain a si

6b

652-6832

Dept./Floor/Suite/Room

10-9340

63-7058

11611

HOLD Weekday
FedEx location address
REQUIRED NOT available for
FedEx First Overnight

HOLD Saturday
FedEx location address
REQUIRED Available ONLY for
FedEx Priority Overnight and
FedEx 2Day to select locations

138-2907

1710246

TRK# 0215 8996 8118 2066

XO AGCA

**SATURDAY 12:00P
PRIORITY OVERNIGHT**

15238
PA-US PIT

Uncorrected temp
Thermometer ID

3.8 °C
9

CF 20.5 Initials EK

PT-WI-SR-001 effective 7/26/13

Does this s

No

Yes
As per attached
Shipper's Declaration

Yes
Shipper's Declaration
not required

Dry Ice
Dry Ice, 3 UN 1845

Cargo Aircraft Only

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging
or placed in a FedEx Express Drop Box.

7 Payment Bill to:

Enter FedEx Acct. No. or Credit Card No. below.

Obtain recip.
Acct. No.

Sender
Acct. No. in Section
1 will be billed

Recipient

Third Party

Credit Card

Cash/Check

Total Packages

Total Weight

Credit Card Auth.

*Our liability is limited to \$100 unless you declare a higher value. See the current FedEx Service Guide for details.

611

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ALIGN OPEN END OF FEDEX AIRBILL POUCH HERE

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-59576-1

Login Number: 59576
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	