

## ANALYTICAL REPORT

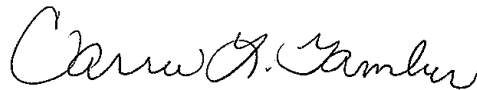
Job Number: 180-42137-1

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  
Senior Project Manager  
3/25/2015 11:30 AM

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03/25/2015

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# Definitions/Glossary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42137-1

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## Qualifiers

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### GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
E	Result exceeded calibration range.

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## Glossary

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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: 180-42137-1**

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 03/18/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.6 C.

### **VOLATILES**

The following sample was diluted to bring the concentration of target analytes within the calibration range: HD-MW-161-0/1-0 (180-42137-4). Elevated reporting limits (RLs) are provided.

Methylene Chloride was detected in method blank MB 180-136250/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

The CCVIS was spiked at 20ug/ml instead of the usual 10ug/ml. The recovery met method criteria and all data is reported. (CCVIS 180-136250/2)

# Detection Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42137-1

## Client Sample ID: HD-MW-164-0/1-0

Lab Sample ID: 180-42137-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.31	J B	1.0	0.13	ug/L	1		8260C	Total/NA
2-Butanone (MEK)	0.95	J	5.0	0.55	ug/L	1		8260C	Total/NA
Trichloroethene	0.65	J	1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.47	J	1.0	0.15	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-MW-165-0/1-0

Lab Sample ID: 180-42137-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.34	J B	1.0	0.13	ug/L	1		8260C	Total/NA
Trichloroethene	17		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	7.6		1.0	0.15	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-MW-163-0/1-0

Lab Sample ID: 180-42137-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.23	J B	1.0	0.13	ug/L	1		8260C	Total/NA
Chloroform	0.29	J	1.0	0.17	ug/L	1		8260C	Total/NA
Trichloroethene	2.7		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	40		1.0	0.15	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-MW-161-0/1-0

Lab Sample ID: 180-42137-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.37	J	1.0	0.17	ug/L	1		8260C	Total/NA
Trichloroethene	89	E	1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	260	E	1.0	0.15	ug/L	1		8260C	Total/NA
Methylene Chloride - DL	5.9	J B	10	1.3	ug/L	10		8260C	Total/NA
Trichloroethene - DL	90		10	1.4	ug/L	10		8260C	Total/NA
Tetrachloroethene - DL	270		10	1.5	ug/L	10		8260C	Total/NA

## Client Sample ID: HD-QC1-0/1-2

Lab Sample ID: 180-42137-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.27	J B	1.0	0.13	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: 180-42137-1

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

**Client Sample ID: HD-MW-164-0/1-0**

**Lab Sample ID: 180-42137-1**

**Date Collected: 03/16/15 15:37**

**Matrix: Water**

**Date Received: 03/18/15 09:40**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			03/23/15 13:41	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			03/23/15 13:41	1
Bromomethane	1.0	U	1.0	0.31	ug/L			03/23/15 13:41	1
Chloroethane	1.0	U	1.0	0.21	ug/L			03/23/15 13:41	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			03/23/15 13:41	1
Acetone	5.0	U	5.0	2.5	ug/L			03/23/15 13:41	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			03/23/15 13:41	1
<b>Methylene Chloride</b>	<b>0.31</b>	<b>J B</b>	1.0	0.13	ug/L			03/23/15 13:41	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			03/23/15 13:41	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			03/23/15 13:41	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			03/23/15 13:41	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			03/23/15 13:41	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			03/23/15 13:41	1
<b>2-Butanone (MEK)</b>	<b>0.95</b>	<b>J</b>	5.0	0.55	ug/L			03/23/15 13:41	1
Chloroform	1.0	U	1.0	0.17	ug/L			03/23/15 13:41	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			03/23/15 13:41	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			03/23/15 13:41	1
Benzene	1.0	U	1.0	0.11	ug/L			03/23/15 13:41	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/23/15 13:41	1
<b>Trichloroethene</b>	<b>0.65</b>	<b>J</b>	1.0	0.14	ug/L			03/23/15 13:41	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			03/23/15 13:41	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			03/23/15 13:41	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			03/23/15 13:41	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			03/23/15 13:41	1
Toluene	1.0	U	1.0	0.15	ug/L			03/23/15 13:41	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			03/23/15 13:41	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			03/23/15 13:41	1
<b>Tetrachloroethene</b>	<b>0.47</b>	<b>J</b>	1.0	0.15	ug/L			03/23/15 13:41	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			03/23/15 13:41	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			03/23/15 13:41	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			03/23/15 13:41	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/23/15 13:41	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			03/23/15 13:41	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			03/23/15 13:41	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			03/23/15 13:41	1
Styrene	1.0	U	1.0	0.097	ug/L			03/23/15 13:41	1
Bromoform	1.0	U	1.0	0.19	ug/L			03/23/15 13:41	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			03/23/15 13:41	1
Acrylonitrile	20	U	20	0.55	ug/L			03/23/15 13:41	1
1,4-Dioxane	200	U	200	34	ug/L			03/23/15 13:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		64 - 135		03/23/15 13:41	1
Toluene-d8 (Surr)	97		71 - 118		03/23/15 13:41	1
4-Bromofluorobenzene (Surr)	102		70 - 118		03/23/15 13:41	1
Dibromofluoromethane (Surr)	110		70 - 128		03/23/15 13:41	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-42137-1

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

**Client Sample ID: HD-MW-165-0/1-0**

**Lab Sample ID: 180-42137-2**

**Date Collected: 03/17/15 09:45**

**Matrix: Water**

**Date Received: 03/18/15 09:40**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			03/23/15 16:06	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			03/23/15 16:06	1
Bromomethane	1.0	U	1.0	0.31	ug/L			03/23/15 16:06	1
Chloroethane	1.0	U	1.0	0.21	ug/L			03/23/15 16:06	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			03/23/15 16:06	1
Acetone	5.0	U	5.0	2.5	ug/L			03/23/15 16:06	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			03/23/15 16:06	1
<b>Methylene Chloride</b>	<b>0.34</b>	<b>J B</b>	1.0	0.13	ug/L			03/23/15 16:06	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			03/23/15 16:06	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			03/23/15 16:06	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			03/23/15 16:06	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			03/23/15 16:06	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			03/23/15 16:06	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			03/23/15 16:06	1
Chloroform	1.0	U	1.0	0.17	ug/L			03/23/15 16:06	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			03/23/15 16:06	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			03/23/15 16:06	1
Benzene	1.0	U	1.0	0.11	ug/L			03/23/15 16:06	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/23/15 16:06	1
<b>Trichloroethene</b>	<b>17</b>		1.0	0.14	ug/L			03/23/15 16:06	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			03/23/15 16:06	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			03/23/15 16:06	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			03/23/15 16:06	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			03/23/15 16:06	1
Toluene	1.0	U	1.0	0.15	ug/L			03/23/15 16:06	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			03/23/15 16:06	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			03/23/15 16:06	1
<b>Tetrachloroethene</b>	<b>7.6</b>		1.0	0.15	ug/L			03/23/15 16:06	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			03/23/15 16:06	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			03/23/15 16:06	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			03/23/15 16:06	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/23/15 16:06	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			03/23/15 16:06	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			03/23/15 16:06	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			03/23/15 16:06	1
Styrene	1.0	U	1.0	0.097	ug/L			03/23/15 16:06	1
Bromoform	1.0	U	1.0	0.19	ug/L			03/23/15 16:06	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			03/23/15 16:06	1
Acrylonitrile	20	U	20	0.55	ug/L			03/23/15 16:06	1
1,4-Dioxane	200	U	200	34	ug/L			03/23/15 16:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	115		64 - 135		03/23/15 16:06	1
Toluene-d8 (Surr)	99		71 - 118		03/23/15 16:06	1
4-Bromofluorobenzene (Surr)	106		70 - 118		03/23/15 16:06	1
Dibromofluoromethane (Surr)	114		70 - 128		03/23/15 16:06	1



# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42137-1

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

**Client Sample ID: HD-MW-163-0/1-0**

**Date Collected: 03/17/15 13:12**

**Date Received: 03/18/15 09:40**

**Lab Sample ID: 180-42137-3**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			03/23/15 16:30	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			03/23/15 16:30	1
Bromomethane	1.0	U	1.0	0.31	ug/L			03/23/15 16:30	1
Chloroethane	1.0	U	1.0	0.21	ug/L			03/23/15 16:30	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			03/23/15 16:30	1
Acetone	5.0	U	5.0	2.5	ug/L			03/23/15 16:30	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			03/23/15 16:30	1
<b>Methylene Chloride</b>	<b>0.23</b>	<b>J B</b>	1.0	0.13	ug/L			03/23/15 16:30	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			03/23/15 16:30	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			03/23/15 16:30	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			03/23/15 16:30	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			03/23/15 16:30	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			03/23/15 16:30	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			03/23/15 16:30	1
<b>Chloroform</b>	<b>0.29</b>	<b>J</b>	1.0	0.17	ug/L			03/23/15 16:30	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			03/23/15 16:30	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			03/23/15 16:30	1
Benzene	1.0	U	1.0	0.11	ug/L			03/23/15 16:30	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/23/15 16:30	1
<b>Trichloroethene</b>	<b>2.7</b>		1.0	0.14	ug/L			03/23/15 16:30	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			03/23/15 16:30	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			03/23/15 16:30	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			03/23/15 16:30	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			03/23/15 16:30	1
Toluene	1.0	U	1.0	0.15	ug/L			03/23/15 16:30	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			03/23/15 16:30	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			03/23/15 16:30	1
<b>Tetrachloroethene</b>	<b>40</b>		1.0	0.15	ug/L			03/23/15 16:30	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			03/23/15 16:30	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			03/23/15 16:30	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			03/23/15 16:30	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/23/15 16:30	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			03/23/15 16:30	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			03/23/15 16:30	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			03/23/15 16:30	1
Styrene	1.0	U	1.0	0.097	ug/L			03/23/15 16:30	1
Bromoform	1.0	U	1.0	0.19	ug/L			03/23/15 16:30	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			03/23/15 16:30	1
Acrylonitrile	20	U	20	0.55	ug/L			03/23/15 16:30	1
1,4-Dioxane	200	U	200	34	ug/L			03/23/15 16:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		64 - 135		03/23/15 16:30	1
Toluene-d8 (Surr)	97		71 - 118		03/23/15 16:30	1
4-Bromofluorobenzene (Surr)	104		70 - 118		03/23/15 16:30	1
Dibromofluoromethane (Surr)	112		70 - 128		03/23/15 16:30	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-42137-1

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

**Client Sample ID: HD-MW-161-0/1-0**

**Date Collected: 03/17/15 15:38**

**Date Received: 03/18/15 09:40**

**Lab Sample ID: 180-42137-4**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			03/24/15 22:38	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			03/24/15 22:38	1
Bromomethane	1.0	U	1.0	0.31	ug/L			03/24/15 22:38	1
Chloroethane	1.0	U	1.0	0.21	ug/L			03/24/15 22:38	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			03/24/15 22:38	1
Acetone	5.0	U	5.0	2.5	ug/L			03/24/15 22:38	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			03/24/15 22:38	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			03/24/15 22:38	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			03/24/15 22:38	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			03/24/15 22:38	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			03/24/15 22:38	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			03/24/15 22:38	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			03/24/15 22:38	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			03/24/15 22:38	1
<b>Chloroform</b>	<b>0.37</b>	<b>J</b>	1.0	0.17	ug/L			03/24/15 22:38	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			03/24/15 22:38	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			03/24/15 22:38	1
Benzene	1.0	U	1.0	0.11	ug/L			03/24/15 22:38	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/24/15 22:38	1
<b>Trichloroethene</b>	<b>89</b>	<b>E</b>	1.0	0.14	ug/L			03/24/15 22:38	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			03/24/15 22:38	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			03/24/15 22:38	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			03/24/15 22:38	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			03/24/15 22:38	1
Toluene	1.0	U	1.0	0.15	ug/L			03/24/15 22:38	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			03/24/15 22:38	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			03/24/15 22:38	1
<b>Tetrachloroethene</b>	<b>260</b>	<b>E</b>	1.0	0.15	ug/L			03/24/15 22:38	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			03/24/15 22:38	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			03/24/15 22:38	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			03/24/15 22:38	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/24/15 22:38	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			03/24/15 22:38	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			03/24/15 22:38	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			03/24/15 22:38	1
Styrene	1.0	U	1.0	0.097	ug/L			03/24/15 22:38	1
Bromoform	1.0	U	1.0	0.19	ug/L			03/24/15 22:38	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			03/24/15 22:38	1
Acrylonitrile	20	U	20	0.55	ug/L			03/24/15 22:38	1
1,4-Dioxane	200	U	200	34	ug/L			03/24/15 22:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	115		64 - 135		03/24/15 22:38	1
Toluene-d8 (Surr)	102		71 - 118		03/24/15 22:38	1
4-Bromofluorobenzene (Surr)	98		70 - 118		03/24/15 22:38	1
Dibromofluoromethane (Surr)	105		70 - 128		03/24/15 22:38	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-42137-1

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

**Client Sample ID: HD-QC1-0/1-2**

**Date Collected: 03/17/15 12:00**

**Date Received: 03/18/15 09:40**

**Lab Sample ID: 180-42137-5**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			03/23/15 14:06	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			03/23/15 14:06	1
Bromomethane	1.0	U	1.0	0.31	ug/L			03/23/15 14:06	1
Chloroethane	1.0	U	1.0	0.21	ug/L			03/23/15 14:06	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			03/23/15 14:06	1
Acetone	5.0	U	5.0	2.5	ug/L			03/23/15 14:06	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			03/23/15 14:06	1
<b>Methylene Chloride</b>	<b>0.27</b>	<b>J B</b>	1.0	0.13	ug/L			03/23/15 14:06	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			03/23/15 14:06	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			03/23/15 14:06	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			03/23/15 14:06	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			03/23/15 14:06	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			03/23/15 14:06	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			03/23/15 14:06	1
Chloroform	1.0	U	1.0	0.17	ug/L			03/23/15 14:06	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			03/23/15 14:06	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			03/23/15 14:06	1
Benzene	1.0	U	1.0	0.11	ug/L			03/23/15 14:06	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/23/15 14:06	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			03/23/15 14:06	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			03/23/15 14:06	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			03/23/15 14:06	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			03/23/15 14:06	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			03/23/15 14:06	1
Toluene	1.0	U	1.0	0.15	ug/L			03/23/15 14:06	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			03/23/15 14:06	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			03/23/15 14:06	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			03/23/15 14:06	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			03/23/15 14:06	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			03/23/15 14:06	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			03/23/15 14:06	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/23/15 14:06	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			03/23/15 14:06	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			03/23/15 14:06	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			03/23/15 14:06	1
Styrene	1.0	U	1.0	0.097	ug/L			03/23/15 14:06	1
Bromoform	1.0	U	1.0	0.19	ug/L			03/23/15 14:06	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			03/23/15 14:06	1
Acrylonitrile	20	U	20	0.55	ug/L			03/23/15 14:06	1
1,4-Dioxane	200	U	200	34	ug/L			03/23/15 14:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		64 - 135		03/23/15 14:06	1
Toluene-d8 (Surr)	97		71 - 118		03/23/15 14:06	1
4-Bromofluorobenzene (Surr)	105		70 - 118		03/23/15 14:06	1
Dibromofluoromethane (Surr)	122		70 - 128		03/23/15 14:06	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42137-1

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

**Client Sample ID: HD-MW-161-0/1-0**

**Lab Sample ID: 180-42137-4**

**Date Collected: 03/17/15 15:38**

**Matrix: Water**

**Date Received: 03/18/15 09:40**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	10	U	10	2.8	ug/L			03/23/15 16:54	10
Vinyl chloride	10	U	10	2.3	ug/L			03/23/15 16:54	10
Bromomethane	10	U	10	3.1	ug/L			03/23/15 16:54	10
Chloroethane	10	U	10	2.1	ug/L			03/23/15 16:54	10
1,1-Dichloroethene	10	U	10	3.0	ug/L			03/23/15 16:54	10
Acetone	50	U	50	25	ug/L			03/23/15 16:54	10
Carbon disulfide	10	U	10	2.1	ug/L			03/23/15 16:54	10
<b>Methylene Chloride</b>	<b>5.9</b>	<b>J B</b>	10	1.3	ug/L			03/23/15 16:54	10
trans-1,2-Dichloroethene	10	U	10	1.7	ug/L			03/23/15 16:54	10
Methyl tert-butyl ether	10	U	10	1.8	ug/L			03/23/15 16:54	10
1,1-Dichloroethane	10	U	10	1.2	ug/L			03/23/15 16:54	10
cis-1,2-Dichloroethene	10	U	10	2.4	ug/L			03/23/15 16:54	10
Bromochloromethane	10	U	10	1.8	ug/L			03/23/15 16:54	10
2-Butanone (MEK)	50	U	50	5.5	ug/L			03/23/15 16:54	10
Chloroform	10	U	10	1.7	ug/L			03/23/15 16:54	10
1,1,1-Trichloroethane	10	U	10	2.9	ug/L			03/23/15 16:54	10
Carbon tetrachloride	10	U	10	1.4	ug/L			03/23/15 16:54	10
Benzene	10	U	10	1.1	ug/L			03/23/15 16:54	10
1,2-Dichloroethane	10	U	10	2.1	ug/L			03/23/15 16:54	10
<b>Trichloroethene</b>	<b>90</b>		10	1.4	ug/L			03/23/15 16:54	10
1,2-Dichloropropane	10	U	10	0.95	ug/L			03/23/15 16:54	10
Bromodichloromethane	10	U	10	1.3	ug/L			03/23/15 16:54	10
cis-1,3-Dichloropropene	10	U	10	1.9	ug/L			03/23/15 16:54	10
4-Methyl-2-pentanone (MIBK)	50	U	50	5.3	ug/L			03/23/15 16:54	10
Toluene	10	U	10	1.5	ug/L			03/23/15 16:54	10
trans-1,3-Dichloropropene	10	U	10	1.5	ug/L			03/23/15 16:54	10
1,1,2-Trichloroethane	10	U	10	2.0	ug/L			03/23/15 16:54	10
<b>Tetrachloroethene</b>	<b>270</b>		10	1.5	ug/L			03/23/15 16:54	10
2-Hexanone	50	U	50	1.6	ug/L			03/23/15 16:54	10
Dibromochloromethane	10	U	10	1.4	ug/L			03/23/15 16:54	10
1,2-Dibromoethane (EDB)	10	U	10	1.8	ug/L			03/23/15 16:54	10
Chlorobenzene	10	U	10	1.4	ug/L			03/23/15 16:54	10
1,1,1,2-Tetrachloroethane	10	U	10	2.8	ug/L			03/23/15 16:54	10
Ethylbenzene	10	U	10	2.3	ug/L			03/23/15 16:54	10
Xylenes, Total	30	U	30	4.9	ug/L			03/23/15 16:54	10
Styrene	10	U	10	0.97	ug/L			03/23/15 16:54	10
Bromoform	10	U	10	1.9	ug/L			03/23/15 16:54	10
1,1,2,2-Tetrachloroethane	10	U	10	2.0	ug/L			03/23/15 16:54	10
Acrylonitrile	200	U	200	5.5	ug/L			03/23/15 16:54	10
1,4-Dioxane	2000	U	2000	340	ug/L			03/23/15 16:54	10
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	113		64 - 135					03/23/15 16:54	10
Toluene-d8 (Surr)	98		71 - 118					03/23/15 16:54	10
4-Bromofluorobenzene (Surr)	98		70 - 118					03/23/15 16:54	10
Dibromofluoromethane (Surr)	107		70 - 128					03/23/15 16:54	10

## Default Detection Limits

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-42137-1

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

Analyte	RL	MDL	Units	Method
1,1,1,2-Tetrachloroethane	1.0	0.28	ug/L	8260C
1,1,1-Trichloroethane	1.0	0.29	ug/L	8260C
1,1,2,2-Tetrachloroethane	1.0	0.20	ug/L	8260C
1,1,2-Trichloroethane	1.0	0.20	ug/L	8260C
1,1-Dichloroethane	1.0	0.12	ug/L	8260C
1,1-Dichloroethene	1.0	0.30	ug/L	8260C
1,2-Dibromoethane (EDB)	1.0	0.18	ug/L	8260C
1,2-Dichloroethane	1.0	0.21	ug/L	8260C
1,2-Dichloropropane	1.0	0.095	ug/L	8260C
1,4-Dioxane	200	34	ug/L	8260C
2-Butanone (MEK)	5.0	0.55	ug/L	8260C
2-Hexanone	5.0	0.16	ug/L	8260C
4-Methyl-2-pentanone (MIBK)	5.0	0.53	ug/L	8260C
Acetone	5.0	2.5	ug/L	8260C
Acrylonitrile	20	0.55	ug/L	8260C
Benzene	1.0	0.11	ug/L	8260C
Bromochloromethane	1.0	0.18	ug/L	8260C
Bromodichloromethane	1.0	0.13	ug/L	8260C
Bromoform	1.0	0.19	ug/L	8260C
Bromomethane	1.0	0.31	ug/L	8260C
Carbon disulfide	1.0	0.21	ug/L	8260C
Carbon tetrachloride	1.0	0.14	ug/L	8260C
Chlorobenzene	1.0	0.14	ug/L	8260C
Chloroethane	1.0	0.21	ug/L	8260C
Chloroform	1.0	0.17	ug/L	8260C
Chloromethane	1.0	0.28	ug/L	8260C
cis-1,2-Dichloroethene	1.0	0.24	ug/L	8260C
cis-1,3-Dichloropropene	1.0	0.19	ug/L	8260C
Dibromochloromethane	1.0	0.14	ug/L	8260C
Ethylbenzene	1.0	0.23	ug/L	8260C
Methyl tert-butyl ether	1.0	0.18	ug/L	8260C
Methylene Chloride	1.0	0.13	ug/L	8260C
Styrene	1.0	0.097	ug/L	8260C
Tetrachloroethene	1.0	0.15	ug/L	8260C
Toluene	1.0	0.15	ug/L	8260C
trans-1,2-Dichloroethene	1.0	0.17	ug/L	8260C
trans-1,3-Dichloropropene	1.0	0.15	ug/L	8260C
Trichloroethene	1.0	0.14	ug/L	8260C
Vinyl chloride	1.0	0.23	ug/L	8260C
Xylenes, Total	3.0	0.49	ug/L	8260C

# Surrogate Summary

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-42137-1

**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 (64-135)	TOL (71-118)	BFB (70-118)	DBFM (70-128)
180-42137-1	HD-MW-164-0/1-0	113	97	102	110
180-42137-1 MS	HD-MW-164-0/1-0	110	101	101	100
180-42137-1 MSD	HD-MW-164-0/1-0	102	100	99	99
180-42137-2	HD-MW-165-0/1-0	115	99	106	114
180-42137-3	HD-MW-163-0/1-0	110	97	104	112
180-42137-4 - DL	HD-MW-161-0/1-0	113	98	98	107
180-42137-4	HD-MW-161-0/1-0	115	102	98	105
180-42137-5	HD-QC1-0/1-2	118	97	105	122
LCS 180-136250/9	Lab Control Sample	103	100	94	100
LCS 180-136397/9	Lab Control Sample	102	96	91	89
MB 180-136250/6	Method Blank	109	102	102	108
MB 180-136397/6	Method Blank	111	104	98	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: 180-42137-1

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

**Lab Sample ID: MB 180-136250/6**

**Matrix: Water**

**Analysis Batch: 136250**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloromethane	1.0	U	1.0	0.28	ug/L			03/23/15 13:04	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			03/23/15 13:04	1
Bromomethane	1.0	U	1.0	0.31	ug/L			03/23/15 13:04	1
Chloroethane	1.0	U	1.0	0.21	ug/L			03/23/15 13:04	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			03/23/15 13:04	1
Acetone	5.0	U	5.0	2.5	ug/L			03/23/15 13:04	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			03/23/15 13:04	1
Methylene Chloride	0.353	J	1.0	0.13	ug/L			03/23/15 13:04	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			03/23/15 13:04	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			03/23/15 13:04	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			03/23/15 13:04	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			03/23/15 13:04	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			03/23/15 13:04	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			03/23/15 13:04	1
Chloroform	1.0	U	1.0	0.17	ug/L			03/23/15 13:04	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			03/23/15 13:04	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			03/23/15 13:04	1
Benzene	1.0	U	1.0	0.11	ug/L			03/23/15 13:04	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/23/15 13:04	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			03/23/15 13:04	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			03/23/15 13:04	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			03/23/15 13:04	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			03/23/15 13:04	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			03/23/15 13:04	1
Toluene	1.0	U	1.0	0.15	ug/L			03/23/15 13:04	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			03/23/15 13:04	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			03/23/15 13:04	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			03/23/15 13:04	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			03/23/15 13:04	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			03/23/15 13:04	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			03/23/15 13:04	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/23/15 13:04	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			03/23/15 13:04	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			03/23/15 13:04	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			03/23/15 13:04	1
Styrene	1.0	U	1.0	0.097	ug/L			03/23/15 13:04	1
Bromoform	1.0	U	1.0	0.19	ug/L			03/23/15 13:04	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			03/23/15 13:04	1
Acrylonitrile	20	U	20	0.55	ug/L			03/23/15 13:04	1
1,4-Dioxane	200	U	200	34	ug/L			03/23/15 13:04	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	109		64 - 135		03/23/15 13:04	1
Toluene-d8 (Surr)	102		71 - 118		03/23/15 13:04	1
4-Bromofluorobenzene (Surr)	102		70 - 118		03/23/15 13:04	1
Dibromofluoromethane (Surr)	108		70 - 128		03/23/15 13:04	1

TestAmerica Pittsburgh

# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42137-1

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

**Lab Sample ID: LCS 180-136250/9**

**Matrix: Water**

**Analysis Batch: 136250**

**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	11.8		ug/L		118	50 - 139
Vinyl chloride	10.0	11.9		ug/L		119	53 - 138
Bromomethane	10.0	13.4		ug/L		134	33 - 150
Chloroethane	10.0	11.8		ug/L		118	36 - 142
1,1-Dichloroethene	10.0	9.56		ug/L		96	65 - 136
Acetone	20.0	21.0		ug/L		105	22 - 150
Carbon disulfide	10.0	9.19		ug/L		92	54 - 132
Methylene Chloride	10.0	9.78		ug/L		98	63 - 129
trans-1,2-Dichloroethene	10.0	10.0		ug/L		100	73 - 126
Methyl tert-butyl ether	10.0	10.4		ug/L		104	64 - 123
1,1-Dichloroethane	10.0	11.1		ug/L		111	73 - 126
cis-1,2-Dichloroethene	10.0	10.1		ug/L		101	70 - 120
Bromochloromethane	10.0	10.1		ug/L		101	70 - 127
2-Butanone (MEK)	20.0	16.6		ug/L		83	39 - 138
Chloroform	10.0	11.1		ug/L		111	72 - 127
1,1,1-Trichloroethane	10.0	11.1		ug/L		111	63 - 133
Carbon tetrachloride	10.0	12.0		ug/L		120	55 - 150
Benzene	10.0	10.5		ug/L		105	80 - 120
1,2-Dichloroethane	10.0	10.8		ug/L		108	68 - 132
Trichloroethene	10.0	9.98		ug/L		100	73 - 120
1,2-Dichloropropane	10.0	10.2		ug/L		102	76 - 124
Bromodichloromethane	10.0	11.1		ug/L		111	66 - 130
cis-1,3-Dichloropropene	10.0	11.0		ug/L		110	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	16.7		ug/L		83	45 - 145
Toluene	10.0	10.8		ug/L		108	80 - 123
trans-1,3-Dichloropropene	10.0	11.9		ug/L		119	65 - 125
1,1,2-Trichloroethane	10.0	10.4		ug/L		104	77 - 127
Tetrachloroethene	10.0	9.90		ug/L		99	70 - 135
2-Hexanone	20.0	14.2		ug/L		71	25 - 132
Dibromochloromethane	10.0	11.5		ug/L		115	60 - 140
1,2-Dibromoethane (EDB)	10.0	10.7		ug/L		107	74 - 123
Chlorobenzene	10.0	10.6		ug/L		106	80 - 120
1,1,1,2-Tetrachloroethane	10.0	11.7		ug/L		117	63 - 140
Ethylbenzene	10.0	9.85		ug/L		99	72 - 126
Xylenes, Total	20.0	19.8		ug/L		99	76 - 128
Styrene	10.0	10.1		ug/L		101	71 - 127
Bromoform	10.0	10.9		ug/L		109	46 - 150
1,1,2,2-Tetrachloroethane	10.0	10.4		ug/L		104	62 - 125
1,4-Dioxane	200	154	J	ug/L		77	10 - 160

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	103		64 - 135
Toluene-d8 (Surr)	100		71 - 118
4-Bromofluorobenzene (Surr)	94		70 - 118
Dibromofluoromethane (Surr)	100		70 - 128



# QC Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-42137-1

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

Lab Sample ID: 180-42137-1 MS

Matrix: Water

Analysis Batch: 136250

Client Sample ID: HD-MW-164-0/1-0

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Chloromethane	1.0	U	10.0	12.2		ug/L		122		50 - 139
Vinyl chloride	1.0	U	10.0	11.6		ug/L		116		53 - 138
Bromomethane	1.0	U	10.0	13.5		ug/L		135		33 - 150
Chloroethane	1.0	U	10.0	12.2		ug/L		122		36 - 142
1,1-Dichloroethene	1.0	U	10.0	9.66		ug/L		97		65 - 136
Acetone	5.0	U	20.0	25.9		ug/L		130		22 - 150
Carbon disulfide	1.0	U	10.0	8.97		ug/L		90		54 - 132
Methylene Chloride	0.31	J B	10.0	10.5		ug/L		102		63 - 129
trans-1,2-Dichloroethene	1.0	U	10.0	10.3		ug/L		103		73 - 126
Methyl tert-butyl ether	1.0	U	10.0	11.0		ug/L		110		64 - 123
1,1-Dichloroethane	1.0	U	10.0	11.0		ug/L		110		73 - 126
cis-1,2-Dichloroethene	1.0	U	10.0	10.4		ug/L		104		70 - 120
Bromochloromethane	1.0	U	10.0	10.7		ug/L		107		70 - 127
2-Butanone (MEK)	0.95	J	20.0	20.8		ug/L		99		39 - 138
Chloroform	1.0	U	10.0	11.4		ug/L		114		72 - 127
1,1,1-Trichloroethane	1.0	U	10.0	11.4		ug/L		114		63 - 133
Carbon tetrachloride	1.0	U	10.0	12.0		ug/L		120		55 - 150
Benzene	1.0	U	10.0	10.9		ug/L		109		80 - 120
1,2-Dichloroethane	1.0	U	10.0	11.5		ug/L		115		68 - 132
Trichloroethene	0.65	J	10.0	10.6		ug/L		100		73 - 120
1,2-Dichloropropane	1.0	U	10.0	11.1		ug/L		111		76 - 124
Bromodichloromethane	1.0	U	10.0	11.2		ug/L		112		66 - 130
cis-1,3-Dichloropropene	1.0	U	10.0	11.4		ug/L		114		66 - 120
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	19.0		ug/L		95		45 - 145
Toluene	1.0	U	10.0	10.9		ug/L		109		80 - 123
trans-1,3-Dichloropropene	1.0	U	10.0	12.5		ug/L		125		65 - 125
1,1,2-Trichloroethane	1.0	U	10.0	11.5		ug/L		115		77 - 127
Tetrachloroethene	0.47	J	10.0	10.4		ug/L		100		70 - 135
2-Hexanone	5.0	U	20.0	15.1		ug/L		75		25 - 132
Dibromochloromethane	1.0	U	10.0	11.6		ug/L		116		60 - 140
1,2-Dibromoethane (EDB)	1.0	U	10.0	11.0		ug/L		110		74 - 123
Chlorobenzene	1.0	U	10.0	10.7		ug/L		107		80 - 120
1,1,1,2-Tetrachloroethane	1.0	U	10.0	11.9		ug/L		119		63 - 140
Ethylbenzene	1.0	U	10.0	10.4		ug/L		104		72 - 126
Xylenes, Total	3.0	U	20.0	20.3		ug/L		102		76 - 128
Styrene	1.0	U	10.0	10.5		ug/L		105		71 - 127
Bromoform	1.0	U	10.0	11.0		ug/L		110		46 - 150
1,1,2,2-Tetrachloroethane	1.0	U	10.0	10.5		ug/L		105		62 - 125
1,4-Dioxane	200	U	200	176	J	ug/L		88		10 - 160
	<b>MS</b>	<b>MS</b>								
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>							
1,2-Dichloroethane-d4 (Surr)	110		64 - 135							
Toluene-d8 (Surr)	101		71 - 118							
4-Bromofluorobenzene (Surr)	101		70 - 118							
Dibromofluoromethane (Surr)	100		70 - 128							

# QC Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-42137-1

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

Lab Sample ID: 180-42137-1 MSD

Matrix: Water

Analysis Batch: 136250

Client Sample ID: HD-MW-164-0/1-0

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
Chloromethane	1.0	U	10.0	11.4		ug/L		114	50 - 139	7	35
Vinyl chloride	1.0	U	10.0	11.1		ug/L		111	53 - 138	4	35
Bromomethane	1.0	U	10.0	13.1		ug/L		131	33 - 150	3	35
Chloroethane	1.0	U	10.0	12.3		ug/L		123	36 - 142	1	35
1,1-Dichloroethene	1.0	U	10.0	9.54		ug/L		95	65 - 136	1	35
Acetone	5.0	U	20.0	22.2		ug/L		111	22 - 150	15	35
Carbon disulfide	1.0	U	10.0	8.71		ug/L		87	54 - 132	3	35
Methylene Chloride	0.31	J B	10.0	9.32		ug/L		90	63 - 129	12	35
trans-1,2-Dichloroethene	1.0	U	10.0	10.2		ug/L		102	73 - 126	1	35
Methyl tert-butyl ether	1.0	U	10.0	10.6		ug/L		106	64 - 123	4	35
1,1-Dichloroethane	1.0	U	10.0	10.6		ug/L		106	73 - 126	4	35
cis-1,2-Dichloroethene	1.0	U	10.0	10.1		ug/L		101	70 - 120	3	35
Bromochloromethane	1.0	U	10.0	10.2		ug/L		102	70 - 127	4	35
2-Butanone (MEK)	0.95	J	20.0	19.7		ug/L		94	39 - 138	5	35
Chloroform	1.0	U	10.0	10.7		ug/L		107	72 - 127	7	35
1,1,1-Trichloroethane	1.0	U	10.0	10.5		ug/L		105	63 - 133	9	35
Carbon tetrachloride	1.0	U	10.0	10.9		ug/L		109	55 - 150	9	35
Benzene	1.0	U	10.0	10.4		ug/L		104	80 - 120	5	32
1,2-Dichloroethane	1.0	U	10.0	10.8		ug/L		108	68 - 132	6	32
Trichloroethene	0.65	J	10.0	10.2		ug/L		96	73 - 120	4	35
1,2-Dichloropropane	1.0	U	10.0	10.4		ug/L		104	76 - 124	6	34
Bromodichloromethane	1.0	U	10.0	10.4		ug/L		104	66 - 130	7	35
cis-1,3-Dichloropropene	1.0	U	10.0	10.5		ug/L		105	66 - 120	8	35
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	18.1		ug/L		91	45 - 145	5	35
Toluene	1.0	U	10.0	10.5		ug/L		105	80 - 123	4	35
trans-1,3-Dichloropropene	1.0	U	10.0	11.9		ug/L		119	65 - 125	5	35
1,1,2-Trichloroethane	1.0	U	10.0	10.7		ug/L		107	77 - 127	7	35
Tetrachloroethene	0.47	J	10.0	9.82		ug/L		94	70 - 135	6	35
2-Hexanone	5.0	U	20.0	15.6		ug/L		78	25 - 132	3	35
Dibromochloromethane	1.0	U	10.0	11.2		ug/L		112	60 - 140	3	35
1,2-Dibromoethane (EDB)	1.0	U	10.0	10.5		ug/L		105	74 - 123	5	35
Chlorobenzene	1.0	U	10.0	10.4		ug/L		104	80 - 120	3	29
1,1,1,2-Tetrachloroethane	1.0	U	10.0	10.7		ug/L		107	63 - 140	11	34
Ethylbenzene	1.0	U	10.0	9.90		ug/L		99	72 - 126	4	33
Xylenes, Total	3.0	U	20.0	19.6		ug/L		98	76 - 128	4	32
Styrene	1.0	U	10.0	10.1		ug/L		101	71 - 127	4	34
Bromoform	1.0	U	10.0	9.97		ug/L		100	46 - 150	10	35
1,1,2,2-Tetrachloroethane	1.0	U	10.0	10.2		ug/L		102	62 - 125	3	35
1,4-Dioxane	200	U	200	153	J	ug/L		77	10 - 160	14	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		64 - 135
Toluene-d8 (Surr)	100		71 - 118
4-Bromofluorobenzene (Surr)	99		70 - 118
Dibromofluoromethane (Surr)	99		70 - 128

# QC Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-42137-1

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

Lab Sample ID: MB 180-136397/6

Matrix: Water

Analysis Batch: 136397

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloromethane	1.0	U	1.0	0.28	ug/L			03/24/15 13:57	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			03/24/15 13:57	1
Bromomethane	1.0	U	1.0	0.31	ug/L			03/24/15 13:57	1
Chloroethane	1.0	U	1.0	0.21	ug/L			03/24/15 13:57	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			03/24/15 13:57	1
Acetone	5.0	U	5.0	2.5	ug/L			03/24/15 13:57	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			03/24/15 13:57	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			03/24/15 13:57	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			03/24/15 13:57	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			03/24/15 13:57	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			03/24/15 13:57	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			03/24/15 13:57	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			03/24/15 13:57	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			03/24/15 13:57	1
Chloroform	1.0	U	1.0	0.17	ug/L			03/24/15 13:57	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			03/24/15 13:57	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			03/24/15 13:57	1
Benzene	1.0	U	1.0	0.11	ug/L			03/24/15 13:57	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/24/15 13:57	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			03/24/15 13:57	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			03/24/15 13:57	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			03/24/15 13:57	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			03/24/15 13:57	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			03/24/15 13:57	1
Toluene	1.0	U	1.0	0.15	ug/L			03/24/15 13:57	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			03/24/15 13:57	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			03/24/15 13:57	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			03/24/15 13:57	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			03/24/15 13:57	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			03/24/15 13:57	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			03/24/15 13:57	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			03/24/15 13:57	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			03/24/15 13:57	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			03/24/15 13:57	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			03/24/15 13:57	1
Styrene	1.0	U	1.0	0.097	ug/L			03/24/15 13:57	1
Bromoform	1.0	U	1.0	0.19	ug/L			03/24/15 13:57	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			03/24/15 13:57	1
Acrylonitrile	20	U	20	0.55	ug/L			03/24/15 13:57	1
1,4-Dioxane	200	U	200	34	ug/L			03/24/15 13:57	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	111		64 - 135		03/24/15 13:57	1
Toluene-d8 (Surr)	104		71 - 118		03/24/15 13:57	1
4-Bromofluorobenzene (Surr)	98		70 - 118		03/24/15 13:57	1
Dibromofluoromethane (Surr)	102		70 - 128		03/24/15 13:57	1

TestAmerica Pittsburgh

# QC Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-42137-1

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

**Lab Sample ID: LCS 180-136397/9**

**Matrix: Water**

**Analysis Batch: 136397**

**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	10.1		ug/L		101	50 - 139
Vinyl chloride	10.0	10.9		ug/L		109	53 - 138
Bromomethane	10.0	12.1		ug/L		121	33 - 150
Chloroethane	10.0	12.2		ug/L		122	36 - 142
1,1-Dichloroethene	10.0	9.20		ug/L		92	65 - 136
Acetone	20.0	21.5		ug/L		107	22 - 150
Carbon disulfide	10.0	9.01		ug/L		90	54 - 132
Methylene Chloride	10.0	9.00		ug/L		90	63 - 129
trans-1,2-Dichloroethene	10.0	9.26		ug/L		93	73 - 126
Methyl tert-butyl ether	10.0	9.14		ug/L		91	64 - 123
1,1-Dichloroethane	10.0	9.93		ug/L		99	73 - 126
cis-1,2-Dichloroethene	10.0	9.19		ug/L		92	70 - 120
Bromochloromethane	10.0	8.89		ug/L		89	70 - 127
2-Butanone (MEK)	20.0	15.7		ug/L		78	39 - 138
Chloroform	10.0	9.75		ug/L		97	72 - 127
1,1,1-Trichloroethane	10.0	10.1		ug/L		101	63 - 133
Carbon tetrachloride	10.0	10.6		ug/L		106	55 - 150
Benzene	10.0	9.84		ug/L		98	80 - 120
1,2-Dichloroethane	10.0	10.1		ug/L		101	68 - 132
Trichloroethene	10.0	9.27		ug/L		93	73 - 120
1,2-Dichloropropane	10.0	9.67		ug/L		97	76 - 124
Bromodichloromethane	10.0	9.85		ug/L		98	66 - 130
cis-1,3-Dichloropropene	10.0	10.0		ug/L		100	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	15.3		ug/L		76	45 - 145
Toluene	10.0	9.97		ug/L		100	80 - 123
trans-1,3-Dichloropropene	10.0	10.6		ug/L		106	65 - 125
1,1,2-Trichloroethane	10.0	9.66		ug/L		97	77 - 127
Tetrachloroethene	10.0	9.24		ug/L		92	70 - 135
2-Hexanone	20.0	12.7		ug/L		63	25 - 132
Dibromochloromethane	10.0	10.1		ug/L		101	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.22		ug/L		92	74 - 123
Chlorobenzene	10.0	9.51		ug/L		95	80 - 120
1,1,1,2-Tetrachloroethane	10.0	10.7		ug/L		107	63 - 140
Ethylbenzene	10.0	9.25		ug/L		92	72 - 126
Xylenes, Total	20.0	18.3		ug/L		92	76 - 128
Styrene	10.0	9.27		ug/L		93	71 - 127
Bromoform	10.0	9.56		ug/L		96	46 - 150
1,1,2,2-Tetrachloroethane	10.0	9.20		ug/L		92	62 - 125
1,4-Dioxane	200	149	J	ug/L		74	10 - 160

Surrogate	LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	102		64 - 135
Toluene-d8 (Surr)	96		71 - 118
4-Bromofluorobenzene (Surr)	91		70 - 118
Dibromofluoromethane (Surr)	89		70 - 128

# QC Association Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42137-1

## GC/MS VOA

### Analysis Batch: 136250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-42137-1	HD-MW-164-0/1-0	Total/NA	Water	8260C	
180-42137-1 MS	HD-MW-164-0/1-0	Total/NA	Water	8260C	
180-42137-1 MSD	HD-MW-164-0/1-0	Total/NA	Water	8260C	
180-42137-2	HD-MW-165-0/1-0	Total/NA	Water	8260C	
180-42137-3	HD-MW-163-0/1-0	Total/NA	Water	8260C	
180-42137-4 - DL	HD-MW-161-0/1-0	Total/NA	Water	8260C	
180-42137-5	HD-QC1-0/1-2	Total/NA	Water	8260C	
LCS 180-136250/9	Lab Control Sample	Total/NA	Water	8260C	
MB 180-136250/6	Method Blank	Total/NA	Water	8260C	

### Analysis Batch: 136397

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-42137-4	HD-MW-161-0/1-0	Total/NA	Water	8260C	
LCS 180-136397/9	Lab Control Sample	Total/NA	Water	8260C	
MB 180-136397/6	Method Blank	Total/NA	Water	8260C	

# Lab Chronicle

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42137-1

**Client Sample ID: HD-MW-164-0/1-0**

**Lab Sample ID: 180-42137-1**

Date Collected: 03/16/15 15:37

Matrix: Water

Date Received: 03/18/15 09:40

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	136250	03/23/15 13:41	DLF	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-MW-165-0/1-0**

**Lab Sample ID: 180-42137-2**

Date Collected: 03/17/15 09:45

Matrix: Water

Date Received: 03/18/15 09:40

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	136250	03/23/15 16:06	DLF	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-MW-163-0/1-0**

**Lab Sample ID: 180-42137-3**

Date Collected: 03/17/15 13:12

Matrix: Water

Date Received: 03/18/15 09:40

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	136250	03/23/15 16:30	DLF	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-MW-161-0/1-0**

**Lab Sample ID: 180-42137-4**

Date Collected: 03/17/15 15:38

Matrix: Water

Date Received: 03/18/15 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C	DL	10	5 mL	5 mL	136250	03/23/15 16:54	DLF	TAL PIT
Instrument ID: CHHP5										
Total/NA	Analysis	8260C		1	5 mL	5 mL	136397	03/24/15 22:38	KLG	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-QC1-0/1-2**

**Lab Sample ID: 180-42137-5**

Date Collected: 03/17/15 12:00

Matrix: Water

Date Received: 03/18/15 09:40

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	136250	03/23/15 14:06	DLF	TAL PIT
Instrument ID: CHHP5										

**Laboratory References:**

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

## Lab Chronicle

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42137-1

### Analyst References:

Lab: TAL PIT

Batch Type: Analysis

DLF = Donald Ferguson

KLG = Kathy Gordon

# Certification Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42137-1

## 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	04-30-15 *

\* Certification renewal pending - certification considered valid.



# Method Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-42137-1

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<b>Method</b>	<b>Method Description</b>	<b>Protocol</b>	<b>Laboratory</b>
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: 180-42137-1

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<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Matrix</b>	<b>Collected</b>	<b>Received</b>
180-42137-1	HD-MW-164-0/1-0	Water	03/16/15 15:37	03/18/15 09:40
180-42137-2	HD-MW-165-0/1-0	Water	03/17/15 09:45	03/18/15 09:40
180-42137-3	HD-MW-163-0/1-0	Water	03/17/15 13:12	03/18/15 09:40
180-42137-4	HD-MW-161-0/1-0	Water	03/17/15 15:38	03/18/15 09:40
180-42137-5	HD-QC1-0/1-2	Water	03/17/15 12:00	03/18/15 09:40

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 Analysis Batch Number: 135593

Lab Sample ID: IC 180-135593/4 Client Sample ID: \_\_\_\_\_

Date Analyzed: 03/16/15 12:41 Lab File ID: 50316004.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.25	Baseline	fergusond	03/17/15 09:42

Lab Sample ID: ICIS 180-135593/5 Client Sample ID: \_\_\_\_\_

Date Analyzed: 03/16/15 13:05 Lab File ID: 50316005.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.06	Peak Tail	fergusond	03/17/15 09:27

Lab Sample ID: IC 180-135593/6 Client Sample ID: \_\_\_\_\_

Date Analyzed: 03/16/15 13:29 Lab File ID: 50316006.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isobutyl alcohol	6.95	Peak Tail	fergusond	03/17/15 09:45

Lab Sample ID: IC 180-135593/7 Client Sample ID: \_\_\_\_\_

Date Analyzed: 03/16/15 13:53 Lab File ID: 50316007.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isobutyl alcohol	6.94	Peak Tail	fergusond	03/17/15 09:48

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 Analysis Batch Number: 135593Lab Sample ID: IC 180-135593/13 Client Sample ID: \_\_\_\_\_Date Analyzed: 03/16/15 16:17 Lab File ID: 50316013.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.77	Poor chromatography	fergusond	03/17/15 10:01
Acrolein	3.25	Poor chromatography	fergusond	03/17/15 10:01
2-Hexanone	9.66	Poor chromatography	fergusond	03/17/15 10:01
trans-1,4-Dichloro-2-butene	11.74	Poor chromatography	fergusond	03/17/15 10:01

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 Analysis Batch Number: 136250Lab Sample ID: CCVIS 180-136250/2 Client Sample ID: \_\_\_\_\_Date Analyzed: 03/23/15 11:20 Lab File ID: 50323002.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.06	Peak Tail	fergusond	03/23/15 12:02

Lab Sample ID: MB 180-136250/6 Client Sample ID: \_\_\_\_\_Date Analyzed: 03/23/15 13:04 Lab File ID: 50323006.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methylene Chloride	4.14	Split Peak	fergusond	03/23/15 13:28

Lab Sample ID: 180-42137-1 Client Sample ID: HD-MW-164-0/1-0Date Analyzed: 03/23/15 13:41 Lab File ID: 50323007.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.52	Poor chromatography	fergusond	03/23/15 14:52
Tetrachloroethene	9.54	Split Peak	fergusond	03/23/15 14:52

Lab Sample ID: 180-42137-5 Client Sample ID: HD-QC1-0/1-2Date Analyzed: 03/23/15 14:06 Lab File ID: 50323008.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.49	Split Peak	fergusond	03/23/15 14:49

Lab Sample ID: LCS 180-136250/9 Client Sample ID: \_\_\_\_\_Date Analyzed: 03/23/15 14:30 Lab File ID: 50323009.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.06	Peak Tail	fergusond	03/23/15 14:48

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 Analysis Batch Number: 136250

Lab Sample ID: 180-42137-1 MS Client Sample ID: HD-MW-164-0/1-0 MS

Date Analyzed: 03/23/15 14:54 Lab File ID: 50323010.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.06	Peak Tail	fergusond	03/24/15 07:24

Lab Sample ID: 180-42137-1 MSD Client Sample ID: HD-MW-164-0/1-0 MSD

Date Analyzed: 03/23/15 15:18 Lab File ID: 50323011.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.06	Peak Tail	fergusond	03/24/15 07:26

Lab Sample ID: 180-42137-3 Client Sample ID: HD-MW-163-0/1-0

Date Analyzed: 03/23/15 16:30 Lab File ID: 50323014.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methylene Chloride	4.16	Split Peak	fergusond	03/24/15 07:31
Chloroform	6.35	Split Peak	fergusond	03/24/15 07:31

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 Analysis Batch Number: 136397Lab Sample ID: CCVIS 180-136397/4 Client Sample ID: \_\_\_\_\_Date Analyzed: 03/24/15 13:06 Lab File ID: 50324004.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.05	Peak Tail	fergusond	03/24/15 13:34

Lab Sample ID: LCS 180-136397/9 Client Sample ID: \_\_\_\_\_Date Analyzed: 03/24/15 15:24 Lab File ID: 50324009.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.06	Peak Tail	fergusond	03/24/15 15:44

Lab Sample ID: 180-42137-4 Client Sample ID: HD-MW-161-0/1-0Date Analyzed: 03/24/15 22:38 Lab File ID: 50324027.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl tert-butyl ether	4.60	Poor chromatography	gordonk	03/25/15 08:43

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-42137-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration		
					Reagent ID	Volume Added				
VOA8260INT_00030	04/10/15	03/10/15	Methanol, Lot 85233	10 mL	VOA8260INTRES_00091	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_00091	07/31/19		Restek, Lot A0104742		(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_00032	04/10/15	03/10/15	Methanol, Lot 85233	100 mL	VOA8260SURRES_00063	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_00063	01/31/19		Restek, Lot A0100424		(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		
VOA8260VOAPRI_00105	03/20/15	03/13/15	Methanol, Lot 85233	8 mL	VOA8260GAS1ST_00091	0.08 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_00101	1 mL	2-Butanone (MEK)	25 ug/mL
									2-Hexanone	25 ug/mL
									4-Methyl-2-pentanone (MIBK)	25 ug/mL
									Acetone	25 ug/mL
									1,1,1,2-Tetrachloroethane	25 ug/mL
									1,1,1-Trichloroethane	25 ug/mL
				1,1,2,2-Tetrachloroethane	25 ug/mL					
				1,1,2-Trichloro-1,2,2-trifluoroethane	25 ug/mL					
				1,1,2-Trichloroethane	25 ug/mL					
				1,1-Dichloroethane	25 ug/mL					
				1,1-Dichloroethene	25 ug/mL					
				1,1-Dichloropropene	25 ug/mL					
				1,2,3-Trichlorobenzene	25 ug/mL					
				1,2,3-Trichloropropane	25 ug/mL					
				1,2,4-Trichlorobenzene	25 ug/mL					
				1,2,4-Trimethylbenzene	25 ug/mL					
				1,2-Dibromo-3-Chloropropane	25 ug/mL					
				1,2-Dibromoethane (EDB)	25 ug/mL					
				1,2-Dichlorobenzene	25 ug/mL					
				1,2-Dichloroethane	25 ug/mL					
1,2-Dichloropropane	25 ug/mL									
1,3,5-Trimethylbenzene	25 ug/mL									



REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-42137-1

SDG No.:

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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-42137-1

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
							trans-1,4-Dichloro-2-butene	25 ug/mL
							Trichloroethene	25 ug/mL
.VOA8260GAS1ST_00091	09/30/16		Restek, Lot A0108198		(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_00101	03/24/15	02/24/15	Methanol, Lot 85233	10 mL	VOA8260KET1ST_00036	0.2 mL	2-Butanone (MEK)	200 ug/mL
							2-Hexanone	200 ug/mL
							4-Methyl-2-pentanone (MIBK)	200 ug/mL
							Acetone	200 ug/mL
					VOA8260MEGA1_00027	1 mL	1,1,1,2-Tetrachloroethane	200 ug/mL
							1,1,1-Trichloroethane	200 ug/mL
							1,1,2,2-Tetrachloroethane	200 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	200 ug/mL
							1,1,2-Trichloroethane	200 ug/mL
							1,1-Dichloroethane	200 ug/mL
							1,1-Dichloroethene	200 ug/mL
							1,1-Dichloropropene	200 ug/mL
							1,2,3-Trichlorobenzene	200 ug/mL
							1,2,3-Trichloropropane	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2,4-Trimethylbenzene	200 ug/mL
							1,2-Dibromo-3-Chloropropane	200 ug/mL
							1,2-Dibromoethane (EDB)	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Dichloroethane	200 ug/mL
							1,2-Dichloropropane	200 ug/mL
							1,3,5-Trimethylbenzene	200 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dichloropropane	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	4000 ug/mL
							2,2-Dichloropropane	200 ug/mL
							2-Chlorotoluene	200 ug/mL
							2-Methyl-2-propanol	2000 ug/mL
							3-Chloro-1-propene	200 ug/mL
							4-Chlorotoluene	200 ug/mL
							4-Isopropyltoluene	200 ug/mL
							Acrylonitrile	2000 ug/mL
							Benzene	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-42137-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromobenzene	200 ug/mL
							Bromochloromethane	200 ug/mL
							Bromodichloromethane	200 ug/mL
							Bromoform	200 ug/mL
							Carbon disulfide	200 ug/mL
							Carbon tetrachloride	200 ug/mL
							Chlorobenzene	200 ug/mL
							Chloroform	200 ug/mL
							cis-1,2-Dichloroethene	200 ug/mL
							cis-1,3-Dichloropropene	200 ug/mL
							Cyclohexane	200 ug/mL
							Dibromochloromethane	200 ug/mL
							Dibromomethane	200 ug/mL
							Ethyl ether	200 ug/mL
							Ethyl methacrylate	200 ug/mL
							Ethylbenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexane	200 ug/mL
							Iodomethane	200 ug/mL
							Isobutyl alcohol	5000 ug/mL
							Isopropylbenzene	200 ug/mL
							m-Xylene & p-Xylene	200 ug/mL
							Methyl acetate	1000 ug/mL
							Methyl tert-butyl ether	200 ug/mL
							Methylcyclohexane	200 ug/mL
							Methylene Chloride	200 ug/mL
							n-Butylbenzene	200 ug/mL
							n-Heptane	200 ug/mL
							N-Propylbenzene	200 ug/mL
							Naphthalene	200 ug/mL
							o-Xylene	200 ug/mL
							sec-Butylbenzene	200 ug/mL
							Styrene	200 ug/mL
							tert-Butylbenzene	200 ug/mL
							Tetrachloroethene	200 ug/mL
							Tetrahydrofuran	400 ug/mL
							Toluene	200 ug/mL
							trans-1,2-Dichloroethene	200 ug/mL
							trans-1,3-Dichloropropene	200 ug/mL
							trans-1,4-Dichloro-2-butene	200 ug/mL
							Trichloroethene	200 ug/mL
..VOA8260KET1ST_00036	02/28/16		Restek, Lot A093365			(Purchased Reagent)	2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
..VOA8260MEGA1_00027	02/28/16		Restek, Lot A093581			(Purchased Reagent)	1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-42137-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane (EDB)	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							1,4-Dioxane	40000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							2-Methyl-2-propanol	20000 ug/mL
							3-Chloro-1-propene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							4-Isopropyltoluene	2000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Cyclohexane	2000 ug/mL
							Dibromochloromethane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Ethyl ether	2000 ug/mL
							Ethyl methacrylate	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Hexane	2000 ug/mL
							Iodomethane	2000 ug/mL
							Isobutyl alcohol	50000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-42137-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl acetate	10000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylcyclohexane	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							n-Heptane	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Tetrahydrofuran	4000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							trans-1,4-Dichloro-2-butene	2000 ug/mL
							Trichloroethene	2000 ug/mL
<b>VOAACRPRI_00003</b>	03/31/15	03/03/15	Methanol, Lot 85233	100 mL	VOAACRORES_00064	0.125 mL	Acrolein	25 ug/mL
.VOAACRORES_00064	03/31/15		Restek, Lot A0107338		(Purchased Reagent)		Acrolein	20000 ug/mL
<b>VOAVAPRI_00005</b>	04/13/15	03/13/15	Methanol, Lot 85233	50 mL	VOA8260VARES_00050	0.25 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00050	07/31/15		Restek, Lot A0108225		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
<b>voaW8260voa2n_00005</b>	03/28/15	03/21/15	Methanol, Lot 85233	10 mL	VOA8260GAS2ND_00089	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOA2ND_00107	1.25 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.: 180-42137-1

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_00089	11/30/15		Restek, Lot A0108226			(Purchased Reagent)	Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOA2ND_00107	04/19/15	03/19/15	Methanol, Lot 85233	10 mL	VOA8260MEGA2_00011	1 mL	1,1,1,2-Tetrachloroethane	200 ug/mL
							1,1,1-Trichloroethane	200 ug/mL
							1,1,2,2-Tetrachloroethane	200 ug/mL
							1,1,2-Trichloroethane	200 ug/mL
							1,1-Dichloroethane	200 ug/mL
							1,1-Dichloroethene	200 ug/mL
							1,2-Dibromoethane (EDB)	200 ug/mL
							1,2-Dichloroethane	200 ug/mL
							1,2-Dichloropropane	200 ug/mL
							1,4-Dioxane	4000 ug/mL
							Acrylonitrile	2000 ug/mL
							Benzene	200 ug/mL
							Bromochloromethane	200 ug/mL
							Bromodichloromethane	200 ug/mL
							Bromoform	200 ug/mL
							Carbon disulfide	200 ug/mL
							Carbon tetrachloride	200 ug/mL
							Chlorobenzene	200 ug/mL
							Chloroform	200 ug/mL
							cis-1,2-Dichloroethene	200 ug/mL
							cis-1,3-Dichloropropene	200 ug/mL
							Dibromochloromethane	200 ug/mL
							Ethylbenzene	200 ug/mL
							Methyl tert-butyl ether	200 ug/mL
							Methylene Chloride	200 ug/mL
							Styrene	200 ug/mL
							Tetrachloroethene	200 ug/mL
							Toluene	200 ug/mL
							trans-1,2-Dichloroethene	200 ug/mL
							trans-1,3-Dichloropropene	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-42137-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichloroethene	200 ug/mL
							Xylenes, Total	400 ug/mL
..VOA8260MEGA2_00011	02/01/16		Restek, Lot A093733		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,2-Dibromoethane (EDB)	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,4-Dioxane	40000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Dibromochloromethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							Styrene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
							Xylenes, Total	4000 ug/mL
voaW8260voaPr_00005	03/28/15	03/21/15	Methanol, Lot 85233	10 mL	VOA8260GAS1ST_00090	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00106	1.25 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-Dichloroethane	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-42137-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00090	09/30/16		Restek, Lot A0108198			(Purchased Reagent)	Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00106	04/19/15	03/19/15	Methanol, Lot 85233	10 mL	VOA8260MEGA1_00014	1 mL	1,1,1,2-Tetrachloroethane	200 ug/mL
							1,1,1-Trichloroethane	200 ug/mL
							1,1,2,2-Tetrachloroethane	200 ug/mL
							1,1,2-Trichloroethane	200 ug/mL
							1,1-Dichloroethane	200 ug/mL
							1,1-Dichloroethene	200 ug/mL
							1,2-Dibromoethane (EDB)	200 ug/mL
							1,2-Dichloroethane	200 ug/mL
							1,2-Dichloropropane	200 ug/mL
							1,4-Dioxane	4000 ug/mL
							Acrylonitrile	2000 ug/mL
							Benzene	200 ug/mL
							Bromochloromethane	200 ug/mL
							Bromodichloromethane	200 ug/mL
							Bromoform	200 ug/mL
							Carbon disulfide	200 ug/mL
							Carbon tetrachloride	200 ug/mL
							Chlorobenzene	200 ug/mL
							Chloroform	200 ug/mL
							cis-1,2-Dichloroethene	200 ug/mL
							cis-1,3-Dichloropropene	200 ug/mL



REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-42137-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibromochloromethane	200 ug/mL
							Ethylbenzene	200 ug/mL
							Methyl tert-butyl ether	200 ug/mL
							Methylene Chloride	200 ug/mL
							Styrene	200 ug/mL
							Tetrachloroethene	200 ug/mL
							Toluene	200 ug/mL
							trans-1,2-Dichloroethene	200 ug/mL
							trans-1,3-Dichloropropene	200 ug/mL
							Trichloroethene	200 ug/mL
							Xylenes, Total	400 ug/mL
..VOA8260MEGA1_00014	02/28/16		Restek, Lot A093581		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,2-Dibromoethane (EDB)	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropene	2000 ug/mL
							1,4-Dioxane	40000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Dibromochloromethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							Styrene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
							Xylenes, Total	4000 ug/mL
voaWEEpri_Res_00003	03/30/15	03/02/15	Methanol, Lot 85233	25 mL	VOARESEE1ST_00008	0.125 mL	1,2-dichloro-4-(trifluoromethyl)benzene	25 ug/mL
							2,3,6-Trichlorotoluene	25 ug/mL
							2,4,5-Trichlorotoluene	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-42137-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00008	02/28/15		Restek, Lot A097285		(Purchased Reagent)		1,2-dichloro-4-(trifluoromethyl)benzene	5000 ug/mL
							2,3,6-Trichlorotoluene	5000 ug/mL
							2,4,5-Trichlorotoluene	5000 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
voaWKet2 Rest_00002	04/16/15	03/16/15	Methanol, Lot 85233	50 mL	VOA8260KET2ND_00042	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_00042	01/31/18		Restek, Lot A0108157		(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
voaWKetpri Re_00003	03/26/15	02/24/15	Methanol, Lot 85233	50 mL	VOA8260KET1ST_00037	0.125 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_00037	02/28/16		Restek, Lot A093365		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL

Reagent

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**VOA8260GAS1ST\_00090**



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. : 569722 Lot No.: A0108198

Description : 8260 List 1 / Std #3 Gases (2015)  
8260 List 1 / Std #3 Gases (2015) 2,000 ug/ml, P&T Methanol, 1 ml/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	Dichlorodifluoromethane (CFC-12) CAS # 75-71-8 (Lot Q167-08) Purity 99%	2,504.8 µg/mL	+/- 21.9788 µg/mL +/- 32.6918 µg/mL +/- 36.4326 µg/mL	Gravimetric Unstressed Stressed	
2	Chloromethane (methyl chloride) CAS # 74-87-3 (Lot SHBC8470V) Purity 99%	2,509.8 µg/mL	+/- 19.6377 µg/mL +/- 31.2039 µg/mL +/- 35.1185 µg/mL	Gravimetric Unstressed Stressed	
3	Vinyl chloride CAS # 75-01-4 (Lot 17542) Purity 99%	2,515.3 µg/mL	+/- 22.1368 µg/mL +/- 32.8734 µg/mL +/- 36.6254 µg/mL	Gravimetric Unstressed Stressed	
4	1,3-Butadiene CAS # 106-99-0 (Lot SHBD5808V) Purity 99%	2,498.0 µg/mL	+/- 23.6713 µg/mL +/- 33.8065 µg/mL +/- 37.4176 µg/mL	Gravimetric Unstressed Stressed	
5	Bromomethane (methyl bromide) CAS # 74-83-9 (Lot 101604) Purity 99%	2,503.7 µg/mL	+/- 30.8470 µg/mL +/- 39.2011 µg/mL +/- 42.3685 µg/mL	Gravimetric Unstressed Stressed	
6	Chloroethane (ethyl chloride) CAS # 75-00-3 (Lot SHBD1717V) Purity 99%	2,507.7 µg/mL	+/- 21.9404 µg/mL +/- 32.6873 µg/mL +/- 36.4370 µg/mL	Gravimetric Unstressed Stressed	
7	Dichlorofluoromethane (CFC-21) CAS # 75-43-4 (Lot Q9B-58) Purity 99%	2,500.7 µg/mL	+/- 26.0039 µg/mL +/- 35.4965 µg/mL +/- 38.9583 µg/mL	Gravimetric Unstressed Stressed	

8	Trichlorofluoromethane (CFC-11)	2,501.9 µg/mL	+/- 21.5914	µg/mL	Gravimetric
	CAS # 75-69-4 (Lot SHBD5121V)		+/- 32.4119	µg/mL	Unstressed
	Purity 99%		+/- 36.1734	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:**

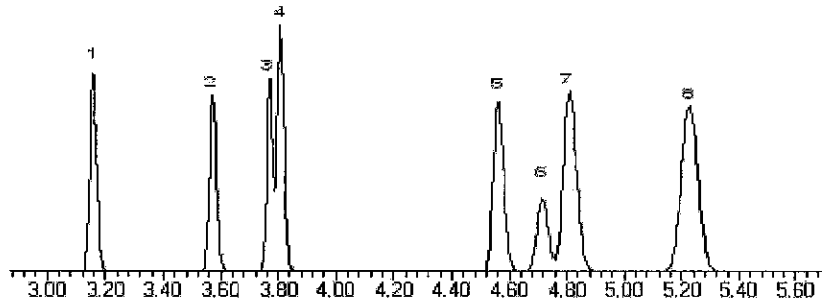
200°C

**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: 08-Jan-2015 Balance: 1125113331

*Jennifer L. Pollino*  
Jennifer L. Pollino - QC Analyst

Date Passed: 14-Jan-2015

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

Reagent

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**VOA8260GAS1ST\_00091**



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.: A0108198

Description : 8260 List 1 / Std #3 Gases (2015)  
8260 List 1 / Std #3 Gases (2015) 2,000 ug/ml, P&T Methanol, 1 ml/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	Dichlorodifluoromethane (CFC-12) CAS # 75-71-8 (Lot Q167-08) Purity 99%	2,504.8 µg/mL	+/- 21.9788 µg/mL +/- 32.6918 µg/mL +/- 36.4326 µg/mL	Gravimetric Unstressed Stressed	
2	Chloromethane (methyl chloride) CAS # 74-87-3 (Lot SHBC8470V) Purity 99%	2,509.8 µg/mL	+/- 19.6377 µg/mL +/- 31.2039 µg/mL +/- 35.1185 µg/mL	Gravimetric Unstressed Stressed	
3	Vinyl chloride CAS # 75-01-4 (Lot 17542) Purity 99%	2,515.3 µg/mL	+/- 22.1368 µg/mL +/- 32.8734 µg/mL +/- 36.6254 µg/mL	Gravimetric Unstressed Stressed	
4	1,3-Butadiene CAS # 106-99-0 (Lot SHBD5808V) Purity 99%	2,498.0 µg/mL	+/- 23.6713 µg/mL +/- 33.8065 µg/mL +/- 37.4176 µg/mL	Gravimetric Unstressed Stressed	
5	Bromomethane (methyl bromide) CAS # 74-83-9 (Lot 101604) Purity 99%	2,503.7 µg/mL	+/- 30.8470 µg/mL +/- 39.2011 µg/mL +/- 42.3685 µg/mL	Gravimetric Unstressed Stressed	
6	Chloroethane (ethyl chloride) CAS # 75-00-3 (Lot SHBD1717V) Purity 99%	2,507.7 µg/mL	+/- 21.9404 µg/mL +/- 32.6873 µg/mL +/- 36.4370 µg/mL	Gravimetric Unstressed Stressed	
7	Dichlorofluoromethane (CFC-21) CAS # 75-43-4 (Lot Q9B-58) Purity 99%	2,500.7 µg/mL	+/- 26.0039 µg/mL +/- 35.4965 µg/mL +/- 38.9583 µg/mL	Gravimetric Unstressed Stressed	

8	Trichlorofluoromethane (CFC-11)	2,501.9 µg/mL	+/- 21.5914	µg/mL	Gravimetric
	CAS # 75-69-4 (Lot SHBD5121V)		+/- 32.4119	µg/mL	Unstressed
	Purity 99%		+/- 36.1734	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:**

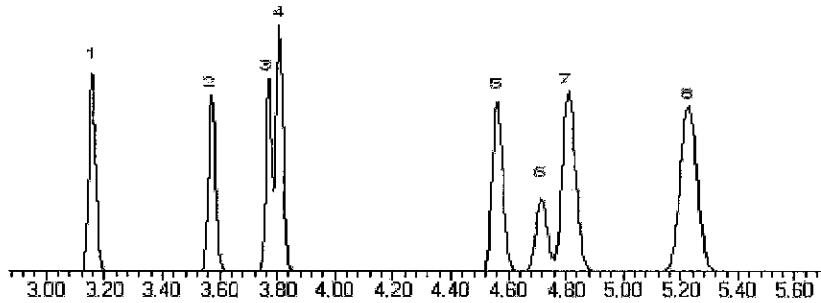
200°C

**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: 08-Jan-2015 Balance: 1125113331

*Jennifer L. Pollino*  
Jennifer L. Pollino - QC Analyst

Date Passed: 14-Jan-2015

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



Reagent

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**VOA8260GAS2ND\_00089**

# RESTEK® CERTIFIED REFERENCE MATERIAL

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## Certificate of Analysis



**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

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

**Catalog No. :** 569722.sec **Lot No.:** A0108226  
**Description :** 8260 List 1 / Std #3 Gases (2015)  
8260 List 1 / Std #3 Gases (2015) 2,000 ug/ml, P&T Methanol, 1 ml/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	Dichlorodifluoromethane (CFC-12) CAS # 75-71-8.SEC (Lot 19630) Purity 99%	2,494.8 µg/mL	+/- 23.5521 µg/mL +/- 33.7009 µg/mL +/- 37.3133 µg/mL	Gravimetric Unstressed Stressed	
2	Chloromethane (methyl chloride) CAS # 74-87-3.SEC (Lot 18343) Purity 99%	2,505.6 µg/mL	+/- 26.4745 µg/mL +/- 35.8743 µg/mL +/- 39.3156 µg/mL	Gravimetric Unstressed Stressed	
3	Vinyl chloride CAS # 75-01-4.SEC (Lot MKBK6872V) Purity 99%	2,499.8 µg/mL	+/- 25.3054 µg/mL +/- 34.9816 µg/mL +/- 38.4872 µg/mL	Gravimetric Unstressed Stressed	
4	1,3-Butadiene CAS # 106-99-0.SEC (Lot 18349) Purity 99%	2,505.4 µg/mL	+/- 23.1450 µg/mL +/- 33.4914 µg/mL +/- 37.1536 µg/mL	Gravimetric Unstressed Stressed	
5	Bromomethane (methyl bromide) CAS # 74-83-9.SEC (Lot Q119-46) Purity 99%	2,495.4 µg/mL	+/- 25.3762 µg/mL +/- 35.0038 µg/mL +/- 38.4957 µg/mL	Gravimetric Unstressed Stressed	
6	Chloroethane (ethyl chloride) CAS # 75-00-3.SEC (Lot Q18B-13) Purity 99%	2,499.5 µg/mL	+/- 21.8687 µg/mL +/- 32.5806 µg/mL +/- 36.3180 µg/mL	Gravimetric Unstressed Stressed	
7	Dichlorofluoromethane (CFC-21) CAS # 75-43-4.SEC (Lot SHBC0858V) Purity 99%	2,511.0 µg/mL	+/- 21.9690 µg/mL +/- 32.7299 µg/mL +/- 36.4846 µg/mL	Gravimetric Unstressed Stressed	

8	Trichlorofluoromethane (CFC-11)	2,504.4	µg/mL	+/-	25.2390	µg/mL	Gravimetric
	CAS # 75-69-4,SEC (Lot Q158-102)			+/-	34.9647	µg/mL	Unstressed
	Purity 99%			+/-	38.4843	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:**

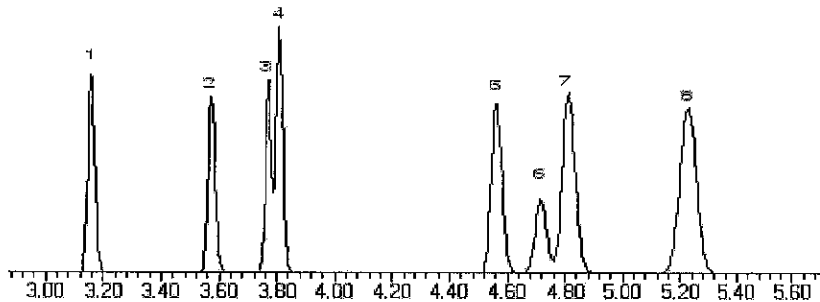
200°C

**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.

*Michael Maje*

**Date Mixed:** 12-Jan-2015      **Balance:** 1127510105

*Jennifer L. Pollino*

Jennifer L. Pollino - QC Analyst

**Date Passed:** 14-Jan-2015

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

Reagent

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**VOA8260INTRES\_00091**



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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. :** 567649 **Lot No.:** A0104742  
**Description :** 8260 Internal Standard  
8260 Internal Standard 250-5,000 ug/ml, P&T Methanol, 5 ml/ampul  
**Container Size :** 5 mL **Pkg Amt:** > 5 mL  
**Expiration Date :** July 31, 2019 **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 I201P5)	5,003.0 µg/mL	+/- 29.0879	µg/mL	Gravimetric
			+/- 106.1005	µg/mL	Unstressed
			+/- 106.5713	µg/mL	Stressed
2	Fluorobenzene CAS # 462-06-6 Purity 99% (Lot 1380033)	250.8 µg/mL	+/- 1.4795	µg/mL	Gravimetric
			+/- 5.3247	µg/mL	Unstressed
			+/- 5.3483	µg/mL	Stressed
3	1,4-Dioxane-d8 CAS # 17647-74-4 Purity 99% (Lot 11C-596)	5,009.6 µg/mL	+/- 29.1262	µg/mL	Gravimetric
			+/- 106.2405	µg/mL	Unstressed
			+/- 106.7119	µg/mL	Stressed
4	Chlorobenzene-d5 CAS # 3114-55-4 Purity 99% (Lot PR-22736)	250.8 µg/mL	+/- 1.4795	µg/mL	Gravimetric
			+/- 5.3247	µg/mL	Unstressed
			+/- 5.3483	µg/mL	Stressed
5	1,4-Dichlorobenzene-d4 CAS # 3855-82-1 Purity 99% (Lot PR-18488)	250.8 µg/mL	+/- 1.4795	µg/mL	Gravimetric
			+/- 5.3247	µg/mL	Unstressed
			+/- 5.3483	µg/mL	Stressed

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

Reagent

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**VOA8260KET1ST\_00036**



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## Certificate of Analysis

**FOR LABORATORY USE ONLY-READ MSDS 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. :** 567642 **Lot No.:** A093365  
**Description :** 8260 List 1 / Std #2 Ketones  
8260 List 1 / Std #2 Ketones 10,000 ug/ml, P&T Methanol/Water (90:10), 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** February 2016 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 67-64-1		+/-	798.6896	µg/mL	Unstressed
	Purity 99%		+/-	799.0807	µg/mL	Stressed
2	2-Butanone (MEK)	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 78-93-3		+/-	798.6896	µg/mL	Unstressed
	Purity 99%		+/-	799.0807	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 108-10-1		+/-	798.6896	µg/mL	Unstressed
	Purity 99%		+/-	799.0807	µg/mL	Stressed
4	2-Hexanone	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 591-78-6		+/-	798.6896	µg/mL	Unstressed
	Purity 99%		+/-	799.0807	µg/mL	Stressed

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

Reagent

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**VOA8260KET1ST\_00037**





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## Certificate of Analysis

**FOR LABORATORY USE ONLY-READ MSDS 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. :** 567642 **Lot No.:** A093365  
**Description :** 8260 List 1 / Std #2 Ketones  
8260 List 1 / Std #2 Ketones 10,000 ug/ml, P&T Methanol/Water (90:10), 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** February 2016 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 67-64-1		+/-	798.6896	µg/mL	Unstressed
	Purity 99%		+/-	799.0807	µg/mL	Stressed
2	2-Butanone (MEK)	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 78-93-3		+/-	798.6896	µg/mL	Unstressed
	Purity 99%		+/-	799.0807	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 108-10-1		+/-	798.6896	µg/mL	Unstressed
	Purity 99%		+/-	799.0807	µg/mL	Stressed
4	2-Hexanone	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 591-78-6		+/-	798.6896	µg/mL	Unstressed
	Purity 99%		+/-	799.0807	µg/mL	Stressed

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

Reagent

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**VOA8260KET2ND\_00042**



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## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 569721.SEC                      **Lot No.:** A0108157

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

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

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

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acetone	12,504.0 µg/mL	+/-	73.2137 µg/mL	Gravimetric
	CAS # 67-64-1.SEC (Lot 0902033)		+/-	665.4917 µg/mL	Unstressed
	Purity 99%		+/-	666.2255 µg/mL	Stressed
2	2-Butanone (MEK)	12,506.0 µg/mL	+/-	73.2254 µg/mL	Gravimetric
	CAS # 78-93-3.SEC (Lot VEGGI)		+/-	665.5981 µg/mL	Unstressed
	Purity 99%		+/-	666.3320 µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,537.3 µg/mL	+/-	73.4088 µg/mL	Gravimetric
	CAS # 108-10-1.SEC (Lot E29T040)		+/-	667.2658 µg/mL	Unstressed
	Purity 99%		+/-	668.0015 µg/mL	Stressed
4	2-Hexanone	12,508.7 µg/mL	+/-	73.2410 µg/mL	Gravimetric
	CAS # 591-78-6.SEC (Lot ZSVCD-FF)		+/-	665.7401 µg/mL	Unstressed
	Purity 99%		+/-	666.4741 µg/mL	Stressed

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

Reagent

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**VOA8260MEGA1\_00014**



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## Certificate of Analysis

**FOR LABORATORY USE ONLY-READ MSDS 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. :** 567641 **Lot No.:** A093581  
**Description :** 8260 List 1 / Std #1 MegaMix  
8260 List 1 / Std #1 MegaMix 1000-50,000 µg/ml, P&T Methanol, 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** February 2016 **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)	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 60-29-7		+/-	44.2531	µg/mL	Unstressed
	Purity 99%		+/-	44.4335	µg/mL	Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113)	1,999.9 µg/mL	+/-	11.6279	µg/mL	Gravimetric
	CAS # 76-13-1		+/-	44.2519	µg/mL	Unstressed
	Purity 97%		+/-	44.4323	µg/mL	Stressed
3	1,1-dichloroethene	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 75-35-4		+/-	44.2527	µg/mL	Unstressed
	Purity 98%		+/-	44.4331	µg/mL	Stressed
4	tert-Butanol (TBA)	20,000.0 µg/mL	+/-	116.2756	µg/mL	Gravimetric
	CAS # 75-65-0		+/-	442.5291	µg/mL	Unstressed
	Purity 99%		+/-	444.3332	µg/mL	Stressed
5	Iodomethane (methyl iodide)	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 74-88-4		+/-	44.2531	µg/mL	Unstressed
	Purity 99%		+/-	44.4335	µg/mL	Stressed
6	Allyl chloride (3-chloropropene)	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 107-05-1		+/-	44.2527	µg/mL	Unstressed
	Purity 98%		+/-	44.4331	µg/mL	Stressed
7	Methyl acetate	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 79-20-9		+/-	221.2646	µg/mL	Unstressed
	Purity 99%		+/-	222.1666	µg/mL	Stressed
8	Carbon disulfide	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 75-15-0		+/-	44.2527	µg/mL	Unstressed
	Purity 98%		+/-	44.4331	µg/mL	Stressed
9	Methylene chloride (dichloromethane)	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-09-2		+/-	44.2531	µg/mL	Unstressed
	Purity 99%		+/-	44.4335	µg/mL	Stressed

10	Acrylonitrile	20,000.0	µg/mL	+/-	116.2756	µg/mL	Gravimetric
	CAS # 107-13-1				442.5291		Unstressed
	Purity 99%				444.3332		Stressed
11	Methyl-tert-butyl ether ( MTBE )	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 1634-04-4				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
12	cis-1,2-Dichloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 156-59-2				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
13	n-Hexane (C6)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 110-54-3				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
14	1,1-Dichloroethane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 75-34-3				44.2527		Unstressed
	Purity 98%				44.4331		Stressed
15	2,2-Dichloropropane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 594-20-7				44.2527		Unstressed
	Purity 98%				44.4331		Stressed
16	trans-1,2-Dichloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 156-60-5				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
17	chloroform	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 67-66-3				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
18	Isobutanol (2-Methyl-1-propanol)	50,000.0	µg/mL	+/-	290.6891	µg/mL	Gravimetric
	CAS # 78-83-1				1,106.3228		Unstressed
	Purity 99%				1,110.8331		Stressed
19	Bromochloromethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 74-97-5				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
20	Tetrahydrofuran	4,000.0	µg/mL	+/-	23.2563	µg/mL	Gravimetric
	CAS # 109-99-9				88.5061		Unstressed
	Purity 99%				88.8670		Stressed
21	1,1,1-trichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 71-55-6				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
22	Cyclohexane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 110-82-7				44.2527		Unstressed
	Purity 98%				44.4331		Stressed
23	1,1-Dichloropropene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 563-58-6				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
24	carbon tetrachloride	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 56-23-5				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
25	n-Heptane (C7)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 142-82-5				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
26	Benzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 71-43-2				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
27	1,2-Dichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 107-06-2				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
28	Trichloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-01-6				44.2531		Unstressed
	Purity 99%				44.4335		Stressed

29	Methylcyclohexane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 108-87-2			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
30	1,2-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 78-87-5			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
31	1,4-Dioxane	40,000.0	µg/mL	+/-	232.5513	µg/mL	Gravimetric	
	CAS # 123-91-1			+/-	885.0582		µg/mL	Unstressed
	Purity 99%			+/-	888.6665		µg/mL	Stressed
32	Dibromomethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 74-95-3			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
33	bromodichloromethane	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric	
	CAS # 75-27-4			+/-	44.2540		µg/mL	Unstressed
	Purity 97%			+/-	44.4344		µg/mL	Stressed
34	cis-1,3-Dichloropropene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 10061-01-5			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
35	Toluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 108-88-3			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
36	Ethyl methacrylate	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 97-63-2			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
37	trans-1,3-Dichloropropene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric	
	CAS # 10061-02-6			+/-	44.2540		µg/mL	Unstressed
	Purity 97%			+/-	44.4344		µg/mL	Stressed
38	1,1,2-Trichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 79-00-5			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
39	1,3-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 142-28-9			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
40	Tetrachloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 127-18-4			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
41	dibromochloromethane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric	
	CAS # 124-48-1			+/-	44.2527		µg/mL	Unstressed
	Purity 98%			+/-	44.4331		µg/mL	Stressed
42	1,2-Dibromoethane (EDB)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 106-93-4			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
43	Chlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 108-90-7			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
44	1,1,1,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 630-20-6			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
45	m-Xylene	1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric	
	CAS # 108-38-3			+/-	22.1265		µg/mL	Unstressed
	Purity 99%			+/-	22.2167		µg/mL	Stressed
46	p-Xylene	1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric	
	CAS # 106-42-3			+/-	22.1265		µg/mL	Unstressed
	Purity 99%			+/-	22.2167		µg/mL	Stressed
47	o-Xylene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 95-47-6			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed

48	Ethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-41-4				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
49	Styrene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-42-5				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
50	Isopropylbenzene (cumene)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-82-8				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
51	bromoform	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-25-2				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
52	1,1,1,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-34-5				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
53	1,2,3-Trichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 96-18-4				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
54	trans-1,4-dichloro-2-butene	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 110-57-6				44.2527		Unstressed
	Purity 98%				44.4331		Stressed
55	n-Propylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 103-65-1				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
56	Bromobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-86-1				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
57	1,3,5-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-67-8				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
58	2-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-49-8				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
59	4-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-43-4				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
60	tert-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-06-6				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
61	1,2,4-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 95-63-6				44.2527		Unstressed
	Purity 98%				44.4331		Stressed
62	sec-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 135-98-8				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
63	4-Isopropyltoluene (p-Cymene)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 99-87-6				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
64	1,3-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 541-73-1				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
65	1,4-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-46-7				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
66	n-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 104-51-8				44.2531		Unstressed
	Purity 99%				44.4335		Stressed



67	1,2-Dichlorobenzene	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-50-1			44.2531	µg/mL	Unstressed
	Purity 99%			44.4335	µg/mL	Stressed
68	1,2-Dibromo-3-chloropropane	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 96-12-8			44.2531	µg/mL	Unstressed
	Purity 99%			44.4335	µg/mL	Stressed
69	1,2,4-Trichlorobenzene	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 120-82-1			44.2531	µg/mL	Unstressed
	Purity 99%			44.4335	µg/mL	Stressed
70	Hexachlorobutadiene	2,000.0 µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 87-68-3			44.2540	µg/mL	Unstressed
	Purity 97%			44.4344	µg/mL	Stressed
71	Naphthalene	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 91-20-3			44.2531	µg/mL	Unstressed
	Purity 99%			44.4335	µg/mL	Stressed
72	1,2,3-Trichlorobenzene	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 87-61-6			44.2531	µg/mL	Unstressed
	Purity 99%			44.4335	µg/mL	Stressed

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

**Column:**  
60m x .25mm x 1.4µm  
Rtx-502.2 (cat.#10916)

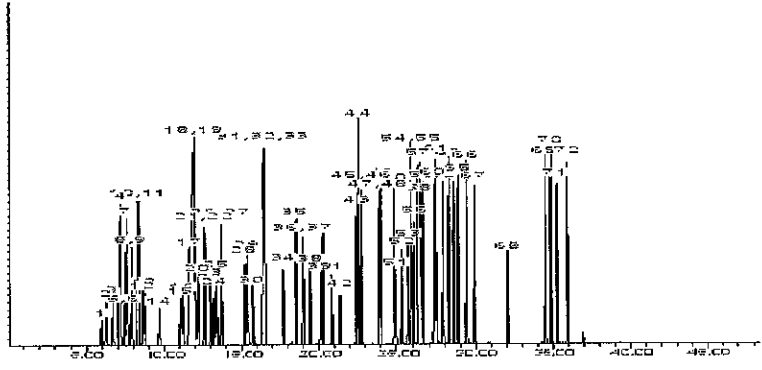
**Carrier Gas:**  
helium-constant pressure 30 psi

**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



*Jennifer L. Pollino*  
Jennifer L. Pollino - QC Analyst

Date Passed: 01-Mar-2013 Balance: B251644995

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

Reagent

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**VOA8260MEGA1\_00027**



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 MSDS 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. :** 567641 **Lot No.:** A093581  
**Description :** 8260 List 1 / Std #1 MegaMix  
8260 List 1 / Std #1 MegaMix 1000-50,000 µg/ml, P&T Methanol, 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** February 2016 **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)	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 60-29-7		+/-	44.2531	µg/mL	Unstressed
	Purity 99%		+/-	44.4335	µg/mL	Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113)	1,999.9 µg/mL	+/-	11.6279	µg/mL	Gravimetric
	CAS # 76-13-1		+/-	44.2519	µg/mL	Unstressed
	Purity 97%		+/-	44.4323	µg/mL	Stressed
3	1,1-dichloroethene	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 75-35-4		+/-	44.2527	µg/mL	Unstressed
	Purity 98%		+/-	44.4331	µg/mL	Stressed
4	tert-Butanol (TBA)	20,000.0 µg/mL	+/-	116.2756	µg/mL	Gravimetric
	CAS # 75-65-0		+/-	442.5291	µg/mL	Unstressed
	Purity 99%		+/-	444.3332	µg/mL	Stressed
5	Iodomethane (methyl iodide)	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 74-88-4		+/-	44.2531	µg/mL	Unstressed
	Purity 99%		+/-	44.4335	µg/mL	Stressed
6	Allyl chloride (3-chloropropene)	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 107-05-1		+/-	44.2527	µg/mL	Unstressed
	Purity 98%		+/-	44.4331	µg/mL	Stressed
7	Methyl acetate	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 79-20-9		+/-	221.2646	µg/mL	Unstressed
	Purity 99%		+/-	222.1666	µg/mL	Stressed
8	Carbon disulfide	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 75-15-0		+/-	44.2527	µg/mL	Unstressed
	Purity 98%		+/-	44.4331	µg/mL	Stressed
9	Methylene chloride (dichloromethane)	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-09-2		+/-	44.2531	µg/mL	Unstressed
	Purity 99%		+/-	44.4335	µg/mL	Stressed

10	Acrylonitrile	20,000.0	µg/mL	+/-	116.2756	µg/mL	Gravimetric
	CAS # 107-13-1				442.5291		Unstressed
	Purity 99%				444.3332		Stressed
11	Methyl-tert-butyl ether ( MTBE )	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 1634-04-4				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
12	cis-1,2-Dichloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 156-59-2				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
13	n-Hexane (C6)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 110-54-3				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
14	1,1-Dichloroethane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 75-34-3				44.2527		Unstressed
	Purity 98%				44.4331		Stressed
15	2,2-Dichloropropane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 594-20-7				44.2527		Unstressed
	Purity 98%				44.4331		Stressed
16	trans-1,2-Dichloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 156-60-5				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
17	chloroform	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 67-66-3				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
18	Isobutanol (2-Methyl-1-propanol)	50,000.0	µg/mL	+/-	290.6891	µg/mL	Gravimetric
	CAS # 78-83-1				1,106.3228		Unstressed
	Purity 99%				1,110.8331		Stressed
19	Bromochloromethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 74-97-5				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
20	Tetrahydrofuran	4,000.0	µg/mL	+/-	23.2563	µg/mL	Gravimetric
	CAS # 109-99-9				88.5061		Unstressed
	Purity 99%				88.8670		Stressed
21	1,1,1-trichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 71-55-6				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
22	Cyclohexane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 110-82-7				44.2527		Unstressed
	Purity 98%				44.4331		Stressed
23	1,1-Dichloropropene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 563-58-6				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
24	carbon tetrachloride	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 56-23-5				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
25	n-Heptane (C7)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 142-82-5				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
26	Benzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 71-43-2				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
27	1,2-Dichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 107-06-2				44.2531		Unstressed
	Purity 99%				44.4335		Stressed
28	Trichloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-01-6				44.2531		Unstressed
	Purity 99%				44.4335		Stressed

29	Methylcyclohexane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 108-87-2			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
30	1,2-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 78-87-5			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
31	1,4-Dioxane	40,000.0	µg/mL	+/-	232.5513	µg/mL	Gravimetric	
	CAS # 123-91-1			+/-	885.0582		µg/mL	Unstressed
	Purity 99%			+/-	888.6665		µg/mL	Stressed
32	Dibromomethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 74-95-3			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
33	bromodichloromethane	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric	
	CAS # 75-27-4			+/-	44.2540		µg/mL	Unstressed
	Purity 97%			+/-	44.4344		µg/mL	Stressed
34	cis-1,3-Dichloropropene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 10061-01-5			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
35	Toluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 108-88-3			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
36	Ethyl methacrylate	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 97-63-2			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
37	trans-1,3-Dichloropropene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric	
	CAS # 10061-02-6			+/-	44.2540		µg/mL	Unstressed
	Purity 97%			+/-	44.4344		µg/mL	Stressed
38	1,1,2-Trichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 79-00-5			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
39	1,3-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 142-28-9			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
40	Tetrachloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 127-18-4			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
41	dibromochloromethane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric	
	CAS # 124-48-1			+/-	44.2527		µg/mL	Unstressed
	Purity 98%			+/-	44.4331		µg/mL	Stressed
42	1,2-Dibromoethane (EDB)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 106-93-4			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
43	Chlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 108-90-7			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
44	1,1,1,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 630-20-6			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
45	m-Xylene	1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric	
	CAS # 108-38-3			+/-	22.1265		µg/mL	Unstressed
	Purity 99%			+/-	22.2167		µg/mL	Stressed
46	p-Xylene	1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric	
	CAS # 106-42-3			+/-	22.1265		µg/mL	Unstressed
	Purity 99%			+/-	22.2167		µg/mL	Stressed
47	o-Xylene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 95-47-6			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed

48	Ethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-41-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
49	Styrene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-42-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
50	Isopropylbenzene (cumene)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-82-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
51	bromoform	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-25-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
52	1,1,1,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-34-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
53	1,2,3-Trichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 96-18-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
54	trans-1,4-dichloro-2-butene	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 110-57-6			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
55	n-Propylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 103-65-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
56	Bromobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-86-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
57	1,3,5-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-67-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
58	2-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-49-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
59	4-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-43-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
60	tert-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-06-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
61	1,2,4-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 95-63-6			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
62	sec-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 135-98-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
63	4-Isopropyltoluene (p-Cymene)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 99-87-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
64	1,3-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 541-73-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
65	1,4-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-46-7			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
66	n-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 104-51-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

67	1,2-Dichlorobenzene CAS # 95-50-1 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane CAS # 96-12-8 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene CAS # 87-68-3 Purity 97%	2,000.0 µg/mL	+/- 11.6284 +/- 44.2540 +/- 44.4344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene CAS # 91-20-3 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
72	1,2,3-Trichlorobenzene CAS # 87-61-6 Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
<b>Solvent:</b>	P&T Methanol CAS # 67-56-1 Purity 99%				

**Column:**  
60m x .25mm x 1.4µm  
Rtx-502.2 (cat.#10916)

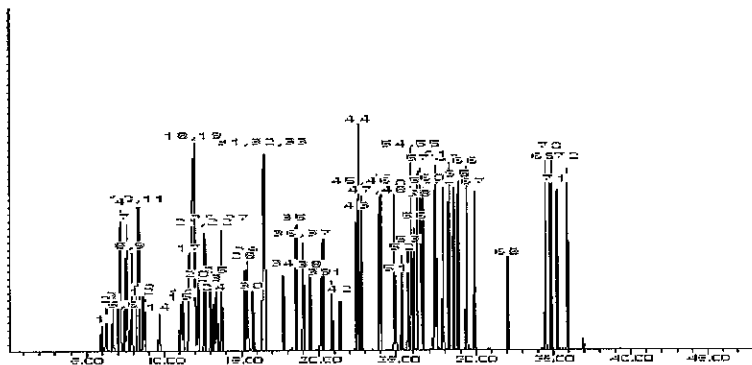
**Carrier Gas:**  
helium-constant pressure 30 psi

**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



*Jennifer L. Pollino*  
Jennifer L. Pollino - QC Analyst

Date Passed: 01-Mar-2013

Balance: B251644995

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

Reagent

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**VOA8260MEGA2\_00011**





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 MSDS 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. :** 567641.sec **Lot No.:** A093733  
**Description :** 8260 List 1 / Std #1 MegaMix  
8260 List 1 / Std #1 MegaMix 1,000-50,000 µg/ml, P&T Methanol, 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** February 2016 **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)	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 60-29-7.SEC		+/-	44.2531	µg/mL	Unstressed
	Purity 99%		+/-	44.4335	µg/mL	Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113)	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 76-13-1.SEC		+/-	44.2531	µg/mL	Unstressed
	Purity 99%		+/-	44.4335	µg/mL	Stressed
3	1,1-Dichloroethene	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-35-4.SEC		+/-	44.2531	µg/mL	Unstressed
	Purity 99%		+/-	44.4335	µg/mL	Stressed
4	tert-Butanol (TBA)	20,000.0 µg/mL	+/-	116.2756	µg/mL	Gravimetric
	CAS # 75-65-0.SEC		+/-	442.5291	µg/mL	Unstressed
	Purity 99%		+/-	444.3332	µg/mL	Stressed
5	Iodomethane (methyl iodide)	2,000.0 µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 74-88-4.SEC		+/-	44.2540	µg/mL	Unstressed
	Purity 97%		+/-	44.4344	µg/mL	Stressed
6	Allyl chloride (3-chloropropene)	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 107-05-1.SEC		+/-	44.2527	µg/mL	Unstressed
	Purity 98%		+/-	44.4331	µg/mL	Stressed
7	Methyl acetate	10,000.0 µg/mL	+/-	58.1378	µg/mL	Gravimetric
	CAS # 79-20-9.SEC		+/-	221.2646	µg/mL	Unstressed
	Purity 99%		+/-	222.1666	µg/mL	Stressed
8	Carbon disulfide	2,000.0 µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 75-15-0.SEC		+/-	44.2527	µg/mL	Unstressed
	Purity 98%		+/-	44.4331	µg/mL	Stressed
9	Methylene chloride (dichloromethane)	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-09-2.SEC		+/-	44.2531	µg/mL	Unstressed
	Purity 99%		+/-	44.4335	µg/mL	Stressed

10	Acrylonitrile	20,000.0	µg/mL	+/-	116.2756	µg/mL	Gravimetric	
	CAS # 107-13-1.SEC			+/-	442.5291		µg/mL	Unstressed
	Purity 99%			+/-	444.3332		µg/mL	Stressed
11	Methyl-tert-butyl ether ( MTBE )	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 1634-04-4.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
12	cis-1,2-Dichloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 156-59-2.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
13	n-Hexane (C6)	2,000.1	µg/mL	+/-	11.6286	µg/mL	Gravimetric	
	CAS # 110-54-3.SEC			+/-	44.2549		µg/mL	Unstressed
	Purity 98%			+/-	44.4353		µg/mL	Stressed
14	1,1-Dichloroethane	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric	
	CAS # 75-34-3.SEC			+/-	44.2540		µg/mL	Unstressed
	Purity 97%			+/-	44.4344		µg/mL	Stressed
15	2,2-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 594-20-7.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
16	trans-1,2-Dichloroethene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric	
	CAS # 156-60-5.SEC			+/-	44.2540		µg/mL	Unstressed
	Purity 97%			+/-	44.4344		µg/mL	Stressed
17	Chloroform	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 67-66-3.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
18	Isobutanol (2-Methyl-1-propanol)	50,000.0	µg/mL	+/-	290.6891	µg/mL	Gravimetric	
	CAS # 78-83-1.SEC			+/-	1,106.3228		µg/mL	Unstressed
	Purity 99%			+/-	1,110.8331		µg/mL	Stressed
19	Bromochloromethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 74-97-5.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
20	Tetrahydrofuran	4,000.0	µg/mL	+/-	23.2563	µg/mL	Gravimetric	
	CAS # 109-99-9.SEC			+/-	88.5061		µg/mL	Unstressed
	Purity 99%			+/-	88.8670		µg/mL	Stressed
21	1,1,1-Trichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 71-55-6.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
22	Cyclohexane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 110-82-7.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
23	1,1-Dichloropropene	2,010.5	µg/mL	+/-	11.6890	µg/mL	Gravimetric	
	CAS # 563-58-6.SEC			+/-	44.4847		µg/mL	Unstressed
	Purity 98%			+/-	44.6661		µg/mL	Stressed
24	Carbon tetrachloride	2,000.1	µg/mL	+/-	11.6286	µg/mL	Gravimetric	
	CAS # 56-23-5.SEC			+/-	44.2549		µg/mL	Unstressed
	Purity 98%			+/-	44.4353		µg/mL	Stressed
25	n-Heptane (C7)	2,000.1	µg/mL	+/-	11.6288	µg/mL	Gravimetric	
	CAS # 142-82-5.SEC			+/-	44.2553		µg/mL	Unstressed
	Purity 99%			+/-	44.4357		µg/mL	Stressed
26	Benzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 71-43-2.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
27	1,2-Dichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric	
	CAS # 107-06-2.SEC			+/-	44.2531		µg/mL	Unstressed
	Purity 99%			+/-	44.4335		µg/mL	Stressed
28	Trichloroethene	2,000.1	µg/mL	+/-	11.6286	µg/mL	Gravimetric	
	CAS # 79-01-6.SEC			+/-	44.2549		µg/mL	Unstressed
	Purity 98%			+/-	44.4353		µg/mL	Stressed

29	Methylcyclohexane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-87-2.SEC			+/-	44.2531		Unstressed
	Purity 99%			+/-	44.4335		Stressed
30	1,2-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 78-87-5.SEC			+/-	44.2531		Unstressed
	Purity 99%			+/-	44.4335		Stressed
31	1,4-Dioxane	40,000.0	µg/mL	+/-	232.5513	µg/mL	Gravimetric
	CAS # 123-91-1.SEC			+/-	885.0582		Unstressed
	Purity 99%			+/-	888.6665		Stressed
32	Dibromomethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 74-95-3.SEC			+/-	44.2531		Unstressed
	Purity 99%			+/-	44.4335		Stressed
33	Bromodichloromethane	2,000.1	µg/mL	+/-	11.6290	µg/mL	Gravimetric
	CAS # 75-27-4.SEC			+/-	44.2562		Unstressed
	Purity 97%			+/-	44.4366		Stressed
34	cis-1,3-Dichloropropene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 10061-01-5.SEC			+/-	44.2531		Unstressed
	Purity 99%			+/-	44.4335		Stressed
35	Toluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-88-3.SEC			+/-	44.2531		Unstressed
	Purity 99%			+/-	44.4335		Stressed
36	Ethyl methacrylate	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 97-63-2.SEC			+/-	44.2531		Unstressed
	Purity 99%			+/-	44.4335		Stressed
37	trans-1,3-Dichloropropene	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 10061-02-6.SEC			+/-	44.2527		Unstressed
	Purity 98%			+/-	44.4331		Stressed
38	1,1,2-Trichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-00-5.SEC			+/-	44.2531		Unstressed
	Purity 99%			+/-	44.4335		Stressed
39	1,3-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 142-28-9.SEC			+/-	44.2531		Unstressed
	Purity 99%			+/-	44.4335		Stressed
40	Tetrachloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 127-18-4.SEC			+/-	44.2531		Unstressed
	Purity 99%			+/-	44.4335		Stressed
41	Dibromochloromethane	2,000.1	µg/mL	+/-	11.6290	µg/mL	Gravimetric
	CAS # 124-48-1.SEC			+/-	44.2562		Unstressed
	Purity 97%			+/-	44.4366		Stressed
42	1,2-Dibromoethane (EDB)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-93-4.SEC			+/-	44.2531		Unstressed
	Purity 99%			+/-	44.4335		Stressed
43	Chlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-90-7.SEC			+/-	44.2531		Unstressed
	Purity 99%			+/-	44.4335		Stressed
44	1,1,1,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 630-20-6.SEC			+/-	44.2531		Unstressed
	Purity 99%			+/-	44.4335		Stressed
45	m-Xylene	1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 108-38-3.SEC			+/-	22.1265		Unstressed
	Purity 99%			+/-	22.2167		Stressed
46	p-Xylene	1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 106-42-3.SEC			+/-	22.1265		Unstressed
	Purity 99%			+/-	22.2167		Stressed
47	o-Xylene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-47-6.SEC			+/-	44.2531		Unstressed
	Purity 99%			+/-	44.4335		Stressed

48	Ethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-41-4.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
49	Styrene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-42-5.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
50	Isopropylbenzene (cumene)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-82-8.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
51	Bromoform	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-25-2.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
52	1,1,2,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-34-5.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
53	1,2,3-Trichloropropane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 96-18-4.SEC			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
54	trans-1,4-Dichloro-2-butene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 110-57-6.SEC			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
55	n-Propylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 103-65-1.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
56	Bromobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-86-1.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
57	1,3,5-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-67-8.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
58	2-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-49-8.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
59	4-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-43-4.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
60	tert-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-06-6.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
61	1,2,4-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-63-6.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
62	sec-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 135-98-8.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
63	4-Isopropyltoluene (p-cymene)	2,000.1	µg/mL	+/-	11.6285	µg/mL	Gravimetric
	CAS # 99-87-6.SEC			+/-	44.2545	µg/mL	Unstressed
	Purity 96%			+/-	44.4349	µg/mL	Stressed
64	1,3-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 541-73-1.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
65	1,4-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-46-7.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
66	n-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 104-51-8.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

67	1,2-Dichlorobenzene CAS # 95-50-1.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane CAS # 96-12-8.SEC Purity 97%	2,000.0 µg/mL	+/- 11.6284 +/- 44.2540 +/- 44.4344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene CAS # 120-82-1.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene CAS # 87-68-3.SEC Purity 97%	2,000.0 µg/mL	+/- 11.6284 +/- 44.2540 +/- 44.4344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene CAS # 91-20-3.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
72	1,2,3-Trichlorobenzene CAS # 87-61-6.SEC Purity 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

**Column:**

60m x .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:**

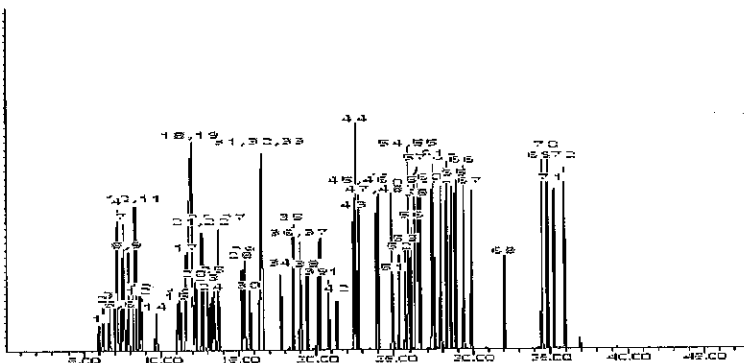
200°C

**Det. Temp:**

250°C

**Det. Type:**

MSD



*Jennifer L. Pollino*  
Jennifer L. Pollino - QC Analyst

Date Passed: 01-Mar-2013

Balance: 1127510105

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

Reagent

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**VOA8260SURRES\_00063**



# 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.:** A0100424

**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 :** January 31, 2019 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dibromofluoromethane CAS # 1868-53-7 Purity 99% (Lot 022012)	2,502.2 µg/mL	+/- 14.5480	µg/mL	Gravimetric
			+/- 28.2159	µg/mL	Unstressed
			+/- 32.4683	µg/mL	Stressed
2	1,2-Dichloroethane-d4 CAS # 17060-07-0 Purity 99% (Lot 12K-027)	2,501.2 µg/mL	+/- 14.5422	µg/mL	Gravimetric
			+/- 28.2046	µg/mL	Unstressed
			+/- 32.4554	µg/mL	Stressed
3	Toluene-d8 CAS # 2037-26-5 Purity 99% (Lot 13I-050)	2,500.8 µg/mL	+/- 14.5399	µg/mL	Gravimetric
			+/- 28.2001	µg/mL	Unstressed
			+/- 32.4502	µg/mL	Stressed
4	1-Bromo-4-fluorobenzene (BFB) CAS # 460-00-4 Purity 99% (Lot 01127COV)	2,501.4 µg/mL	+/- 14.5434	µg/mL	Gravimetric
			+/- 28.2069	µg/mL	Unstressed
			+/- 32.4580	µg/mL	Stressed

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

Reagent

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**VOA8260VARES\_00050**





# CERTIFIED REFERENCE MATERIAL

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

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## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 569724 **Lot No.:** A0108225

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

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

**Expiration Date :** July 31, 2015 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Vinyl acetate CAS # 108-05-4 Purity 99% (Lot STBC8935V)	5,000.0 µg/mL	+/- 29.3428 µg/mL Gravimetric +/- 266.1189 µg/mL Unstressed +/- 266.4123 µg/mL Stressed

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

#### Tech Tips:

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

Reagent

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**VOAACRORES\_00064**



# CERTIFIED REFERENCE MATERIAL

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

## Certificate of Analysis

www.restek.com



### 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.:** A0107338

**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 :** March 31, 2015 **Storage:** 10°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 140429JLM)	19,759.0 µg/mL	+/- 115.6933 µg/mL +/- 633.5357 µg/mL +/- 736.4159 µg/mL	Gravimetric Unstressed Stressed

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

Reagent

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**VOARESEE1ST\_00008**

# RESTEK 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.: A097285  
 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 : February 28, 2015 Storage: 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	3-Chlorobenzotrifluoride	5,001.0 µg/mL	+/-	29.3487	µg/mL	Gravimetric
	CAS # 98-15-7 (Lot 21324DO)		+/-	53.0822	µg/mL	Unstressed
	Purity 99%		+/-	61.7282	µg/mL	Stressed
2	4-Chlorobenzotrifluoride	5,003.0 µg/mL	+/-	29.3604	µg/mL	Gravimetric
	CAS # 98-56-6 (Lot 08507BO)		+/-	53.1034	µg/mL	Unstressed
	Purity 99%		+/-	61.7529	µg/mL	Stressed
3	2-Chlorobenzotrifluoride	5,005.0 µg/mL	+/-	29.3721	µg/mL	Gravimetric
	CAS # 88-16-4 (Lot I0316DQ)		+/-	53.1247	µg/mL	Unstressed
	Purity 99%		+/-	61.7775	µg/mL	Stressed
4	3-Chlorotoluene	5,000.0 µg/mL	+/-	29.3428	µg/mL	Gravimetric
	CAS # 108-41-8 (Lot 13528LX)		+/-	53.0716	µg/mL	Unstressed
	Purity 99%		+/-	61.7158	µg/mL	Stressed
5	2,4-Dichlorobenzotrifluoride	5,002.0 µg/mL	+/-	29.3545	µg/mL	Gravimetric
	CAS # 320-60-5 (Lot MKBL3552V)		+/-	53.0928	µg/mL	Unstressed
	Purity 99%		+/-	61.7405	µg/mL	Stressed
6	3,4-Dichlorobenzotrifluoride	5,000.0 µg/mL	+/-	29.3428	µg/mL	Gravimetric
	CAS # 328-84-7 (Lot 11105EJV)		+/-	53.0716	µg/mL	Unstressed
	Purity 99%		+/-	61.7158	µg/mL	Stressed
7	2,5-Dichlorobenzotrifluoride	5,000.0 µg/mL	+/-	29.3428	µg/mL	Gravimetric
	CAS # 320-50-3 (Lot 04415DSV)		+/-	53.0716	µg/mL	Unstressed
	Purity 99%		+/-	61.7158	µg/mL	Stressed
8	2,4-Dichlorotoluene	5,002.0 µg/mL	+/-	29.3545	µg/mL	Gravimetric
	CAS # 95-73-8 (Lot 07715JS)		+/-	53.0928	µg/mL	Unstressed
	Purity 99%		+/-	61.7405	µg/mL	Stressed

9	2,5-Dichlorotoluene CAS # 19398-61-9 Purity 99%	(Lot 10119CU)	5,000.0	µg/mL	+/- 29.3428 +/- 53.0716 +/- 61.7158	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	2,6-Dichlorotoluene CAS # 118-69-4 Purity 99%	(Lot 16921JS)	5,001.0	µg/mL	+/- 29.3487 +/- 53.0822 +/- 61.7282	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	3,4-Dichlorotoluene CAS # 95-75-0 Purity 99%	(Lot 09419AS)	5,003.0	µg/mL	+/- 29.3604 +/- 53.1034 +/- 61.7529	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	2,3-Dichlorotoluene CAS # 32768-54-0 Purity 99%	(Lot 00317)	5,008.0	µg/mL	+/- 29.3897 +/- 53.1565 +/- 61.8146	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	2,4,5-Trichlorotoluene CAS # 6639-30-1 Purity 99%	(Lot 1767300)	5,001.0	µg/mL	+/- 29.3487 +/- 53.0822 +/- 61.7282	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	2,3,6-Trichlorotoluene CAS # 2077-46-5 Purity 99%	(Lot RM01250)	5,001.0	µg/mL	+/- 29.3487 +/- 53.0822 +/- 61.7282	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

# Method 8260C Low Level

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

FORM II  
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1

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-164-0/1-0	180-42137-1	110	113	97	102
HD-MW-165-0/1-0	180-42137-2	114	115	99	106
HD-MW-163-0/1-0	180-42137-3	112	110	97	104
HD-MW-161-0/1-0	180-42137-4	105	115	102	98
HD-MW-161-0/1-0 DL	180-42137-4 DL	107	113	98	98
HD-QC1-0/1-2	180-42137-5	122	118	97	105
	MB 180-136250/6	108	109	102	102
	MB 180-136397/6	102	111	104	98
	LCS 180-136250/9	100	103	100	94
	LCS 180-136397/9	89	102	96	91
HD-MW-164-0/1-0 MS	180-42137-1 MS	100	110	101	101
HD-MW-164-0/1-0 MSD	180-42137-1 MSD	99	102	100	99

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

QC LIMITS  
70-128  
64-135  
71-118  
70-118

# Column to be used to flag recovery values



FORM III  
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Water Level: Low Lab File ID: 50323009.D  
 Lab ID: LCS 180-136250/9 Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	11.8	118	50-139	
Vinyl chloride	10.0	11.9	119	53-138	
Bromomethane	10.0	13.4	134	33-150	
Chloroethane	10.0	11.8	118	36-142	
1,1-Dichloroethene	10.0	9.56	96	65-136	
Acetone	20.0	21.0	105	22-150	
Carbon disulfide	10.0	9.19	92	54-132	
Methylene Chloride	10.0	9.78	98	63-129	
trans-1,2-Dichloroethene	10.0	10.0	100	73-126	
Methyl tert-butyl ether	10.0	10.4	104	64-123	
1,1-Dichloroethane	10.0	11.1	111	73-126	
cis-1,2-Dichloroethene	10.0	10.1	101	70-120	
Bromochloromethane	10.0	10.1	101	70-127	
2-Butanone (MEK)	20.0	16.6	83	39-138	
Chloroform	10.0	11.1	111	72-127	
1,1,1-Trichloroethane	10.0	11.1	111	63-133	
Carbon tetrachloride	10.0	12.0	120	55-150	
Benzene	10.0	10.5	105	80-120	
1,2-Dichloroethane	10.0	10.8	108	68-132	
Trichloroethene	10.0	9.98	100	73-120	
1,2-Dichloropropane	10.0	10.2	102	76-124	
Bromodichloromethane	10.0	11.1	111	66-130	
cis-1,3-Dichloropropene	10.0	11.0	110	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	16.7	83	45-145	
Toluene	10.0	10.8	108	80-123	
trans-1,3-Dichloropropene	10.0	11.9	119	65-125	
1,1,2-Trichloroethane	10.0	10.4	104	77-127	
Tetrachloroethene	10.0	9.90	99	70-135	
2-Hexanone	20.0	14.2	71	25-132	
Dibromochloromethane	10.0	11.5	115	60-140	
1,2-Dibromoethane (EDB)	10.0	10.7	107	74-123	
Chlorobenzene	10.0	10.6	106	80-120	
1,1,1,2-Tetrachloroethane	10.0	11.7	117	63-140	
Ethylbenzene	10.0	9.85	99	72-126	
Xylenes, Total	20.0	19.8	99	76-128	
Styrene	10.0	10.1	101	71-127	
Bromoform	10.0	10.9	109	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.4	104	62-125	
1,4-Dioxane	200	154 J	77	10-160	

# 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.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Water Level: Low Lab File ID: 50324009.D  
 Lab ID: LCS 180-136397/9 Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	10.1	101	50-139	
Vinyl chloride	10.0	10.9	109	53-138	
Bromomethane	10.0	12.1	121	33-150	
Chloroethane	10.0	12.2	122	36-142	
1,1-Dichloroethene	10.0	9.20	92	65-136	
Acetone	20.0	21.5	107	22-150	
Carbon disulfide	10.0	9.01	90	54-132	
Methylene Chloride	10.0	9.00	90	63-129	
trans-1,2-Dichloroethene	10.0	9.26	93	73-126	
Methyl tert-butyl ether	10.0	9.14	91	64-123	
1,1-Dichloroethane	10.0	9.93	99	73-126	
cis-1,2-Dichloroethene	10.0	9.19	92	70-120	
Bromochloromethane	10.0	8.89	89	70-127	
2-Butanone (MEK)	20.0	15.7	78	39-138	
Chloroform	10.0	9.75	97	72-127	
1,1,1-Trichloroethane	10.0	10.1	101	63-133	
Carbon tetrachloride	10.0	10.6	106	55-150	
Benzene	10.0	9.84	98	80-120	
1,2-Dichloroethane	10.0	10.1	101	68-132	
Trichloroethene	10.0	9.27	93	73-120	
1,2-Dichloropropane	10.0	9.67	97	76-124	
Bromodichloromethane	10.0	9.85	98	66-130	
cis-1,3-Dichloropropene	10.0	10.0	100	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	15.3	76	45-145	
Toluene	10.0	9.97	100	80-123	
trans-1,3-Dichloropropene	10.0	10.6	106	65-125	
1,1,2-Trichloroethane	10.0	9.66	97	77-127	
Tetrachloroethene	10.0	9.24	92	70-135	
2-Hexanone	20.0	12.7	63	25-132	
Dibromochloromethane	10.0	10.1	101	60-140	
1,2-Dibromoethane (EDB)	10.0	9.22	92	74-123	
Chlorobenzene	10.0	9.51	95	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.7	107	63-140	
Ethylbenzene	10.0	9.25	92	72-126	
Xylenes, Total	20.0	18.3	92	76-128	
Styrene	10.0	9.27	93	71-127	
Bromoform	10.0	9.56	96	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.20	92	62-125	
1,4-Dioxane	200	149 J	74	10-160	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-42137-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low

Lab File ID: 50323010.D

Lab ID: 180-42137-1 MS

Client ID: HD-MW-164-0/1-0 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Chloromethane	10.0	1.0 U	12.2	122	50-139	
Vinyl chloride	10.0	1.0 U	11.6	116	53-138	
Bromomethane	10.0	1.0 U	13.5	135	33-150	
Chloroethane	10.0	1.0 U	12.2	122	36-142	
1,1-Dichloroethene	10.0	1.0 U	9.66	97	65-136	
Acetone	20.0	5.0 U	25.9	130	22-150	
Carbon disulfide	10.0	1.0 U	8.97	90	54-132	
Methylene Chloride	10.0	0.31 J	10.5	102	63-129	
trans-1,2-Dichloroethene	10.0	1.0 U	10.3	103	73-126	
Methyl tert-butyl ether	10.0	1.0 U	11.0	110	64-123	
1,1-Dichloroethane	10.0	1.0 U	11.0	110	73-126	
cis-1,2-Dichloroethene	10.0	1.0 U	10.4	104	70-120	
Bromochloromethane	10.0	1.0 U	10.7	107	70-127	
2-Butanone (MEK)	20.0	0.95 J	20.8	99	39-138	
Chloroform	10.0	1.0 U	11.4	114	72-127	
1,1,1-Trichloroethane	10.0	1.0 U	11.4	114	63-133	
Carbon tetrachloride	10.0	1.0 U	12.0	120	55-150	
Benzene	10.0	1.0 U	10.9	109	80-120	
1,2-Dichloroethane	10.0	1.0 U	11.5	115	68-132	
Trichloroethene	10.0	0.65 J	10.6	100	73-120	
1,2-Dichloropropane	10.0	1.0 U	11.1	111	76-124	
Bromodichloromethane	10.0	1.0 U	11.2	112	66-130	
cis-1,3-Dichloropropene	10.0	1.0 U	11.4	114	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	5.0 U	19.0	95	45-145	
Toluene	10.0	1.0 U	10.9	109	80-123	
trans-1,3-Dichloropropene	10.0	1.0 U	12.5	125	65-125	
1,1,2-Trichloroethane	10.0	1.0 U	11.5	115	77-127	
Tetrachloroethene	10.0	0.47 J	10.4	100	70-135	
2-Hexanone	20.0	5.0 U	15.1	75	25-132	
Dibromochloromethane	10.0	1.0 U	11.6	116	60-140	
1,2-Dibromoethane (EDB)	10.0	1.0 U	11.0	110	74-123	
Chlorobenzene	10.0	1.0 U	10.7	107	80-120	
1,1,1,2-Tetrachloroethane	10.0	1.0 U	11.9	119	63-140	
Ethylbenzene	10.0	1.0 U	10.4	104	72-126	
Xylenes, Total	20.0	3.0 U	20.3	102	76-128	
Styrene	10.0	1.0 U	10.5	105	71-127	
Bromoform	10.0	1.0 U	11.0	110	46-150	
1,1,2,2-Tetrachloroethane	10.0	1.0 U	10.5	105	62-125	
1,4-Dioxane	200	200 U	176 J	88	10-160	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-42137-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low

Lab File ID: 50323011.D

Lab ID: 180-42137-1 MSD

Client ID: HD-MW-164-0/1-0 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Chloromethane	10.0	11.4	114	7	35	50-139	
Vinyl chloride	10.0	11.1	111	4	35	53-138	
Bromomethane	10.0	13.1	131	3	35	33-150	
Chloroethane	10.0	12.3	123	1	35	36-142	
1,1-Dichloroethene	10.0	9.54	95	1	35	65-136	
Acetone	20.0	22.2	111	15	35	22-150	
Carbon disulfide	10.0	8.71	87	3	35	54-132	
Methylene Chloride	10.0	9.32	90	12	35	63-129	
trans-1,2-Dichloroethene	10.0	10.2	102	1	35	73-126	
Methyl tert-butyl ether	10.0	10.6	106	4	35	64-123	
1,1-Dichloroethane	10.0	10.6	106	4	35	73-126	
cis-1,2-Dichloroethene	10.0	10.1	101	3	35	70-120	
Bromochloromethane	10.0	10.2	102	4	35	70-127	
2-Butanone (MEK)	20.0	19.7	94	5	35	39-138	
Chloroform	10.0	10.7	107	7	35	72-127	
1,1,1-Trichloroethane	10.0	10.5	105	9	35	63-133	
Carbon tetrachloride	10.0	10.9	109	9	35	55-150	
Benzene	10.0	10.4	104	5	32	80-120	
1,2-Dichloroethane	10.0	10.8	108	6	32	68-132	
Trichloroethene	10.0	10.2	96	4	35	73-120	
1,2-Dichloropropane	10.0	10.4	104	6	34	76-124	
Bromodichloromethane	10.0	10.4	104	7	35	66-130	
cis-1,3-Dichloropropene	10.0	10.5	105	8	35	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	18.1	91	5	35	45-145	
Toluene	10.0	10.5	105	4	35	80-123	
trans-1,3-Dichloropropene	10.0	11.9	119	5	35	65-125	
1,1,2-Trichloroethane	10.0	10.7	107	7	35	77-127	
Tetrachloroethene	10.0	9.82	94	6	35	70-135	
2-Hexanone	20.0	15.6	78	3	35	25-132	
Dibromochloromethane	10.0	11.2	112	3	35	60-140	
1,2-Dibromoethane (EDB)	10.0	10.5	105	5	35	74-123	
Chlorobenzene	10.0	10.4	104	3	29	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.7	107	11	34	63-140	
Ethylbenzene	10.0	9.90	99	4	33	72-126	
Xylenes, Total	20.0	19.6	98	4	32	76-128	
Styrene	10.0	10.1	101	4	34	71-127	
Bromoform	10.0	9.97	100	10	35	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.2	102	3	35	62-125	
1,4-Dioxane	200	153 J	77	14	35	10-160	

# Column to be used to flag recovery and RPD values

FORM IV  
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 50323006.D Lab Sample ID: MB 180-136250/6  
 Matrix: Water Heated Purge: (Y/N) N  
 Instrument ID: CHHP5 Date Analyzed: 03/23/2015 13:04  
 GC Column: DB-624 ID: 0.18 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
HD-MW-164-0/1-0	180-42137-1	50323007.D	03/23/2015 13:41
HD-QC1-0/1-2	180-42137-5	50323008.D	03/23/2015 14:06
	LCS 180-136250/9	50323009.D	03/23/2015 14:30
HD-MW-164-0/1-0 MS	180-42137-1 MS	50323010.D	03/23/2015 14:54
HD-MW-164-0/1-0 MSD	180-42137-1 MSD	50323011.D	03/23/2015 15:18
HD-MW-165-0/1-0	180-42137-2	50323013.D	03/23/2015 16:06
HD-MW-163-0/1-0	180-42137-3	50323014.D	03/23/2015 16:30
HD-MW-161-0/1-0 DL	180-42137-4 DL	50323015.D	03/23/2015 16:54

FORM IV  
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 50324006.D Lab Sample ID: MB 180-136397/6  
 Matrix: Water Heated Purge: (Y/N) N  
 Instrument ID: CHHP5 Date Analyzed: 03/24/2015 13:57  
 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 180-136397/9	50324009.D	03/24/2015 15:24
HD-MW-161-0/1-0	180-42137-4	50324027.D	03/24/2015 22:38

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 50316001.D BFB Injection Date: 03/16/2015  
 Instrument ID: CHHP5 BFB Injection Time: 10:49  
 Analysis Batch No.: 135593

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	54.1
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.9
173	Less than 2.0 % of mass 174	0.8 (0.9)1
174	50.0 - 120.00 % of mass 95	85.5
175	5.0 - 9.0 % of mass 174	6.4 (7.5)1
176	95.0 - 101.0 % of mass 174	83.4 (97.4)1
177	5.0 - 9.0 % of mass 176	4.9 (5.8)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 180-135593/4	50316004.D	03/16/2015	12:41
	ICIS 180-135593/5	50316005.D	03/16/2015	13:05
	IC 180-135593/6	50316006.D	03/16/2015	13:29
	IC 180-135593/7	50316007.D	03/16/2015	13:53
	IC 180-135593/8	50316008.D	03/16/2015	14:17
	IC 180-135593/9	50316009.D	03/16/2015	14:41
	IC 180-135593/10	50316010.D	03/16/2015	15:05
	IC 180-135593/13	50316013.D	03/16/2015	16:17

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 50323001.D BFB Injection Date: 03/23/2015  
 Instrument ID: CHHP5 BFB Injection Time: 10:37  
 Analysis Batch No.: 136250

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	23.3
75	30.0 - 60.0 % of mass 95	51.6
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	0.8 (1.1)1
174	50.0 - 120.00 % of mass 95	76.2
175	5.0 - 9.0 % of mass 174	6.5 (8.6)1
176	95.0 - 101.0 % of mass 174	76.6 (100.6)1
177	5.0 - 9.0 % of mass 176	4.7 (6.1)2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-136250/2	50323002.D	03/23/2015	11:20
	CCV 180-136250/3	50323003.D	03/23/2015	11:44
	CCV 180-136250/4	50323004.D	03/23/2015	12:16
	MB 180-136250/6	50323006.D	03/23/2015	13:04
HD-MW-164-0/1-0	180-42137-1	50323007.D	03/23/2015	13:41
HD-QC1-0/1-2	180-42137-5	50323008.D	03/23/2015	14:06
	LCS 180-136250/9	50323009.D	03/23/2015	14:30
HD-MW-164-0/1-0 MS	180-42137-1 MS	50323010.D	03/23/2015	14:54
HD-MW-164-0/1-0 MSD	180-42137-1 MSD	50323011.D	03/23/2015	15:18
HD-MW-165-0/1-0	180-42137-2	50323013.D	03/23/2015	16:06
HD-MW-163-0/1-0	180-42137-3	50323014.D	03/23/2015	16:30
HD-MW-161-0/1-0 DL	180-42137-4 DL	50323015.D	03/23/2015	16:54



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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 50324001.D BFB Injection Date: 03/24/2015  
 Instrument ID: CHHP5 BFB Injection Time: 11:22  
 Analysis Batch No.: 136397

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	23.9
75	30.0 - 60.0 % of mass 95	55.3
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.4
173	Less than 2.0 % of mass 174	0.3 (0.4)1
174	50.0 - 120.00 % of mass 95	83.1
175	5.0 - 9.0 % of mass 174	7.1 (8.5)1
176	95.0 - 101.0 % of mass 174	79.3 (95.3)1
177	5.0 - 9.0 % of mass 176	5.2 (6.6)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
	CCV 180-136397/3	50324003.D	03/24/2015	12:24
	CCVIS 180-136397/4	50324004.D	03/24/2015	13:06
	MB 180-136397/6	50324006.D	03/24/2015	13:57
	LCS 180-136397/9	50324009.D	03/24/2015	15:24
HD-MW-161-0/1-0	180-42137-4	50324027.D	03/24/2015	22:38

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-136250/2 Date Analyzed: 03/23/2015 11:20  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 50323002.D Heated Purge: (Y/N) N  
 Calibration ID: 22514

	TBA		FB		CBZ		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	133456	4.30	518750	7.27	117369	10.36	
UPPER LIMIT	266912	4.80	1037500	7.77	234738	10.86	
LOWER LIMIT	66728	3.80	259375	6.77	58685	9.86	
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 180-136250/3		122690	4.29	450795	7.28	97877	10.37
CCV 180-136250/4		111588	4.29	413304	7.27	89620	10.36
MB 180-136250/6		124541	4.30	433605	7.28	98808	10.37
180-42137-1	HD-MW-164-0/1-0	116911	4.29	426843	7.27	101387	10.36
180-42137-5	HD-QC1-0/1-2	117739	4.29	379541	7.28	89746	10.36
LCS 180-136250/9		104649	4.31	467634	7.27	107136	10.37
180-42137-1 MS	HD-MW-164-0/1-0 MS	122466	4.32	455599	7.28	105952	10.36
180-42137-1 MSD	HD-MW-164-0/1-0 MSD	124564	4.32	490705	7.27	114127	10.36
180-42137-2	HD-MW-165-0/1-0	108586	4.30	397762	7.28	95176	10.36
180-42137-3	HD-MW-163-0/1-0	113606	4.29	390893	7.28	93648	10.36
180-42137-4 DL	HD-MW-161-0/1-0 DL	112492	4.31	407585	7.27	97889	10.36

TBA = TBA-d9 (IS)  
 FB = Fluorobenzene (IS)  
 CBZ = 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.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-136250/2 Date Analyzed: 03/23/2015 11:20  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 50323002.D Heated Purge: (Y/N) N  
 Calibration ID: 22514

	DCB					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD	180107	12.69				
UPPER LIMIT	360214	13.19				
LOWER LIMIT	90054	12.19				
LAB SAMPLE ID	CLIENT SAMPLE ID					
CCV 180-136250/3		125155	12.68			
CCV 180-136250/4		114347	12.68			
MB 180-136250/6		155774	12.69			
180-42137-1	HD-MW-164-0/1-0	155646	12.69			
180-42137-5	HD-QC1-0/1-2	138800	12.69			
LCS 180-136250/9		157627	12.69			
180-42137-1 MS	HD-MW-164-0/1-0 MS	150335	12.69			
180-42137-1 MSD	HD-MW-164-0/1-0 MSD	161646	12.68			
180-42137-2	HD-MW-165-0/1-0	148110	12.68			
180-42137-3	HD-MW-163-0/1-0	138911	12.69			
180-42137-4 DL	HD-MW-161-0/1-0 DL	143277	12.68			

DCB = 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.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-136397/4 Date Analyzed: 03/24/2015 13:06  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 50324004.D Heated Purge: (Y/N) N  
 Calibration ID: 22514

	TBA		FB		CBZ	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD	115344	4.31	489484	7.27	107803	10.36
UPPER LIMIT	230688	4.81	978968	7.77	215606	10.86
LOWER LIMIT	57672	3.81	244742	6.77	53902	9.86
LAB SAMPLE ID	CLIENT SAMPLE ID					
MB 180-136397/6	133166	4.29	499355	7.27	109758	10.36
LCS 180-136397/9	123226	4.30	496991	7.27	115769	10.36
180-42137-4	90626	4.29	412678	7.27	93439	10.36

TBA = TBA-d9 (IS)  
 FB = Fluorobenzene (IS)  
 CBZ = 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.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-136397/4 Date Analyzed: 03/24/2015 13:06  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 50324004.D Heated Purge: (Y/N) N  
 Calibration ID: 22514

	DCB		AREA #	RT #	AREA #	RT #	AREA #	RT #
	AREA #	RT #						
12/24 HOUR STD	156019	12.68						
UPPER LIMIT	312038	13.18						
LOWER LIMIT	78010	12.18						
LAB SAMPLE ID	CLIENT SAMPLE ID							
MB 180-136397/6		143379	12.69					
LCS 180-136397/9		163017	12.68					
180-42137-4	HD-MW-161-0/1-0	131208	12.68					

DCB = 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.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-164-0/1-0 Lab Sample ID: 180-42137-1  
 Matrix: Water Lab File ID: 50323007.D  
 Analysis Method: 8260C Date Collected: 03/16/2015 15:37  
 Sample wt/vol: 5(mL) Date Analyzed: 03/23/2015 13:41  
 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.: 136250 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	0.31	J B	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	0.95	J	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	0.65	J	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	0.47	J	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-164-0/1-0 Lab Sample ID: 180-42137-1  
 Matrix: Water Lab File ID: 50323007.D  
 Analysis Method: 8260C Date Collected: 03/16/2015 15:37  
 Sample wt/vol: 5(mL) Date Analyzed: 03/23/2015 13:41  
 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.: 136250 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20
107-13-1	Acrylonitrile	20	U	20	0.55
123-91-1	1,4-Dioxane	200	U	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	113		64-135
2037-26-5	Toluene-d8 (Surr)	97		71-118
460-00-4	4-Bromofluorobenzene (Surr)	102		70-118
1868-53-7	Dibromofluoromethane (Surr)	110		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323007.D  
 Lims ID: 180-42137-A-1 Lab Sample ID: 180-42137-1  
 Client ID: HD-MW-164-0/1-0  
 Sample Type: Client  
 Inject. Date: 23-Mar-2015 13:41:30 ALS Bottle#: 7 Worklist Smp#: 7  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-42137-A-1  
 Misc. Info.: 180-0006128-007  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\MMSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 23-Mar-2015 14:52:26 Calib Date: 18-Mar-2015 16:19:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150318-6071.b\50318010.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK037

First Level Reviewer: fergusond

Date: 23-Mar-2015 14:52:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.291	4.292	-0.001	98	116911	1000.0	
* 2 Fluorobenzene (IS)	96	7.272	7.273	-0.001	100	426843	50.0	
* 3 Chlorobenzene-d5	119	10.362	10.363	-0.001	99	101387	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.686	12.681	0.005	94	155646	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.529	6.522	0.007	55	106407	54.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.900	0.000	97	145227	56.7	
\$ 7 Toluene-d8 (Surr)	98	8.920	8.925	-0.005	100	391832	48.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.530	11.529	0.001	98	148363	51.0	
11 Dichlorodifluoromethane	85		1.613				ND	
12 Chloromethane	50		1.777				ND	
13 Vinyl chloride	62		1.905				ND	
14 Butadiene	39		1.948				ND	
15 Bromomethane	94		2.252				ND	
16 Chloroethane	64		2.380				ND	
17 Dichlorofluoromethane	67		2.647				ND	
18 Trichlorofluoromethane	101		2.714				ND	
19 Ethanol	45		3.004				ND	
20 Ethyl ether	59		3.085				ND	
21 Acrolein	56		3.250				ND	
22 1,1-Dichloroethene	96		3.377				ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.426				ND	
24 Acetone	43	3.524	3.493	0.031	81	5496	6.29	M
25 Iodomethane	142		3.566				ND	
26 Carbon disulfide	76		3.645				ND	
27 Isopropyl alcohol	45		3.783				ND	
29 Acetonitrile	40		3.929				ND	
28 3-Chloro-1-propene	76		3.931				ND	
30 Methyl acetate	43		4.016				ND	
31 Methylene Chloride	84	4.151	4.138	0.013	48	4425	1.55	
32 2-Methyl-2-propanol	59		4.430				ND	
33 Acrylonitrile	53		4.545				ND	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.594				ND	
36 Hexane	57		4.977				ND	
37 1,1-Dichloroethane	63		5.166				ND	
38 Vinyl acetate	43		5.296				ND	
39 2-Chloro-1,3-butadiene	53		5.304				ND	
41 Isopropyl ether	45		5.322				ND	
40 Isopropyl ether TIC	45		5.409				ND	
42 Tert-butyl ethyl ether	59		5.796				ND	
44 2,2-Dichloropropane	77		5.920				ND	
45 cis-1,2-Dichloroethene	96		5.938				ND	
43 Tert-butyl ethyl ether (TI	59		5.961				ND	
46 2-Butanone (MEK)	43	6.012	5.987	0.025	49	6651	4.76	
47 Propionitrile	54		6.064				ND	
48 Ethyl acetate	43		6.082				ND	
49 Chlorobromomethane	128		6.218				ND	
50 Methacrylonitrile	41		6.240				ND	
51 Tetrahydrofuran	42	6.292	6.285	0.007	72	6839	7.81	
52 Chloroform	83		6.340				ND	
53 1,1,1-Trichloroethane	97		6.522				ND	
54 Cyclohexane	56		6.583				ND	
56 Carbon tetrachloride	117		6.717				ND	
55 1,1-Dichloropropene	75		6.723				ND	
57 Isobutyl alcohol	41		6.936				ND	
58 Benzene	78		6.954				ND	
59 1,2-Dichloroethane	62		6.985				ND	
61 Tert-amyl methyl ether	73		7.110				ND	
60 Tert-amyl methyl ether (TI	73		7.262				ND	
62 n-Heptane	43		7.277				ND	
63 n-Butanol	56		7.652				ND	
64 Trichloroethene	130	7.673	7.666	0.007	95	8253	3.26	
65 Ethyl acrylate	55		7.816				ND	
66 Methylcyclohexane	83		7.861				ND	
67 1,2-Dichloropropane	63		7.903				ND	
68 Dibromomethane	93		8.019				ND	
69 Methyl methacrylate	69		8.053				ND	
70 1,4-Dioxane	88		8.056				ND	
71 Dichlorobromomethane	83		8.195				ND	
72 2-Nitropropane	41		8.443				ND	
73 2-Chloroethyl vinyl ether	63		8.518				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822				ND	
76 Toluene	91		8.986				ND	
77 trans-1,3-Dichloropropene	75		9.217				ND	
78 Ethyl methacrylate	69		9.315				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164	9.541	9.534	0.007	92	4757	2.34	M
81 1,3-Dichloropropane	76		9.564				ND	
82 2-Hexanone	43		9.655				ND	
83 n-Butyl acetate	43		9.787				ND	
84 Chlorodibromomethane	129		9.789				ND	
85 Ethylene Dibromide	107		9.899				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.373				ND	
87 Chlorobenzene	112		10.392				ND	
88 4-Chlorobenzotrifluoride	180		10.428				ND	
89 1,1,1,2-Tetrachloroethane	131		10.471				ND	
90 Ethylbenzene	106		10.501				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.012				ND	
93 Styrene	104		11.024				ND	
94 Bromoform	173		11.213				ND	
96 2-Chlorobenzotrifluoride	180		11.274				ND	
95 Cyclohexanol	57	11.262	11.280	-0.018	1	97	NC	
97 Isopropylbenzene	105		11.377				ND	
98 Cyclohexanone	55		11.472				ND	
99 1,1,2,2-Tetrachloroethane	83		11.675				ND	
100 Bromobenzene	156		11.681				ND	
101 1,2,3-Trichloropropane	110		11.718				ND	
102 trans-1,4-Dichloro-2-buten	53		11.730				ND	
103 N-Propylbenzene	120		11.791				ND	
104 2-Chlorotoluene	126		11.876				ND	
105 3-Chlorotoluene	126		11.937				ND	
106 1,3,5-Trimethylbenzene	105		11.961				ND	
107 4-Chlorotoluene	126		11.979				ND	
108 tert-Butylbenzene	119		12.290				ND	
109 Pentachloroethane	167		12.312				ND	
110 1,2,4-Trimethylbenzene	105		12.332				ND	
111 1,2-dichloro-4-(trifluorom	214		12.399				ND	
112 sec-Butylbenzene	105		12.509				ND	
113 1,3-Dichlorobenzene	146		12.618				ND	
114 4-Isopropyltoluene	119		12.655				ND	
115 1,4-Dichlorobenzene	146		12.709				ND	
117 1,2,3-Trimethylbenzene	105		12.756				ND	
116 2,4-Dichloro-1-(triflourom	214		12.758				ND	
118 2,5-Dichlorobenzotrifluori	214		12.807				ND	
119 Benzyl chloride	91		12.847				ND	
120 n-Butylbenzene	91		13.062				ND	
121 1,2-Dichlorobenzene	146		13.080				ND	
122 1,2-Dibromo-3-Chloropropan	75		13.859				ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.005				ND	
124 1,3,5-Trichlorobenzene	180		14.076				ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.425				ND	
126 1,2,4-Trichlorobenzene	180		14.693				ND	
127 Hexachlorobutadiene	225		14.863				ND	
128 Naphthalene	128		14.942				ND	
129 1,2,3-Trichlorobenzene	180		15.191				ND	
131 2,4,5-Trichlorotoluene	159		15.964				ND	
130 2,3,6-Trichlorotoluene	159		16.061				ND	
132 2-Methylnaphthalene	142		16.077				ND	
148 2,3-Dichlorotoluene	1		0.000				ND	
147 2,4-Dichlorotoluene	1		0.000				ND	
146 2,5-Dichlorotoluene	1		0.000				ND	
150 2,6-Dichlorotoluene	1		0.000				ND	
152 Formaldehyde TIC	1		0.000				ND	

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323007.D

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
151 Isooctane	57		0.000					ND
149 3,4-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 153 1,2 Epoxybutane TIC	42		0.000					ND
T 136 Mesityl oxide TIC	83		0.000					ND
T 137 Tetrahydrofuran TIC	42		0.000					ND
T 138 Methyl n-amyl ketone TIC	43		0.000					ND

### QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

### Reagents:

VOA8260INT\_00030

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00032

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323007.D

Injection Date: 23-Mar-2015 13:41:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-42137-A-1

Lab Sample ID: 180-42137-1

Worklist Smp#: 7

Client ID: HD-MW-164-0/1-0

Purge Vol: 5.000 mL

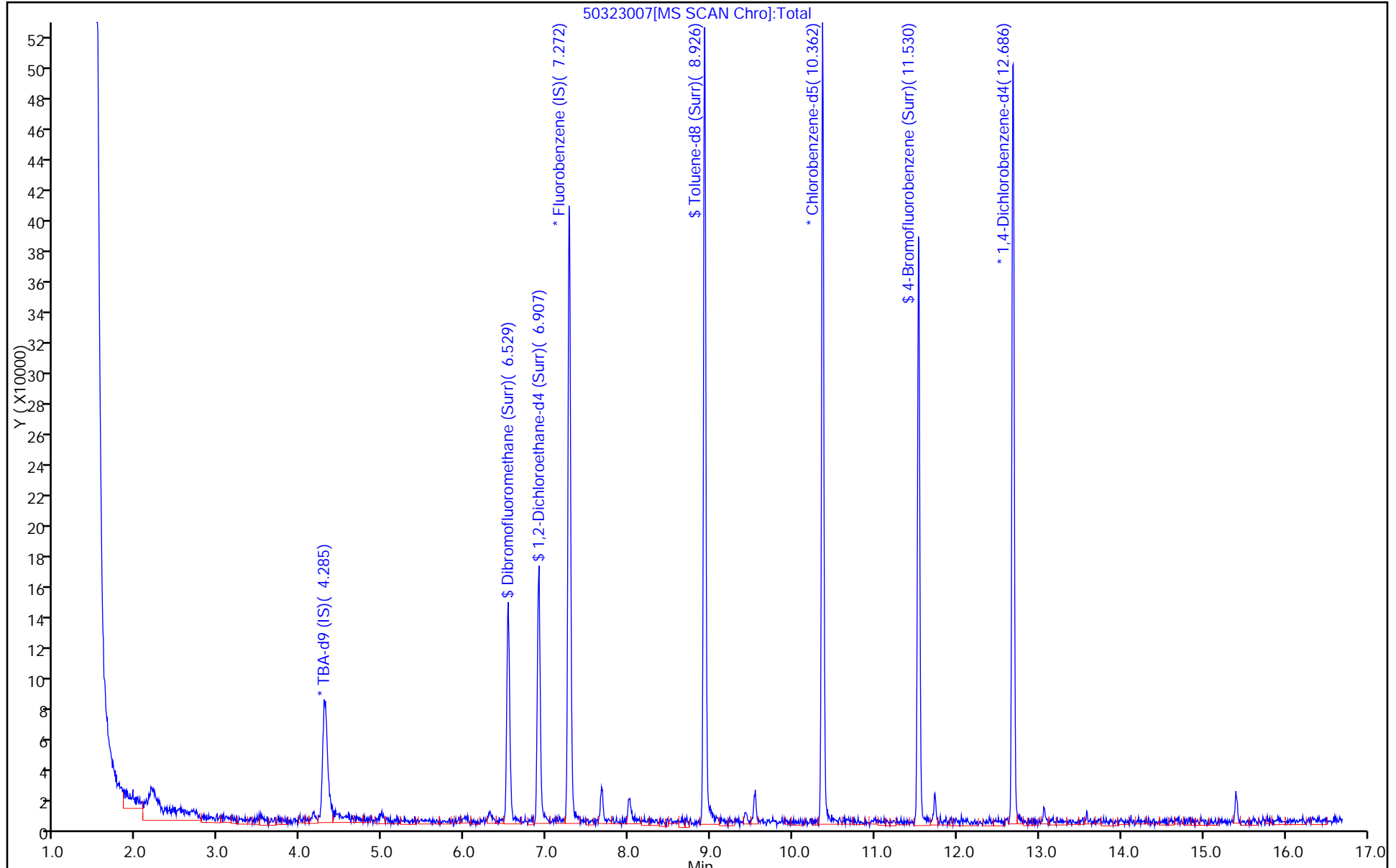
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323007.D

Injection Date: 23-Mar-2015 13:41:30

Instrument ID: CHHP5

Lims ID: 180-42137-A-1

Lab Sample ID: 180-42137-1

Client ID: HD-MW-164-0/1-0

Operator ID: 001562

ALS Bottle#: 7

Worklist Smp#: 7

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

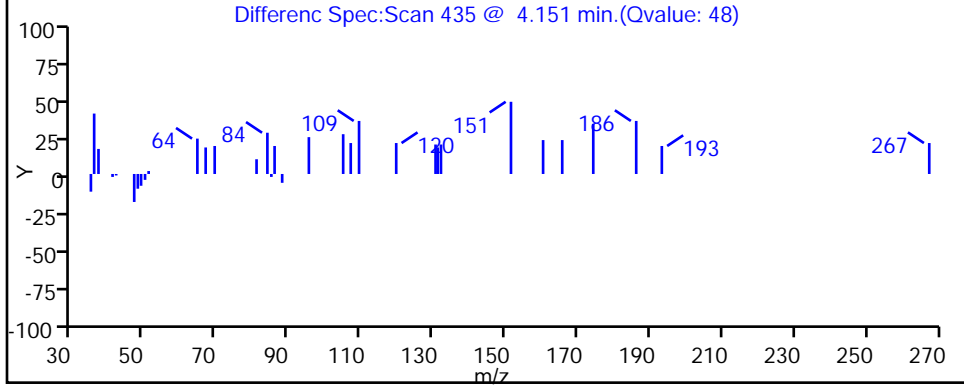
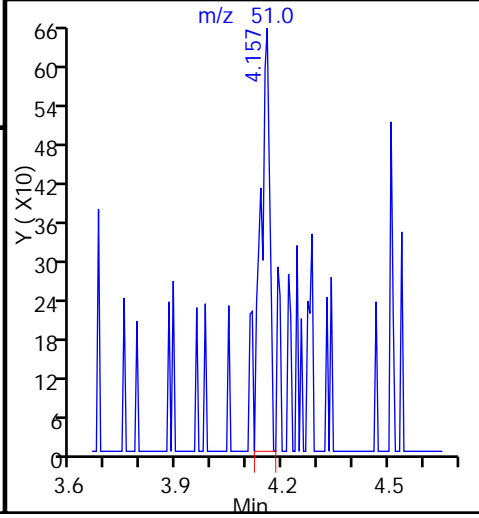
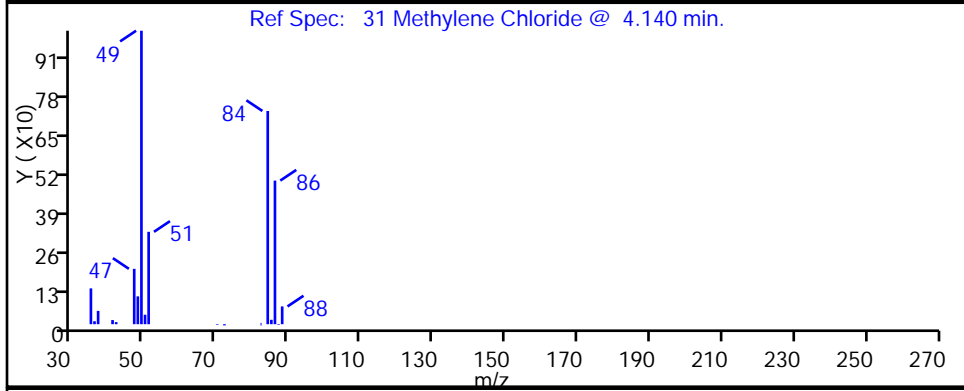
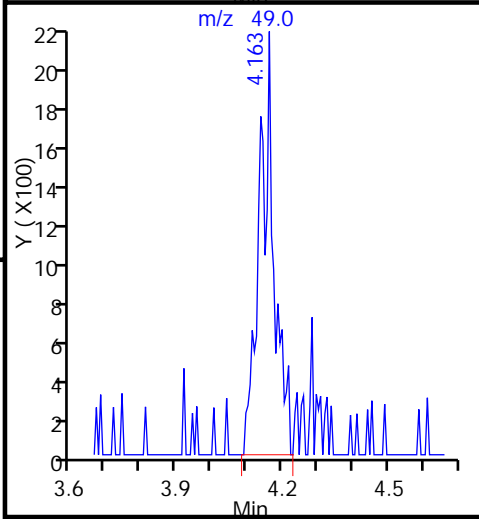
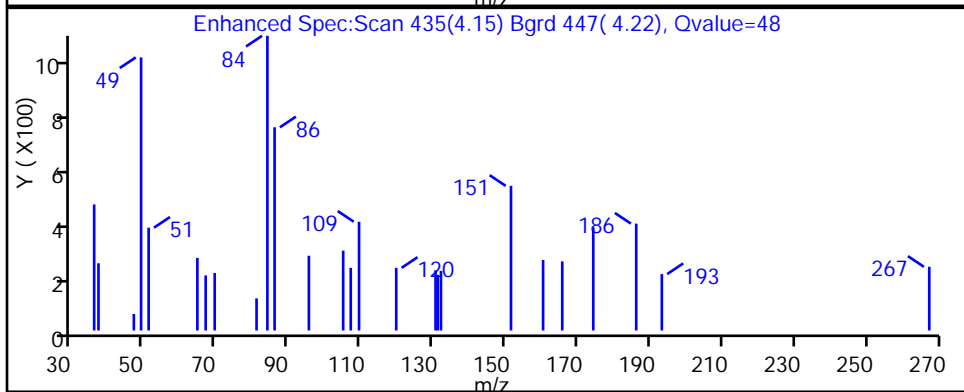
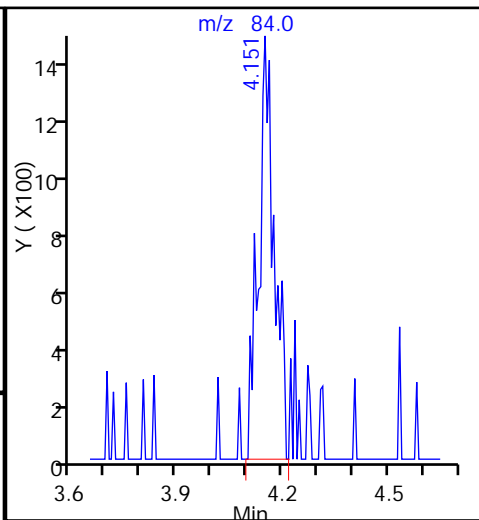
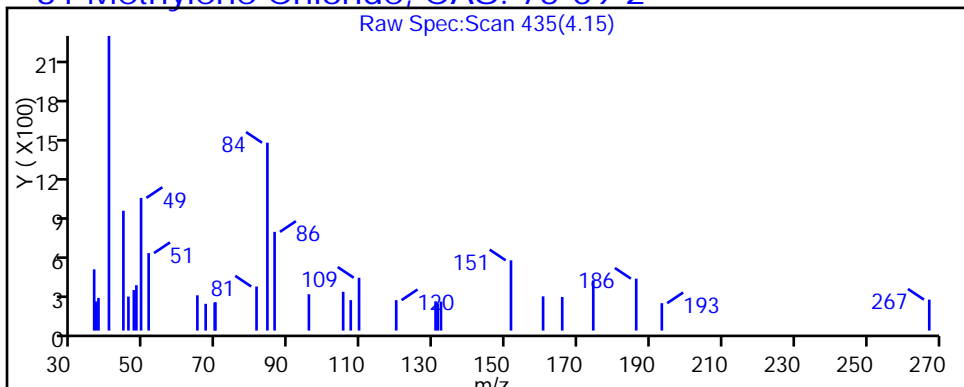
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2



TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323007.D

Injection Date: 23-Mar-2015 13:41:30

Instrument ID: CHHP5

Lims ID: 180-42137-A-1

Lab Sample ID: 180-42137-1

Client ID: HD-MW-164-0/1-0

Operator ID: 001562

ALS Bottle#: 7

Worklist Smp#: 7

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

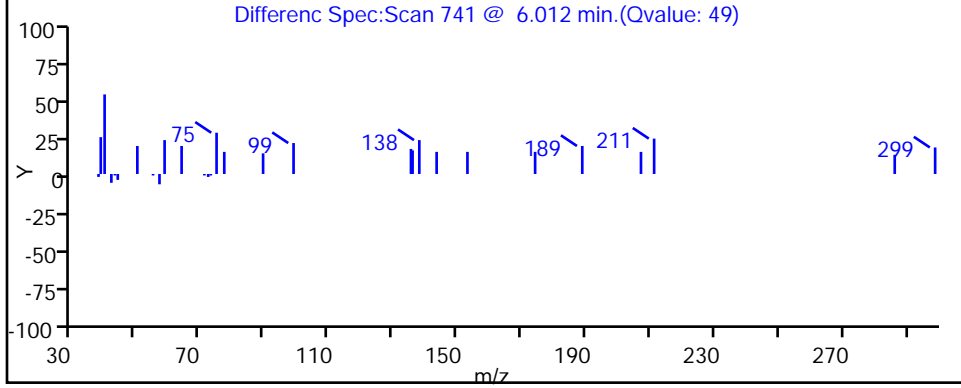
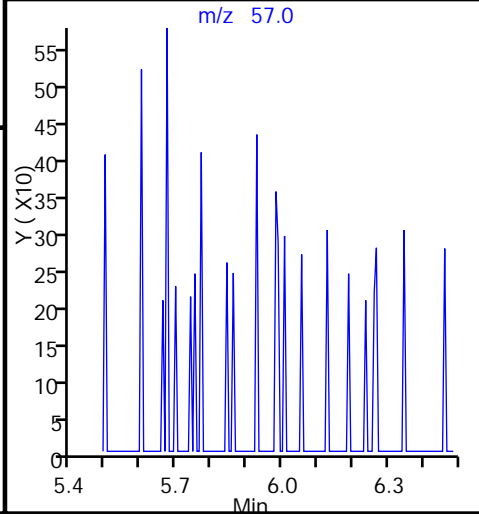
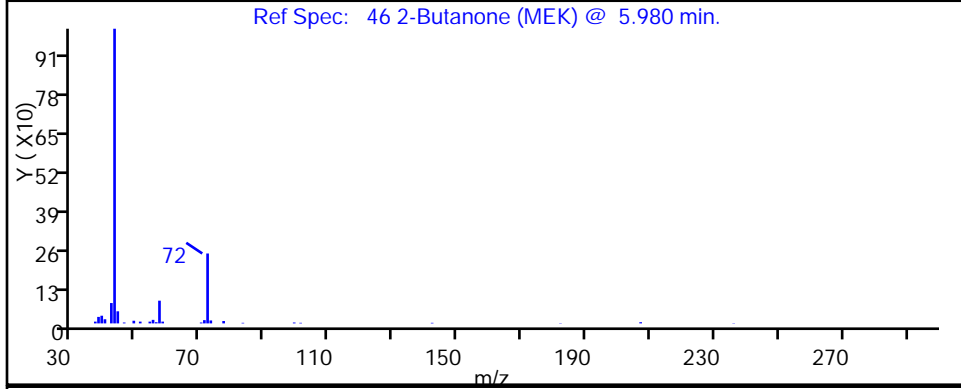
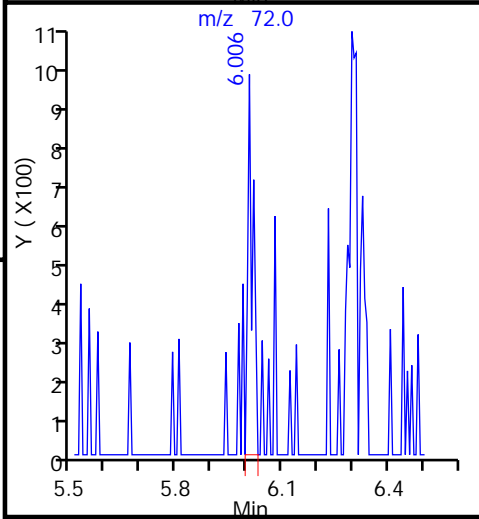
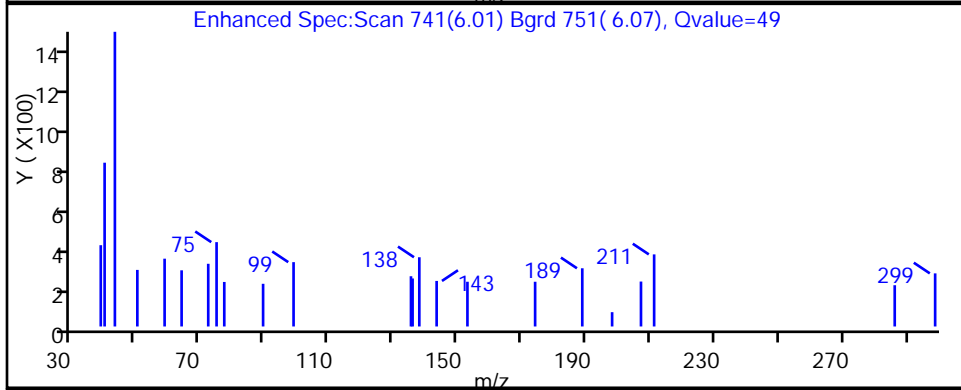
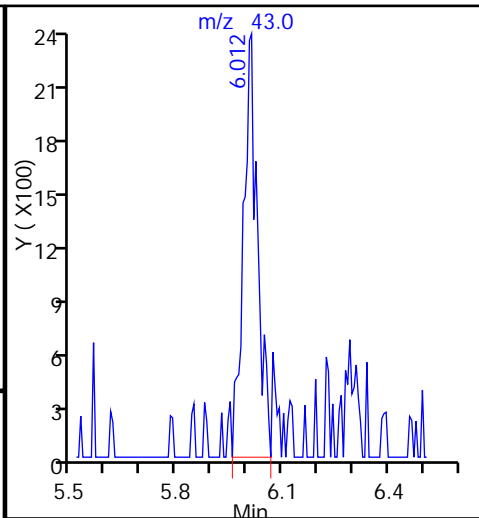
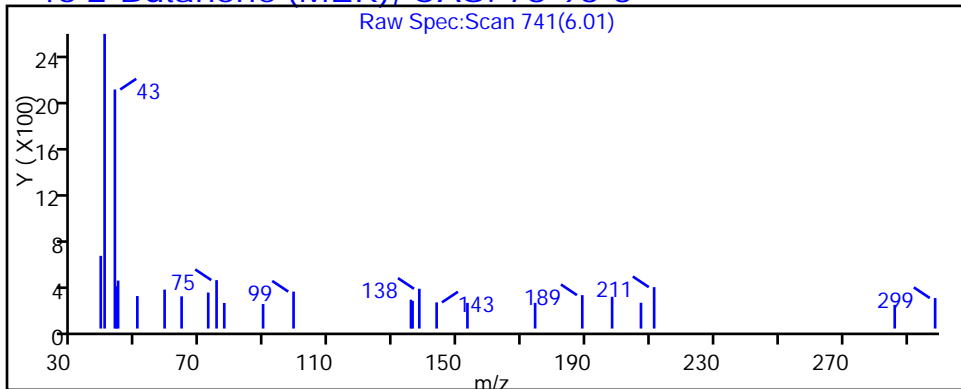
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

46 2-Butanone (MEK), CAS: 78-93-3



TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323007.D

Injection Date: 23-Mar-2015 13:41:30

Instrument ID: CHHP5

Lims ID: 180-42137-A-1

Lab Sample ID: 180-42137-1

Client ID: HD-MW-164-0/1-0

Operator ID: 001562

ALS Bottle#: 7

Worklist Smp#: 7

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

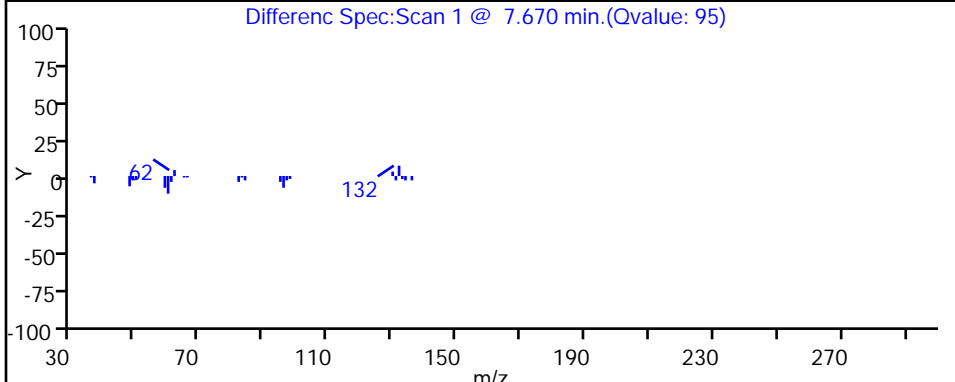
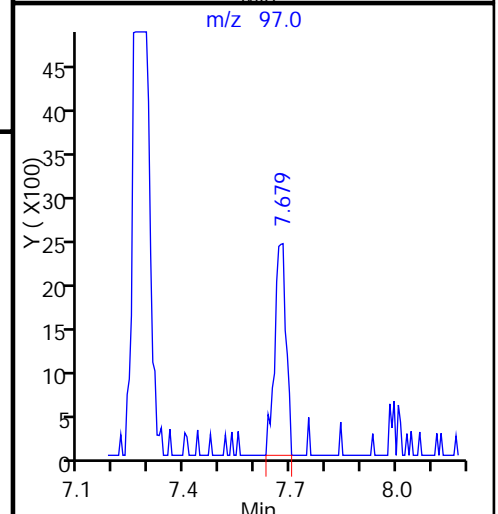
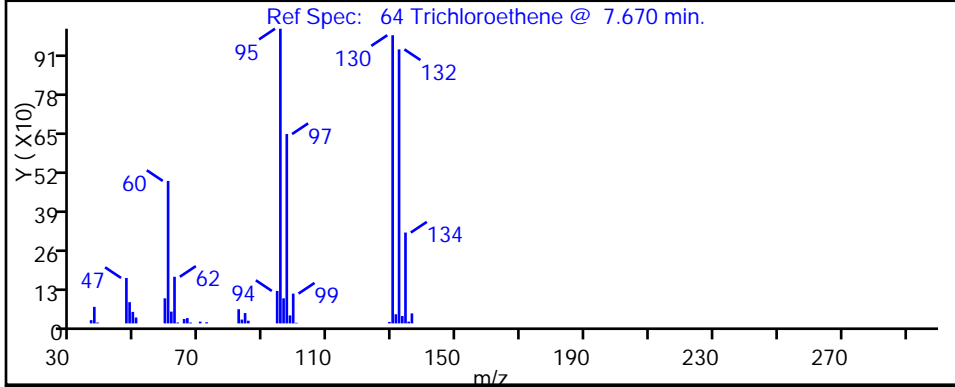
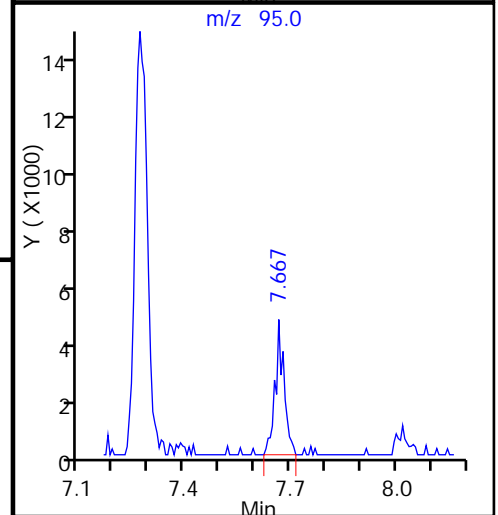
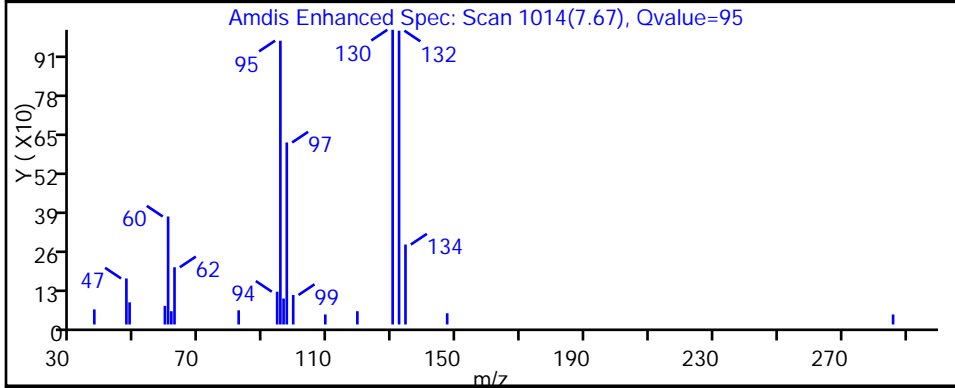
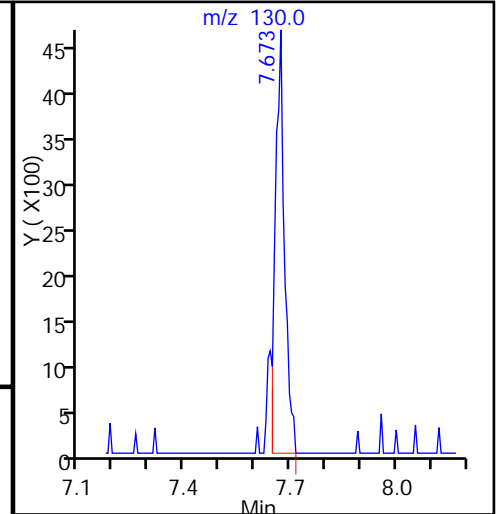
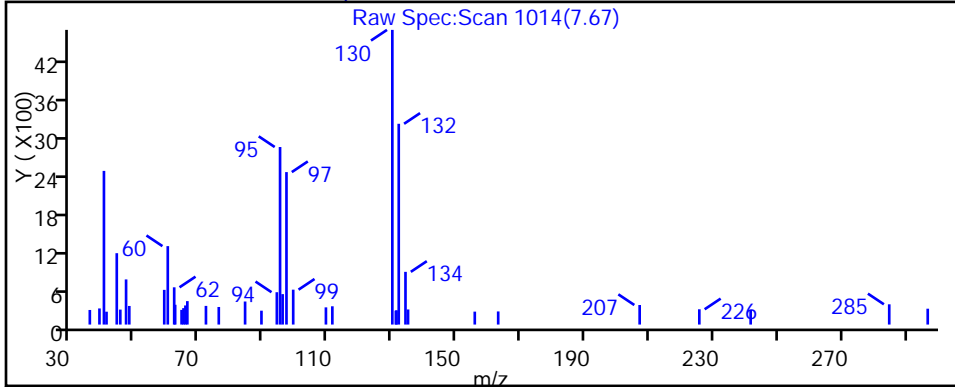
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323007.D

Injection Date: 23-Mar-2015 13:41:30

Instrument ID: CHHP5

Lims ID: 180-42137-A-1

Lab Sample ID: 180-42137-1

Client ID: HD-MW-164-0/1-0

Operator ID: 001562

ALS Bottle#: 7

Worklist Smp#: 7

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

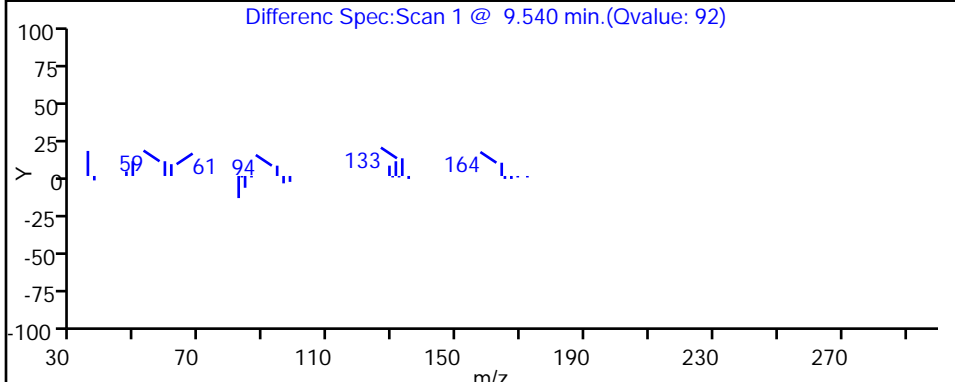
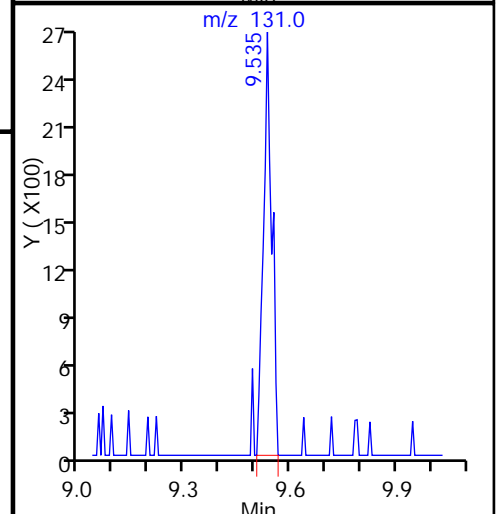
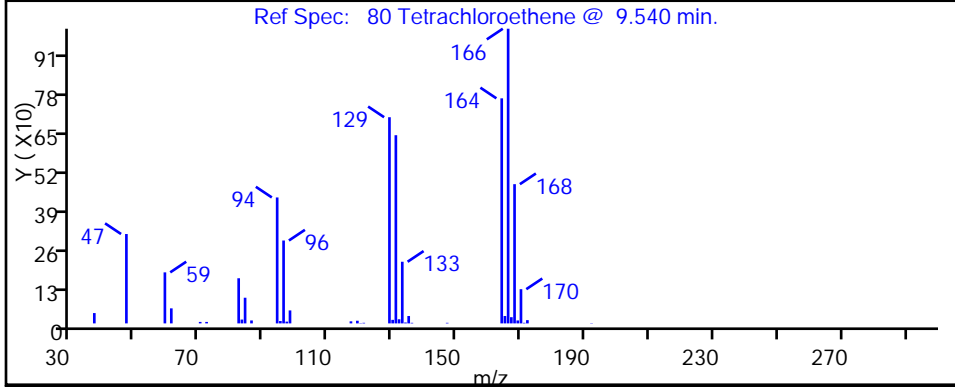
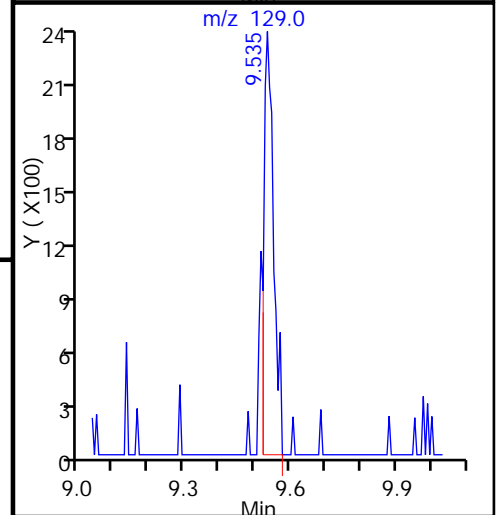
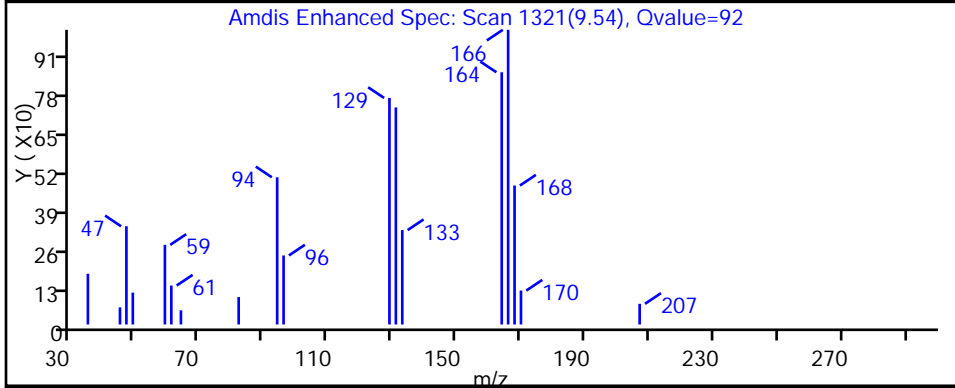
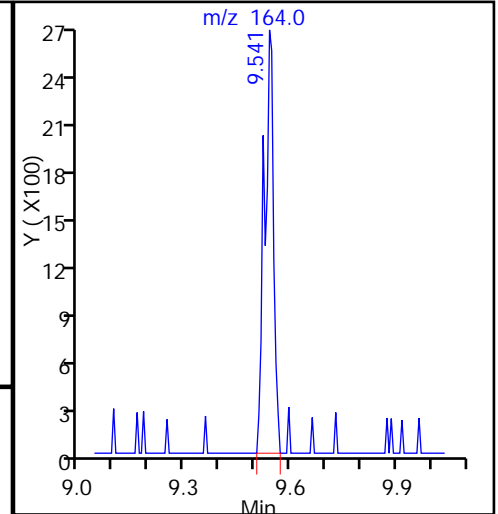
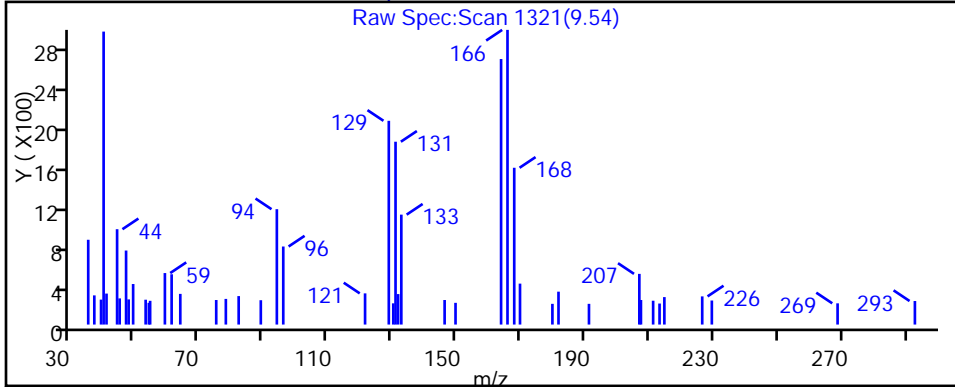
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4





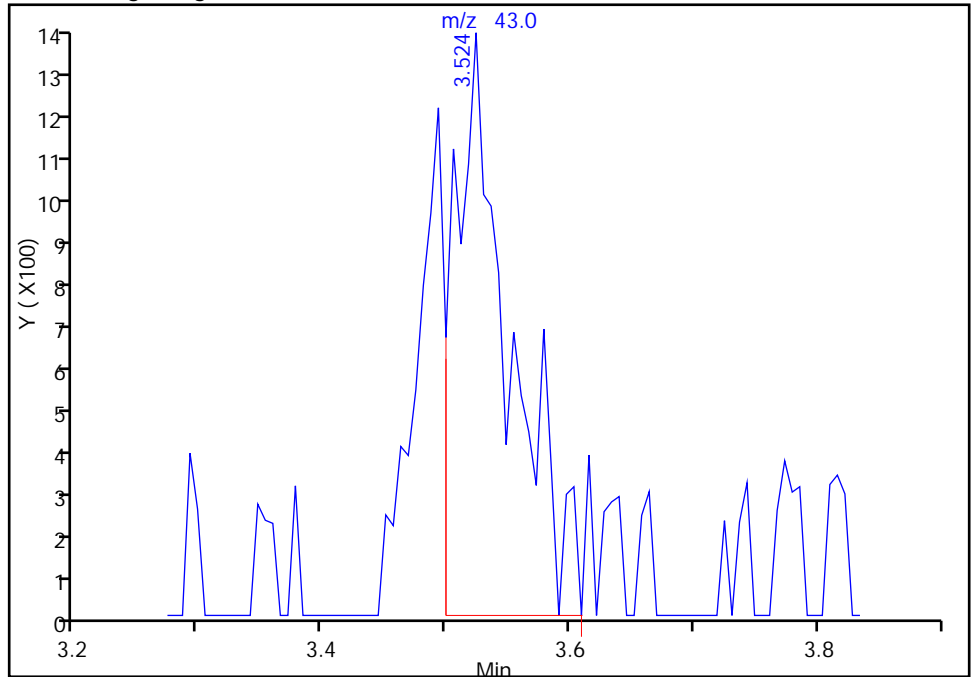
TestAmerica Pittsburgh

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Injection Date: 23-Mar-2015 13:41:30 Instrument ID: CHHP5  
Lims ID: 180-42137-A-1 Lab Sample ID: 180-42137-1  
Client ID: HD-MW-164-0/1-0  
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

24 Acetone, CAS: 67-64-1

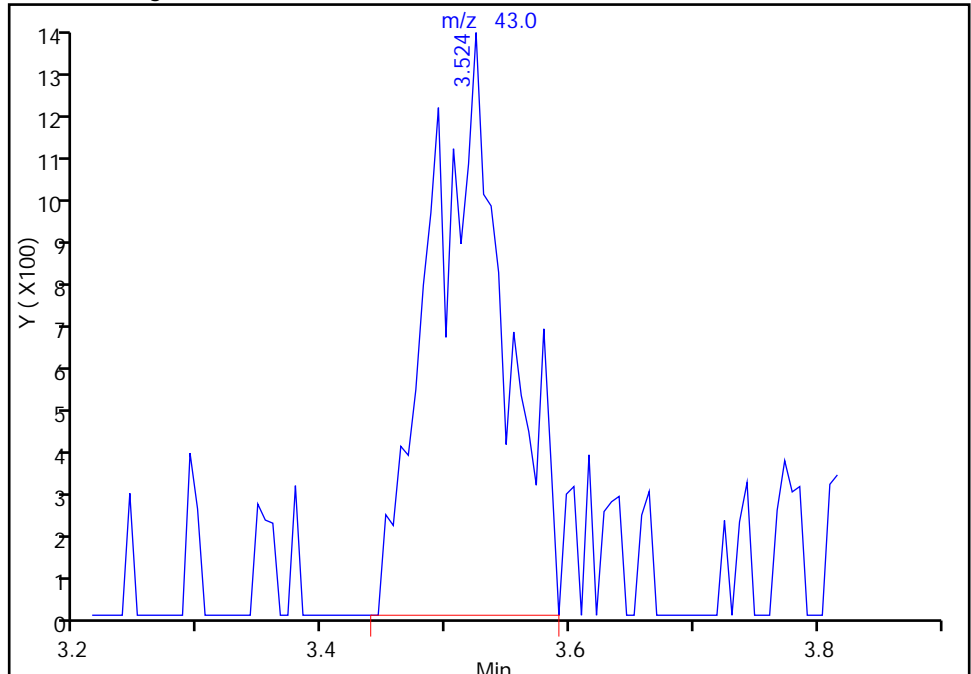
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Area: 4079  
Amount: 4.664921  
Amount Units: ng

Processing Integration Results



RT: 3.52  
Area: 5496  
Amount: 6.285464  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 23-Mar-2015 14:52:26  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

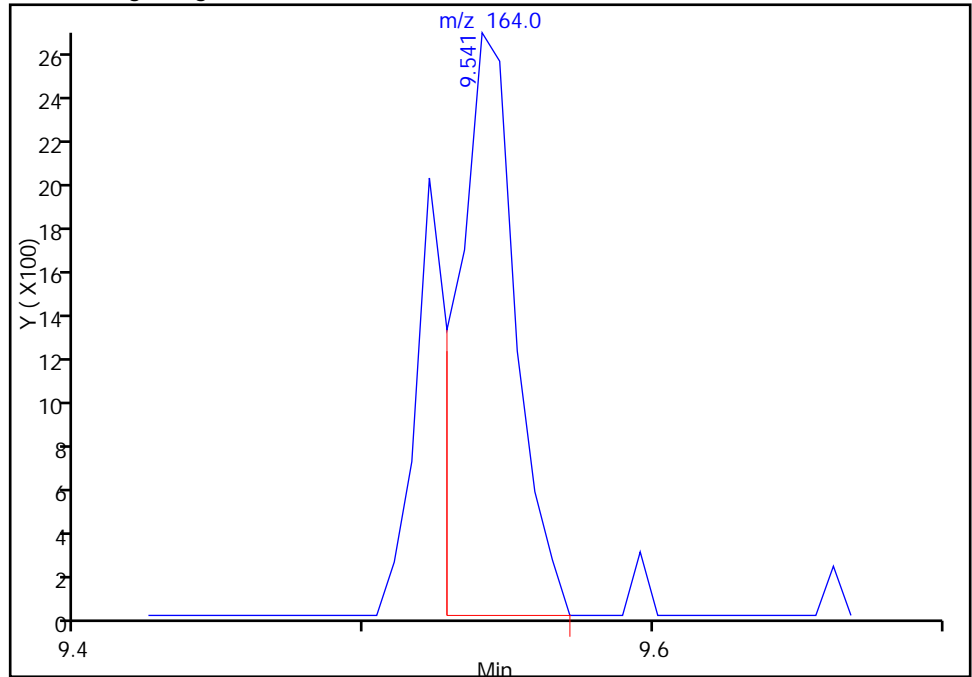
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323007.D  
Injection Date: 23-Mar-2015 13:41:30 Instrument ID: CHHP5  
Lims ID: 180-42137-A-1 Lab Sample ID: 180-42137-1  
Client ID: HD-MW-164-0/1-0  
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

80 Tetrachloroethene, CAS: 127-18-4

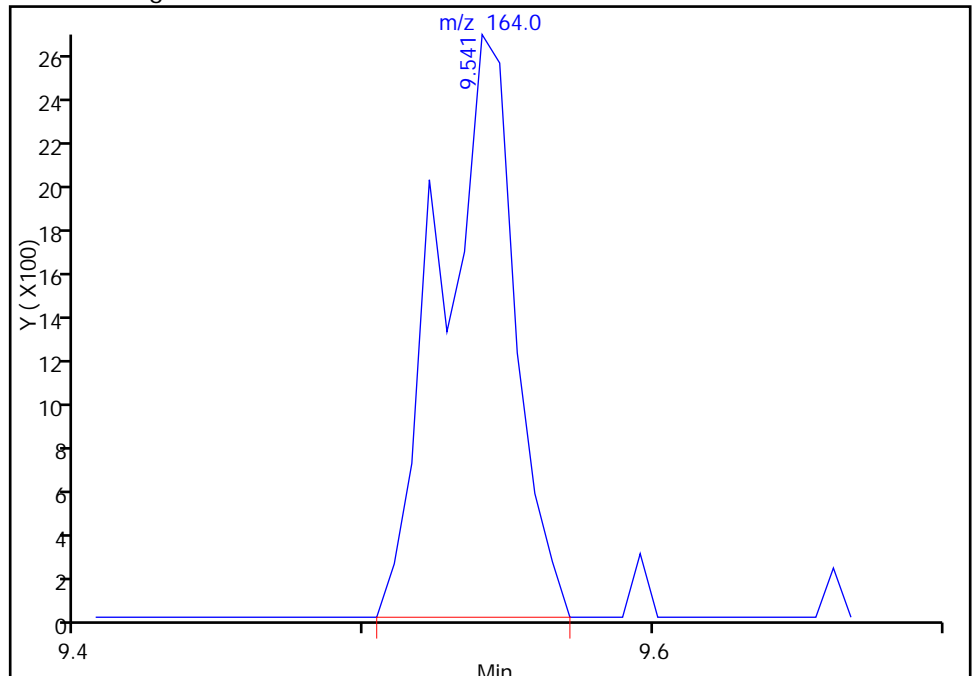
RT: 9.54  
Area: 3691  
Amount: 1.816145  
Amount Units: ng

Processing Integration Results



RT: 9.54  
Area: 4757  
Amount: 2.340668  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 23-Mar-2015 14:52:26  
Audit Action: Manually Integrated  
Audit Reason: Split Peak

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-165-0/1-0 Lab Sample ID: 180-42137-2  
 Matrix: Water Lab File ID: 50323013.D  
 Analysis Method: 8260C Date Collected: 03/17/2015 09:45  
 Sample wt/vol: 5(mL) Date Analyzed: 03/23/2015 16:06  
 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.: 136250 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	0.34	J B	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	17		1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	7.6		1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-165-0/1-0 Lab Sample ID: 180-42137-2  
 Matrix: Water Lab File ID: 50323013.D  
 Analysis Method: 8260C Date Collected: 03/17/2015 09:45  
 Sample wt/vol: 5(mL) Date Analyzed: 03/23/2015 16:06  
 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.: 136250 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20
107-13-1	Acrylonitrile	20	U	20	0.55
123-91-1	1,4-Dioxane	200	U	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		64-135
2037-26-5	Toluene-d8 (Surr)	99		71-118
460-00-4	4-Bromofluorobenzene (Surr)	106		70-118
1868-53-7	Dibromofluoromethane (Surr)	114		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323013.D  
 Lims ID: 180-42137-C-2 Lab Sample ID: 180-42137-2  
 Client ID: HD-MW-165-0/1-0  
 Sample Type: Client  
 Inject. Date: 23-Mar-2015 16:06:30 ALS Bottle#: 13 Worklist Smp#: 13  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-42137-C-2  
 Misc. Info.: 180-0006128-013  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\MMSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 24-Mar-2015 07:30:00 Calib Date: 18-Mar-2015 16:19:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150318-6071.b\50318010.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK052

First Level Reviewer: fergusond

Date: 24-Mar-2015 07:30:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.302	4.292	0.010	99	108586	1000.0	
* 2 Fluorobenzene (IS)	96	7.277	7.273	0.003	100	397762	50.0	
* 3 Chlorobenzene-d5	119	10.361	10.363	-0.002	99	95176	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.679	12.681	-0.002	93	148110	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.528	6.522	0.006	54	103400	57.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.905	6.900	0.005	98	137669	57.7	
\$ 7 Toluene-d8 (Surr)	98	8.925	8.925	0.000	100	376537	49.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.529	11.529	0.000	98	144794	53.0	
12 Chloromethane	50	1.783	1.777	0.006	9	321	0.1364	
13 Vinyl chloride	62		1.905				ND	
15 Bromomethane	94		2.252				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96		3.377				ND	
24 Acetone	43	3.487	3.493	-0.007	26	2283	2.80	
26 Carbon disulfide	76		3.645				ND	
31 Methylene Chloride	84	4.156	4.138	0.018	35	4541	1.71	
33 Acrylonitrile	53		4.545				ND	
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.594				ND	
37 1,1-Dichloroethane	63		5.166				ND	
45 cis-1,2-Dichloroethene	96	5.938	5.938	0.000	1	2442	0.9770	
46 2-Butanone (MEK)	43		5.987				ND	
49 Chlorobromomethane	128		6.218				ND	
52 Chloroform	83		6.340				ND	
53 1,1,1-Trichloroethane	97		6.522				ND	
56 Carbon tetrachloride	117		6.717				ND	
58 Benzene	78		6.954				ND	
59 1,2-Dichloroethane	62		6.985				ND	
64 Trichloroethene	130	7.672	7.666	0.006	99	203205	86.0	
67 1,2-Dichloropropane	63		7.903				ND	
70 1,4-Dioxane	88		8.056				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.195				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.822				ND	
76 Toluene	91		8.986				ND	
77 trans-1,3-Dichloropropene	75		9.217				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164	9.540	9.534	0.006	98	72599	38.1	
82 2-Hexanone	43		9.655				ND	
84 Chlorodibromomethane	129		9.789				ND	
85 Ethylene Dibromide	107		9.899				ND	
87 Chlorobenzene	112		10.392				ND	
89 1,1,1,2-Tetrachloroethane	131		10.471				ND	
90 Ethylbenzene	106		10.501				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.012				ND	
93 Styrene	104		11.024				ND	
94 Bromoform	173		11.213				ND	
99 1,1,2,2-Tetrachloroethane	83		11.675				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00030

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00032

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323013.D

Injection Date: 23-Mar-2015 16:06:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-42137-C-2

Lab Sample ID: 180-42137-2

Worklist Smp#: 13

Client ID: HD-MW-165-0/1-0

Purge Vol: 5.000 mL

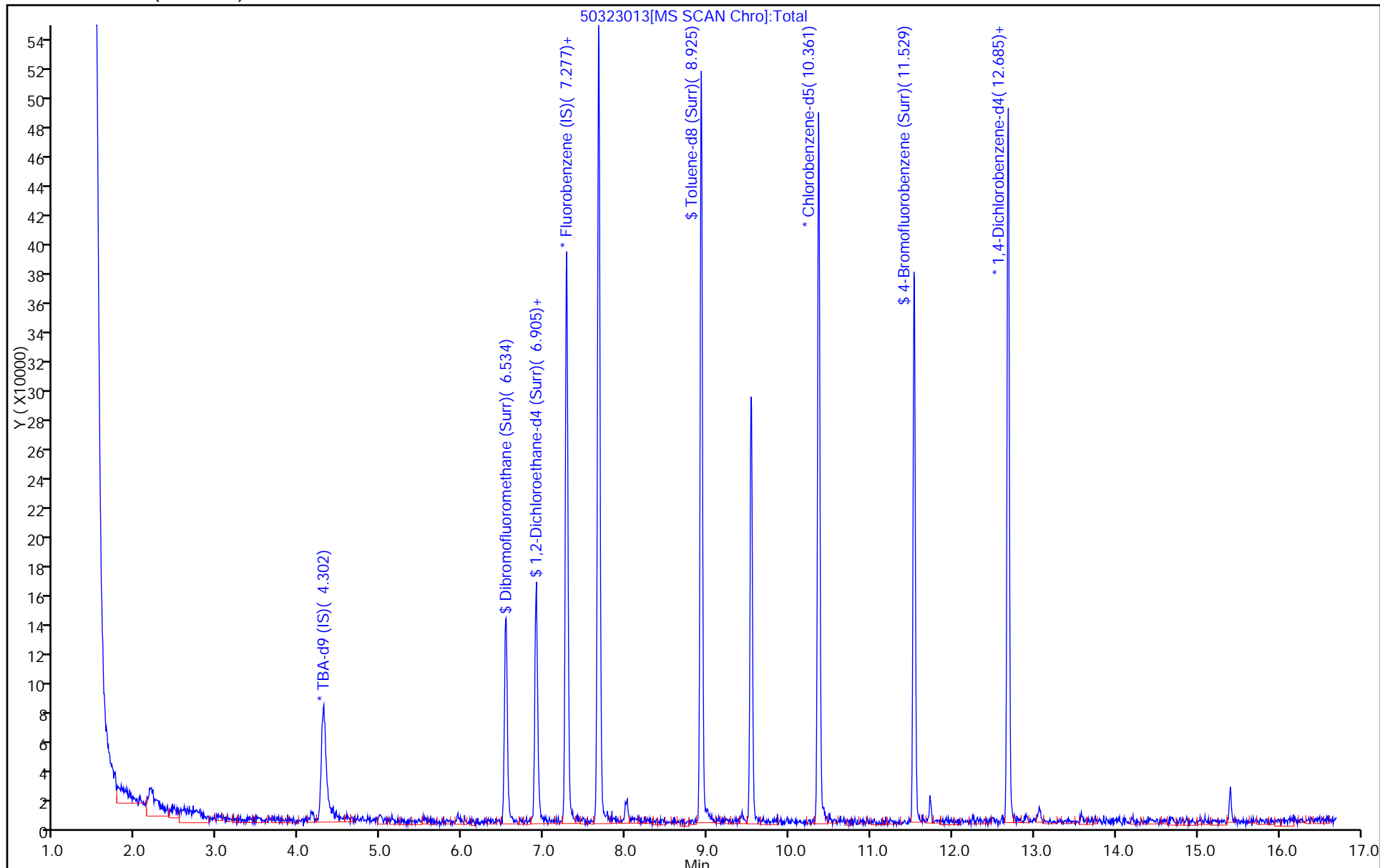
Dil. Factor: 1.0000

ALS Bottle#: 13

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323013.D

Injection Date: 23-Mar-2015 16:06:30

Instrument ID: CHHP5

Lims ID: 180-42137-C-2

Lab Sample ID: 180-42137-2

Client ID: HD-MW-165-0/1-0

Operator ID: 001562

ALS Bottle#: 13

Worklist Smp#: 13

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

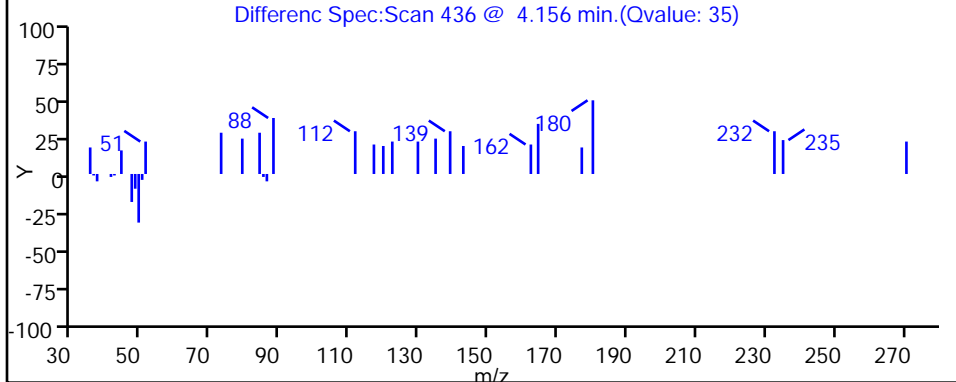
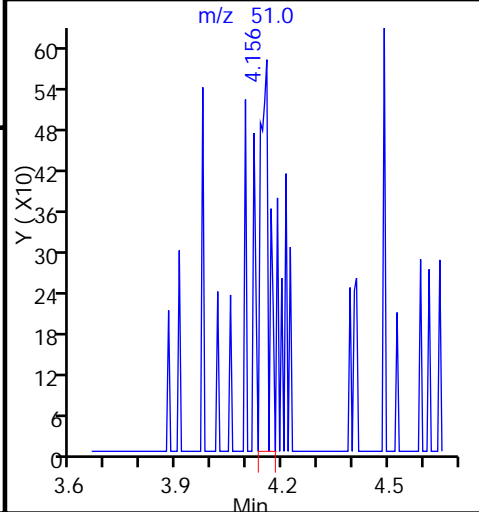
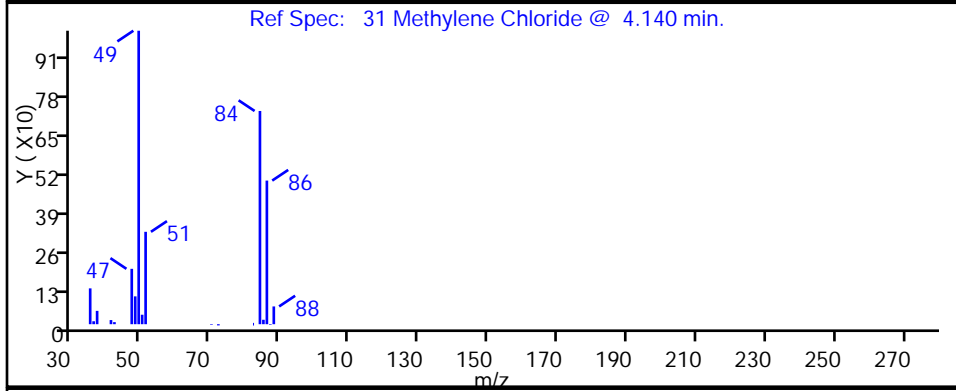
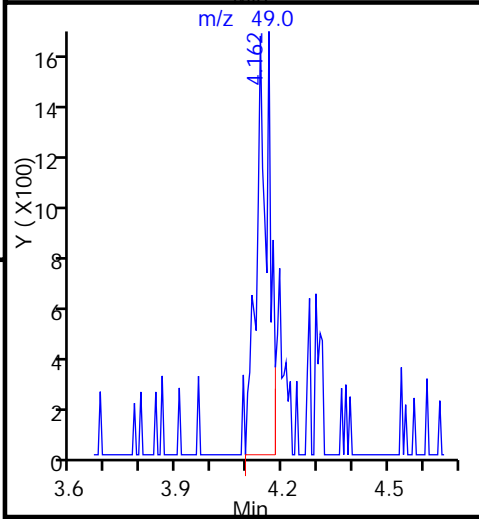
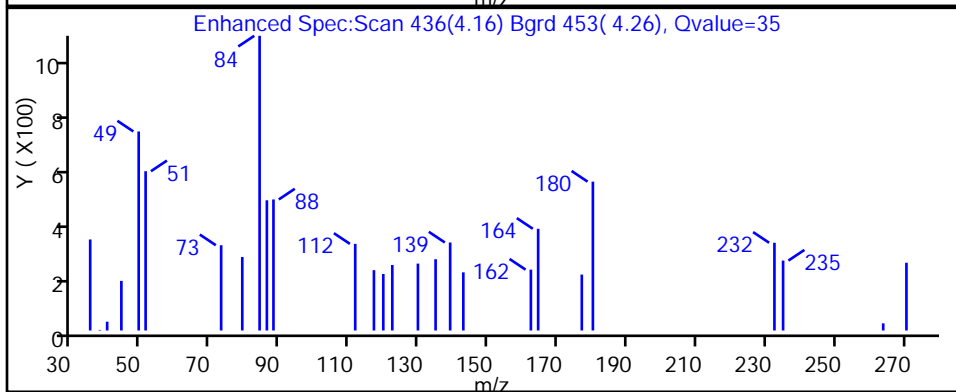
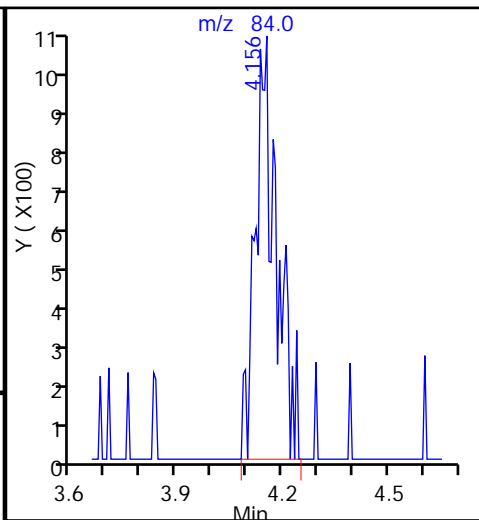
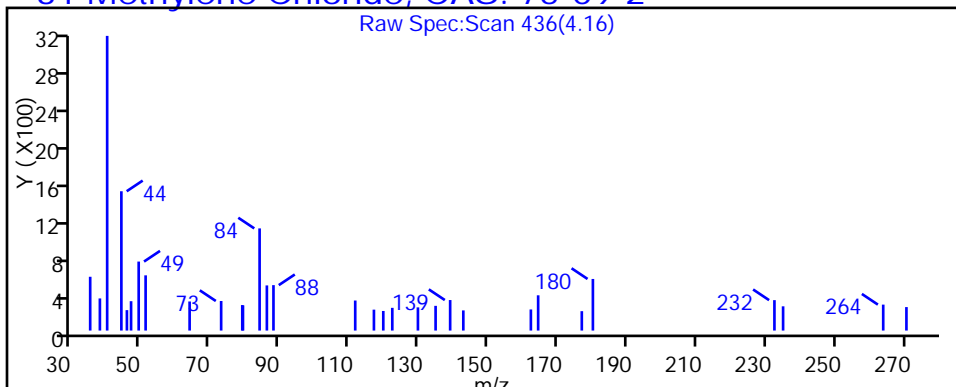
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2





TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323013.D

Injection Date: 23-Mar-2015 16:06:30

Instrument ID: CHHP5

Lims ID: 180-42137-C-2

Lab Sample ID: 180-42137-2

Client ID: HD-MW-165-0/1-0

Operator ID: 001562

ALS Bottle#: 13

Worklist Smp#: 13

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

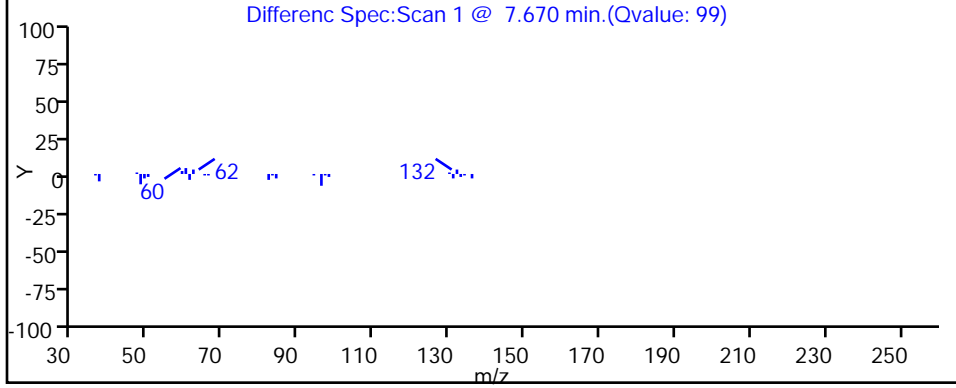
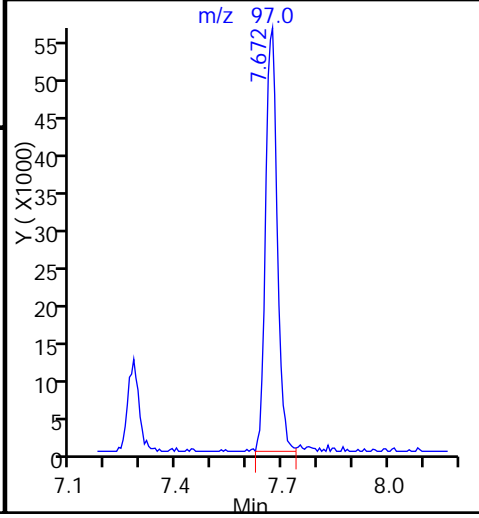
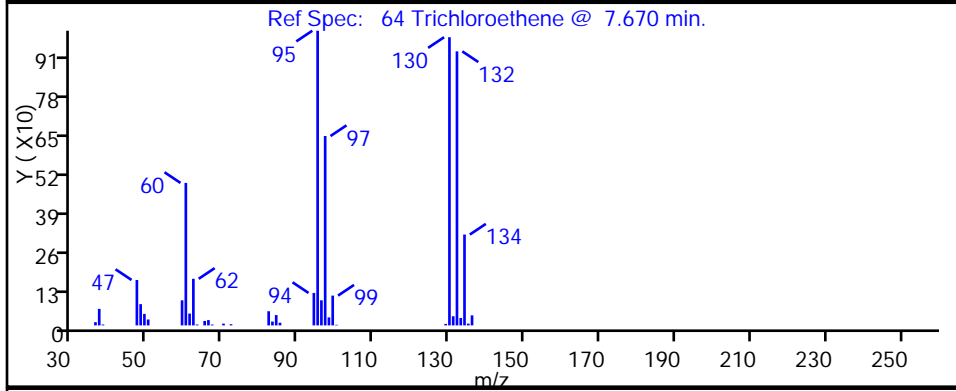
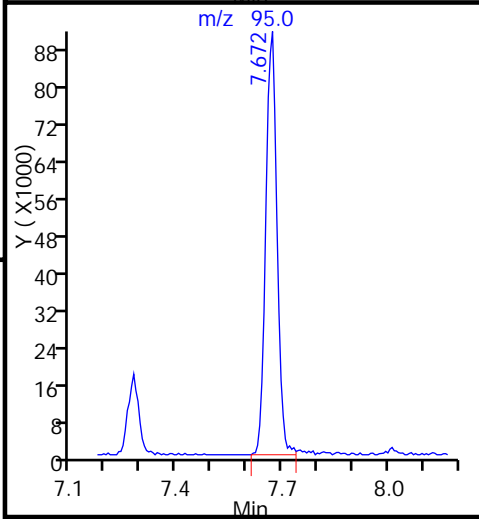
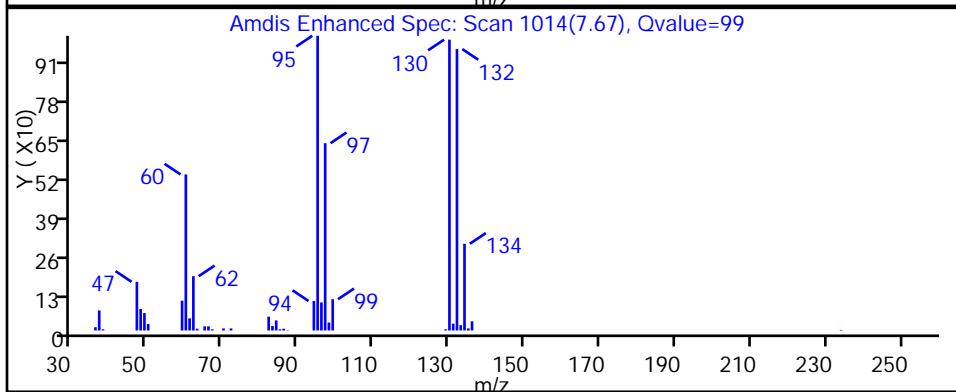
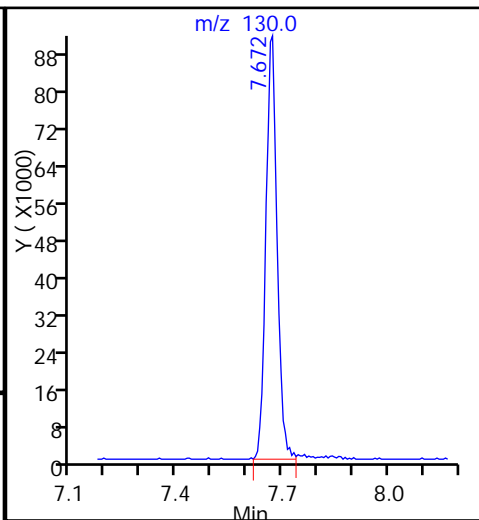
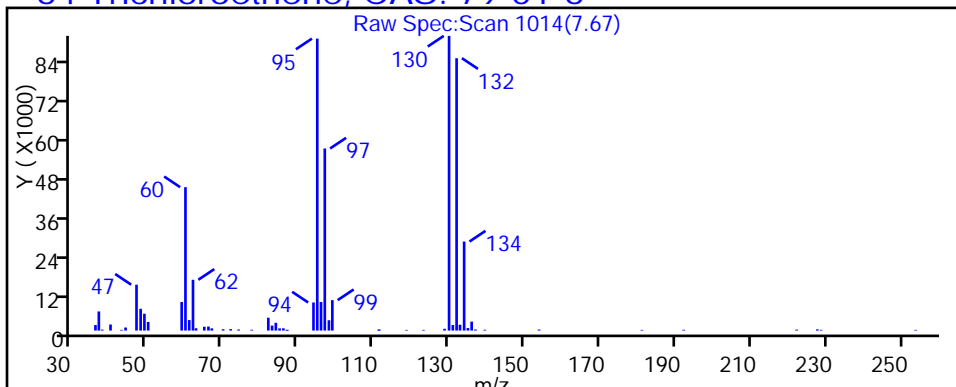
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323013.D

Injection Date: 23-Mar-2015 16:06:30

Instrument ID: CHHP5

Lims ID: 180-42137-C-2

Lab Sample ID: 180-42137-2

Client ID: HD-MW-165-0/1-0

Operator ID: 001562

ALS Bottle#: 13

Worklist Smp#: 13

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

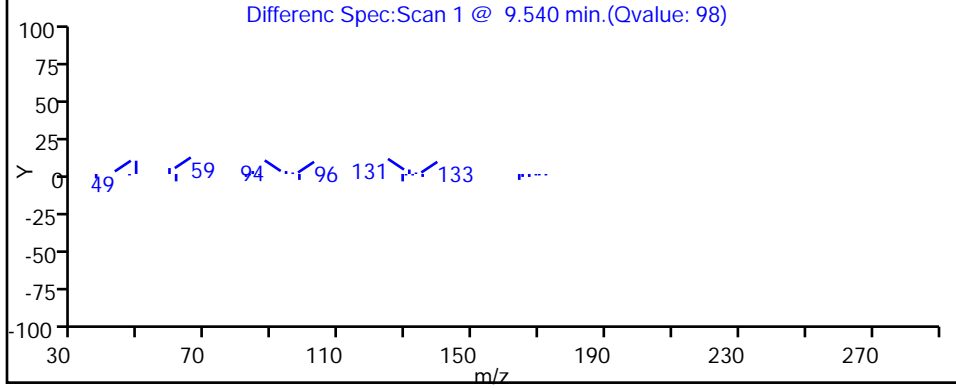
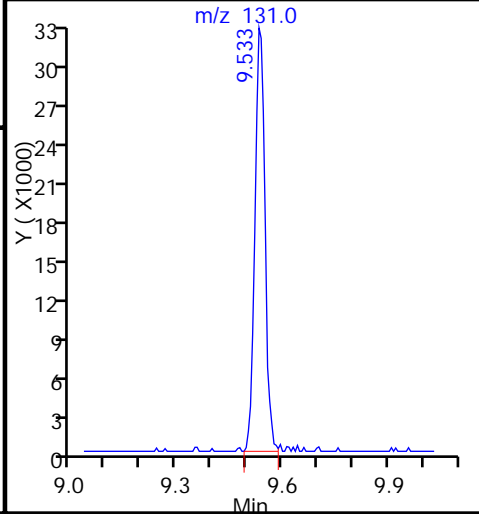
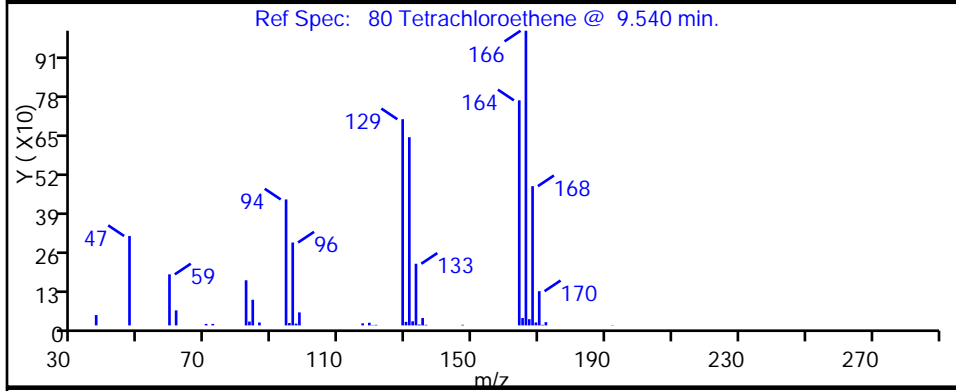
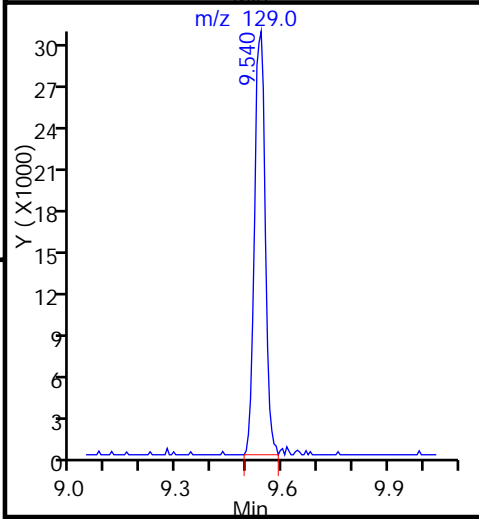
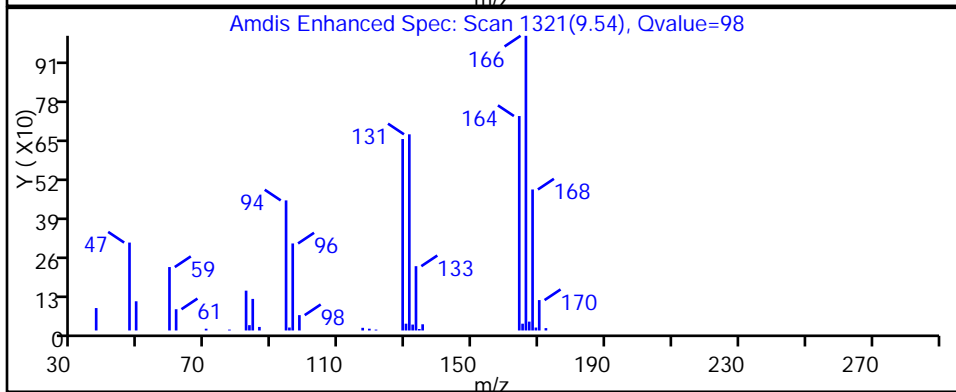
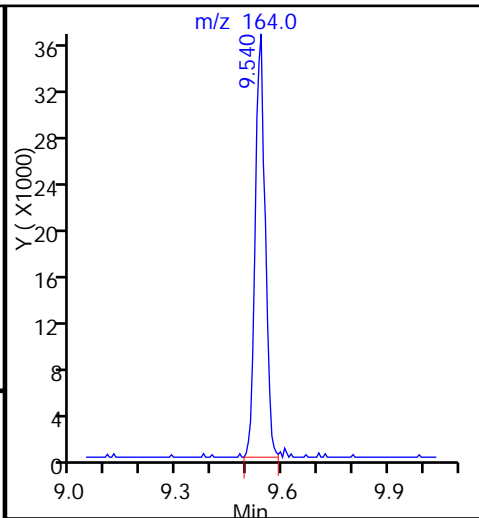
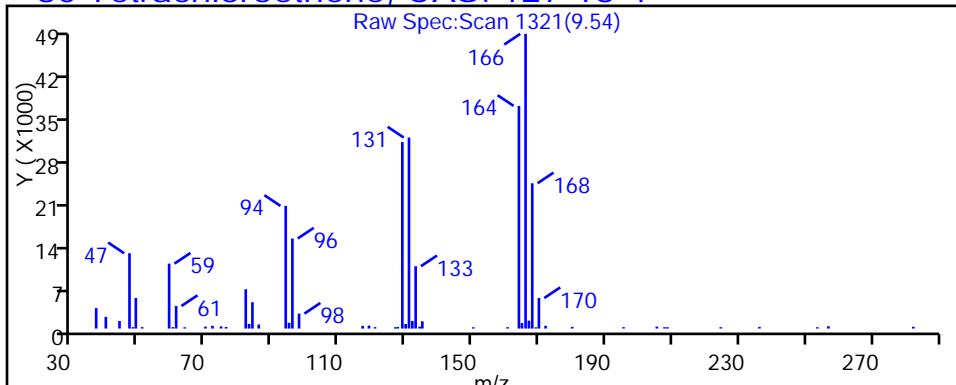
Method: MSVOA\_LL\_CHHP5

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.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-163-0/1-0 Lab Sample ID: 180-42137-3  
 Matrix: Water Lab File ID: 50323014.D  
 Analysis Method: 8260C Date Collected: 03/17/2015 13:12  
 Sample wt/vol: 5(mL) Date Analyzed: 03/23/2015 16:30  
 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.: 136250 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	0.23	J B	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	0.29	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	2.7		1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	40		1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-163-0/1-0 Lab Sample ID: 180-42137-3  
 Matrix: Water Lab File ID: 50323014.D  
 Analysis Method: 8260C Date Collected: 03/17/2015 13:12  
 Sample wt/vol: 5(mL) Date Analyzed: 03/23/2015 16:30  
 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.: 136250 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20
107-13-1	Acrylonitrile	20	U	20	0.55
123-91-1	1,4-Dioxane	200	U	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		64-135
2037-26-5	Toluene-d8 (Surr)	97		71-118
460-00-4	4-Bromofluorobenzene (Surr)	104		70-118
1868-53-7	Dibromofluoromethane (Surr)	112		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323014.D  
 Lims ID: 180-42137-B-3 Lab Sample ID: 180-42137-3  
 Client ID: HD-MW-163-0/1-0  
 Sample Type: Client  
 Inject. Date: 23-Mar-2015 16:30:30 ALS Bottle#: 14 Worklist Smp#: 14  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-42137-B-3  
 Misc. Info.: 180-0006128-014  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\MMSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 24-Mar-2015 07:31:36 Calib Date: 18-Mar-2015 16:19:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150318-6071.b\50318010.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK052

First Level Reviewer: fergusond

Date: 24-Mar-2015 07:31:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.290	4.292	-0.002	98	113606	1000.0	
* 2 Fluorobenzene (IS)	96	7.277	7.273	0.004	100	390893	50.0	
* 3 Chlorobenzene-d5	119	10.361	10.363	-0.002	99	93648	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.681	0.004	94	138911	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.529	6.522	0.007	55	99495	56.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.900	0.000	97	129275	55.2	
\$ 7 Toluene-d8 (Surr)	98	8.925	8.925	0.000	100	363666	48.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.529	11.529	0.000	98	140444	52.2	
12 Chloromethane	50		1.777				ND	
13 Vinyl chloride	62		1.905				ND	
15 Bromomethane	94		2.252				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96		3.377				ND	
24 Acetone	43	3.499	3.493	0.006	62	3998	4.99	
26 Carbon disulfide	76		3.645				ND	
31 Methylene Chloride	84	4.162	4.138	0.024	1	3039	1.17	M
33 Acrylonitrile	53		4.545				ND	
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.594				ND	
37 1,1-Dichloroethane	63		5.166				ND	
45 cis-1,2-Dichloroethene	96		5.938				ND	
46 2-Butanone (MEK)	43		5.987				ND	
49 Chlorobromomethane	128		6.218				ND	
52 Chloroform	83	6.352	6.340	0.012	41	5548	1.47	M
53 1,1,1-Trichloroethane	97		6.522				ND	
56 Carbon tetrachloride	117		6.717				ND	
58 Benzene	78		6.954				ND	
59 1,2-Dichloroethane	62		6.985				ND	
64 Trichloroethene	130	7.666	7.666	0.000	97	31855	13.7	
67 1,2-Dichloropropane	63		7.903				ND	
70 1,4-Dioxane	88		8.056				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.195					ND
74 cis-1,3-Dichloropropene	75		8.658					ND
75 4-Methyl-2-pentanone (MIBK)	43		8.822					ND
76 Toluene	91		8.986					ND
77 trans-1,3-Dichloropropene	75		9.217					ND
79 1,1,2-Trichloroethane	97		9.400					ND
80 Tetrachloroethene	164	9.534	9.534	0.000	96	380103	202.5	
82 2-Hexanone	43		9.655					ND
84 Chlorodibromomethane	129		9.789					ND
85 Ethylene Dibromide	107		9.899					ND
87 Chlorobenzene	112		10.392					ND
89 1,1,1,2-Tetrachloroethane	131		10.471					ND
90 Ethylbenzene	106		10.501					ND
91 m-Xylene & p-Xylene	106		10.617					ND
92 o-Xylene	106		11.012					ND
93 Styrene	104		11.024					ND
94 Bromoform	173		11.213					ND
99 1,1,2,2-Tetrachloroethane	83		11.675					ND
S 133 Xylenes, Total	106		1.000					ND

### QC Flag Legend

Review Flags

M - Manually Integrated

### Reagents:

VOA8260INT\_00030

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00032

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323014.D

Injection Date: 23-Mar-2015 16:30:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-42137-B-3

Lab Sample ID: 180-42137-3

Worklist Smp#: 14

Client ID: HD-MW-163-0/1-0

Purge Vol: 5.000 mL

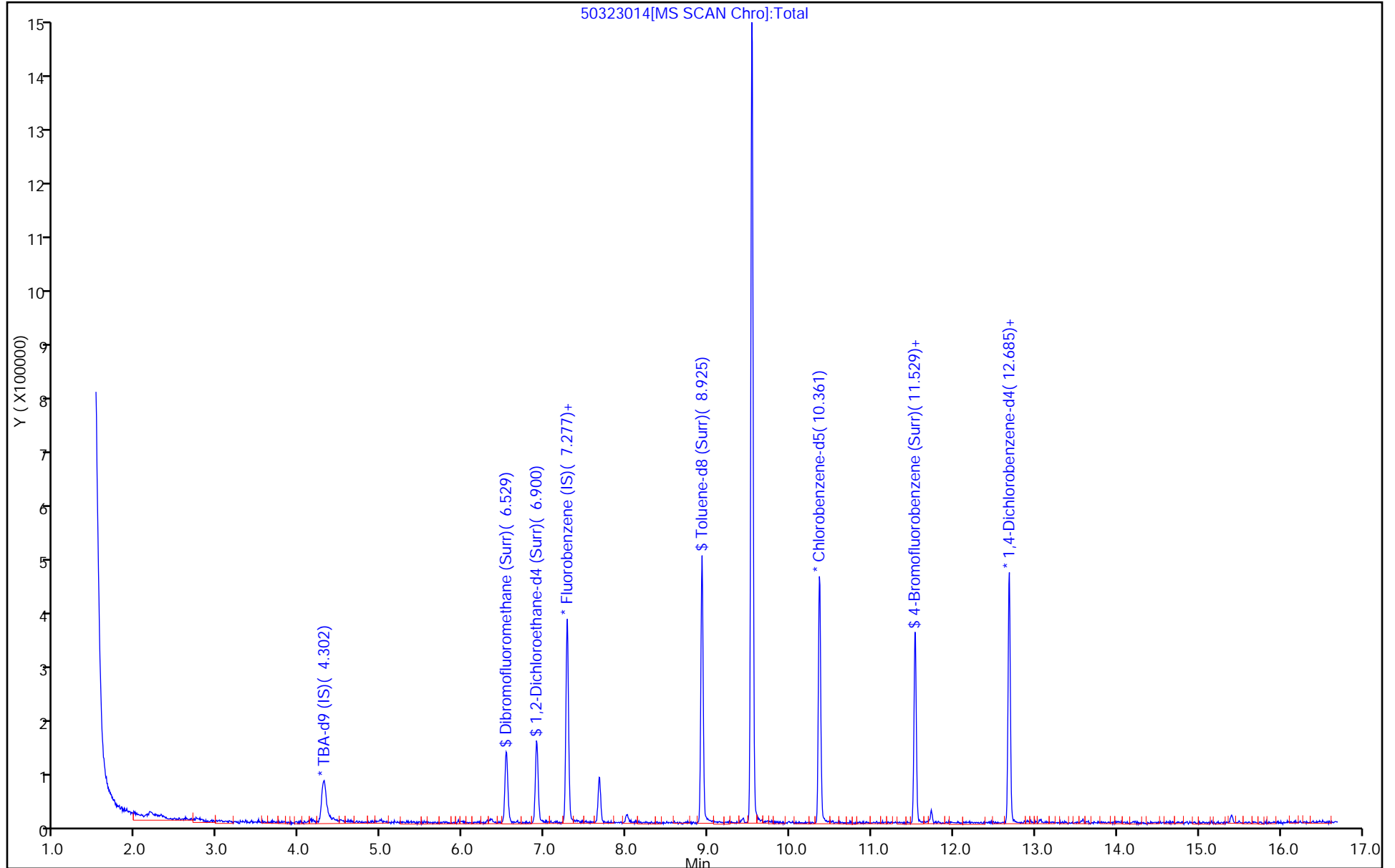
Dil. Factor: 1.0000

ALS Bottle#: 14

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323014.D

Injection Date: 23-Mar-2015 16:30:30

Instrument ID: CHHP5

Lims ID: 180-42137-B-3

Lab Sample ID: 180-42137-3

Client ID: HD-MW-163-0/1-0

Operator ID: 001562

ALS Bottle#: 14

Worklist Smp#: 14

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

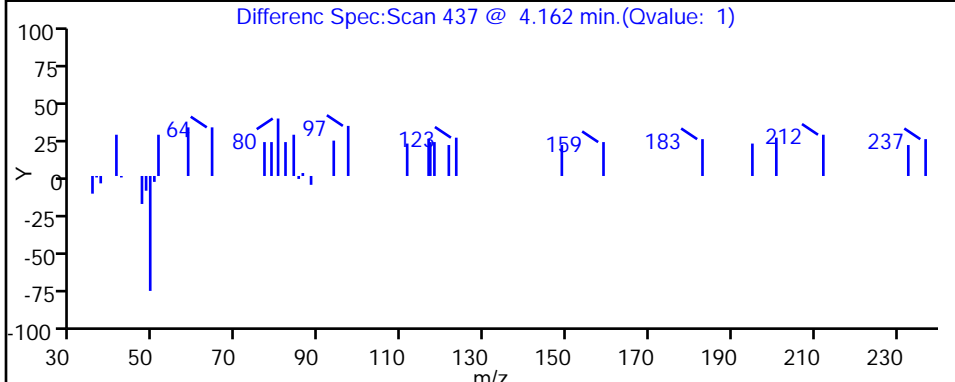
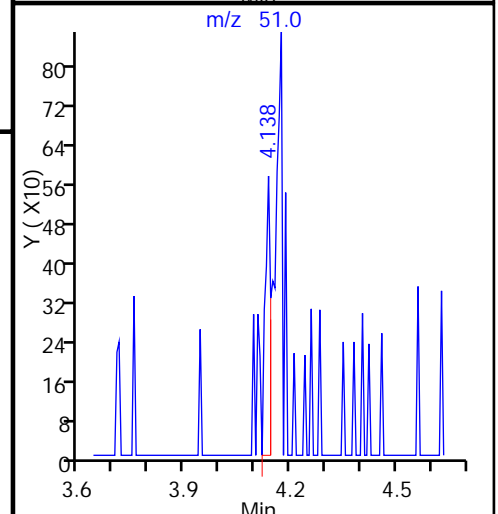
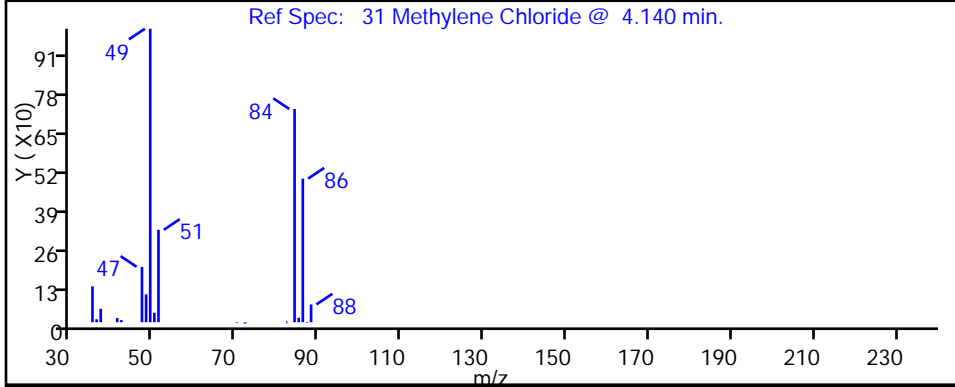
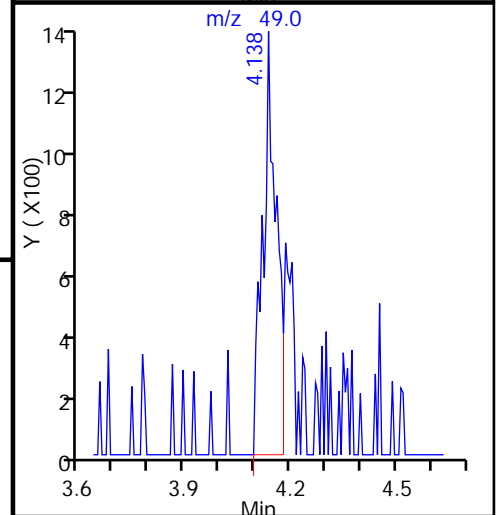
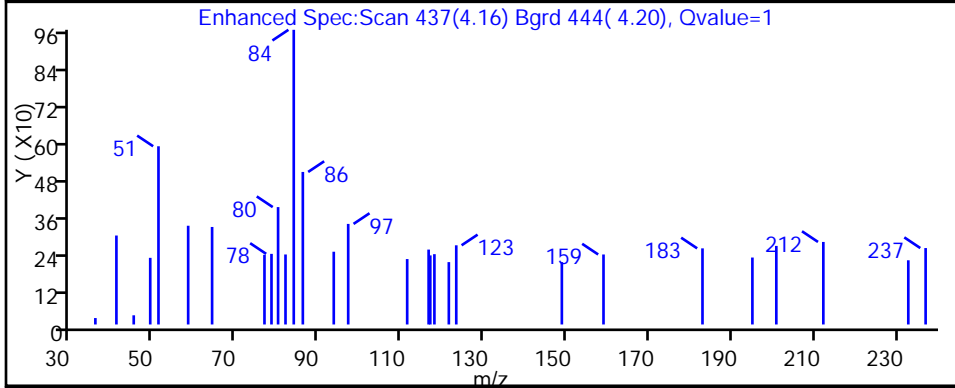
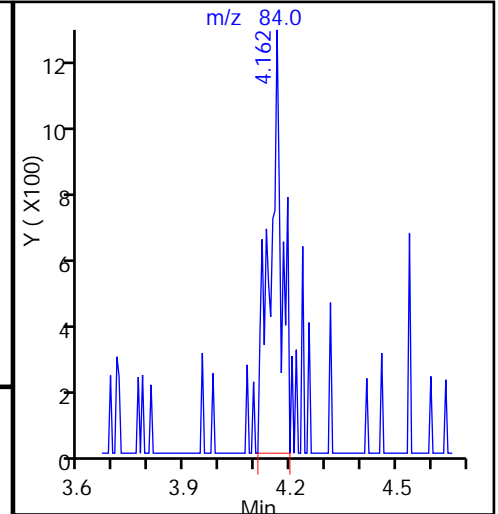
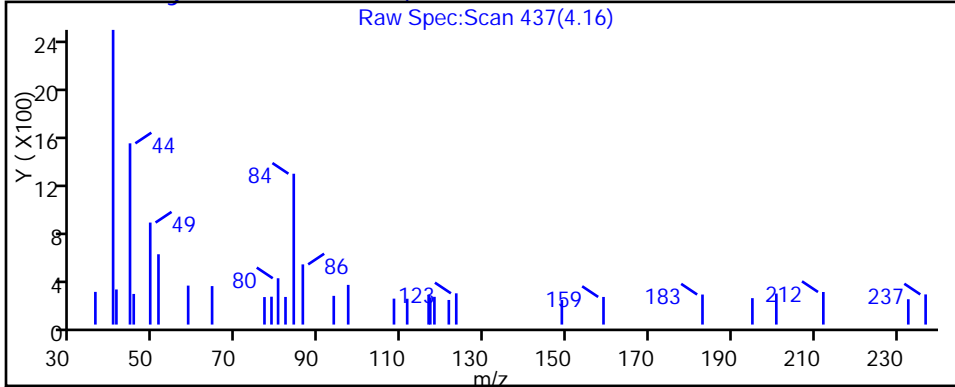
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2





TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323014.D

Injection Date: 23-Mar-2015 16:30:30

Instrument ID: CHHP5

Lims ID: 180-42137-B-3

Lab Sample ID: 180-42137-3

Client ID: HD-MW-163-0/1-0

Operator ID: 001562

ALS Bottle#: 14

Worklist Smp#: 14

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

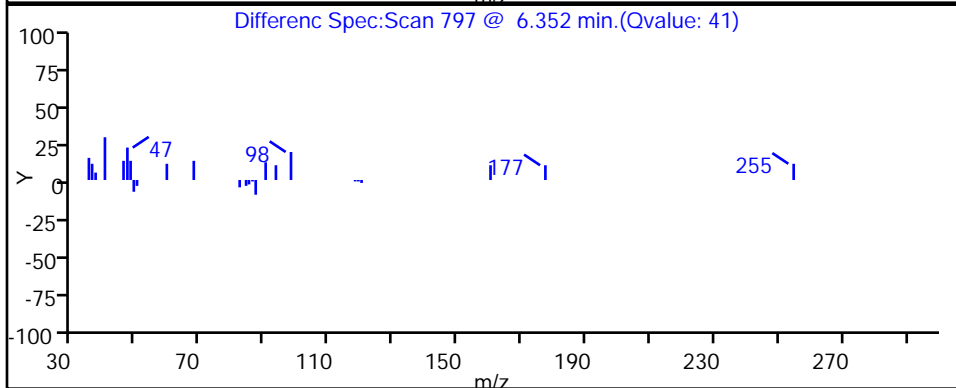
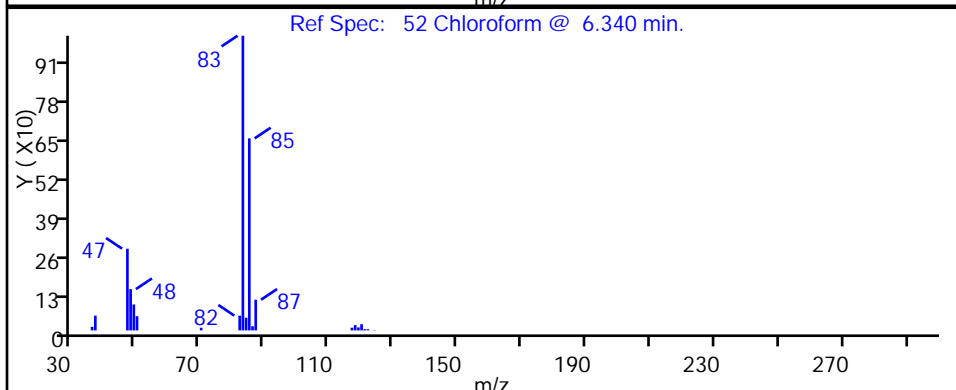
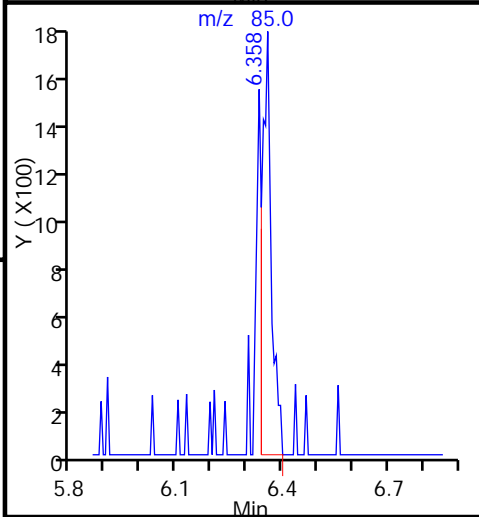
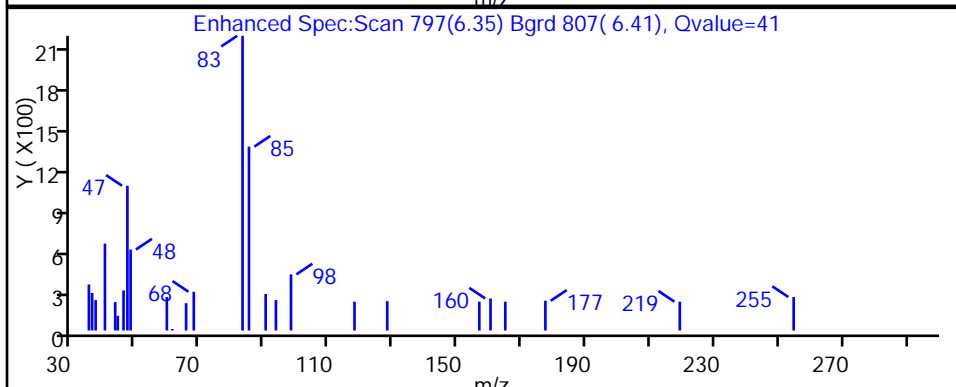
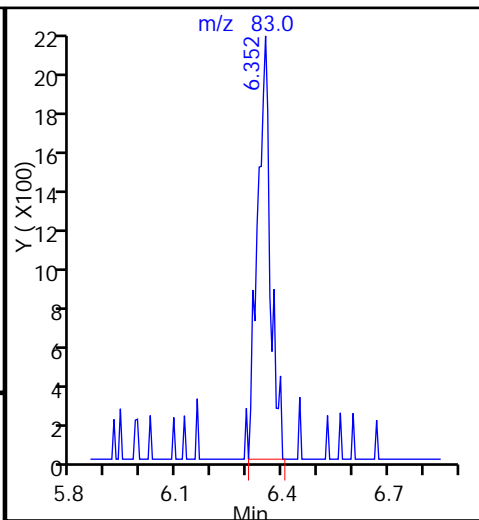
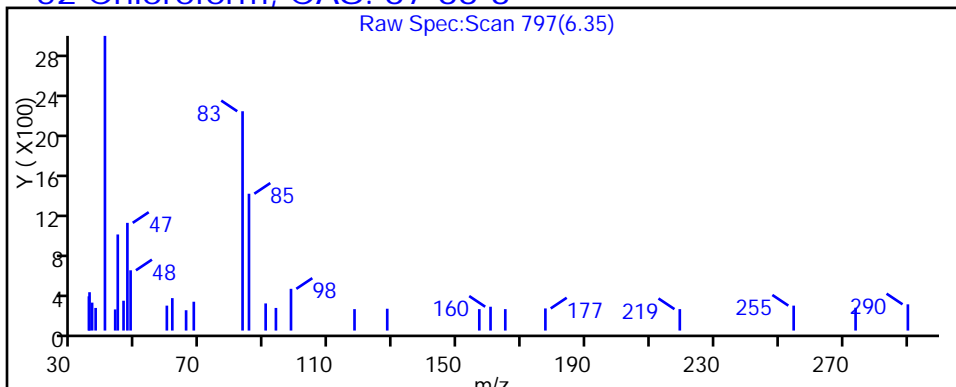
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

52 Chloroform, CAS: 67-66-3



TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323014.D

Injection Date: 23-Mar-2015 16:30:30

Instrument ID: CHHP5

Lims ID: 180-42137-B-3

Lab Sample ID: 180-42137-3

Client ID: HD-MW-163-0/1-0

Operator ID: 001562

ALS Bottle#: 14

Worklist Smp#: 14

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

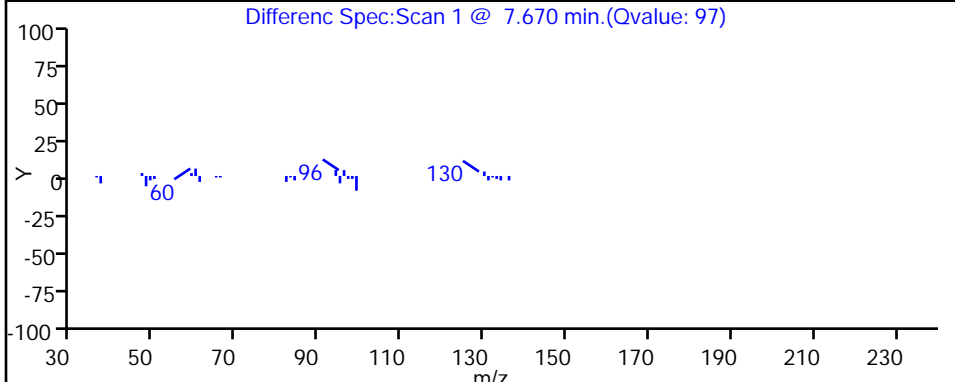
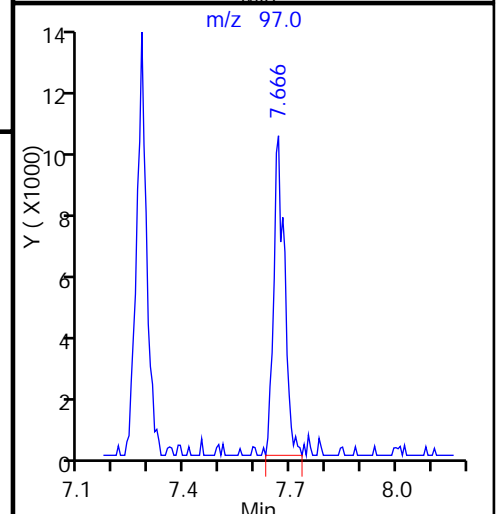
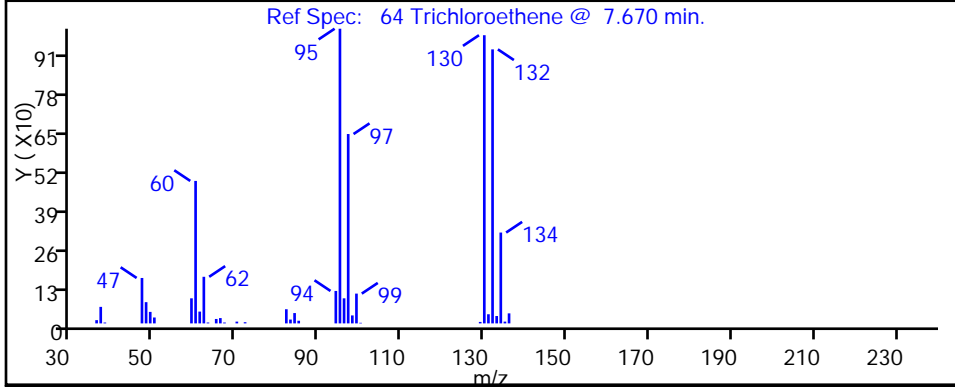
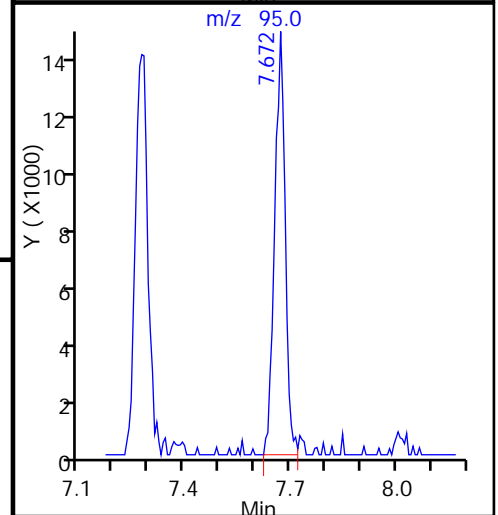
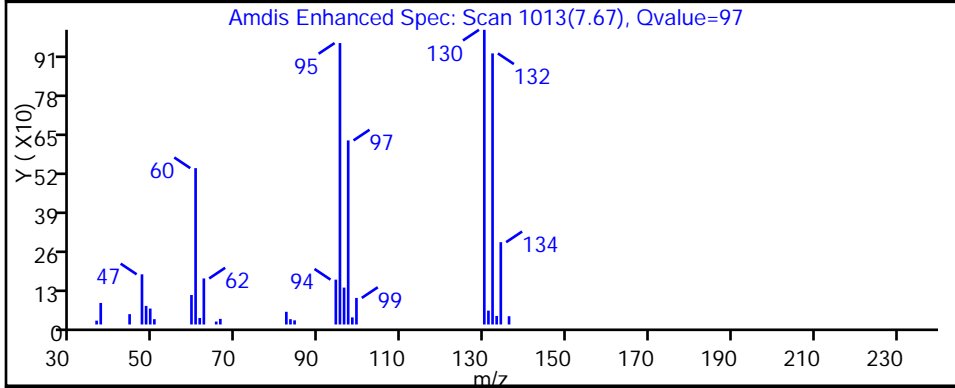
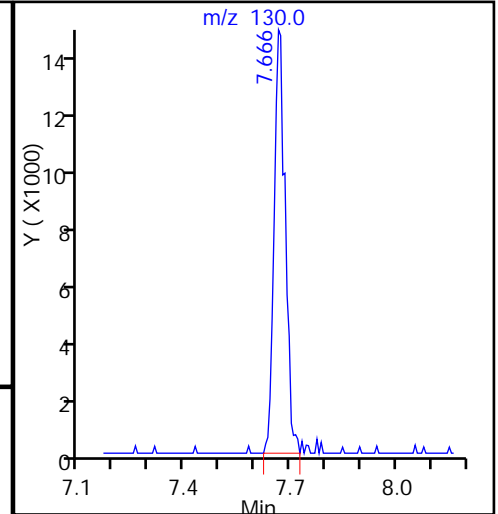
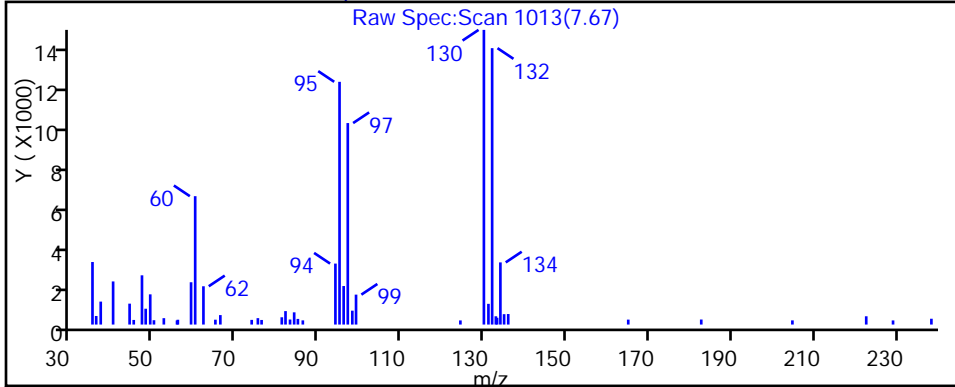
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323014.D

Injection Date: 23-Mar-2015 16:30:30

Instrument ID: CHHP5

Lims ID: 180-42137-B-3

Lab Sample ID: 180-42137-3

Client ID: HD-MW-163-0/1-0

Operator ID: 001562

ALS Bottle#: 14

Worklist Smp#: 14

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

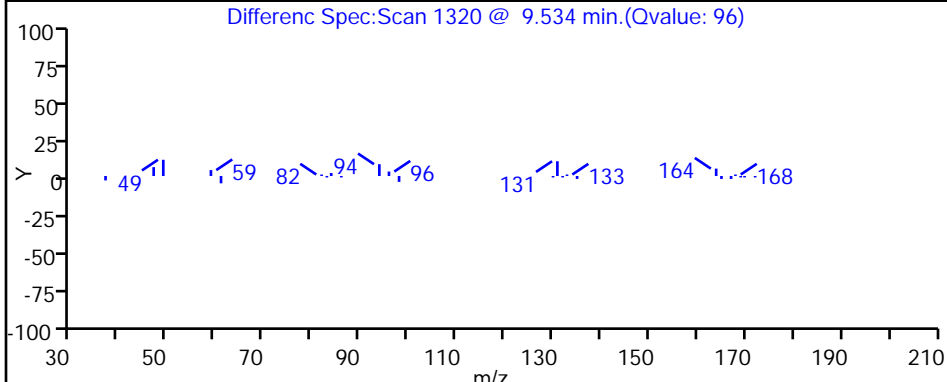
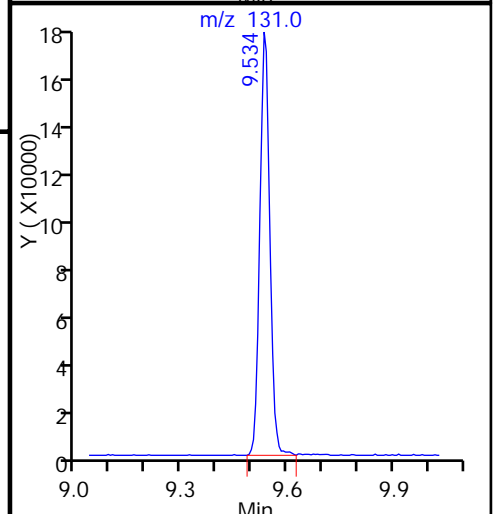
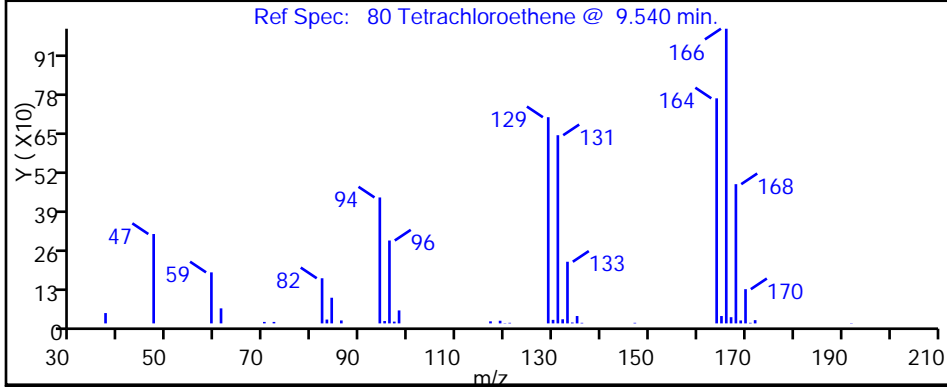
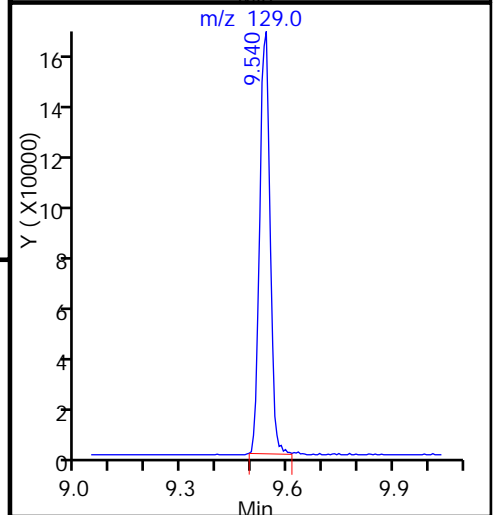
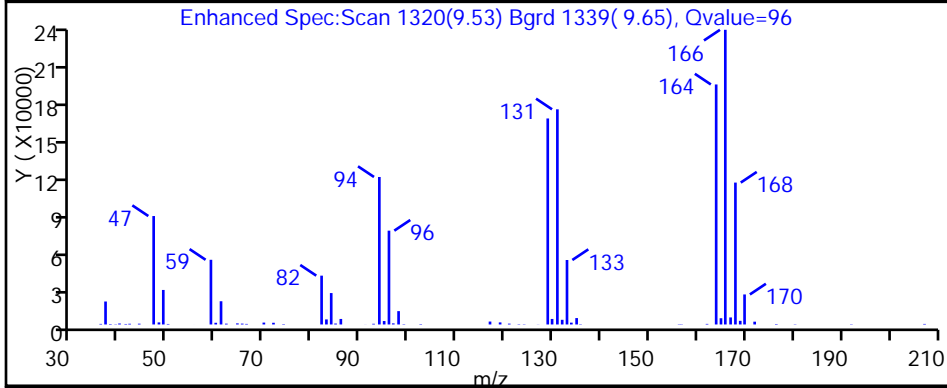
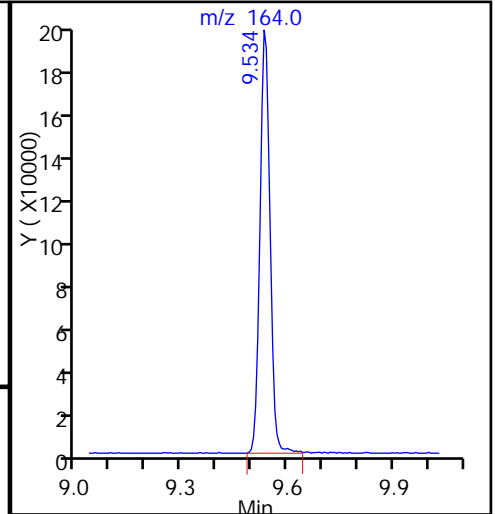
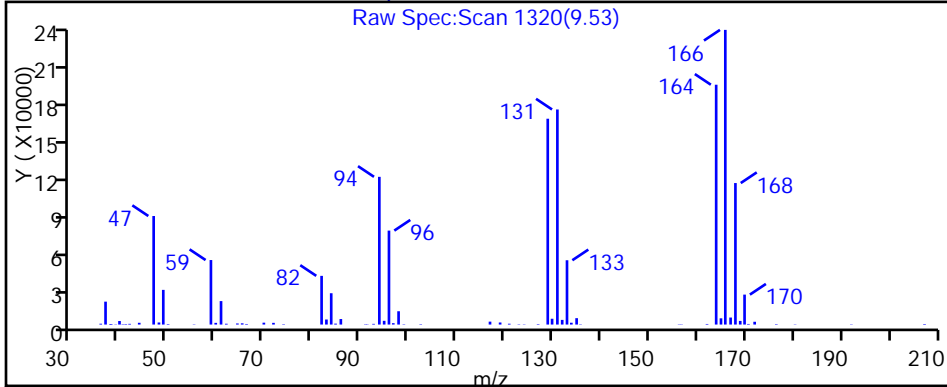
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



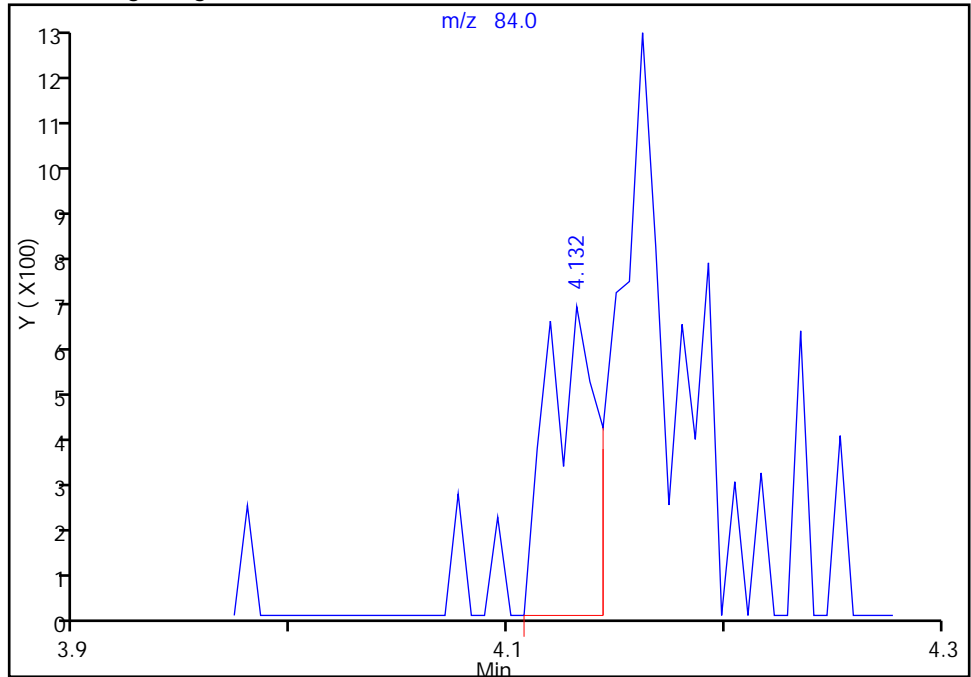
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323014.D  
Injection Date: 23-Mar-2015 16:30:30 Instrument ID: CHHP5  
Lims ID: 180-42137-B-3 Lab Sample ID: 180-42137-3  
Client ID: HD-MW-163-0/1-0  
Operator ID: 001562 ALS Bottle#: 14 Worklist Smp#: 14  
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

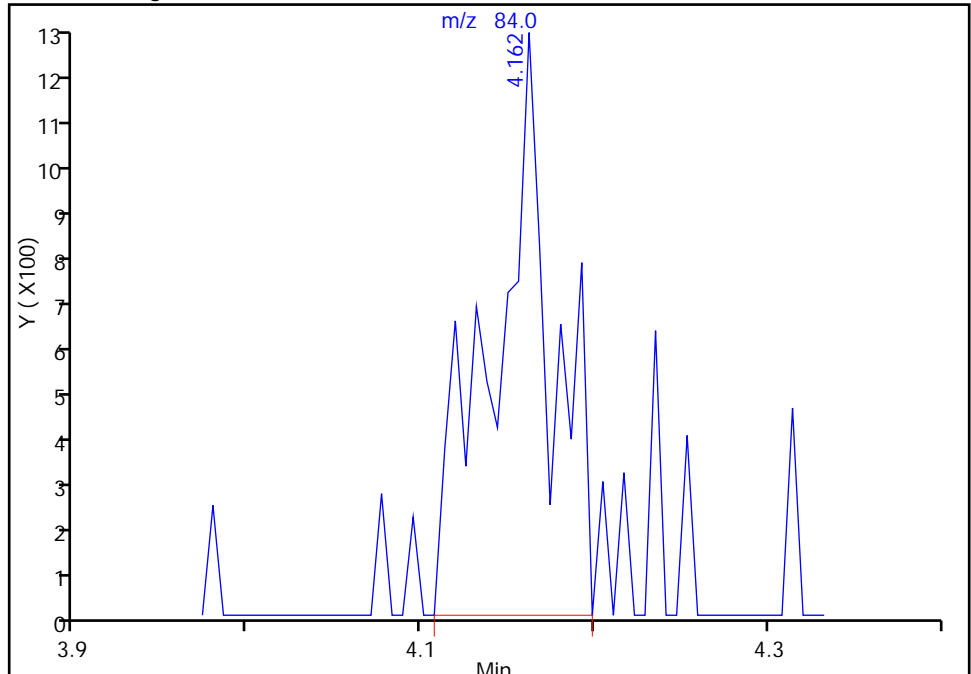
RT: 4.13  
Area: 1050  
Amount: 0.402781  
Amount Units: ng

Processing Integration Results



RT: 4.16  
Area: 3039  
Amount: 1.165763  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 24-Mar-2015 07:31:36  
Audit Action: Manually Integrated  
Audit Reason: Split Peak

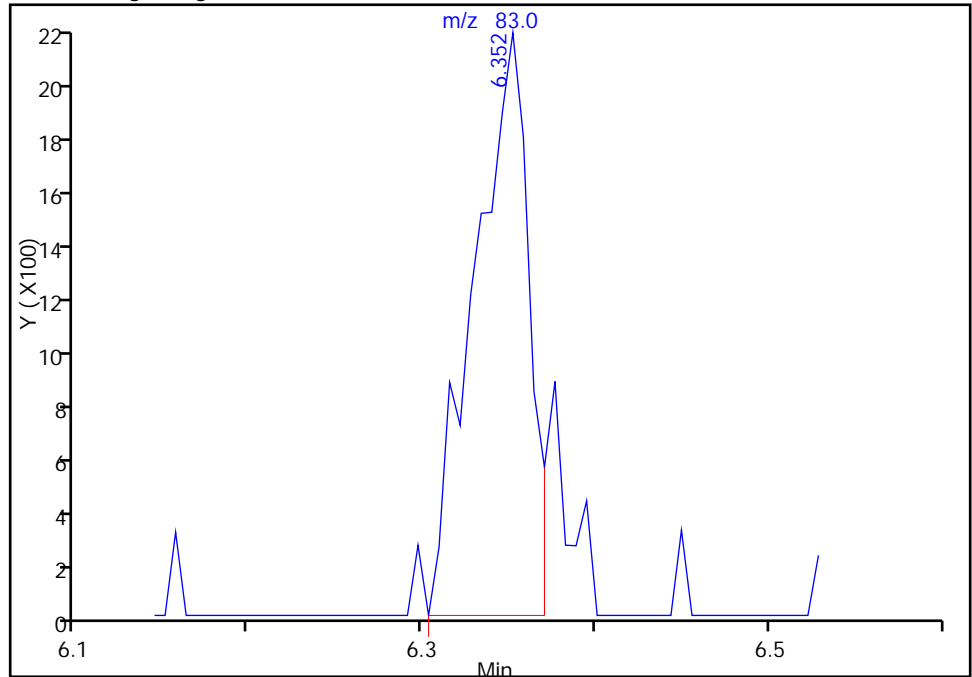
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323014.D  
Injection Date: 23-Mar-2015 16:30:30 Instrument ID: CHHP5  
Lims ID: 180-42137-B-3 Lab Sample ID: 180-42137-3  
Client ID: HD-MW-163-0/1-0  
Operator ID: 001562 ALS Bottle#: 14 Worklist Smp#: 14  
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

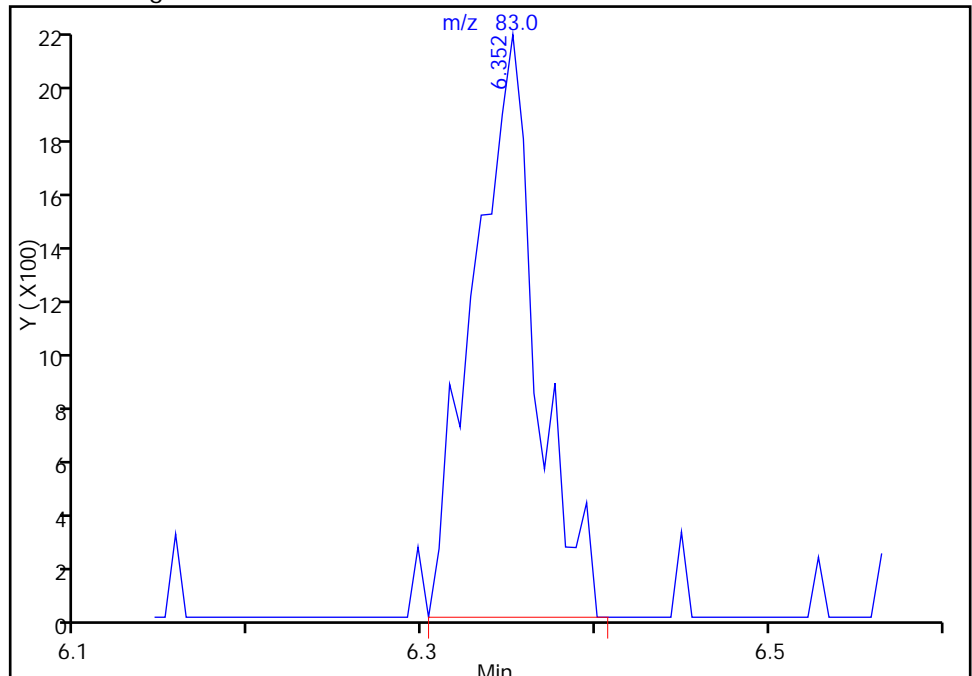
RT: 6.35  
Area: 4877  
Amount: 1.290027  
Amount Units: ng

Processing Integration Results



RT: 6.35  
Area: 5548  
Amount: 1.467515  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 24-Mar-2015 07:31:36  
Audit Action: Manually Integrated  
Audit Reason: Split Peak

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-161-0/1-0 Lab Sample ID: 180-42137-4  
 Matrix: Water Lab File ID: 50324027.D  
 Analysis Method: 8260C Date Collected: 03/17/2015 15:38  
 Sample wt/vol: 5(mL) Date Analyzed: 03/24/2015 22:38  
 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.: 136397 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	0.37	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	89	E	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	260	E	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-161-0/1-0 Lab Sample ID: 180-42137-4  
 Matrix: Water Lab File ID: 50324027.D  
 Analysis Method: 8260C Date Collected: 03/17/2015 15:38  
 Sample wt/vol: 5(mL) Date Analyzed: 03/24/2015 22:38  
 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.: 136397 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20
107-13-1	Acrylonitrile	20	U	20	0.55
123-91-1	1,4-Dioxane	200	U	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		64-135
2037-26-5	Toluene-d8 (Surr)	102		71-118
460-00-4	4-Bromofluorobenzene (Surr)	98		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\50324027.D  
 Lims ID: 180-42137-C-4 Lab Sample ID: 180-42137-4  
 Client ID: HD-MW-161-0/1-0  
 Sample Type: Client  
 Inject. Date: 24-Mar-2015 22:38:30 ALS Bottle#: 27 Worklist Smp#: 28  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-42137-C-4  
 Misc. Info.: 180-0006148-028  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\MMSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 25-Mar-2015 08:43:04 Calib Date: 18-Mar-2015 16:19:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150318-6071.b\50318010.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK031

First Level Reviewer: gordonk

Date: 25-Mar-2015 08:43:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.287	4.306	-0.019	96	90626	1000.0	
* 2 Fluorobenzene (IS)	96	7.274	7.268	0.006	100	412678	50.0	
* 3 Chlorobenzene-d5	119	10.359	10.359	0.000	99	93439	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.683	12.683	-0.001	93	131208	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.526	6.520	0.006	55	98607	52.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.897	6.903	-0.006	97	142782	57.7	
\$ 7 Toluene-d8 (Surr)	98	8.923	8.923	0.000	99	379769	51.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.533	11.533	0.000	98	131910	49.2	
12 Chloromethane	50		1.775				ND	
13 Vinyl chloride	62		1.903				ND	
15 Bromomethane	94		2.256				ND	
16 Chloroethane	64		2.402				ND	
22 1,1-Dichloroethene	96		3.381				ND	
24 Acetone	43		3.491				ND	
26 Carbon disulfide	76		3.667				ND	
31 Methylene Chloride	84		4.141				ND	
34 trans-1,2-Dichloroethene	96		4.555				ND	
33 Acrylonitrile	53		4.555				ND	
35 Methyl tert-butyl ether	73	4.598	4.592	0.006	1	3319	0.6099	M
37 1,1-Dichloroethane	63		5.170				ND	
45 cis-1,2-Dichloroethene	96		5.942				ND	
46 2-Butanone (MEK)	43		5.985				ND	
49 Chlorobromomethane	128		6.216				ND	
52 Chloroform	83	6.344	6.338	0.006	70	7349	1.84	
53 1,1,1-Trichloroethane	97		6.526				ND	
56 Carbon tetrachloride	117		6.715				ND	
58 Benzene	78		6.952				ND	
59 1,2-Dichloroethane	62		6.982				ND	
64 Trichloroethene	130	7.664	7.664	0.000	98	1095607	447.2	E
67 1,2-Dichloropropane	63		7.901				ND	
70 1,4-Dioxane	88		8.047				ND	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.193				ND	
74 cis-1,3-Dichloropropene	75		8.655				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.820				ND	
76 Toluene	91		8.990				ND	
77 trans-1,3-Dichloropropene	75		9.215				ND	
79 1,1,2-Trichloroethane	97		9.398				ND	
80 Tetrachloroethene	164	9.537	9.531	0.006	90	2420553	1292.3	E
82 2-Hexanone	43		9.653				ND	
84 Chlorodibromomethane	129		9.787				ND	
85 Ethylene Dibromide	107		9.902				ND	
87 Chlorobenzene	112		10.389				ND	
89 1,1,1,2-Tetrachloroethane	131		10.474				ND	
90 Ethylbenzene	106		10.499				ND	
91 m-Xylene & p-Xylene	106		10.614				ND	
92 o-Xylene	106		11.010				ND	
93 Styrene	104		11.022				ND	
94 Bromoform	173		11.204				ND	
99 1,1,2,2-Tetrachloroethane	83		11.673				ND	
S 133 Xylenes, Total	106		1.000				ND	

### QC Flag Legend

#### Processing Flags

E - Exceeded Maximum Amount

#### Review Flags

M - Manually Integrated

### Reagents:

VOA8260INT\_00030

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00032

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\50324027.D

Injection Date: 24-Mar-2015 22:38:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-42137-C-4

Lab Sample ID: 180-42137-4

Worklist Smp#: 28

Client ID: HD-MW-161-0/1-0

Purge Vol: 5.000 mL

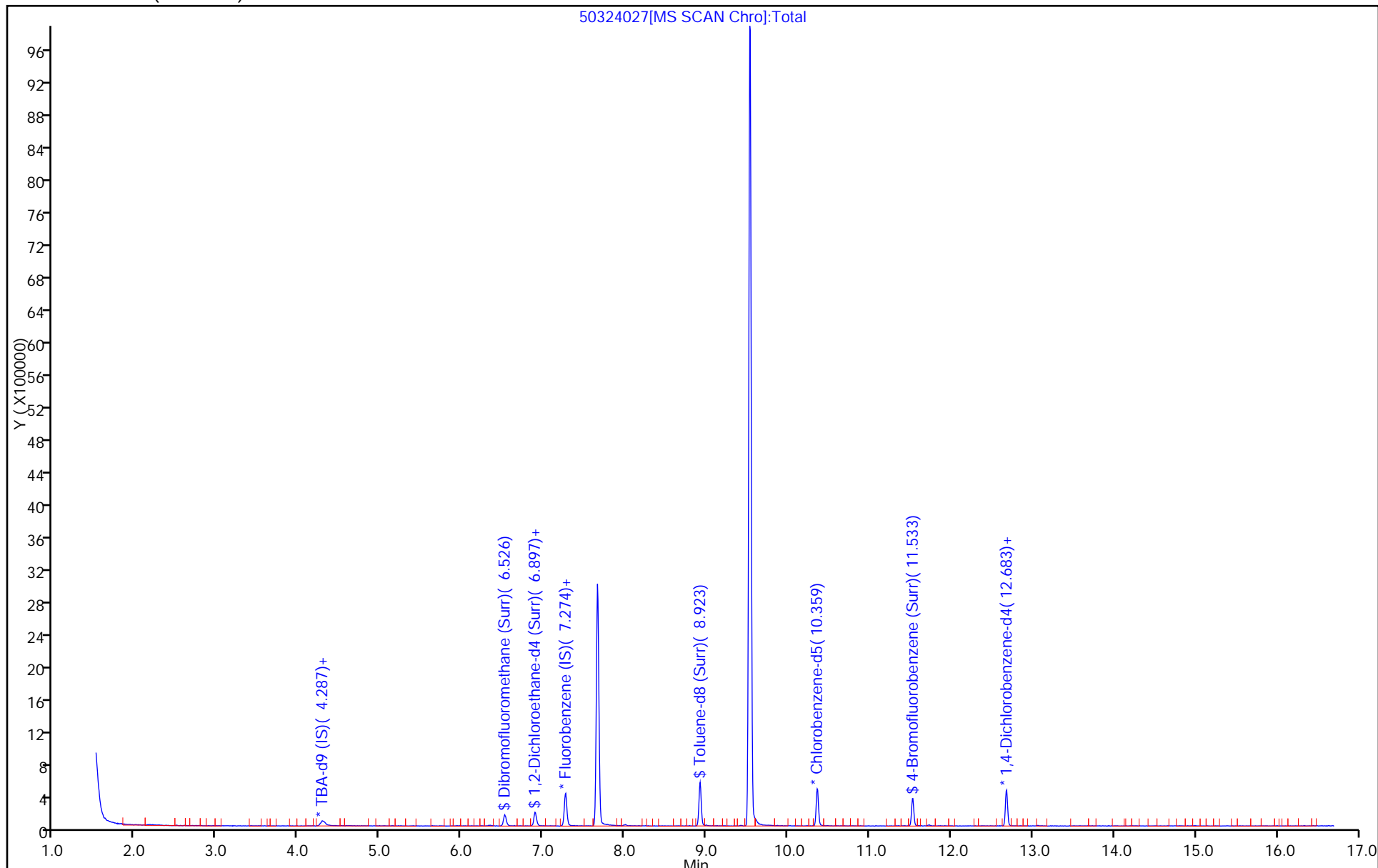
Dil. Factor: 1.0000

ALS Bottle#: 27

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\50324027.D

Injection Date: 24-Mar-2015 22:38:30

Instrument ID: CHHP5

Lims ID: 180-42137-C-4

Lab Sample ID: 180-42137-4

Client ID: HD-MW-161-0/1-0

Operator ID: 001562

ALS Bottle#: 27

Worklist Smp#: 28

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

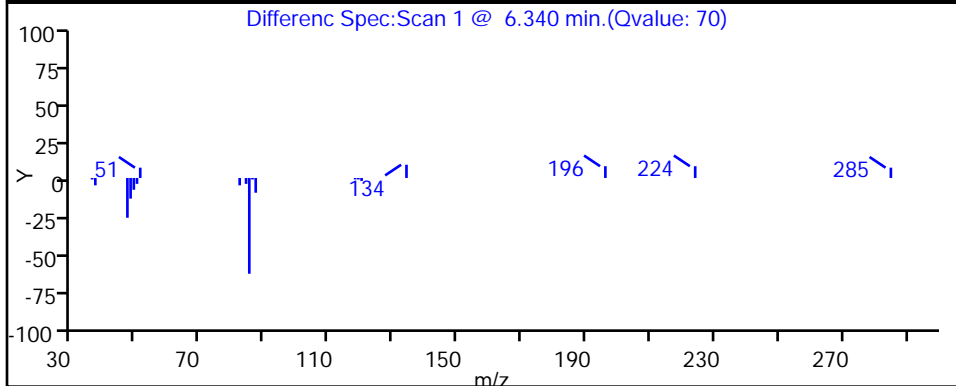
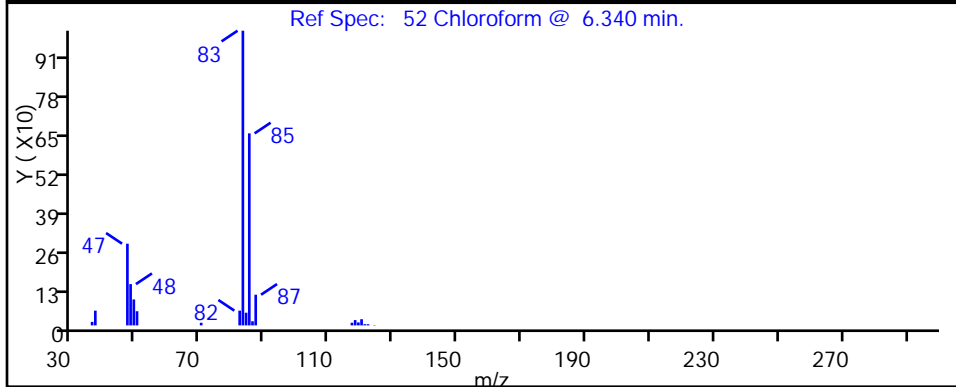
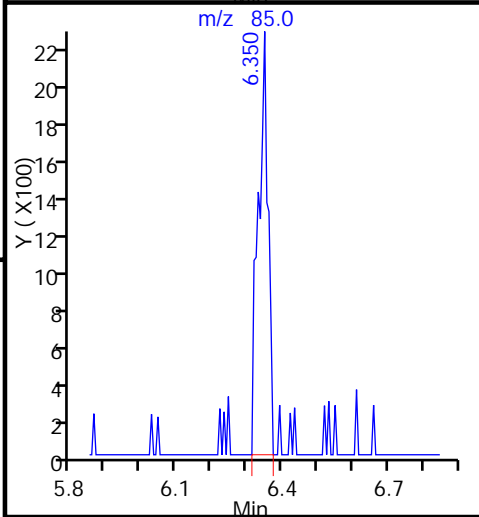
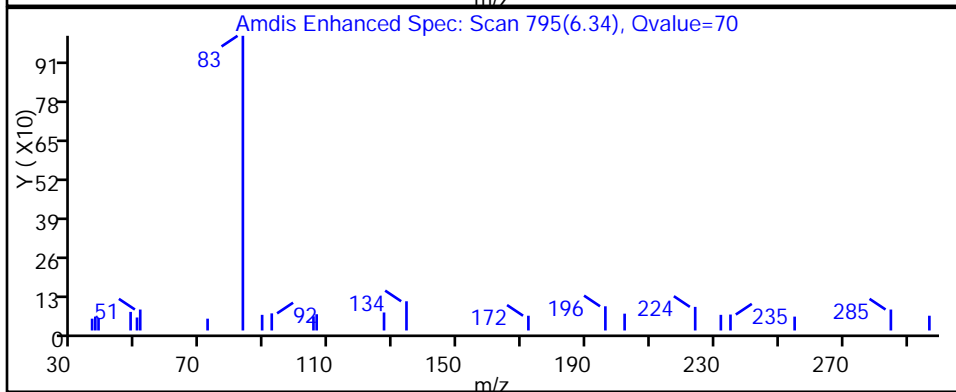
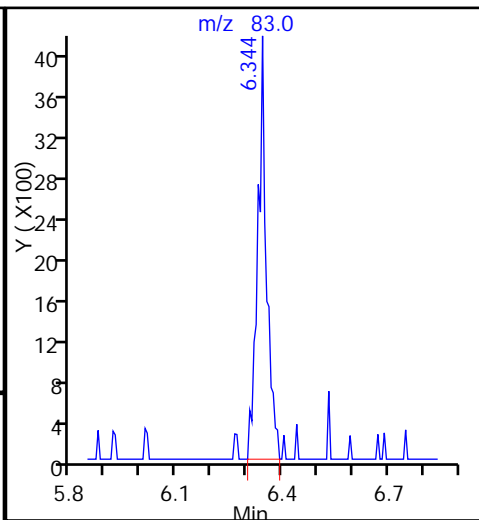
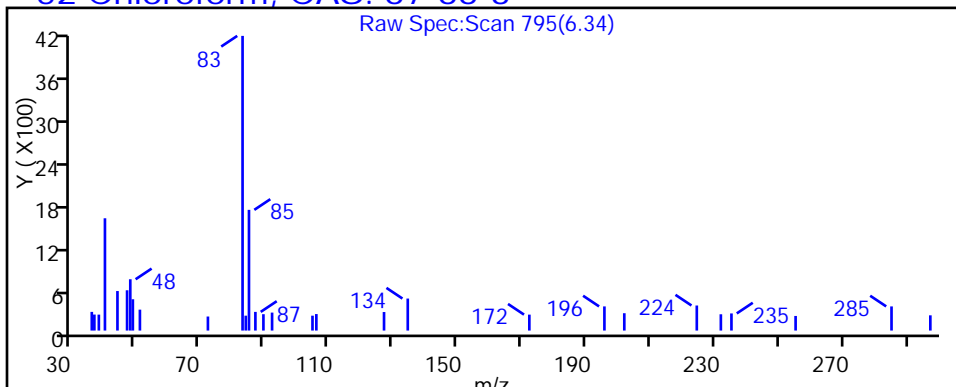
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

52 Chloroform, CAS: 67-66-3



TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\50324027.D

Injection Date: 24-Mar-2015 22:38:30

Instrument ID: CHHP5

Lims ID: 180-42137-C-4

Lab Sample ID: 180-42137-4

Client ID: HD-MW-161-0/1-0

Operator ID: 001562

ALS Bottle#: 27

Worklist Smp#: 28

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

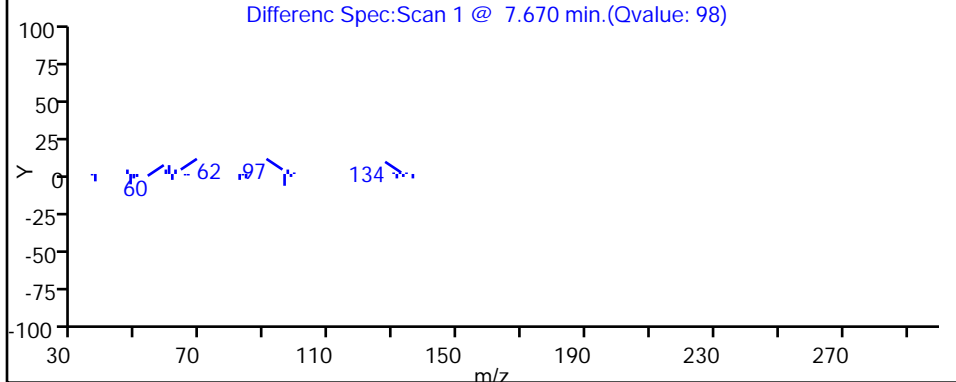
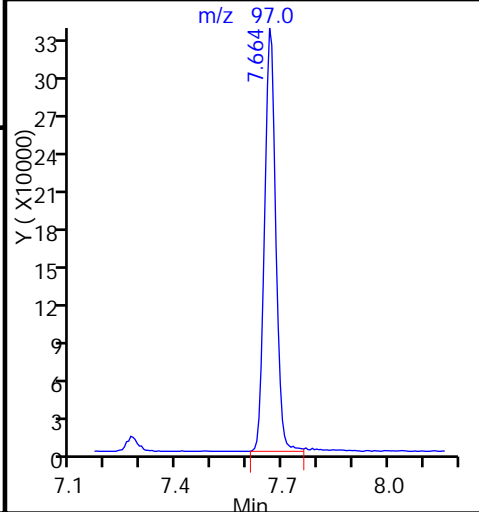
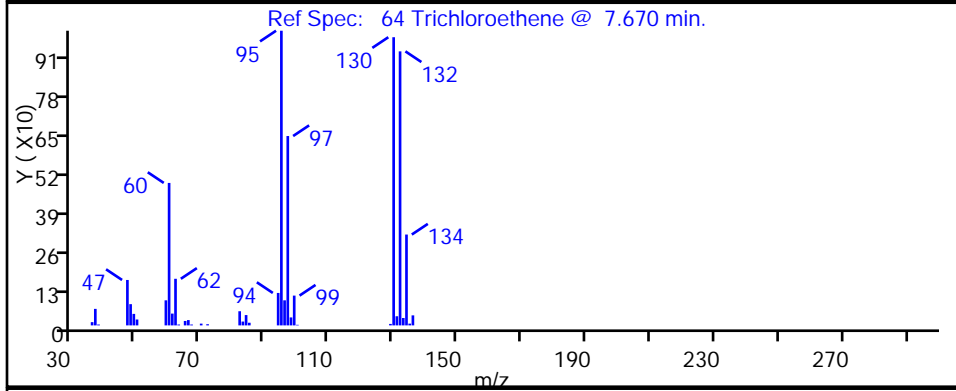
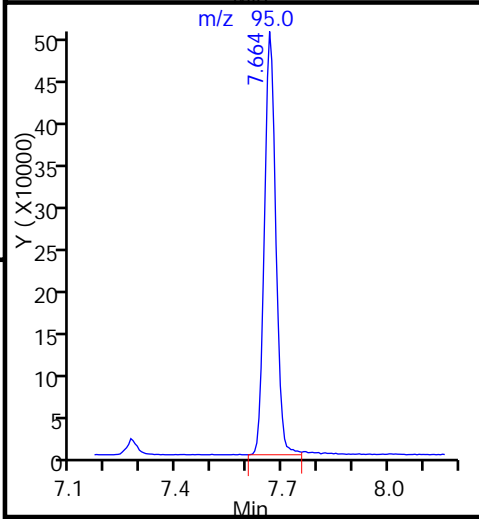
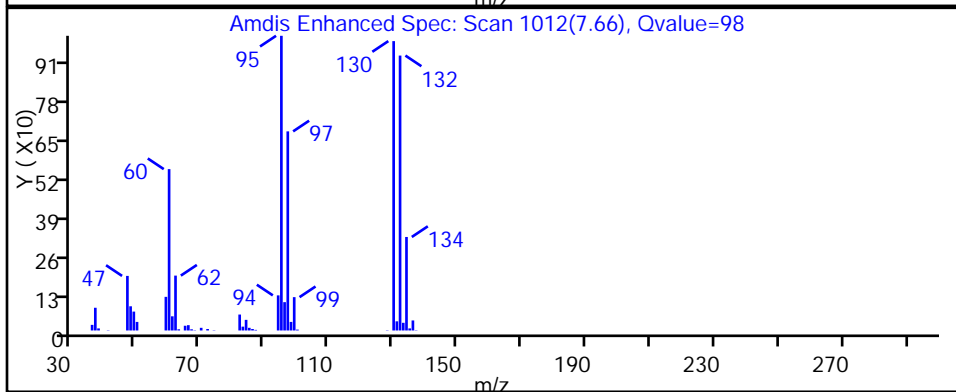
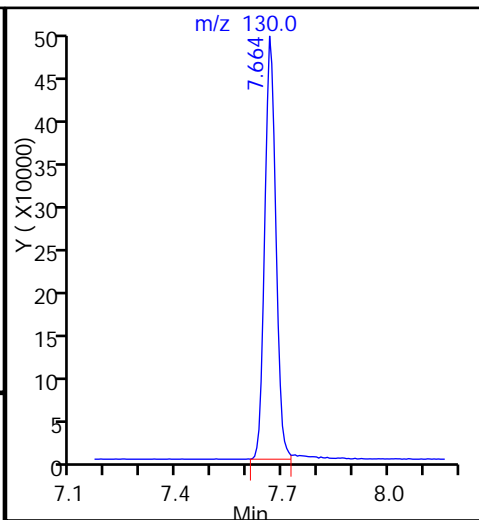
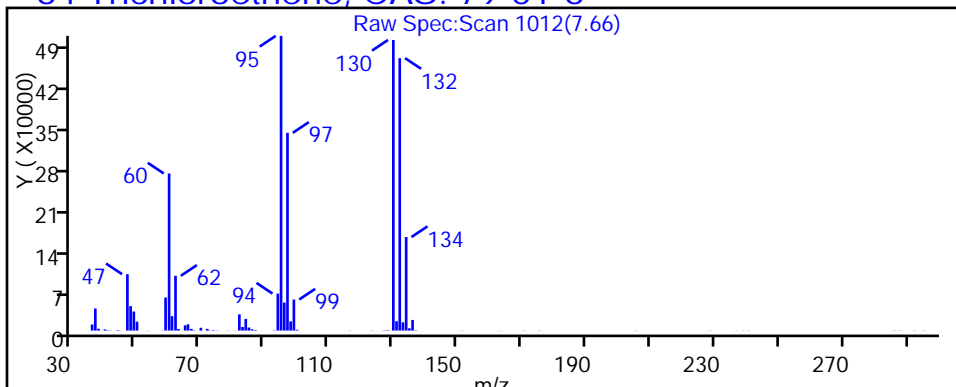
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\50324027.D

Injection Date: 24-Mar-2015 22:38:30

Instrument ID: CHHP5

Lims ID: 180-42137-C-4

Lab Sample ID: 180-42137-4

Client ID: HD-MW-161-0/1-0

Operator ID: 001562

ALS Bottle#: 27

Worklist Smp#: 28

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

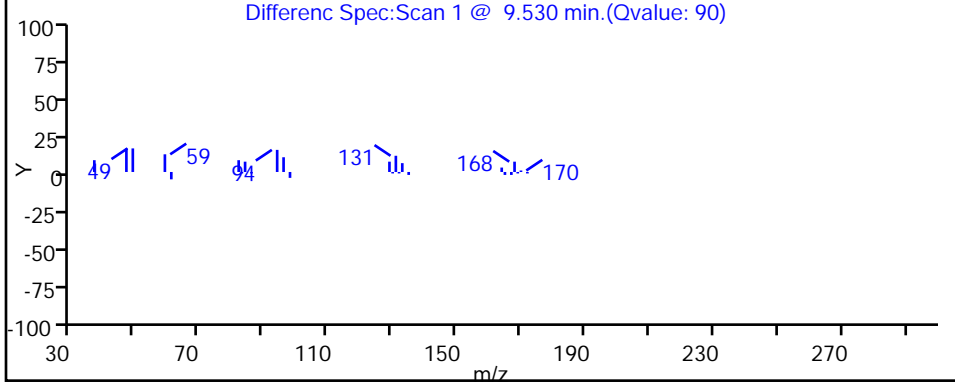
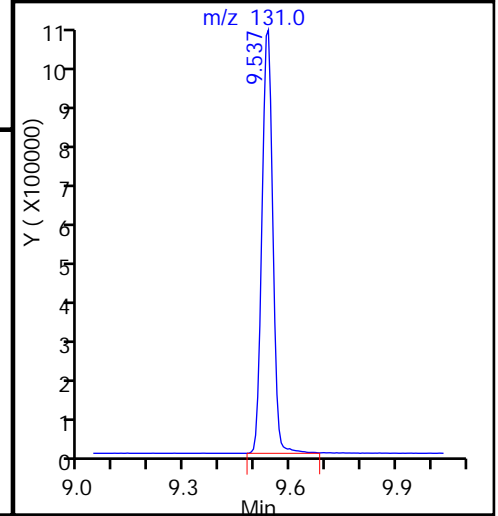
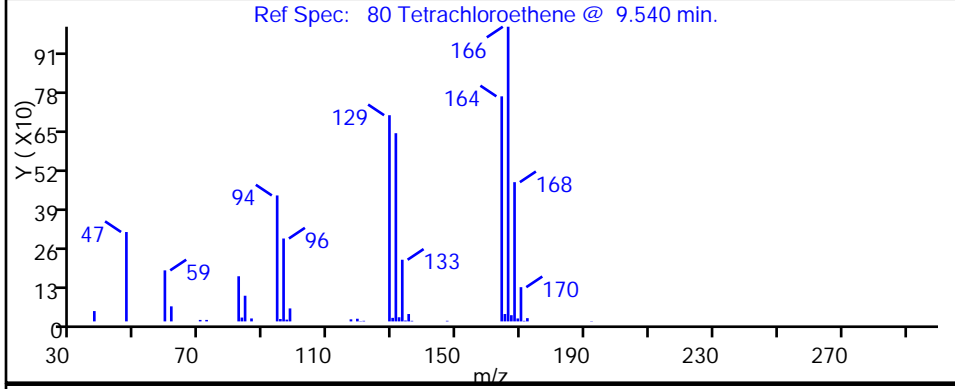
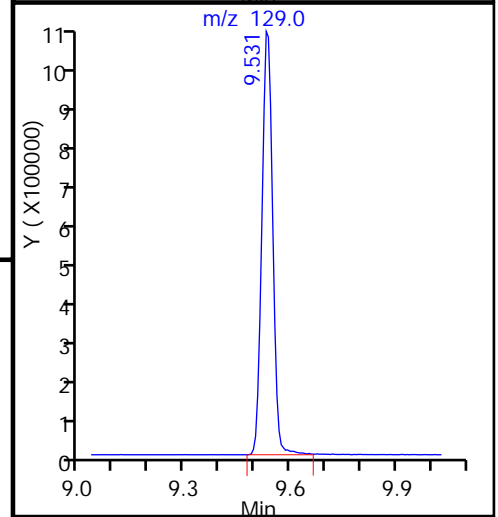
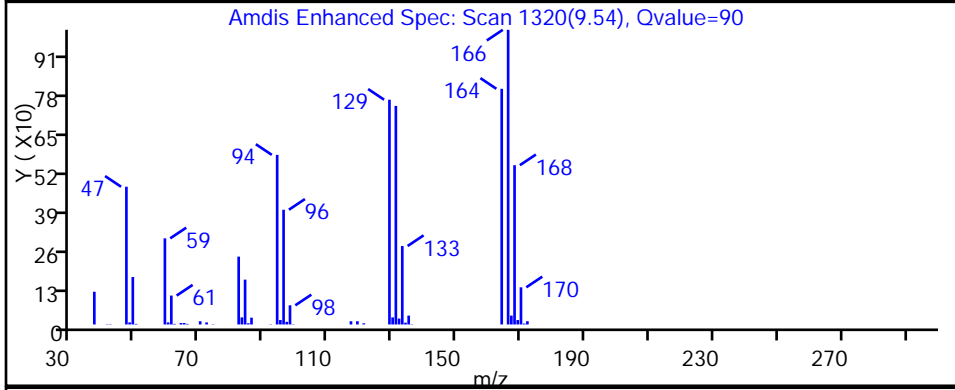
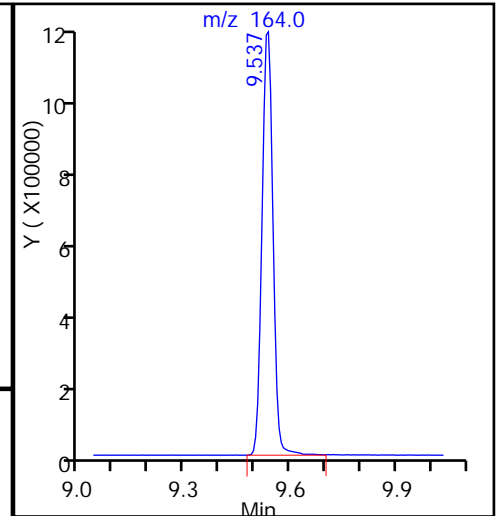
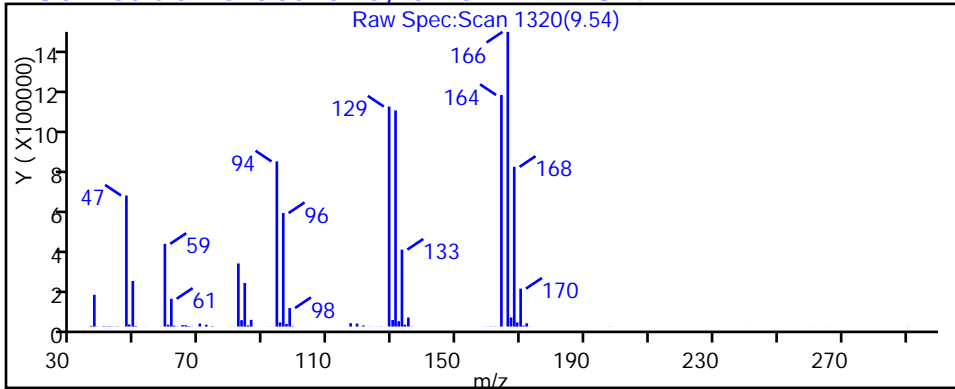
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



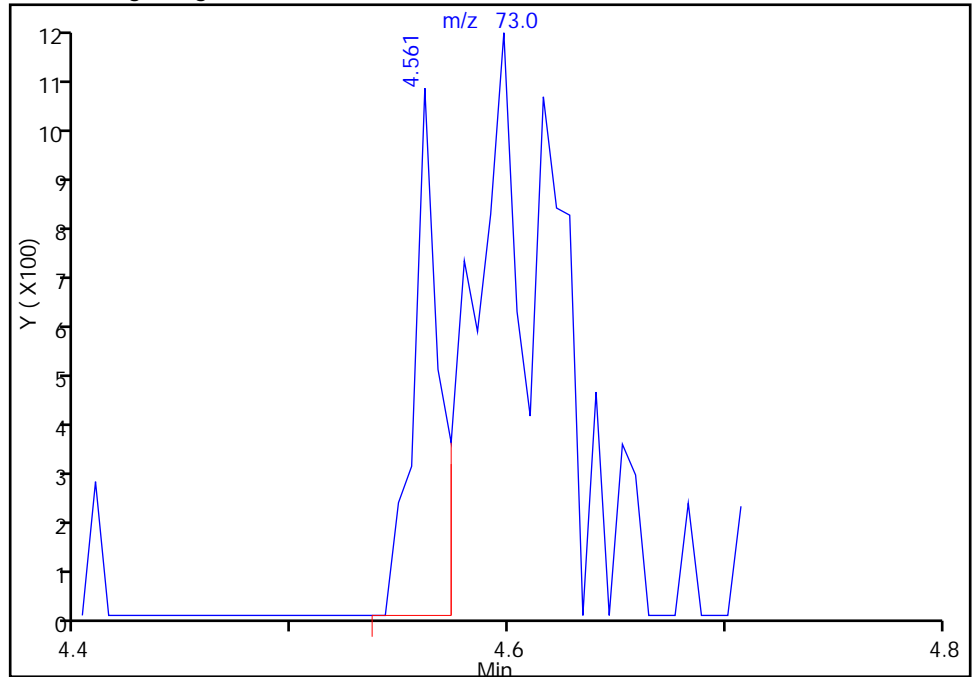
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\50324027.D  
Injection Date: 24-Mar-2015 22:38:30 Instrument ID: CHHP5  
Lims ID: 180-42137-C-4 Lab Sample ID: 180-42137-4  
Client ID: HD-MW-161-0/1-0  
Operator ID: 001562 ALS Bottle#: 27 Worklist Smp#: 28  
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

35 Methyl tert-butyl ether, CAS: 1634-04-4

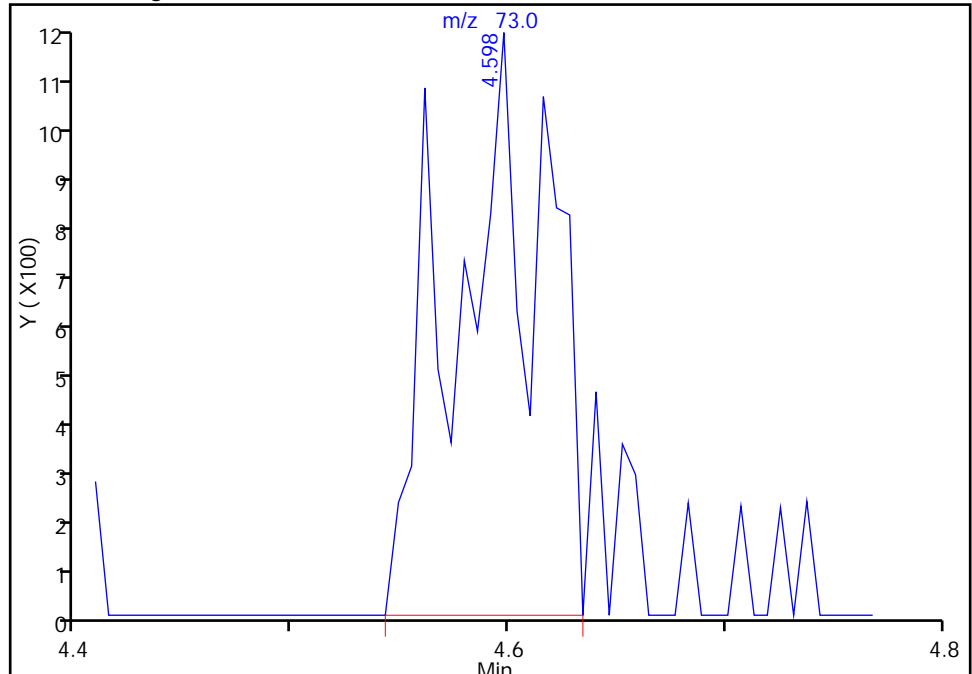
RT: 4.56  
Area: 860  
Amount: 0.158036  
Amount Units: ng

Processing Integration Results



RT: 4.60  
Area: 3319  
Amount: 0.609909  
Amount Units: ng

Manual Integration Results



Reviewer: gordonk, 25-Mar-2015 08:43:03  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-161-0/1-0 DL Lab Sample ID: 180-42137-4 DL  
 Matrix: Water Lab File ID: 50323015.D  
 Analysis Method: 8260C Date Collected: 03/17/2015 15:38  
 Sample wt/vol: 5(mL) Date Analyzed: 03/23/2015 16:54  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 10  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18(mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 136250 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	10	U	10	2.8
75-01-4	Vinyl chloride	10	U	10	2.3
74-83-9	Bromomethane	10	U	10	3.1
75-00-3	Chloroethane	10	U	10	2.1
75-35-4	1,1-Dichloroethene	10	U	10	3.0
67-64-1	Acetone	50	U	50	25
75-15-0	Carbon disulfide	10	U	10	2.1
75-09-2	Methylene Chloride	5.9	J B	10	1.3
156-60-5	trans-1,2-Dichloroethene	10	U	10	1.7
1634-04-4	Methyl tert-butyl ether	10	U	10	1.8
75-34-3	1,1-Dichloroethane	10	U	10	1.2
156-59-2	cis-1,2-Dichloroethene	10	U	10	2.4
74-97-5	Bromochloromethane	10	U	10	1.8
78-93-3	2-Butanone (MEK)	50	U	50	5.5
67-66-3	Chloroform	10	U	10	1.7
71-55-6	1,1,1-Trichloroethane	10	U	10	2.9
56-23-5	Carbon tetrachloride	10	U	10	1.4
71-43-2	Benzene	10	U	10	1.1
107-06-2	1,2-Dichloroethane	10	U	10	2.1
79-01-6	Trichloroethene	90		10	1.4
78-87-5	1,2-Dichloropropane	10	U	10	0.95
75-27-4	Bromodichloromethane	10	U	10	1.3
10061-01-5	cis-1,3-Dichloropropene	10	U	10	1.9
108-10-1	4-Methyl-2-pentanone (MIBK)	50	U	50	5.3
108-88-3	Toluene	10	U	10	1.5
10061-02-6	trans-1,3-Dichloropropene	10	U	10	1.5
79-00-5	1,1,2-Trichloroethane	10	U	10	2.0
127-18-4	Tetrachloroethene	270		10	1.5
591-78-6	2-Hexanone	50	U	50	1.6
124-48-1	Dibromochloromethane	10	U	10	1.4
106-93-4	1,2-Dibromoethane (EDB)	10	U	10	1.8
108-90-7	Chlorobenzene	10	U	10	1.4
630-20-6	1,1,1,2-Tetrachloroethane	10	U	10	2.8
100-41-4	Ethylbenzene	10	U	10	2.3
1330-20-7	Xylenes, Total	30	U	30	4.9
100-42-5	Styrene	10	U	10	0.97

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-161-0/1-0 DL Lab Sample ID: 180-42137-4 DL  
 Matrix: Water Lab File ID: 50323015.D  
 Analysis Method: 8260C Date Collected: 03/17/2015 15:38  
 Sample wt/vol: 5(mL) Date Analyzed: 03/23/2015 16:54  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 10  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 136250 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10	U	10	1.9
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	2.0
107-13-1	Acrylonitrile	200	U	200	5.5
123-91-1	1,4-Dioxane	2000	U	2000	340

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	113		64-135
2037-26-5	Toluene-d8 (Surr)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	98		70-118
1868-53-7	Dibromofluoromethane (Surr)	107		70-128



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323015.D  
 Lims ID: 180-42137-B-4 Lab Sample ID: 180-42137-4  
 Client ID: HD-MW-161-0/1-0  
 Sample Type: Client  
 Inject. Date: 23-Mar-2015 16:54:30 ALS Bottle#: 15 Worklist Smp#: 15  
 Purge Vol: 5.000 mL Dil. Factor: 10.0000  
 Sample Info: 180-42137-B-4, 10x  
 Misc. Info.: 180-0006128-015  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\MMSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 24-Mar-2015 07:33:17 Calib Date: 18-Mar-2015 16:19:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150318-6071.b\50318010.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK052

First Level Reviewer: fergusond

Date: 24-Mar-2015 07:33:17

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.305	4.292	0.013	98	112492	1000.0	
* 2 Fluorobenzene (IS)	96	7.274	7.273	0.001	100	407585	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.363	0.001	97	97889	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.682	12.681	0.001	93	143277	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.532	6.522	0.010	55	99135	53.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.903	6.900	0.003	97	138626	56.7	
\$ 7 Toluene-d8 (Surr)	98	8.923	8.925	-0.002	99	383019	49.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.532	11.529	0.003	97	138251	49.2	
12 Chloromethane	50		1.777				ND	
13 Vinyl chloride	62		1.905				ND	
15 Bromomethane	94		2.252				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96		3.377				ND	
24 Acetone	43		3.493				ND	
26 Carbon disulfide	76		3.645				ND	
31 Methylene Chloride	84	4.147	4.138	0.009	71	8045	2.96	
33 Acrylonitrile	53		4.545				ND	
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.594				ND	
37 1,1-Dichloroethane	63		5.166				ND	
45 cis-1,2-Dichloroethene	96		5.938				ND	
46 2-Butanone (MEK)	43		5.987				ND	
49 Chlorobromomethane	128		6.218				ND	
52 Chloroform	83		6.340				ND	
53 1,1,1-Trichloroethane	97		6.522				ND	
56 Carbon tetrachloride	117		6.717				ND	
58 Benzene	78		6.954				ND	
59 1,2-Dichloroethane	62		6.985				ND	
64 Trichloroethene	130	7.669	7.666	0.003	99	108870	45.0	
67 1,2-Dichloropropane	63		7.903				ND	
70 1,4-Dioxane	88		8.056				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.195				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.822				ND	
76 Toluene	91		8.986				ND	
77 trans-1,3-Dichloropropene	75		9.217				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164	9.531	9.534	-0.003	97	261426	133.2	
82 2-Hexanone	43		9.655				ND	
84 Chlorodibromomethane	129		9.789				ND	
85 Ethylene Dibromide	107		9.899				ND	
87 Chlorobenzene	112		10.392				ND	
89 1,1,1,2-Tetrachloroethane	131		10.471				ND	
90 Ethylbenzene	106		10.501				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.012				ND	
93 Styrene	104		11.024				ND	
94 Bromoform	173		11.213				ND	
99 1,1,2,2-Tetrachloroethane	83		11.675				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00030

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00032

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323015.D

Injection Date: 23-Mar-2015 16:54:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-42137-B-4

Lab Sample ID: 180-42137-4

Worklist Smp#: 15

Client ID: HD-MW-161-0/1-0

Purge Vol: 5.000 mL

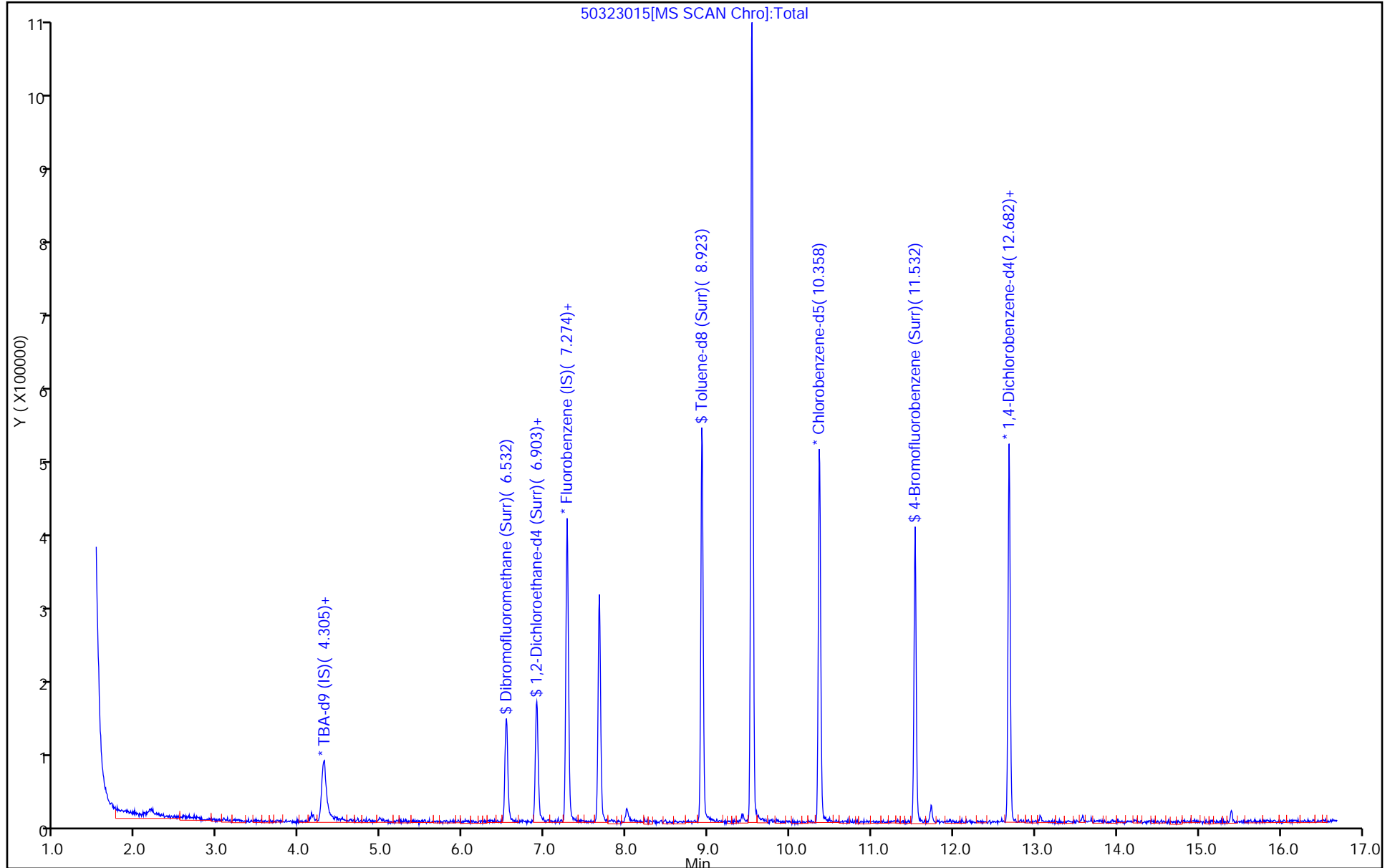
Dil. Factor: 10.0000

ALS Bottle#: 15

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323015.D

Injection Date: 23-Mar-2015 16:54:30

Instrument ID: CHHP5

Lims ID: 180-42137-B-4

Lab Sample ID: 180-42137-4

Client ID: HD-MW-161-0/1-0

Operator ID: 001562

ALS Bottle#: 15

Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

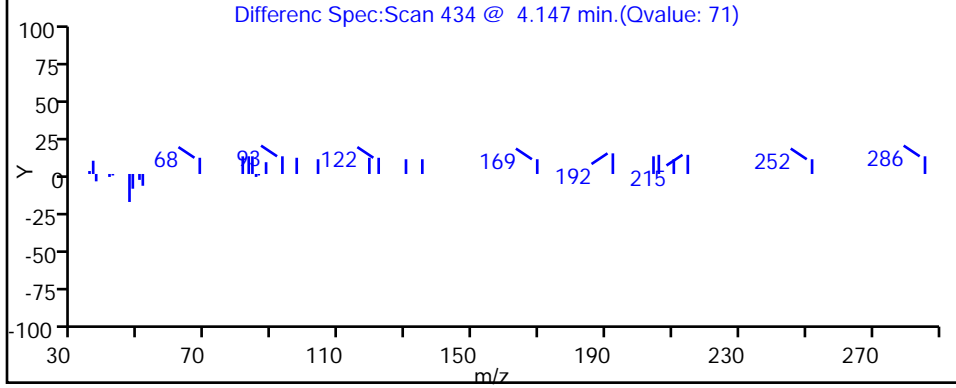
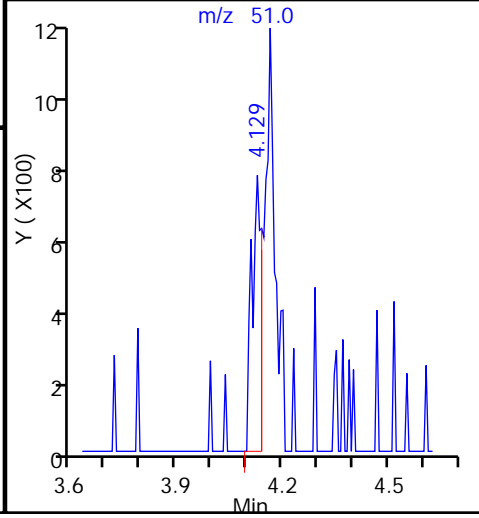
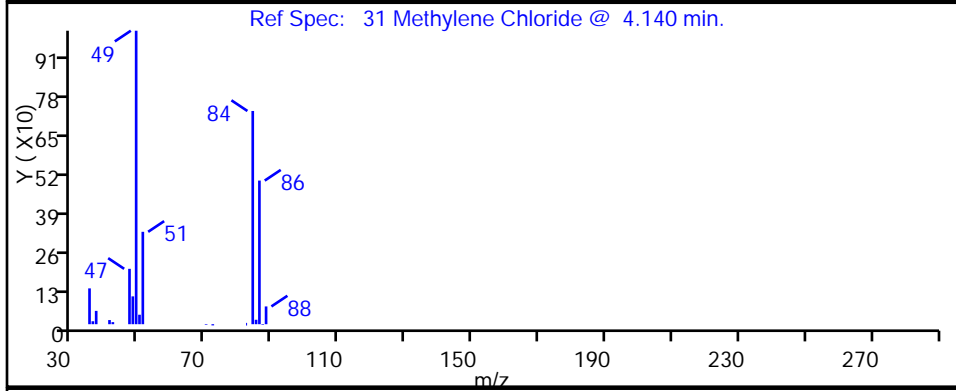
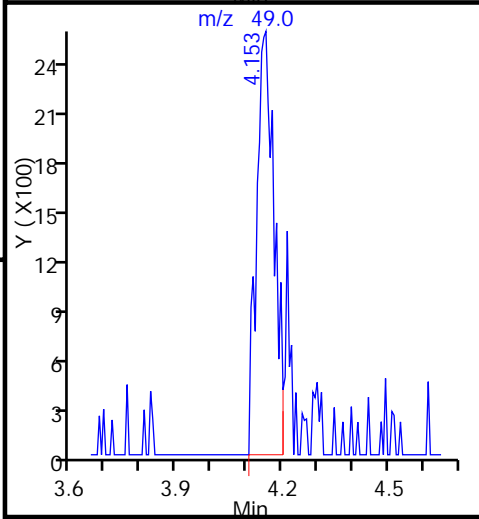
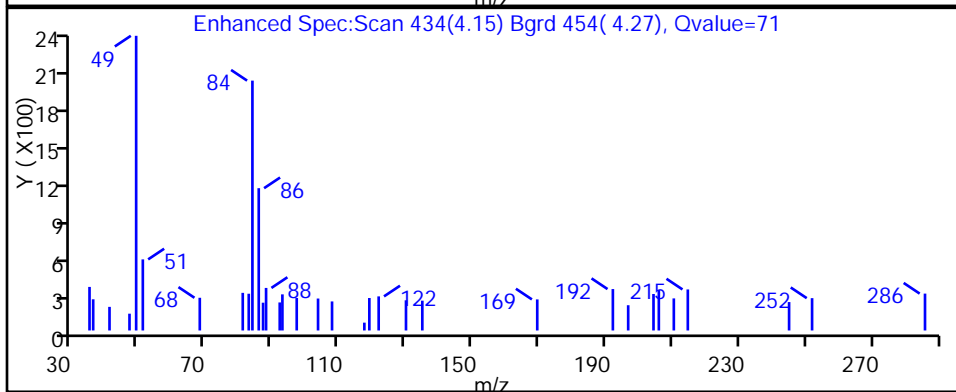
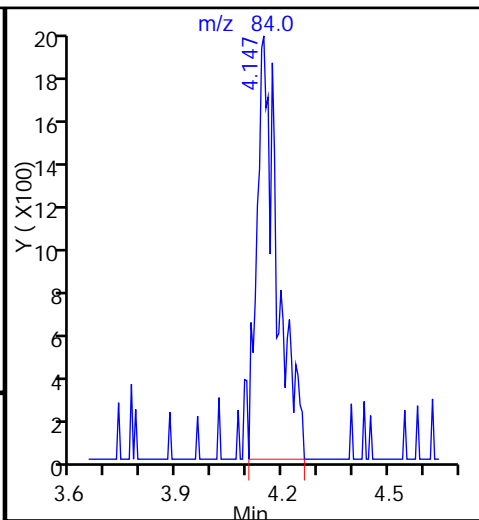
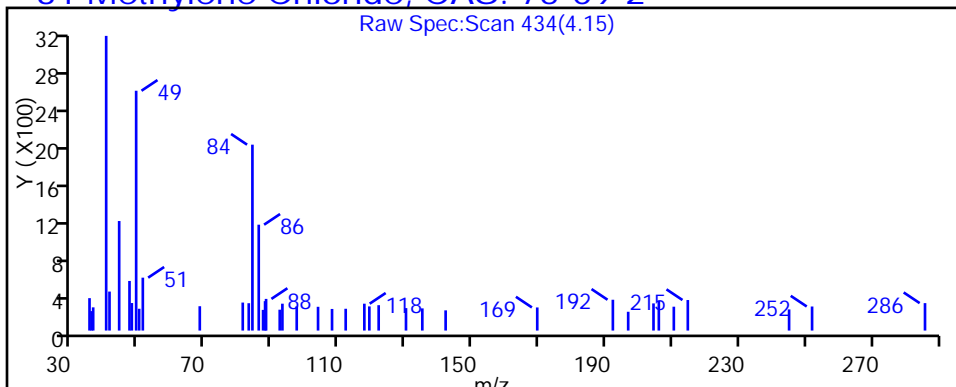
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2



TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323015.D

Injection Date: 23-Mar-2015 16:54:30

Instrument ID: CHHP5

Lims ID: 180-42137-B-4

Lab Sample ID: 180-42137-4

Client ID: HD-MW-161-0/1-0

Operator ID: 001562

ALS Bottle#: 15

Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

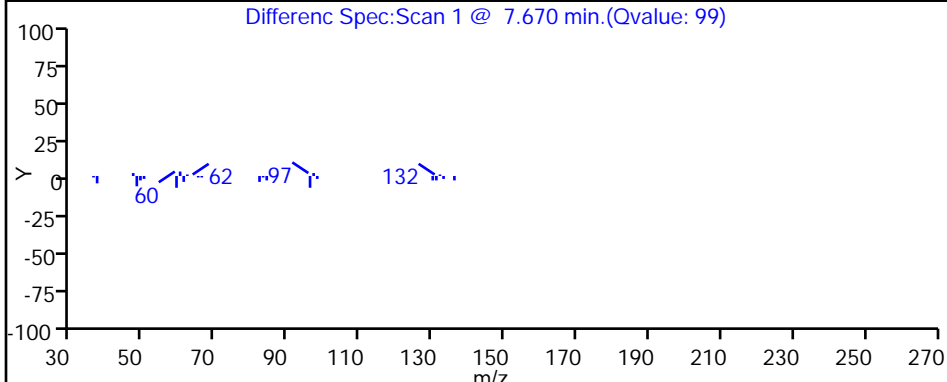
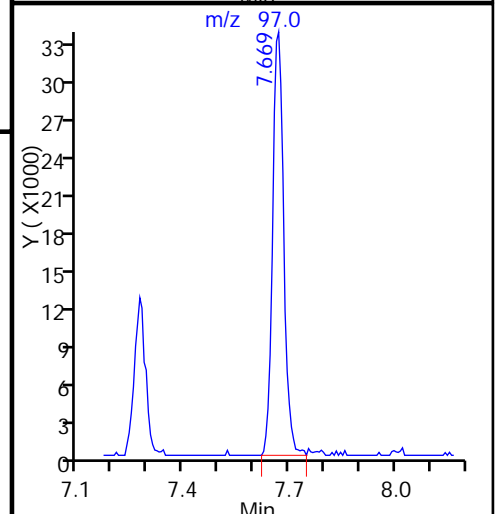
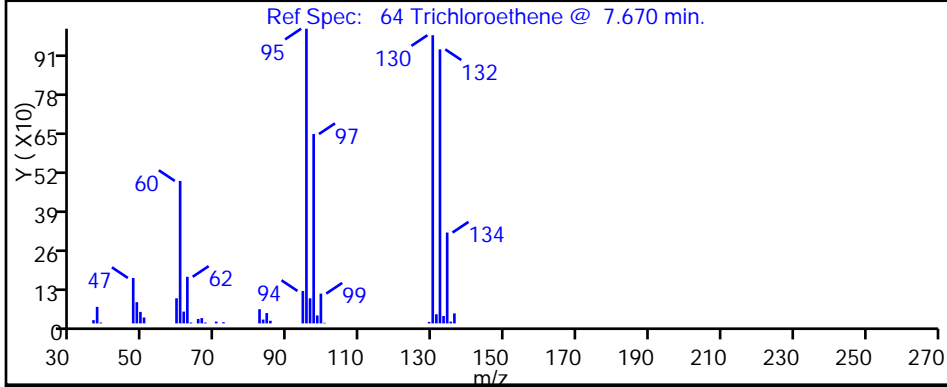
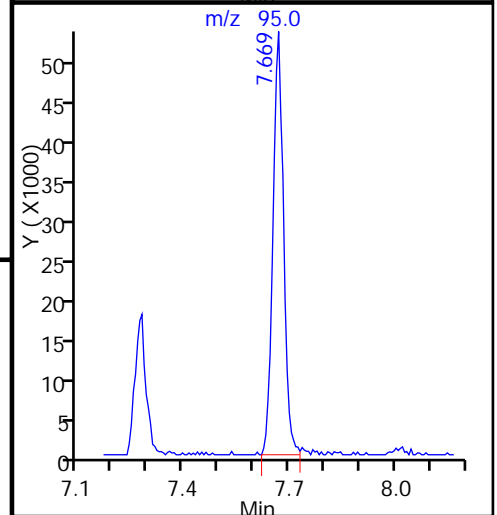
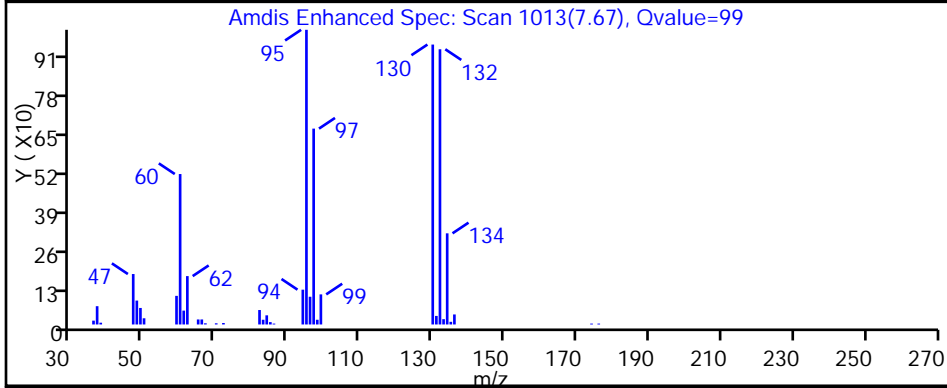
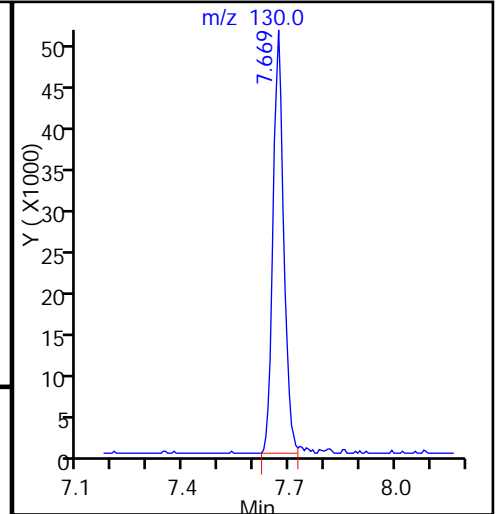
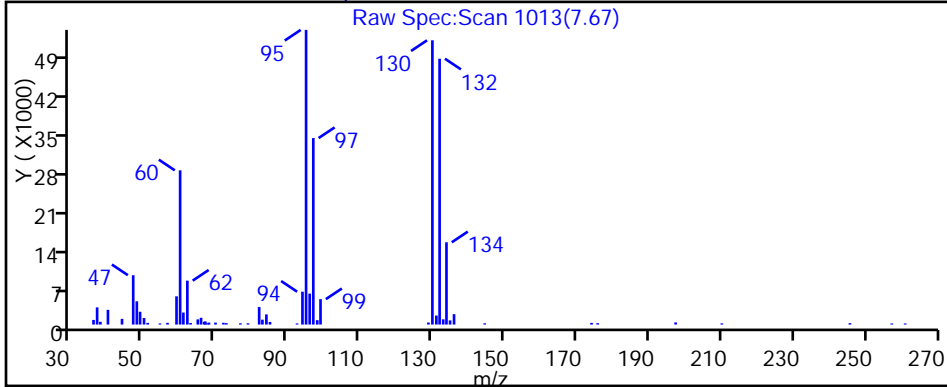
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323015.D

Injection Date: 23-Mar-2015 16:54:30

Instrument ID: CHHP5

Lims ID: 180-42137-B-4

Lab Sample ID: 180-42137-4

Client ID: HD-MW-161-0/1-0

Operator ID: 001562

ALS Bottle#: 15

Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

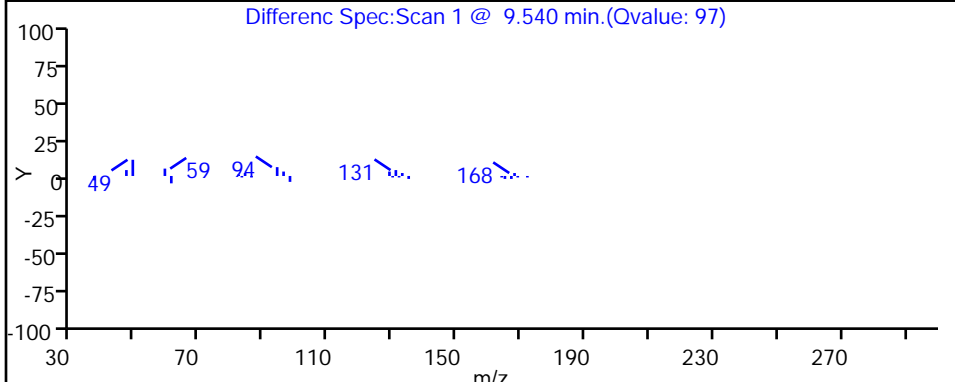
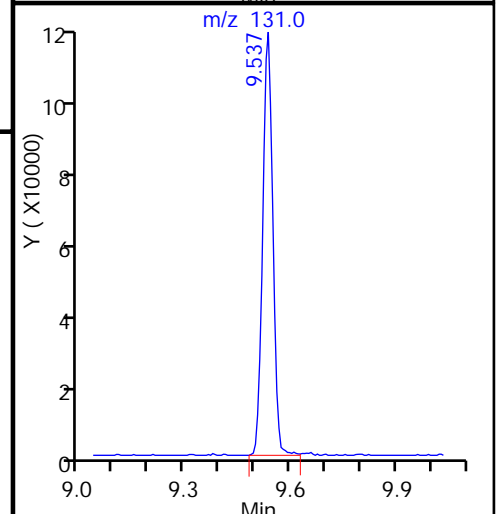
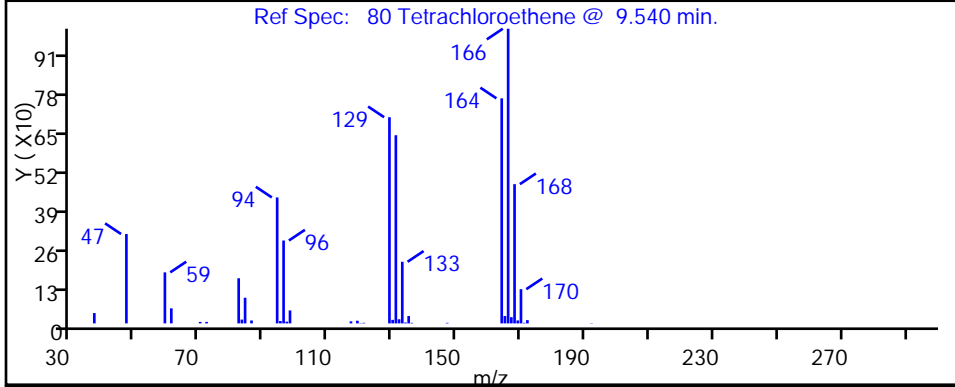
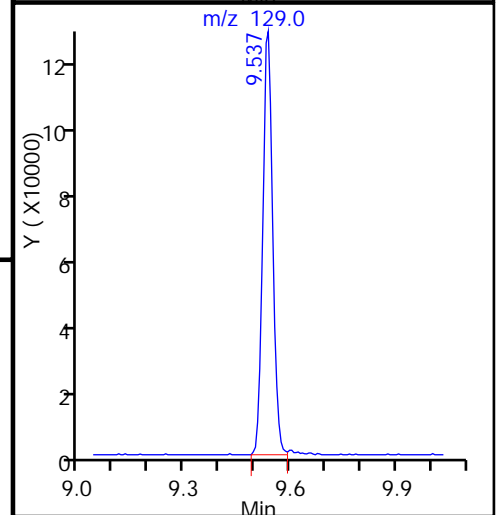
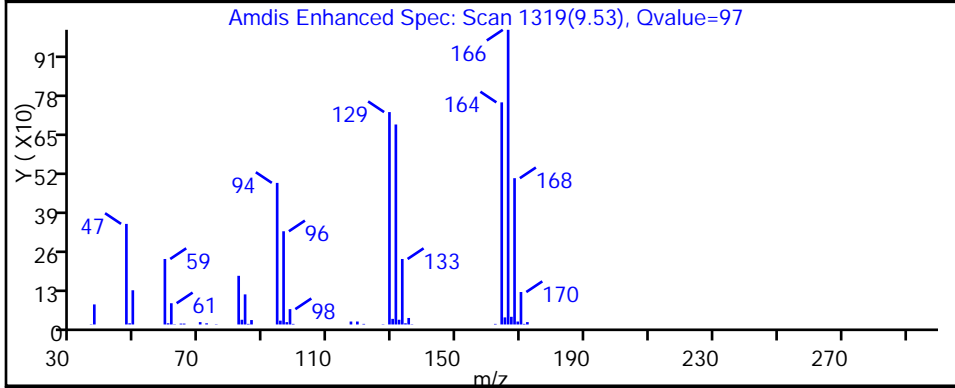
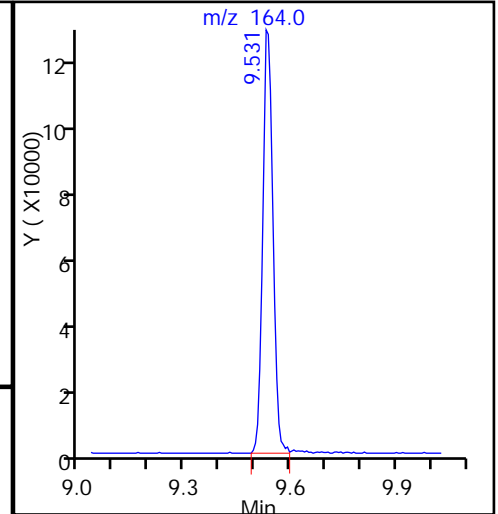
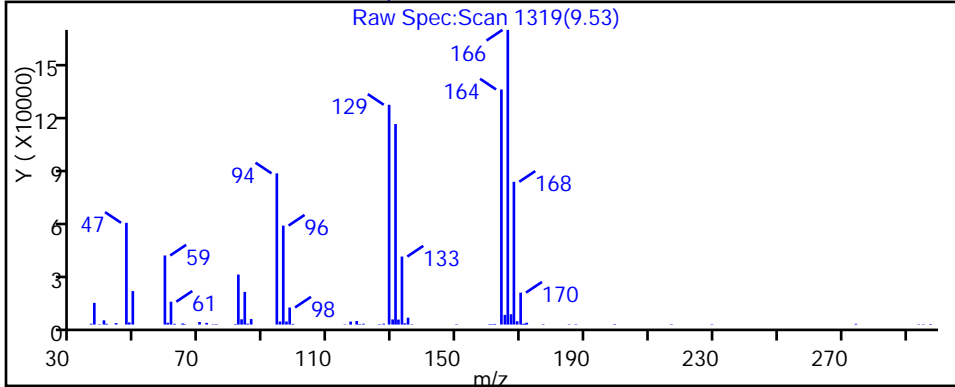
Method: MSVOA\_LL\_CHHP5

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.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-2 Lab Sample ID: 180-42137-5  
 Matrix: Water Lab File ID: 50323008.D  
 Analysis Method: 8260C Date Collected: 03/17/2015 12:00  
 Sample wt/vol: 5(mL) Date Analyzed: 03/23/2015 14:06  
 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.: 136250 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	0.27	J B	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	1.0	U	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-2 Lab Sample ID: 180-42137-5  
 Matrix: Water Lab File ID: 50323008.D  
 Analysis Method: 8260C Date Collected: 03/17/2015 12:00  
 Sample wt/vol: 5(mL) Date Analyzed: 03/23/2015 14:06  
 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.: 136250 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20
107-13-1	Acrylonitrile	20	U	20	0.55
123-91-1	1,4-Dioxane	200	U	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	118		64-135
2037-26-5	Toluene-d8 (Surr)	97		71-118
460-00-4	4-Bromofluorobenzene (Surr)	105		70-118
1868-53-7	Dibromofluoromethane (Surr)	122		70-128



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323008.D  
 Lims ID: 180-42137-A-5 Lab Sample ID: 180-42137-5  
 Client ID: HD-QC1-0/1-2  
 Sample Type: Client  
 Inject. Date: 23-Mar-2015 14:06:30 ALS Bottle#: 8 Worklist Smp#: 8  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-42137-A-5  
 Misc. Info.: 180-0006128-008  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\MMSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 23-Mar-2015 14:49:31 Calib Date: 18-Mar-2015 16:19:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150318-6071.b\50318010.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK037

First Level Reviewer: fergusond

Date: 23-Mar-2015 14:49:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.290	4.292	-0.002	97	117739	1000.0	
* 2 Fluorobenzene (IS)	96	7.277	7.273	0.004	100	379541	50.0	
* 3 Chlorobenzene-d5	119	10.362	10.363	-0.001	98	89746	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.681	0.004	94	138800	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.529	6.522	0.007	54	105051	60.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.900	0.000	97	134278	59.0	
\$ 7 Toluene-d8 (Surr)	98	8.926	8.925	0.001	100	348054	48.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.530	11.529	0.001	97	135818	52.7	
12 Chloromethane	50		1.777				ND	
13 Vinyl chloride	62		1.905				ND	
15 Bromomethane	94		2.252				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96		3.377				ND	
24 Acetone	43	3.493	3.493	0.000	32	2711	3.49	M
26 Carbon disulfide	76		3.645				ND	
31 Methylene Chloride	84	4.144	4.138	0.006	42	3377	1.33	
33 Acrylonitrile	53		4.545				ND	
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.594				ND	
37 1,1-Dichloroethane	63		5.166				ND	
45 cis-1,2-Dichloroethene	96		5.938				ND	
46 2-Butanone (MEK)	43		5.987				ND	
49 Chlorobromomethane	128		6.218				ND	
52 Chloroform	83		6.340				ND	
53 1,1,1-Trichloroethane	97		6.522				ND	
56 Carbon tetrachloride	117		6.717				ND	
58 Benzene	78		6.954				ND	
59 1,2-Dichloroethane	62		6.985				ND	
64 Trichloroethene	130		7.666				ND	
67 1,2-Dichloropropane	63		7.903				ND	
70 1,4-Dioxane	88		8.056				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.195				ND	
74 cis-1,3-Dichloropropene	75		8.658				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.822				ND	
76 Toluene	91		8.986				ND	
77 trans-1,3-Dichloropropene	75		9.217				ND	
79 1,1,2-Trichloroethane	97		9.400				ND	
80 Tetrachloroethene	164		9.534				ND	
82 2-Hexanone	43		9.655				ND	
84 Chlorodibromomethane	129		9.789				ND	
85 Ethylene Dibromide	107		9.899				ND	
87 Chlorobenzene	112		10.392				ND	
89 1,1,1,2-Tetrachloroethane	131		10.471				ND	
90 Ethylbenzene	106		10.501				ND	
91 m-Xylene & p-Xylene	106		10.617				ND	
92 o-Xylene	106		11.012				ND	
93 Styrene	104		11.024				ND	
94 Bromoform	173		11.213				ND	
99 1,1,2,2-Tetrachloroethane	83		11.675				ND	
S 133 Xylenes, Total	106		1.000				ND	

### QC Flag Legend

Review Flags

M - Manually Integrated

### Reagents:

VOA8260INT\_00030

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00032

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323008.D

Injection Date: 23-Mar-2015 14:06:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-42137-A-5

Lab Sample ID: 180-42137-5

Worklist Smp#: 8

Client ID: HD-QC1-0/1-2

Purge Vol: 5.000 mL

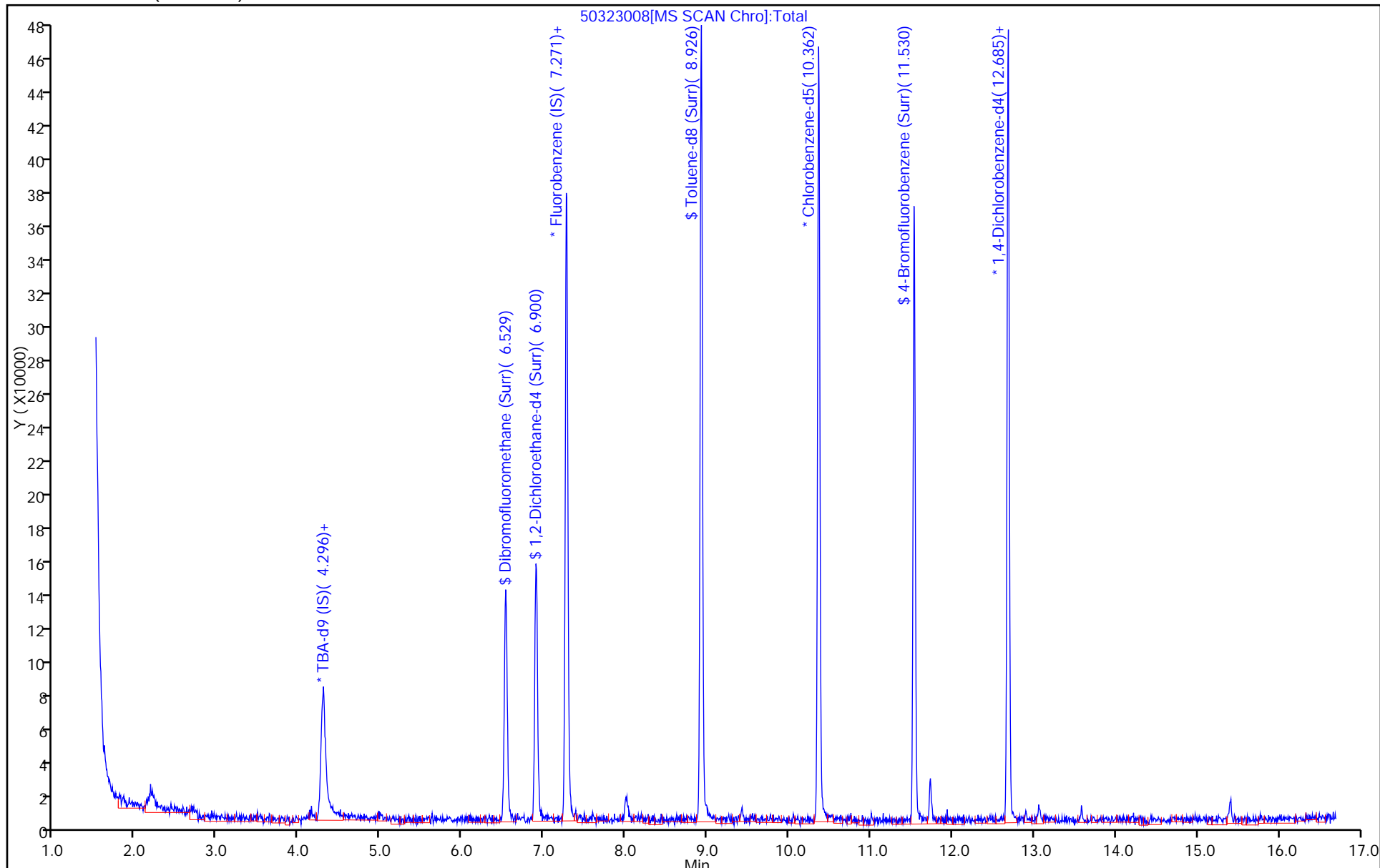
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323008.D

Injection Date: 23-Mar-2015 14:06:30

Instrument ID: CHHP5

Lims ID: 180-42137-A-5

Lab Sample ID: 180-42137-5

Client ID: HD-QC1-0/1-2

Operator ID: 001562

ALS Bottle#: 8 Worklist Smp#: 8

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

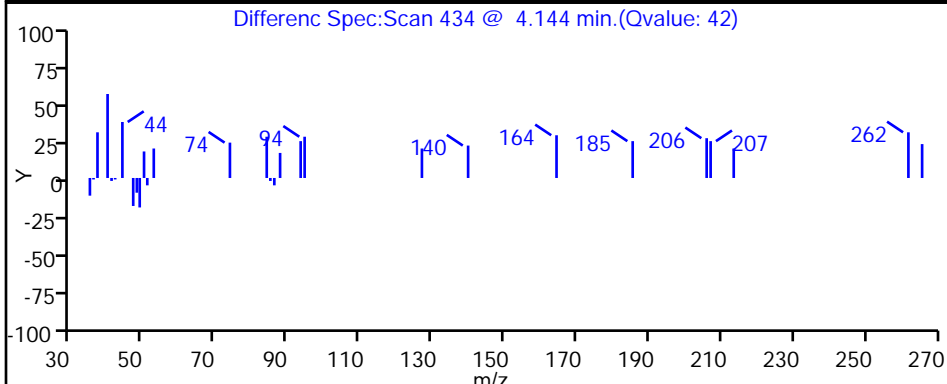
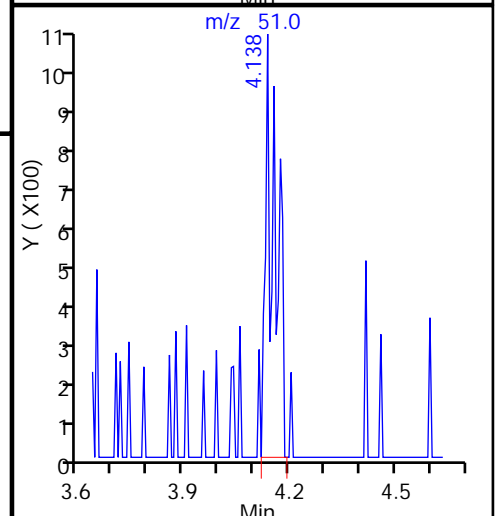
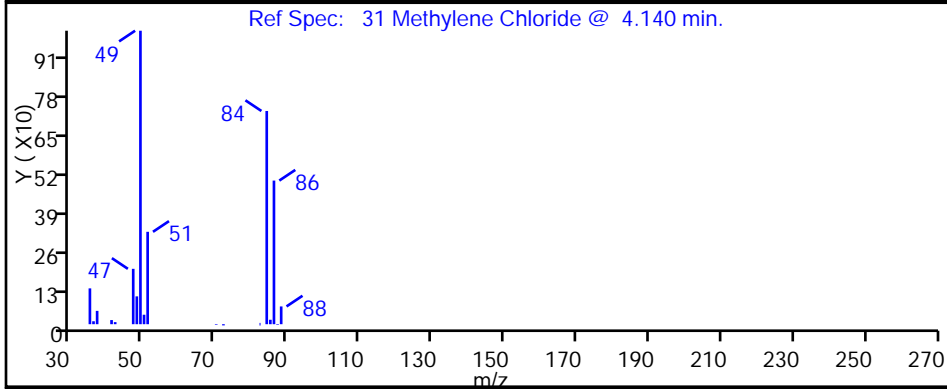
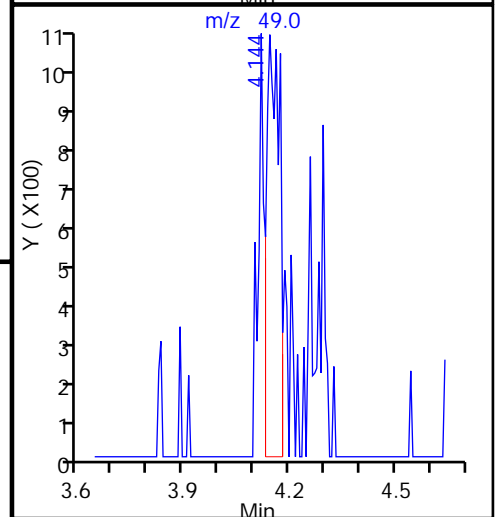
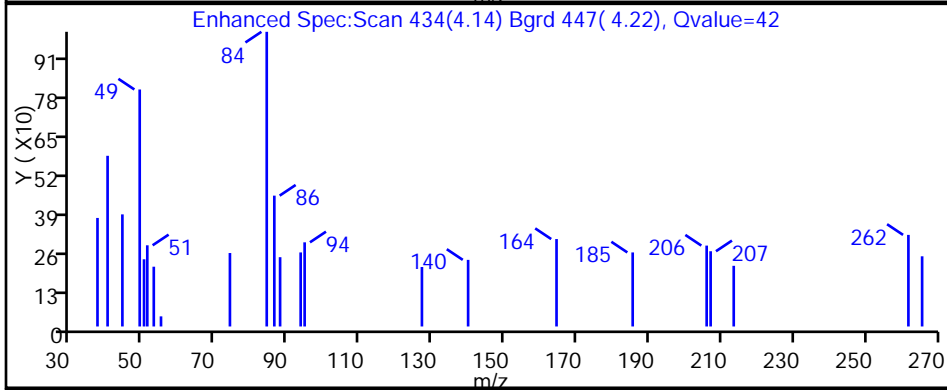
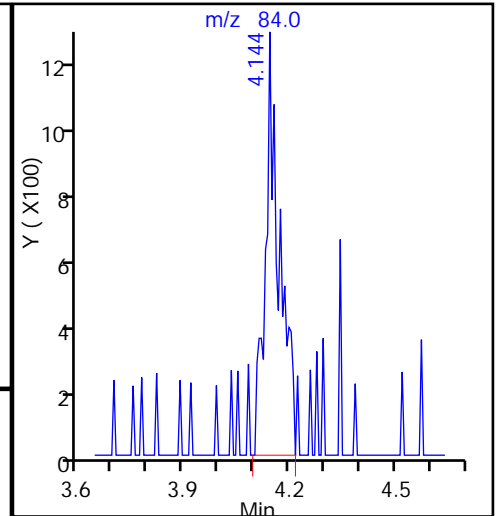
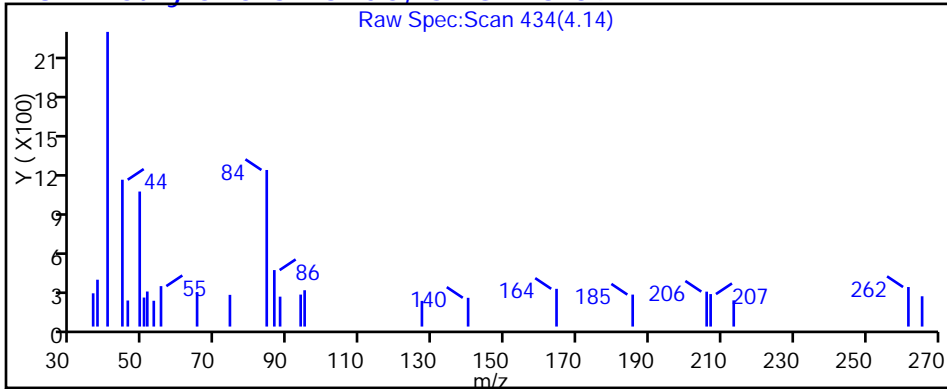
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2



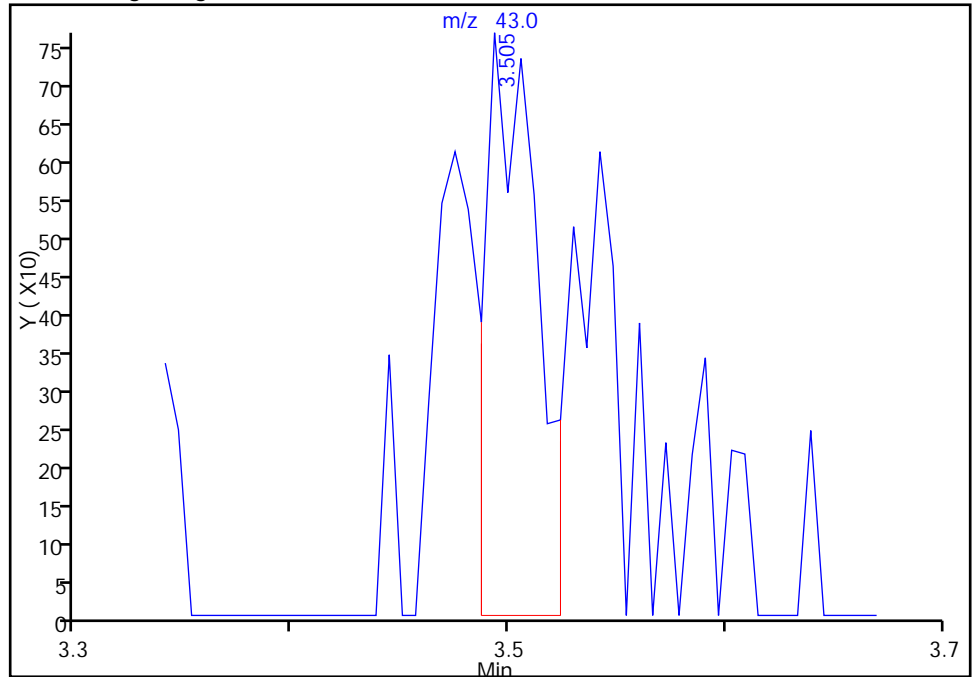
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323008.D  
Injection Date: 23-Mar-2015 14:06:30 Instrument ID: CHHP5  
Lims ID: 180-42137-A-5 Lab Sample ID: 180-42137-5  
Client ID: HD-QC1-0/1-2  
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

24 Acetone, CAS: 67-64-1

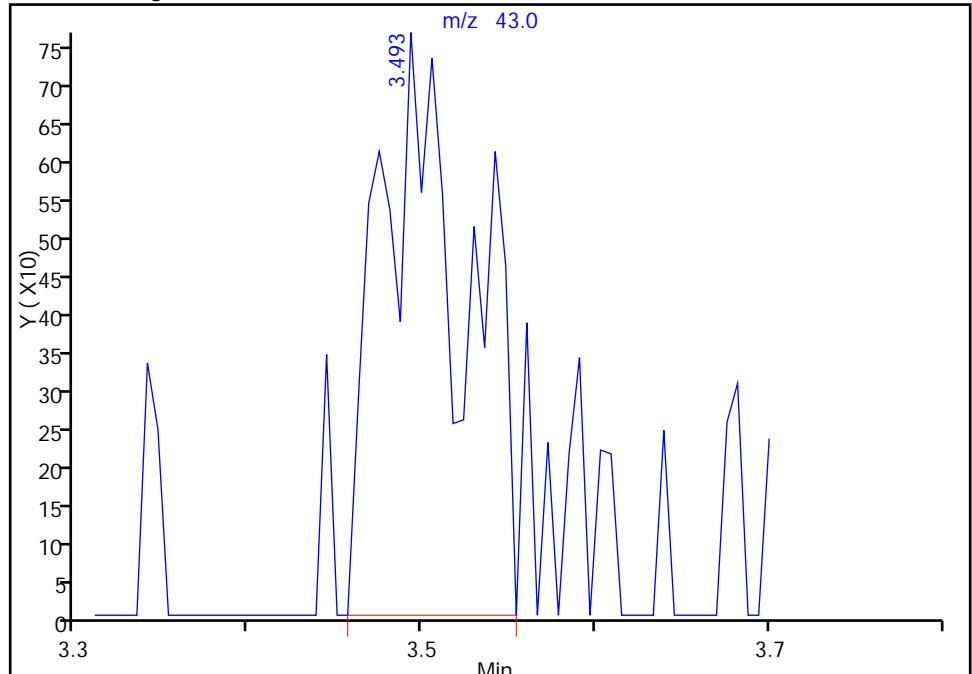
RT: 3.51  
Area: 1284  
Amount: 1.651449  
Amount Units: ng

Processing Integration Results



RT: 3.49  
Area: 2711  
Amount: 3.486821  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 23-Mar-2015 14:49:31  
Audit Action: Manually Integrated  
Audit Reason: Split Peak

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1 Analy Batch No.: 135593

SDG No.: \_\_\_\_\_

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

Calibration Start Date: 03/16/2015 12:41 Calibration End Date: 03/16/2015 16:17 Calibration ID: 22457

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-135593/13	50316013.D
Level 2	IC 180-135593/4	50316004.D
Level 3	ICIS 180-135593/5	50316005.D
Level 4	IC 180-135593/6	50316006.D
Level 5	IC 180-135593/7	50316007.D
Level 6	IC 180-135593/8	50316008.D
Level 7	IC 180-135593/9	50316009.D
Level 8	IC 180-135593/10	50316010.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	0.1981 0.2196	0.2184 0.2203	0.2158 0.2064	0.2176	0.2184	Ave		0.2143		0.1000	3.7		20.0				
Chloromethane	0.3161 0.2913	0.3036 0.2846	0.2971 0.2760	0.3139	0.2839	Ave		0.2958		0.1000	4.9		20.0				
Vinyl chloride	0.3339 0.3170	0.3476 0.3238	0.3406 0.2981	0.3521	0.3317	Ave		0.3306		0.1000	5.3		20.0				
1,3-Butadiene	0.4238 0.3606	0.3989 0.3546	0.3880 0.3243	0.3988	0.3720	Ave		0.3776		0.0100	8.3		20.0				
Bromomethane	0.3177 0.1565	0.2026 0.1546	0.1872 0.1489	0.2009	0.1727	Lin2	0.7885	0.1633		0.0500				0.9910		0.9900	
Chloroethane	0.2320 0.2316	0.2215 0.2239	0.2348 0.2259	0.2403	0.2201	Ave		0.2287		0.0500	3.1		20.0				
Dichlorofluoromethane	0.6033 0.4953	0.5246 0.5015	0.5246 0.4874	0.5502	0.4911	Ave		0.5222		0.0100	7.5		20.0				
Trichlorofluoromethane	0.3610 0.3924	0.3936 0.3991	0.4043 0.3800	0.4504	0.3921	Ave		0.3966		0.1000	6.4		20.0				
Ethyl ether	0.2888 0.2638	0.2444 0.2500	0.2576 0.2556	0.2691	0.2633	Ave		0.2615		0.0100	5.2		20.0				
Acrolein	0.0310 0.0323	0.0302 0.0321	0.0313 0.0320	0.0335	0.0318	Ave		0.0318		0.0100	3.1		20.0				
1,1-Dichloroethene	0.3207 0.2859	0.2901 0.2792	0.2822 0.2667	0.2965	0.2853	Ave		0.2883		0.1000	5.4		20.0				
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2914 0.2935	0.2973 0.2885	0.2973 0.2692	0.3100	0.2859	Ave		0.2916		0.1000	4.0		20.0				
Acetone	0.1044 0.1092	0.0964 0.1031	0.0956 0.1001	0.1134	0.0972	Ave		0.1024		0.0500	6.2		20.0				
Iodomethane	0.4015 0.3985	0.4019 0.3989	0.4026 0.3873	0.4200	0.3937	Ave		0.4005		0.0100	2.3		20.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Pittsburgh

Job No.: 180-42137-1

Analy Batch No.: 135593

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2015 12:41

Calibration End Date: 03/16/2015 16:17

Calibration ID: 22457

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	0.7271 0.7017	0.7065 0.6934	0.7209 0.6551	0.7444	0.6916	Ave		0.7051			0.1000	3.8	20.0				
Allyl chloride	0.1408 0.1596	0.1433 0.1659	0.1497 0.1554	0.1576	0.1468	Ave		0.1524			0.0100	5.7	20.0				
Methyl acetate	0.2499 0.2446	0.2206 0.2371	0.2383 0.2398	0.2500	0.2368	Ave		0.2396			0.1000	3.9	20.0				
Methylene Chloride	0.4921 0.3038	0.3340 0.2965	0.3132 0.2964	0.3223	0.3092	Ave		0.3335			0.1000	20.0	20.0				
tert-Butyl alcohol	1.4634 1.1634	1.1166 1.0879	1.2271 1.0609	1.1679	1.1362	Ave		1.1779			0.0100	11.0	20.0				
Acrylonitrile	0.1262 0.1243	0.1185 0.1210	0.1238 0.1200	0.1302	0.1222	Ave		0.1233			0.0100	3.0	20.0				
trans-1,2-Dichloroethene	0.3010 0.2955	0.3039 0.2920	0.2999 0.2846	0.3158	0.2932	Ave		0.2982			0.1000	3.1	20.0				
Methyl tert-butyl ether	0.7046 0.6848	0.5895 0.6670	0.6262 0.6870	0.6643	0.6513	Ave		0.6593			0.1000	5.6	20.0				
Hexane	0.5105 0.4724	0.4808 0.4625	0.4867 0.4447	0.4928	0.4612	Ave		0.4764			0.0100	4.3	20.0				
1,1-Dichloroethane	0.5210 0.5346	0.5355 0.5274	0.5415 0.5173	0.5479	0.5333	Ave		0.5323			0.2000	1.9	20.0				
Vinyl acetate	0.3354 0.4226	0.3143 0.4225	0.3492 0.4312	0.3701	0.3754	Ave		0.3776			0.0100	12.0	20.0				
2,2-Dichloropropane	0.1102 0.1425	0.1245 0.1427	0.1303 0.1457	0.1368	0.1319	Ave		0.1331			0.0100	8.8	20.0				
cis-1,2-Dichloroethene	0.3333 0.3114	0.3188 0.3041	0.3064 0.2999	0.3262	0.3133	Ave		0.3142			0.1000	3.6	20.0				
2-Butanone (MEK)	0.1479 0.1689	0.1544 0.1707	0.1682 0.1707	0.1629	0.1664	Ave		0.1638			0.0500	5.1	20.0				
Bromochloromethane	0.1516 0.1369	0.1328 0.1312	0.1322 0.1303	0.1382	0.1345	Ave		0.1360			0.0100	5.1	20.0				
Tetrahydrofuran	0.1048 0.1057	0.0960 0.1019	0.1025 0.1042	0.1047	0.1007	Ave		0.1026			0.0100	3.0	20.0				
Chloroform	0.5131 0.4845	0.4800 0.4679	0.4876 0.4593	0.4976	0.4787	Ave		0.4836			0.2000	3.5	20.0				
1,1,1-Trichloroethane	0.2755 0.3251	0.2860 0.3242	0.3106 0.3133	0.3267	0.3088	Ave		0.3088			0.1000	6.1	20.0				
Cyclohexane	0.6382 0.5901	0.5930 0.5765	0.5992 0.5384	0.6258	0.5817	Ave		0.5929			0.1000	5.2	20.0				
Carbon tetrachloride	0.2289 0.2566	0.2357 0.2582	0.2463 0.2549	0.2561	0.2457	Ave		0.2478			0.1000	4.4	20.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Pittsburgh

Job No.: 180-42137-1

Analy Batch No.: 135593

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2015 12:41

Calibration End Date: 03/16/2015 16:17

Calibration ID: 22457

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	0.4232 0.3982	0.4094 0.3936	0.4088 0.3740	0.4106	0.3910	Ave		0.4011			0.0100	3.8	20.0				
Isobutyl alcohol	0.0062 0.0078	0.0044 0.0073	0.0062 0.0083	0.0069	0.0062	Ave		0.0067		*	0.0100	18.0	20.0				
Benzene	1.2964 1.1615	1.1929 1.1190	1.2156 1.0805	1.2375	1.1757	Ave		1.1849			0.5000	5.7	20.0				
1,2-Dichloroethane	0.3889 0.3972	0.3853 0.3828	0.3878 0.3740	0.4029	0.3849	Ave		0.3880			0.1000	2.3	20.0				
n-Heptane	0.4132 0.4165	0.4157 0.3968	0.4135 0.3813	0.4223	0.3971	Ave		0.4071			0.0100	3.4	20.0				
Trichloroethene	0.3236 0.2977	0.2885 0.2885	0.3022 0.2774	0.3045	0.2926	Ave		0.2969			0.2000	4.7	20.0				
Methylcyclohexane	0.5265 0.5361	0.5390 0.5114	0.5500 0.4900	0.5614	0.5230	Ave		0.5297			0.1000	4.2	20.0				
1,2-Dichloropropane	0.2976 0.3036	0.2675 0.2956	0.2870 0.2962	0.2996	0.2976	Ave		0.2931			0.1000	3.9	20.0				
Dibromomethane	0.1682 0.1567	0.1491 0.1563	0.1532 0.1546	0.1640	0.1603	Ave		0.1578			0.0100	3.9	20.0				
1,4-Dioxane	0.0033 0.0034	0.0029 0.0031	0.0029 0.0030	0.0032	0.0030	Ave		0.0031		*	0.0100	5.9	20.0				
Bromodichloromethane	0.2966 0.3370	0.3114 0.3262	0.3286 0.3235	0.3266	0.3259	Ave		0.3220			0.2000	3.9	20.0				
cis-1,3-Dichloropropene	0.2720 0.3463	0.2598 0.3498	0.2835 0.3541	0.3106	0.3095	Ave		0.3107			0.2000	12.0	20.0				
4-Methyl-2-pentanone (MIBK)	1.2503 1.3434	1.2818 1.3687	1.4091 1.3065	1.4145	1.4492	Ave		1.3529			0.1000	5.2	20.0				
Toluene	5.9882 4.5343	5.4946 4.5939	5.5890 4.1718	5.4186	5.2011	Ave		5.1239			0.4000	12.0	20.0				
trans-1,3-Dichloropropene	0.8645 0.9716	0.7455 1.0385	0.8963 1.0484	0.8911	0.9475	Ave		0.9254			0.1000	11.0	20.0				
Ethyl methacrylate	1.1000 1.2637	0.9953 1.3239	1.1753 1.3175	1.1818	1.2989	Ave		1.2070			0.0100	9.7	20.0				
1,1,2-Trichloroethane	1.0794 0.8993	0.9278 0.9152	1.0316 0.8752	0.9797	0.9793	Ave		0.9609			0.1000	7.3	20.0				
Tetrachloroethene	1.1314 0.9214	1.0730 0.9231	1.0654 0.8552	1.0357	1.0130	Ave		1.0023			0.2000	9.3	20.0				
1,3-Dichloropropane	1.9127 1.6507	1.8290 1.6948	1.9187 1.6444	1.8257	1.8122	Ave		1.7860			0.0100	6.1	20.0				
2-Hexanone	0.8865 1.0653	0.9324 1.1043	1.1169 1.0437	1.0718	1.0506	Ave		1.0339			0.1000	7.9	20.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.



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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1 Analy Batch No.: 135593

SDG No.: \_\_\_\_\_

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

Calibration Start Date: 03/16/2015 12:41 Calibration End Date: 03/16/2015 16:17 Calibration ID: 22457

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Dibromochloromethane	0.6589 0.7861	0.7302 0.8019	0.7961 0.7741	0.7741	0.8146	Ave		0.7670			0.1000	6.6	20.0				
1,2-Dibromoethane (EDB)	0.9462 0.8909	0.8507 0.9041	0.9478 0.8836	0.9579	0.9540	Ave		0.9169			0.1000	4.4	20.0				
3-Chlorobenzotrifluoride	2.1568 1.7885	2.0616 1.8999	2.0657 1.6136	2.0676	1.9855	Ave		1.9549			0.0100	9.2	20.0				
Chlorobenzene	3.9165 2.9120	3.3811 2.9538	3.4265 2.7856	3.3185	3.2780	Ave		3.2465			0.5000	11.0	20.0				
4-Chlorobenzotrifluoride	2.1386 1.7554	1.9292 1.8762	1.9271 1.5481	1.9634	1.9831	Ave		1.8901			0.0100	9.2	20.0				
1,1,1,2-Tetrachloroethane	0.7551 0.8493	0.8012 0.8680	0.8363 0.8428	0.8482	0.9047	Ave		0.8382			0.0100	5.3	20.0				
Ethylbenzene	1.9914 1.7179	1.9333 1.7672	1.9980 1.6464	1.9518	1.8953	Ave		1.8627			0.1000	7.2	20.0				
m-Xylene & p-Xylene	2.4849 2.1093	2.3674 2.1267	2.4171 1.9994	2.4234	2.2969	Ave		2.2781			0.1000	7.8	20.0				
o-Xylene	2.6403 2.0475	2.2064 2.0545	2.3516 1.9292	2.3257	2.2716	Ave		2.2283			0.3000	10.0	20.0				
Styrene	3.8818 3.3296	3.6611 3.3147	3.8658 3.1277	3.7940	3.7504	Ave		3.5907			0.3000	8.1	20.0				
Bromoform	0.4254 0.4898	0.4398 0.4974	0.4744 0.4894	0.4822	0.4911	Ave		0.4737			0.1000	5.6	20.0				
2-Chlorobenzotrifluoride	2.0985 1.7811	2.0764 1.8958	2.0751 1.6078	2.0615	2.0224	Ave		1.9523			0.0100	9.1	20.0				
Isopropylbenzene	6.2252 4.9838	6.1153 4.8827	6.0965 4.4013	6.0579	5.7184	Ave		5.5601			0.1000	13.0	20.0				
1,1,2,2-Tetrachloroethane	1.5778 1.3165	1.3921 1.3063	1.4139 1.2430	1.4088	1.3646	Ave		1.3779			0.3000	7.2	20.0				
Bromobenzene	0.9601 0.9043	0.9163 0.9102	0.9670 0.9012	0.9241	0.9202	Ave		0.9254			0.0100	2.7	20.0				
1,2,3-Trichloropropane	0.3380 0.3040	0.2838 0.2874	0.3205 0.3069	0.2961	0.2961	Ave		0.3041			0.0100	5.9	20.0				
trans-1,4-Dichloro-2-butene	0.2572 0.2562	0.2443 0.2601	0.2456 0.2696	0.2438	0.2460	Ave		0.2528			0.0100	3.7	20.0				
N-Propylbenzene	1.2305 1.1066	1.1620 1.0908	1.2081 1.0656	1.1555	1.1135	Ave		1.1416			0.0100	5.1	20.0				
2-Chlorotoluene	1.0248 0.9458	0.9575 0.9297	1.0195 0.9076	0.9558	0.9319	Ave		0.9591			0.0100	4.4	20.0				
3-Chlorotoluene	1.1523 1.0737	1.0357 1.0942	1.0635 0.9927	1.0618	1.1018	Ave		1.0720			0.0100	4.4	20.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Pittsburgh

Job No.: 180-42137-1

Analy Batch No.: 135593

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2015 12:41

Calibration End Date: 03/16/2015 16:17

Calibration ID: 22457

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
1,3,5-Trimethylbenzene	3.5091 3.0301	3.2905 2.9338	3.3765 2.8104	3.3601	3.1525	Ave		3.1829			0.0100	7.6	20.0				
4-Chlorotoluene	1.1316 1.0097	1.0151 0.9774	1.0863 1.0009	1.0825	1.0021	Ave		1.0382			0.0100	5.2	20.0				
tert-Butylbenzene	3.1830 2.5928	2.8173 2.5318	2.9656 2.3701	2.8959	2.7052	Ave		2.7577			0.0100	9.5	20.0				
1,2,4-Trimethylbenzene	3.6039 3.1029	3.3270 3.0238	3.4986 2.8908	3.4674	3.2206	Ave		3.2669			0.0100	7.7	20.0				
3,4-Dichlorobenzotrifluoride	1.1042 1.0202	0.9953 1.0227	1.0269 0.9335	1.1049	1.0507	Ave		1.0323			0.0100	5.5	20.0				
sec-Butylbenzene	4.3054 3.6389	4.1108 3.5066	4.1991 3.2620	4.1487	3.8794	Ave		3.8814			0.0100	9.7	20.0				
1,3-Dichlorobenzene	1.9132 1.6438	1.7258 1.6071	1.7369 1.5897	1.7497	1.6725	Ave		1.7048			0.6000	6.1	20.0				
4-Isopropyltoluene	3.4872 3.0606	3.2348 2.9586	3.4694 2.7984	3.4562	3.1691	Ave		3.2043			0.0100	8.0	20.0				
1,4-Dichlorobenzene	1.9760 1.6976	1.7145 1.6569	1.7807 1.6355	1.7648	1.7035	Ave		1.7412			0.5000	6.1	20.0				
2,4-Dichlorobenzotrifluoride	1.0162 0.9585	0.9307 0.9665	1.0004 0.8567	1.0551	0.9508	Ave		0.9669			0.0100	6.2	20.0				
2,5-Dichlorobenzotrifluoride	1.1811 1.0613	1.0765 1.0776	1.0685 0.9818	1.1269	1.0793	Ave		1.0816			0.0100	5.2	20.0				
n-Butylbenzene	3.1276 2.8128	2.9811 2.7148	3.1079 2.5582	3.1414	2.9001	Ave		2.9180			0.0100	7.3	20.0				
1,2-Dichlorobenzene	1.7371 1.5488	1.5543 1.5042	1.6235 1.4749	1.6066	1.5803	Ave		1.5787			0.4000	5.1	20.0				
1,2-Dibromo-3-Chloropropane	0.1313 0.1386	0.1067 0.1383	0.1229 0.1385	0.1324	0.1248	Ave		0.1292			0.0500	8.5	20.0				
1,2,4-Trichlorobenzene	0.9720 0.8625	0.7083 0.8349	0.7579 0.7778	0.8780	0.7835	Ave		0.8219			0.2000	10.0	20.0				
Hexachlorobutadiene	0.4883 0.3899	0.3825 0.3778	0.3866 0.3464	0.4091	0.3724	Ave		0.3941			0.0100	11.0	20.0				
Naphthalene	2.3899 2.2683	1.8332 2.1948	1.9931 2.0920	2.3983	2.0941	Ave		2.1580			0.0100	9.0	20.0				
1,2,3-Trichlorobenzene	0.7895 0.7155	0.5376 0.7162	0.6024 0.6573	0.7303	0.6432	Ave		0.6740			0.0100	12.0	20.0				
2,4,5-Trichlorotoluene	0.4907 0.3881	0.2750 0.3876	0.2929 0.3431	0.3938	0.3283	Ave		0.3624			0.0100	19.0	20.0				
2,3,6-Trichlorotoluene	0.4374 0.3491	0.2501 0.3509	0.2713 0.3051	0.3608	0.2936	Ave		0.3273			0.0100	18.0	20.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1 Analy Batch No.: 135593

SDG No.: \_\_\_\_\_

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

Calibration Start Date: 03/16/2015 12:41 Calibration End Date: 03/16/2015 16:17 Calibration ID: 22457

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Dibromofluoromethane (Surr)	0.2497 0.2212	0.2276 0.2219	0.2284 0.2143	0.2334	0.2228	Ave		0.2274			4.7		20.0				
1,2-Dichloroethane-d4 (Surr)	0.3017 0.2995	0.3055 0.2914	0.3015 0.2867	0.3115	0.3008	Ave		0.2998			2.6		20.0				
Toluene-d8 (Surr)	4.5313 3.5890	4.2126 3.6439	4.3365 3.2599	4.2301	4.0882	Ave		3.9864			11.0		20.0				
4-Bromofluorobenzene (Surr)	1.5722 1.3558	1.4371 1.3519	1.5107 1.2944	1.4891	1.4730	Ave		1.4356			6.6		20.0				

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1 Analy Batch No.: 135593

SDG No.: \_\_\_\_\_

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

Calibration Start Date: 03/16/2015 12:41 Calibration End Date: 03/16/2015 16:17 Calibration ID: 22457

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-135593/13	50316013.D
Level 2	IC 180-135593/4	50316004.D
Level 3	ICIS 180-135593/5	50316005.D
Level 4	IC 180-135593/6	50316006.D
Level 5	IC 180-135593/7	50316007.D
Level 6	IC 180-135593/8	50316008.D
Level 7	IC 180-135593/9	50316009.D
Level 8	IC 180-135593/10	50316010.D

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		
Dichlorodifluoromethane	FB	Ave	11265 432190	59394 522240	116111 640090	173113	243823	5.00 175	25.0 200	50.0 250	75.0	100
Chloromethane	FB	Ave	17972 573343	82552 674845	159885 855933	249772	316915	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl chloride	FB	Ave	18981 624000	94520 767804	183317 924535	280135	370271	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Butadiene	FB	Ave	24095 709784	108469 840803	208815 1005925	317272	415323	5.00 175	25.0 200	50.0 250	75.0	100
Bromomethane	FB	Lin2	18060 307964	55097 366671	100717 461680	159846	192846	5.00 175	25.0 200	50.0 250	75.0	100
Chloroethane	FB	Ave	13187 455903	60248 530813	126349 700467	191164	245673	5.00 175	25.0 200	50.0 250	75.0	100
Dichlorofluoromethane	FB	Ave	34297 974888	142662 1188936	282324 1511714	437737	548270	5.00 175	25.0 200	50.0 250	75.0	100
Trichlorofluoromethane	FB	Ave	20521 772293	107038 946313	217544 1178605	358375	437688	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl ether	FB	Ave	16416 519119	66452 592652	138609 792637	214135	293889	5.00 175	25.0 200	50.0 250	75.0	100
Acrolein	FB	Ave	35289 81646	41017 95028	50582 109180	62132	71073	100 225	125 250	150 275	175	200
1,1-Dichloroethene	FB	Ave	18234 562804	78897 662050	151843 827120	235889	318457	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	16567 577719	80854 684103	159979 834802	246660	319162	5.00 175	25.0 200	50.0 250	75.0	100
Acetone	FB	Ave	29674 429781	52410 489133	102899 621064	180387	217095	25.0 350	50.0 400	100 500	150	200
Iodomethane	FB	Ave	22824 784350	109309 945860	216640 1201056	334141	439512	5.00 175	25.0 200	50.0 250	75.0	100
Carbon disulfide	FB	Ave	41336 1381152	192118 1643948	387934 2031733	592248	772081	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh

Job No.: 180-42137-1

Analy Batch No.: 135593

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2015 12:41

Calibration End Date: 03/16/2015 16:17

Calibration ID: 22457

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	8006	38957	80577	125423	163875	5.00	25.0	50.0	75.0	100
			314052	393345	482122			175	200	250		
Methyl acetate	FB	Ave	71022	299965	641136	994505	1321970	25.0	125	250	375	500
			2407305	2810332	3718382			875	1000	1250		
Methylene Chloride	FB	Ave	27978	90836	168570	256424	345226	5.00	25.0	50.0	75.0	100
			597904	703059	919183			175	200	250		
tert-Butyl alcohol	TBA	Ave	10830	39251	83098	133756	175500	50.0	250	500	750	1000
			351016	399281	537174			1750	2000	2500		
Acrylonitrile	FB	Ave	71728	322268	666088	1035956	1363975	50.0	250	500	750	1000
			2446379	2868164	3721902			1750	2000	2500		
trans-1,2-Dichloroethene	FB	Ave	17111	82640	161381	251288	327278	5.00	25.0	50.0	75.0	100
			581552	692220	882651			175	200	250		
Methyl tert-butyl ether	FB	Ave	40058	160325	336961	528520	727030	5.00	25.0	50.0	75.0	100
			1347848	1581345	2130684			175	200	250		
Hexane	FB	Ave	29021	130741	261916	392065	514868	5.00	25.0	50.0	75.0	100
			929791	1096478	1379168			175	200	250		
1,1-Dichloroethane	FB	Ave	29622	145639	291408	435915	595324	5.00	25.0	50.0	75.0	100
			1052201	1250453	1604398			175	200	250		
Vinyl acetate	FB	Ave	19067	85462	187915	294456	419086	5.00	25.0	50.0	75.0	100
			831670	1001771	1337263			175	200	250		
2,2-Dichloropropane	FB	Ave	6267	33850	70106	108858	147216	5.00	25.0	50.0	75.0	100
			280515	338302	452022			175	200	250		
cis-1,2-Dichloroethene	FB	Ave	18951	86701	164893	259517	349805	5.00	25.0	50.0	75.0	100
			612812	721075	930230			175	200	250		
2-Butanone (MEK)	FB	Ave	42054	83987	180996	259227	371447	25.0	50.0	100	150	200
			665013	809232	1059138			350	400	500		
Bromochloromethane	FB	Ave	8619	36107	71124	109930	150204	5.00	25.0	50.0	75.0	100
			269375	311076	404105			175	200	250		
Tetrahydrofuran	FB	Ave	11913	52231	110274	166594	224920	10.0	50.0	100	150	200
			415944	483324	646482			350	400	500		
Chloroform	FB	Ave	29168	130523	262371	395935	534362	5.00	25.0	50.0	75.0	100
			953676	1109416	1424461			175	200	250		
1,1,1-Trichloroethane	FB	Ave	15663	77770	167130	259963	344772	5.00	25.0	50.0	75.0	100
			639960	768585	971626			175	200	250		
Cyclohexane	FB	Ave	36280	161271	322468	497889	649387	5.00	25.0	50.0	75.0	100
			1161488	1366913	1669676			175	200	250		
Carbon tetrachloride	FB	Ave	13013	64089	132517	203736	274328	5.00	25.0	50.0	75.0	100
			504991	612080	790495			175	200	250		
1,1-Dichloropropene	FB	Ave	24060	111342	219974	326699	436454	5.00	25.0	50.0	75.0	100
			783682	933326	1159811			175	200	250		
Isobutyl alcohol	FB	Ave	8820	29897	83109	137203	174166	125	625	1250	1875	2500
			386141	433313	644697			4375	5000	6250		

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1 Analy Batch No.: 135593

SDG No.: \_\_\_\_\_

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

Calibration Start Date: 03/16/2015 12:41 Calibration End Date: 03/16/2015 16:17 Calibration ID: 22457

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	73700 2286079	324419 2653105	654151 3351151	984614	1312435	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane	FB	Ave	22108 781760	104777 907622	208683 1159879	320594	429724	5.00 175	25.0 200	50.0 250	75.0	100
n-Heptane	FB	Ave	23490 819785	113041 940924	222515 1182643	335961	443357	5.00 175	25.0 200	50.0 250	75.0	100
Trichloroethene	FB	Ave	18397 586010	78459 684010	162608 860273	242252	326599	5.00 175	25.0 200	50.0 250	75.0	100
Methylcyclohexane	FB	Ave	29934 1055175	146574 1212427	295972 1519674	446628	583894	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloropropane	FB	Ave	16916 597514	72742 700921	154467 918714	238331	332279	5.00 175	25.0 200	50.0 250	75.0	100
Dibromomethane	FB	Ave	9562 308441	40542 370624	82469 479407	130496	178905	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dioxane	FB	Ave	3746 132396	15563 146272	31354 185631	50907	66490	100 3500	500 4000	1000 5000	1500	2000
Bromodichloromethane	FB	Ave	16863 663337	84673 773432	176851 1003399	259871	363842	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,3-Dichloropropene	FB	Ave	15462 681682	70642 829306	152581 1098242	247138	345528	5.00 175	25.0 200	50.0 250	75.0	100
4-Methyl-2-pentanone (MIBK)	CBZ	Ave	75787 1390980	154453 1617802	342539 2109966	531084	747218	25.0 350	50.0 400	100 500	150	200
Toluene	CBZ	Ave	72597 2347437	331041 2714932	679332 3368812	1017198	1340817	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,3-Dichloropropene	CBZ	Ave	10481 502980	44917 613747	108942 846559	167274	244258	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl methacrylate	CBZ	Ave	13336 654210	59964 782394	142858 1063861	221852	334858	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloroethane	CBZ	Ave	13086 465584	55897 540864	125390 706748	183907	252461	5.00 175	25.0 200	50.0 250	75.0	100
Tetrachloroethene	CBZ	Ave	13716 477004	64647 545517	129494 690601	194422	261148	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichloropropane	CBZ	Ave	23188 854593	110194 1001573	233217 1327847	342719	467174	5.00 175	25.0 200	50.0 250	75.0	100
2-Hexanone	CBZ	Ave	53734 1103034	112348 1305223	271508 1685534	402386	541680	25.0 350	50.0 400	100 500	150	200
Dibromochloromethane	CBZ	Ave	7988 406960	43996 473922	96762 625118	145315	210013	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromoethane (EDB)	CBZ	Ave	11471 461219	51254 534328	115204 713501	179814	245946	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorobenzotrifluoride	CBZ	Ave	26148 925933	124209 1122812	251080 1303041	388132	511845	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1 Analy Batch No.: 135593

SDG No.: \_\_\_\_\_

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

Calibration Start Date: 03/16/2015 12:41 Calibration End Date: 03/16/2015 16:17 Calibration ID: 22457

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Chlorobenzene	CBZ	Ave	47481 1507544	203702 1745676	416488 2249414	622968	845046	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorobenzotrifluoride	CBZ	Ave	25927 908777	116232 1108797	234233 1250140	368570	511237	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1,2-Tetrachloroethane	CBZ	Ave	9154 439701	48269 512980	101650 680608	159225	233228	5.00 175	25.0 200	50.0 250	75.0	100
Ethylbenzene	CBZ	Ave	24142 889389	116477 1044399	242856 1329470	366398	488611	5.00 175	25.0 200	50.0 250	75.0	100
m-Xylene & p-Xylene	CBZ	Ave	30126 1092005	142634 1256840	293796 1614511	454933	592135	5.00 175	25.0 200	50.0 250	75.0	100
o-Xylene	CBZ	Ave	32009 1059986	132929 1214164	285835 1557898	436586	585609	5.00 175	25.0 200	50.0 250	75.0	100
Styrene	CBZ	Ave	47061 1723778	220574 1958961	469890 2525667	712222	966850	5.00 175	25.0 200	50.0 250	75.0	100
Bromoform	CBZ	Ave	5157 253560	26498 293938	57667 395201	90522	126605	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorobenzotrifluoride	CBZ	Ave	25441 922108	125099 1120386	252226 1298335	386985	521379	5.00 175	25.0 200	50.0 250	75.0	100
Isopropylbenzene	CBZ	Ave	75470 2580136	368436 2885608	741027 3554151	1137215	1474178	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2,2-Tetrachloroethane	CBZ	Ave	19128 681581	83874 772016	171864 1003707	264462	351798	5.00 175	25.0 200	50.0 250	75.0	100
Bromobenzene	DCB	Ave	16809 637569	80670 740842	168649 956763	253502	346996	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichloropropane	DCB	Ave	5918 214358	24990 233938	55900 325768	81225	111668	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,4-Dichloro-2-butene	DCB	Ave	4503 180624	21505 211691	42827 286166	66879	92761	5.00 175	25.0 200	50.0 250	75.0	100
N-Propylbenzene	DCB	Ave	21543 780243	102304 887838	210687 1131297	316980	419888	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorotoluene	DCB	Ave	17942 666866	84295 756732	177793 963573	262207	351403	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorotoluene	DCB	Ave	20174 757051	91182 890638	185477 1053875	291288	415463	5.00 175	25.0 200	50.0 250	75.0	100
1,3,5-Trimethylbenzene	DCB	Ave	61438 2136446	289696 2387945	588847 2983647	921783	1188743	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorotoluene	DCB	Ave	19812 711885	89370 795532	189449 1062581	296950	377870	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butylbenzene	DCB	Ave	55729 1828125	248042 2060731	517188 2516209	794422	1020106	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trimethylbenzene	DCB	Ave	63098 2187785	292909 2461131	610150 3068942	951216	1214438	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1 Analy Batch No.: 135593

SDG No.: \_\_\_\_\_

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

Calibration Start Date: 03/16/2015 12:41 Calibration End Date: 03/16/2015 16:17 Calibration ID: 22457

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
3,4-Dichlorobenzotrifluoride	DCB	Ave	19333	87627	179092	303120	396211	5.00	25.0	50.0	75.0	100
			719294	832435	991010			175	200	250		
sec-Butylbenzene	DCB	Ave	75379	361915	732318	1138120	1462842	5.00	25.0	50.0	75.0	100
			2565671	2854173	3463106			175	200	250		
1,3-Dichlorobenzene	DCB	Ave	33497	151937	302903	480001	630675	5.00	25.0	50.0	75.0	100
			1159025	1308081	1687649			175	200	250		
4-Isopropyltoluene	DCB	Ave	61054	284792	605051	948139	1195021	5.00	25.0	50.0	75.0	100
			2157955	2408127	2970922			175	200	250		
1,4-Dichlorobenzene	DCB	Ave	34596	150942	310551	484138	642365	5.00	25.0	50.0	75.0	100
			1196958	1348596	1736319			175	200	250		
2,4-Dichlorobenzotrifluoride	DCB	Ave	17792	81937	174468	289446	358539	5.00	25.0	50.0	75.0	100
			675783	786683	909481			175	200	250		
2,5-Dichlorobenzotrifluoride	DCB	Ave	20678	94772	186350	309155	406971	5.00	25.0	50.0	75.0	100
			748317	877059	1042359			175	200	250		
n-Butylbenzene	DCB	Ave	54758	262455	542017	861784	1093564	5.00	25.0	50.0	75.0	100
			1983203	2209671	2715831			175	200	250		
1,2-Dichlorobenzene	DCB	Ave	30414	136843	283138	440732	595901	5.00	25.0	50.0	75.0	100
			1092014	1224311	1565775			175	200	250		
1,2-Dibromo-3-Chloropropane	DCB	Ave	2299	9396	21428	36318	47067	5.00	25.0	50.0	75.0	100
			97714	112547	147059			175	200	250		
1,2,4-Trichlorobenzene	DCB	Ave	17018	62363	132179	240861	295444	5.00	25.0	50.0	75.0	100
			608110	679520	825772			175	200	250		
Hexachlorobutadiene	DCB	Ave	8549	33676	67414	112236	140410	5.00	25.0	50.0	75.0	100
			274932	307470	367792			175	200	250		
Naphthalene	DCB	Ave	41842	161398	347596	657935	789643	5.00	25.0	50.0	75.0	100
			1599300	1786434	2220927			175	200	250		
1,2,3-Trichlorobenzene	DCB	Ave	13823	47333	105062	200345	242534	5.00	25.0	50.0	75.0	100
			504504	582911	697862			175	200	250		
2,4,5-Trichlorotoluene	DCB	Ave	8592	24209	51080	108037	123791	5.00	25.0	50.0	75.0	100
			273662	315499	364223			175	200	250		
2,3,6-Trichlorotoluene	DCB	Ave	7658	22020	47319	98974	110702	5.00	25.0	50.0	75.0	100
			246163	285573	323920			175	200	250		
Dibromofluoromethane (Surr)	FB	Ave	14193	61901	122918	185698	248750	5.00	25.0	50.0	75.0	100
			435320	526164	664693			175	200	250		
1,2-Dichloroethane-d4 (Surr)	FB	Ave	17152	83077	162227	247858	335757	5.00	25.0	50.0	75.0	100
			589491	691002	889045			175	200	250		
Toluene-d8 (Surr)	CBZ	Ave	54935	253798	527093	794092	1053927	5.00	25.0	50.0	75.0	100
			1858068	2153477	2632400			175	200	250		
4-Bromofluorobenzene (Surr)	CBZ	Ave	19061	86585	183629	279546	379740	5.00	25.0	50.0	75.0	100
			701915	798953	1045249			175	200	250		



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

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1 Analy Batch No.: 135593

SDG No.: \_\_\_\_\_

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

Calibration Start Date: 03/16/2015 12:41 Calibration End Date: 03/16/2015 16:17 Calibration ID: 22457

Curve Type Legend:

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

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316004.D  
 Lims ID: IC VSTD5  
 Client ID:  
 Sample Type: IC Calib Level: 2  
 Inject. Date: 16-Mar-2015 12:41:30 ALS Bottle#: 4 Worklist Smp#: 4  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD5  
 Misc. Info.: 180-0006031-004  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub4  
 Method: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 17-Mar-2015 10:59:20 Calib Date: 16-Mar-2015 16:17:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK012

First Level Reviewer: fergusond

Date: 17-Mar-2015 09:28:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.302	4.305	-0.003	88	140612	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.277	7.273	0.004	97	543896	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.361	10.364	-0.003	99	120496	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.682	0.003	97	176082	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.535	6.525	0.010	94	61901	25.0	25.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.906	6.902	0.004	96	83077	25.0	25.5	
\$ 7 Toluene-d8 (Surr)	98	8.919	8.922	-0.003	100	253798	25.0	26.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.529	11.532	-0.003	95	86585	25.0	25.0	
11 Dichlorodifluoromethane	85	1.619	1.616	0.003	98	59394	25.0	25.5	
12 Chloromethane	50	1.771	1.774	-0.003	100	82552	25.0	25.7	
13 Vinyl chloride	62	1.905	1.902	0.003	99	94520	25.0	26.3	
14 Butadiene	39	1.948	1.944	0.004	98	108469	25.0	26.4	
15 Bromomethane	94	2.252	2.249	0.003	90	55097	25.0	26.2	M
16 Chloroethane	64	2.392	2.370	0.022	97	60248	25.0	24.2	
17 Dichlorofluoromethane	67	2.660	2.650	0.010	98	142662	25.0	25.1	
18 Trichlorofluoromethane	101	2.690	2.711	-0.021	96	107038	25.0	24.8	
20 Ethyl ether	59	3.085	3.088	-0.003	98	66452	25.0	23.4	
21 Acrolein	56	3.256	3.252	0.004	96	41017	125.0	118.7	
22 1,1-Dichloroethene	96	3.371	3.386	-0.015	97	78897	25.0	25.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.444	3.429	0.015	97	80854	25.0	25.5	
24 Acetone	43	3.493	3.496	-0.003	98	52410	50.0	47.0	
25 Iodomethane	142	3.572	3.587	-0.015	98	109309	25.0	25.1	
26 Carbon disulfide	76	3.651	3.654	-0.003	100	192118	25.0	25.0	
28 3-Chloro-1-propene	76	3.931	3.940	-0.009	92	38957	25.0	23.5	
30 Methyl acetate	43	4.022	4.019	0.003	100	299965	125.0	115.1	
31 Methylene Chloride	84	4.144	4.134	0.010	95	90836	25.0	25.0	
32 2-Methyl-2-propanol	59	4.430	4.445	-0.015	90	39251	250.0	237.0	
33 Acrylonitrile	53	4.552	4.554	-0.002	100	322268	250.0	240.3	
34 trans-1,2-Dichloroethene	96	4.564	4.560	0.004	61	82640	25.0	25.5	
35 Methyl tert-butyl ether	73	4.594	4.591	0.003	96	160325	25.0	22.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.983	4.980	0.003	97	130741	25.0	25.2	
37 1,1-Dichloroethane	63	5.178	5.169	0.009	99	145639	25.0	25.2	
38 Vinyl acetate	43	5.300	5.290	0.010	100	85462	25.0	20.8	
44 2,2-Dichloropropane	77	5.926	5.923	0.003	85	33850	25.0	23.4	
45 cis-1,2-Dichloroethene	96	5.939	5.935	0.004	94	86701	25.0	25.4	
46 2-Butanone (MEK)	43	5.987	5.990	-0.003	99	83987	50.0	47.1	
49 Chlorobromomethane	128	6.224	6.233	-0.009	96	36107	25.0	24.4	
51 Tetrahydrofuran	42	6.285	6.288	-0.003	97	52231	50.0	46.8	
52 Chloroform	83	6.340	6.343	-0.003	96	130523	25.0	24.8	
53 1,1,1-Trichloroethane	97	6.529	6.531	-0.002	95	77770	25.0	23.2	
54 Cyclohexane	56	6.589	6.586	0.003	96	161271	25.0	25.0	
56 Carbon tetrachloride	117	6.723	6.720	0.003	69	64089	25.0	23.8	
55 1,1-Dichloropropene	75	6.729	6.726	0.003	96	111342	25.0	25.5	
57 Isobutyl alcohol	41	6.942	6.945	-0.003	33	29897	625.0	411.8	
58 Benzene	78	6.954	6.957	-0.003	98	324419	25.0	25.2	
59 1,2-Dichloroethane	62	6.985	6.981	0.004	98	104777	25.0	24.8	
62 n-Heptane	43	7.277	7.280	-0.003	65	113041	25.0	25.5	
64 Trichloroethene	130	7.666	7.669	-0.003	99	78459	25.0	24.3	
66 Methylcyclohexane	83	7.867	7.864	0.003	96	146574	25.0	25.4	
67 1,2-Dichloropropane	63	7.903	7.906	-0.003	95	72742	25.0	22.8	
68 Dibromomethane	93	8.031	8.028	0.003	94	40542	25.0	23.6	
70 1,4-Dioxane	88	8.068	8.058	0.010	87	15563	500.0	463.6	
71 Dichlorobromomethane	83	8.196	8.198	-0.002	97	84673	25.0	24.2	
74 cis-1,3-Dichloropropene	75	8.658	8.661	-0.002	98	70642	25.0	20.9	
75 4-Methyl-2-pentanone (MIBK)	43	8.822	8.825	-0.003	98	154453	50.0	47.4	
76 Toluene	91	8.992	8.989	0.003	99	331041	25.0	26.8	
77 trans-1,3-Dichloropropene	75	9.224	9.220	0.004	95	44917	25.0	20.1	
78 Ethyl methacrylate	69	9.321	9.318	0.003	97	59964	25.0	20.6	
79 1,1,2-Trichloroethane	97	9.400	9.397	0.003	98	55897	25.0	24.1	
80 Tetrachloroethene	164	9.534	9.537	-0.003	96	64647	25.0	26.8	
81 1,3-Dichloropropane	76	9.570	9.567	0.003	98	110194	25.0	25.6	
82 2-Hexanone	43	9.662	9.658	0.004	99	112348	50.0	45.1	
84 Chlorodibromomethane	129	9.795	9.786	0.009	98	43996	25.0	23.8	
85 Ethylene Dibromide	107	9.899	9.902	-0.003	99	51254	25.0	23.2	
86 3-Chlorobenzotrifluoride	180	10.373	10.370	0.003	89	124209	25.0	26.4	
87 Chlorobenzene	112	10.392	10.394	-0.002	99	203702	25.0	26.0	
88 4-Chlorobenzotrifluoride	180	10.434	10.431	0.003	99	116232	25.0	25.5	
89 1,1,1,2-Tetrachloroethane	131	10.477	10.473	0.004	96	48269	25.0	23.9	
90 Ethylbenzene	106	10.501	10.498	0.003	100	116477	25.0	25.9	
91 m-Xylene & p-Xylene	106	10.617	10.619	-0.002	99	142634	25.0	26.0	
92 o-Xylene	106	11.012	11.015	-0.003	97	132929	25.0	24.8	
93 Styrene	104	11.024	11.027	-0.003	99	220574	25.0	25.5	
94 Bromoform	173	11.213	11.209	0.004	97	26498	25.0	23.2	
96 2-Chlorobenzotrifluoride	180	11.274	11.276	-0.002	97	125099	25.0	26.6	
97 Isopropylbenzene	105	11.377	11.380	-0.003	99	368436	25.0	27.5	
99 1,1,2,2-Tetrachloroethane	83	11.675	11.672	0.003	70	83874	25.0	25.3	
100 Bromobenzene	156	11.681	11.684	-0.003	98	80670	25.0	24.8	
101 1,2,3-Trichloropropane	110	11.718	11.720	-0.002	95	24990	25.0	23.3	
102 trans-1,4-Dichloro-2-buten	53	11.730	11.727	0.003	85	21505	25.0	24.2	
103 N-Propylbenzene	120	11.791	11.787	0.004	100	102304	25.0	25.4	
104 2-Chlorotoluene	126	11.876	11.873	0.003	99	84295	25.0	25.0	
105 3-Chlorotoluene	126	11.937	11.933	0.004	98	91182	25.0	24.2	

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	11.961	11.964	-0.003	100	289696	25.0	25.8	
107 4-Chlorotoluene	126	11.986	11.982	0.004	96	89370	25.0	24.4	
108 tert-Butylbenzene	119	12.290	12.286	0.004	98	248042	25.0	25.5	
110 1,2,4-Trimethylbenzene	105	12.338	12.335	0.003	99	292909	25.0	25.5	
111 1,2-dichloro-4-(trifluorom	214	12.399	12.402	-0.003	98	87627	25.0	24.1	
112 sec-Butylbenzene	105	12.509	12.505	0.004	100	361915	25.0	26.5	
113 1,3-Dichlorobenzene	146	12.618	12.615	0.003	99	151937	25.0	25.3	
114 4-Isopropyltoluene	119	12.655	12.651	0.004	99	284792	25.0	25.2	
115 1,4-Dichlorobenzene	146	12.709	12.706	0.003	98	150942	25.0	24.6	
116 2,4-Dichloro-1-(trifluorom	214	12.758	12.761	-0.003	94	81937	25.0	24.1	
118 2,5-Dichlorobenzotrifluori	214	12.807	12.809	-0.002	97	94772	25.0	24.9	
120 n-Butylbenzene	91	13.062	13.059	0.003	100	262455	25.0	25.5	
121 1,2-Dichlorobenzene	146	13.081	13.083	-0.002	99	136843	25.0	24.6	
122 1,2-Dibromo-3-Chloropropan	75	13.859	13.862	-0.003	92	9396	25.0	20.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.011	14.008	0.003	99	300911	75.0	71.6	
125 2,3- & 3,4- Dichlorotoluen	125	14.425	14.428	-0.003	99	191256	50.0	46.8	
126 1,2,4-Trichlorobenzene	180	14.693	14.689	0.004	98	62363	25.0	21.5	
127 Hexachlorobutadiene	225	14.863	14.860	0.003	95	33676	25.0	24.3	
128 Naphthalene	128	14.942	14.939	0.003	99	161398	25.0	21.2	
129 1,2,3-Trichlorobenzene	180	15.185	15.188	-0.003	97	47333	25.0	19.9	
131 2,4,5-Trichlorotoluene	159	15.964	15.961	0.003	95	24209	25.0	19.0	
130 2,3,6-Trichlorotoluene	159	16.061	16.064	-0.003	95	22020	25.0	19.1	
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 133 Xylenes, Total	106				0		50.0	50.7	
S 134 1,2-Dichloroethene, Total	96				0		50.0	50.8	
S 135 1,3-Dichloropropene, Total	1				0		50.0	41.0	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOAACRPRI_00003	Amount Added: 5.00	Units: uL	
voaWEEpri Res_00003	Amount Added: 1.00	Units: uL	
voaWKetpri Re_00003	Amount Added: 1.00	Units: uL	
VOA8260SURR_00032	Amount Added: 1.00	Units: uL	
VOA8260VOAPRI_00105	Amount Added: 1.00	Units: uL	
VOAVAPRI_00005	Amount Added: 1.00	Units: uL	
VOA8260INT_00030	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316004.D

Injection Date: 16-Mar-2015 12:41:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD5

Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL

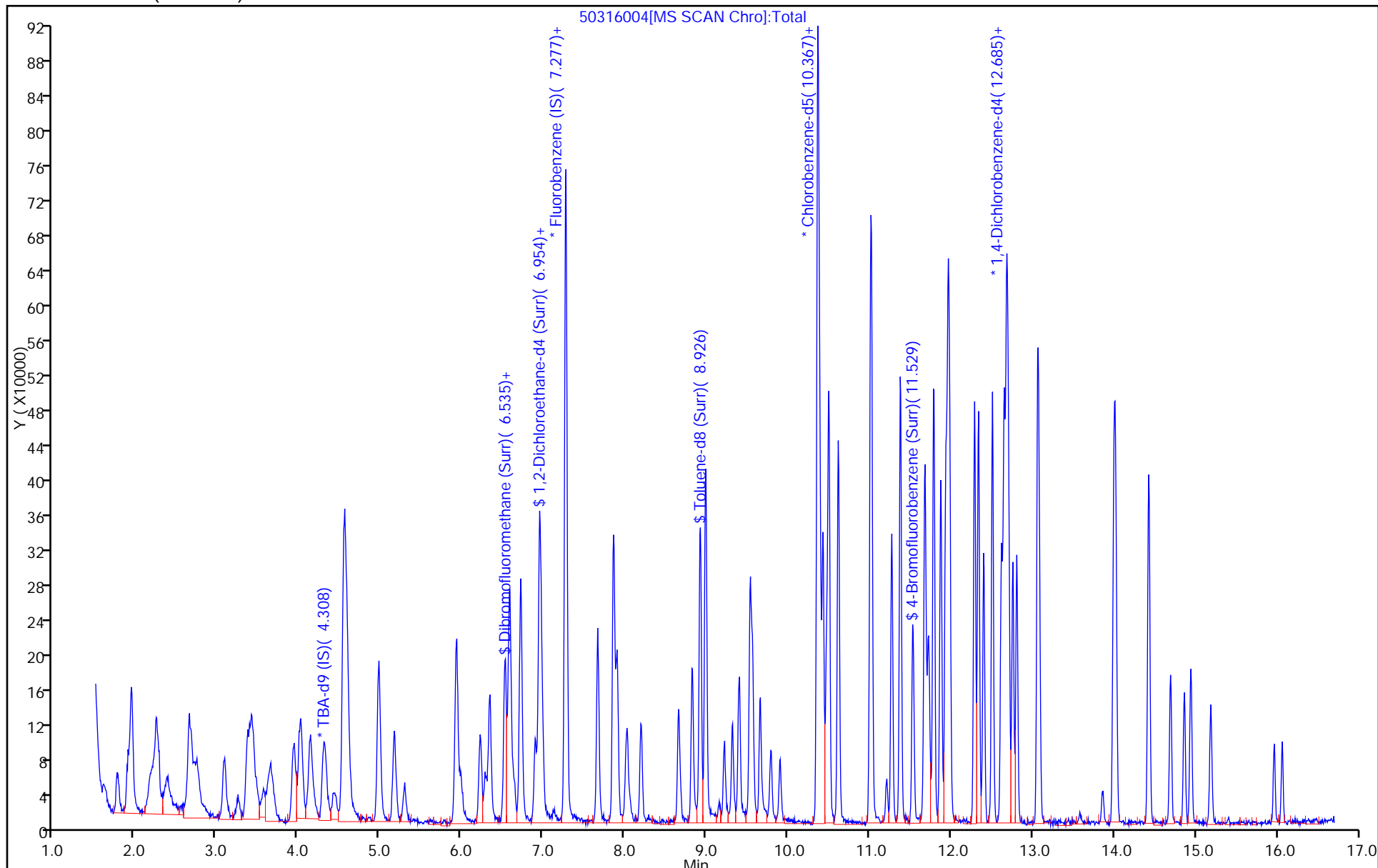
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



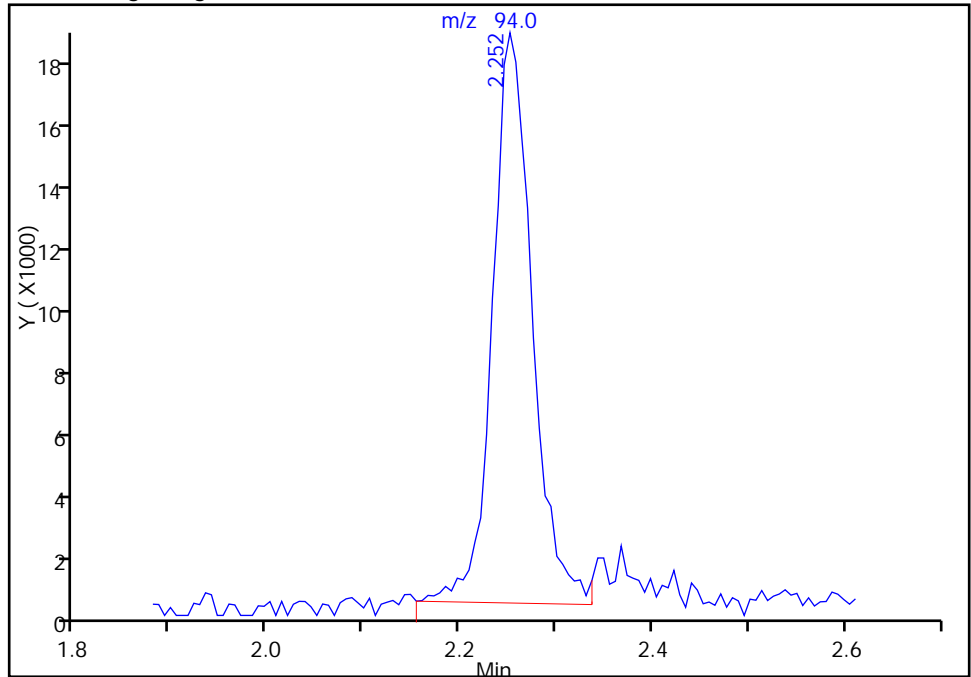
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316004.D  
Injection Date: 16-Mar-2015 12:41:30 Instrument ID: CHHP5  
Lims ID: IC VSTD5  
Client ID:  
Operator ID: 001562 ALS Bottle#: 4 Worklist Smp#: 4  
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

15 Bromomethane, CAS: 74-83-9

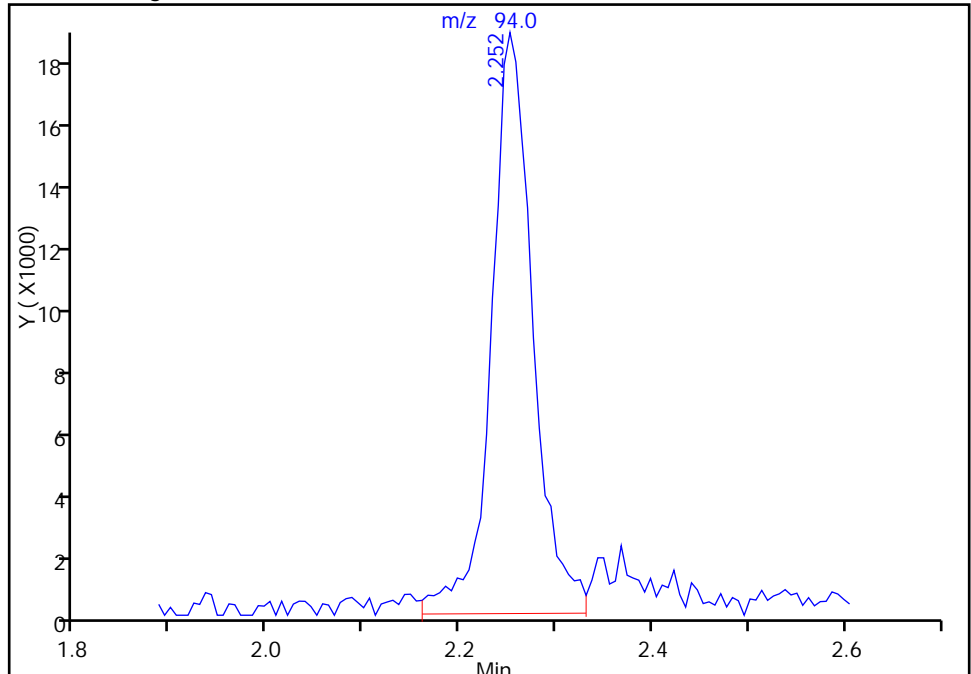
RT: 2.25  
Area: 51742  
Amount: 22.147125  
Amount Units: ng

Processing Integration Results



RT: 2.25  
Area: 55097  
Amount: 26.195176  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 17-Mar-2015 09:42:10  
Audit Action: Manually Integrated  
Audit Reason: Baseline

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316005.D  
 Lims ID: ICIS VSTD10  
 Client ID:  
 Sample Type: ICIS Calib Level: 3  
 Inject. Date: 16-Mar-2015 13:05:30 ALS Bottle#: 5 Worklist Smp#: 5  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: ICIS VSTD10  
 Misc. Info.: 180-0006031-005  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub4  
 Method: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 17-Mar-2015 10:59:21 Calib Date: 16-Mar-2015 16:17:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK012

First Level Reviewer: fergusond

Date: 16-Mar-2015 15:03:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.305	4.305	0.000	86	135440	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.273	0.000	99	538139	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.364	0.000	97	121549	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.682	12.682	0.000	98	174397	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.525	6.525	0.000	95	122918	50.0	50.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.902	6.902	0.000	99	162227	50.0	50.3	
\$ 7 Toluene-d8 (Surr)	98	8.922	8.922	0.000	100	527093	50.0	54.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.532	11.532	0.000	95	183629	50.0	52.6	
11 Dichlorodifluoromethane	85	1.616	1.616	0.000	100	116111	50.0	50.3	
12 Chloromethane	50	1.774	1.774	0.000	100	159885	50.0	50.2	
13 Vinyl chloride	62	1.902	1.902	0.000	100	183317	50.0	51.5	
14 Butadiene	39	1.944	1.944	0.000	99	208815	50.0	51.4	
15 Bromomethane	94	2.249	2.249	0.000	93	100717	50.0	52.5	
16 Chloroethane	64	2.370	2.370	0.000	98	126349	50.0	51.3	
17 Dichlorofluoromethane	67	2.650	2.650	0.000	100	282324	50.0	50.2	
18 Trichlorofluoromethane	101	2.711	2.711	0.000	98	217544	50.0	51.0	
20 Ethyl ether	59	3.088	3.088	0.000	98	138609	50.0	49.2	
21 Acrolein	56	3.252	3.252	0.000	98	50582	150.0	147.9	
22 1,1-Dichloroethene	96	3.386	3.386	0.000	99	151843	50.0	48.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.429	3.429	0.000	97	159979	50.0	51.0	
24 Acetone	43	3.496	3.496	0.000	99	102899	100.0	93.3	
25 Iodomethane	142	3.587	3.587	0.000	96	216640	50.0	50.3	
26 Carbon disulfide	76	3.654	3.654	0.000	100	387934	50.0	51.1	
28 3-Chloro-1-propene	76	3.940	3.940	0.000	96	80577	50.0	49.1	
30 Methyl acetate	43	4.019	4.019	0.000	100	641136	250.0	248.6	
31 Methylene Chloride	84	4.134	4.134	0.000	86	168570	50.0	47.0	
32 2-Methyl-2-propanol	59	4.445	4.445	0.000	86	83098	500.0	520.9	
33 Acrylonitrile	53	4.554	4.554	0.000	99	666088	500.0	502.1	
34 trans-1,2-Dichloroethene	96	4.560	4.560	0.000	59	161381	50.0	50.3	
35 Methyl tert-butyl ether	73	4.591	4.591	0.000	96	336961	50.0	47.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.980	4.980	0.000	98	261916	50.0	51.1	
37 1,1-Dichloroethane	63	5.169	5.169	0.000	100	291408	50.0	50.9	
38 Vinyl acetate	43	5.290	5.290	0.000	100	187915	50.0	46.2	
44 2,2-Dichloropropane	77	5.923	5.923	0.000	67	70106	50.0	48.9	
45 cis-1,2-Dichloroethene	96	5.935	5.935	0.000	92	164893	50.0	48.8	
46 2-Butanone (MEK)	43	5.990	5.990	0.000	100	180996	100.0	102.7	
49 Chlorobromomethane	128	6.233	6.233	0.000	95	71124	50.0	48.6	
51 Tetrahydrofuran	42	6.288	6.288	0.000	98	110274	100.0	99.9	
52 Chloroform	83	6.343	6.343	0.000	96	262371	50.0	50.4	
53 1,1,1-Trichloroethane	97	6.531	6.531	0.000	95	167130	50.0	50.3	
54 Cyclohexane	56	6.586	6.586	0.000	95	322468	50.0	50.5	
56 Carbon tetrachloride	117	6.720	6.720	0.000	69	132517	50.0	49.7	
55 1,1-Dichloropropene	75	6.726	6.726	0.000	97	219974	50.0	51.0	
57 Isobutyl alcohol	41	6.945	6.945	0.000	37	83109	1250.0	1157.0	
58 Benzene	78	6.957	6.957	0.000	99	654151	50.0	51.3	
59 1,2-Dichloroethane	62	6.981	6.981	0.000	97	208683	50.0	50.0	
62 n-Heptane	43	7.280	7.280	0.000	81	222515	50.0	50.8	
64 Trichloroethene	130	7.669	7.669	0.000	98	162608	50.0	50.9	
66 Methylcyclohexane	83	7.864	7.864	0.000	96	295972	50.0	51.9	
67 1,2-Dichloropropane	63	7.906	7.906	0.000	95	154467	50.0	49.0	
68 Dibromomethane	93	8.028	8.028	0.000	95	82469	50.0	48.6	
70 1,4-Dioxane	88	8.058	8.058	0.000	96	31354	1000.0	944.0	M
71 Dichlorobromomethane	83	8.198	8.198	0.000	99	176851	50.0	51.0	
74 cis-1,3-Dichloropropene	75	8.661	8.661	0.000	99	152581	50.0	45.6	
75 4-Methyl-2-pentanone (MIBK)	43	8.825	8.825	0.000	99	342539	100.0	104.1	
76 Toluene	91	8.989	8.989	0.000	100	679332	50.0	54.5	
77 trans-1,3-Dichloropropene	75	9.220	9.220	0.000	94	108942	50.0	48.4	
78 Ethyl methacrylate	69	9.318	9.318	0.000	96	142858	50.0	48.7	
79 1,1,2-Trichloroethane	97	9.397	9.397	0.000	99	125390	50.0	53.7	
80 Tetrachloroethene	164	9.537	9.537	0.000	95	129494	50.0	53.1	
81 1,3-Dichloropropane	76	9.567	9.567	0.000	98	233217	50.0	53.7	
82 2-Hexanone	43	9.658	9.658	0.000	99	271508	100.0	108.0	
84 Chlorodibromomethane	129	9.786	9.786	0.000	99	96762	50.0	51.9	
85 Ethylene Dibromide	107	9.902	9.902	0.000	98	115204	50.0	51.7	
86 3-Chlorobenzotrifluoride	180	10.370	10.370	0.000	97	251080	50.0	52.8	
87 Chlorobenzene	112	10.394	10.394	0.000	99	416488	50.0	52.8	
88 4-Chlorobenzotrifluoride	180	10.431	10.431	0.000	99	234233	50.0	51.0	
89 1,1,1,2-Tetrachloroethane	131	10.473	10.473	0.000	97	101650	50.0	49.9	
90 Ethylbenzene	106	10.498	10.498	0.000	100	242856	50.0	53.6	
91 m-Xylene & p-Xylene	106	10.619	10.619	0.000	99	293796	50.0	53.0	
92 o-Xylene	106	11.015	11.015	0.000	97	285835	50.0	52.8	
93 Styrene	104	11.027	11.027	0.000	99	469890	50.0	53.8	
94 Bromoform	173	11.209	11.209	0.000	96	57667	50.0	50.1	
96 2-Chlorobenzotrifluoride	180	11.276	11.276	0.000	99	252226	50.0	53.1	
97 Isopropylbenzene	105	11.380	11.380	0.000	100	741027	50.0	54.8	
99 1,1,2,2-Tetrachloroethane	83	11.672	11.672	0.000	97	171864	50.0	51.3	
100 Bromobenzene	156	11.684	11.684	0.000	98	168649	50.0	52.2	
101 1,2,3-Trichloropropane	110	11.720	11.720	0.000	97	55900	50.0	52.7	
102 trans-1,4-Dichloro-2-buten	53	11.727	11.727	0.000	88	42827	50.0	48.6	
103 N-Propylbenzene	120	11.787	11.787	0.000	100	210687	50.0	52.9	
104 2-Chlorotoluene	126	11.873	11.873	0.000	100	177793	50.0	53.1	
105 3-Chlorotoluene	126	11.933	11.933	0.000	99	185477	50.0	49.6	



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	11.964	11.964	0.000	99	588847	50.0	53.0	
107 4-Chlorotoluene	126	11.982	11.982	0.000	99	189449	50.0	52.3	
108 tert-Butylbenzene	119	12.286	12.286	0.000	100	517188	50.0	53.8	
110 1,2,4-Trimethylbenzene	105	12.335	12.335	0.000	100	610150	50.0	53.5	
111 1,2-dichloro-4-(trifluorom	214	12.402	12.402	0.000	98	179092	50.0	49.7	
112 sec-Butylbenzene	105	12.505	12.505	0.000	100	732318	50.0	54.1	
113 1,3-Dichlorobenzene	146	12.615	12.615	0.000	98	302903	50.0	50.9	
114 4-Isopropyltoluene	119	12.651	12.651	0.000	99	605051	50.0	54.1	
115 1,4-Dichlorobenzene	146	12.706	12.706	0.000	98	310551	50.0	51.1	
116 2,4-Dichloro-1-(trifluorom	214	12.761	12.761	0.000	94	174468	50.0	51.7	
118 2,5-Dichlorobenzotrifluori	214	12.809	12.809	0.000	98	186350	50.0	49.4	
120 n-Butylbenzene	91	13.059	13.059	0.000	100	542017	50.0	53.3	
121 1,2-Dichlorobenzene	146	13.083	13.083	0.000	100	283138	50.0	51.4	
122 1,2-Dibromo-3-Chloropropan	75	13.862	13.862	0.000	86	21428	50.0	47.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.008	14.008	0.000	99	613057	150.0	147.3	
125 2,3- & 3,4- Dichlorotoluen	125	14.428	14.428	0.000	100	386758	100.0	95.5	
126 1,2,4-Trichlorobenzene	180	14.689	14.689	0.000	96	132179	50.0	46.1	
127 Hexachlorobutadiene	225	14.860	14.860	0.000	96	67414	50.0	49.0	
128 Naphthalene	128	14.939	14.939	0.000	100	347596	50.0	46.2	
129 1,2,3-Trichlorobenzene	180	15.188	15.188	0.000	98	105062	50.0	44.7	
131 2,4,5-Trichlorotoluene	159	15.961	15.961	0.000	96	51080	50.0	40.4	
130 2,3,6-Trichlorotoluene	159	16.064	16.064	0.000	97	47319	50.0	41.5	
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	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	105.8	
S 134 1,2-Dichloroethene, Total	96				0		100.0	99.0	
S 135 1,3-Dichloropropene, Total	1				0		100.0	94.1	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOAVAPRI_00005	Amount Added: 2.00	Units: uL	
VOA8260VOAPRI_00105	Amount Added: 2.00	Units: uL	
VOA8260SURR_00032	Amount Added: 2.00	Units: uL	
voaWEEpri Res_00003	Amount Added: 2.00	Units: uL	
voaWKetpri Re_00003	Amount Added: 2.00	Units: uL	
VOAACRPRI_00003	Amount Added: 6.00	Units: uL	
VOA8260INT_00030	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316005.D

Injection Date: 16-Mar-2015 13:05:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: ICIS VSTD10

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

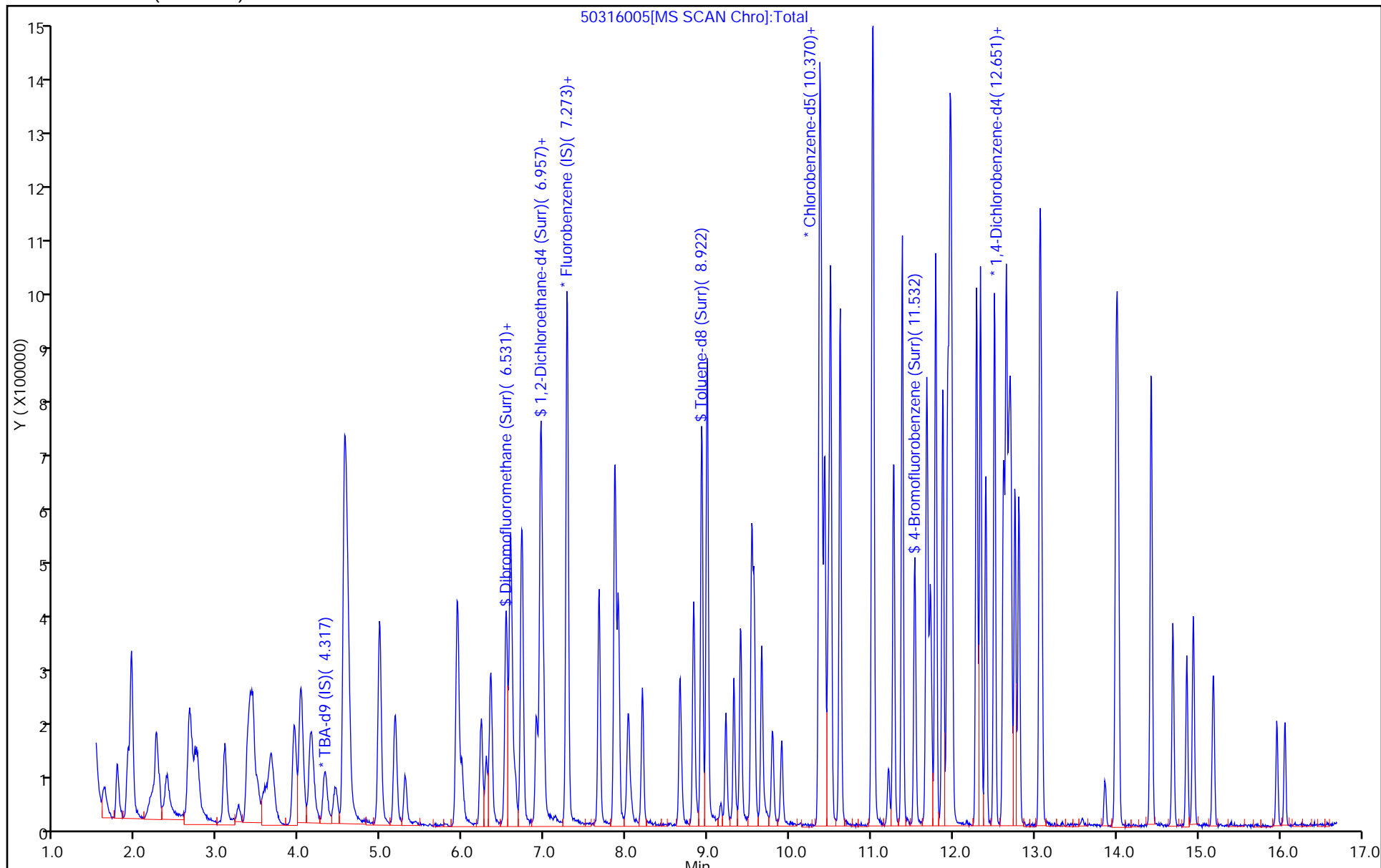
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



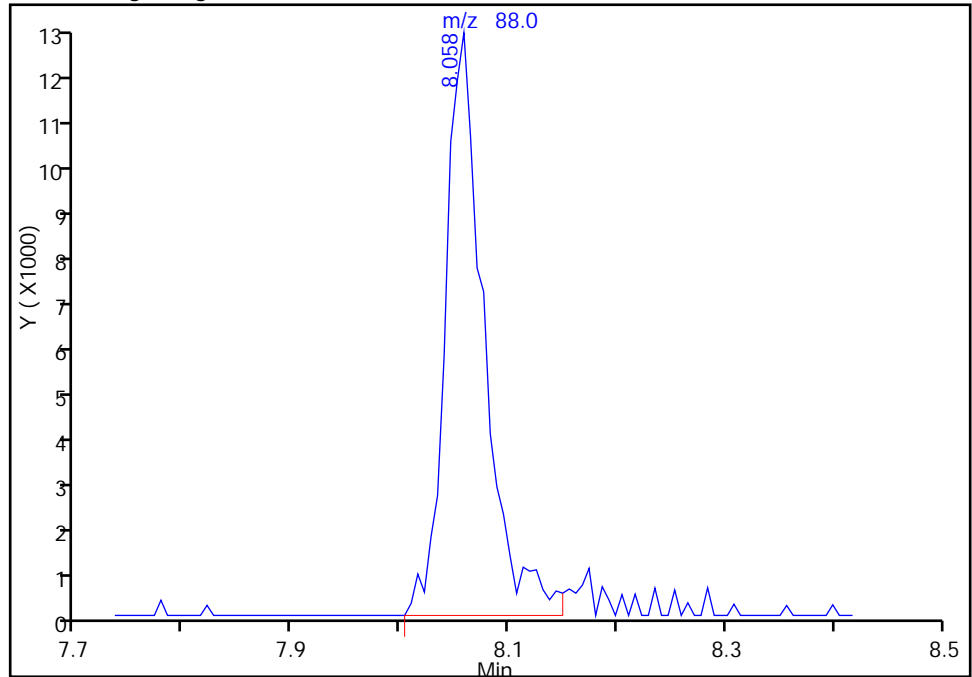
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316005.D  
Injection Date: 16-Mar-2015 13:05:30 Instrument ID: CHHP5  
Lims ID: ICIS VSTD10  
Client ID:  
Operator ID: 001562 ALS Bottle#: 5 Worklist Smp#: 5  
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

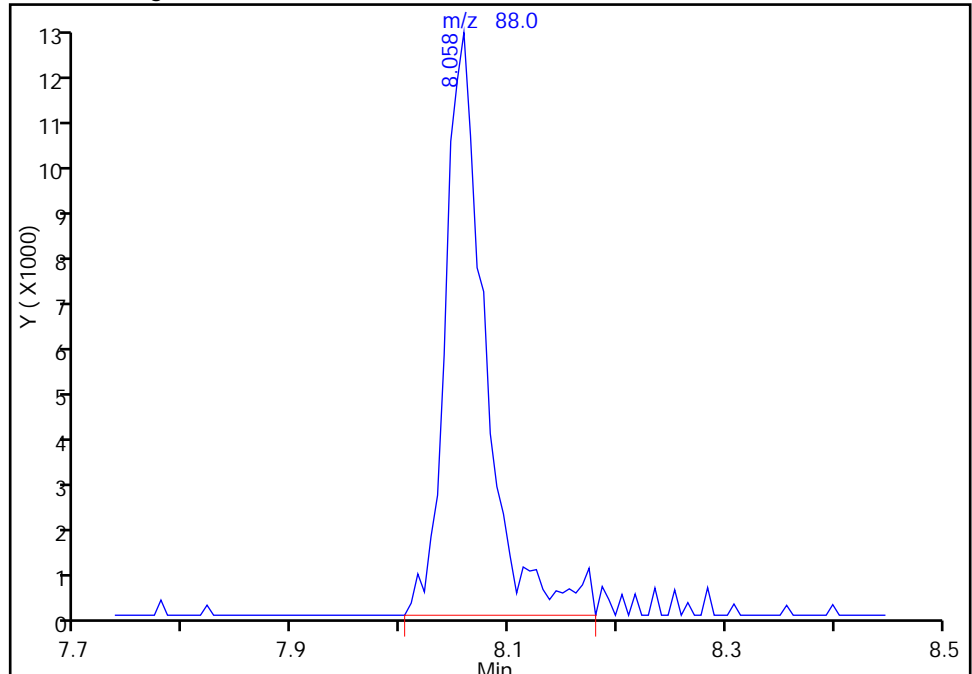
RT: 8.06  
Area: 30397  
Amount: 939.9751  
Amount Units: ng

Processing Integration Results



RT: 8.06  
Area: 31354  
Amount: 944.0403  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 17-Mar-2015 09:27:38  
Audit Action: Manually Integrated  
Audit Reason: Peak Tail

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316006.D  
 Lims ID: IC VSTD15  
 Client ID:  
 Sample Type: IC Calib Level: 4  
 Inject. Date: 16-Mar-2015 13:29:30 ALS Bottle#: 6 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD15  
 Misc. Info.: 180-0006031-006  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub4  
 Method: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 17-Mar-2015 10:59:26 Calib Date: 16-Mar-2015 16:17:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK012

First Level Reviewer: fergusond

Date: 17-Mar-2015 09:45:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.305	4.305	0.000	89	152705	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.273	7.273	0.000	99	530419	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.364	0.000	99	125149	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.682	12.682	0.000	95	182887	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.525	6.525	0.000	97	185698	75.0	77.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.902	6.902	0.000	96	247858	75.0	77.9	
\$ 7 Toluene-d8 (Surr)	98	8.922	8.922	0.000	100	794092	75.0	79.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.532	11.532	0.000	97	279546	75.0	77.8	
11 Dichlorodifluoromethane	85	1.622	1.622	0.000	99	173113	75.0	76.1	
12 Chloromethane	50	1.768	1.768	0.000	99	249772	75.0	79.6	
13 Vinyl chloride	62	1.896	1.896	0.000	100	280135	75.0	79.9	
14 Butadiene	39	1.944	1.944	0.000	99	317272	75.0	79.2	
15 Bromomethane	94	2.249	2.249	0.000	92	159846	75.0	87.5	
16 Chloroethane	64	2.376	2.376	0.000	96	191164	75.0	78.8	
17 Dichlorofluoromethane	67	2.644	2.644	0.000	99	437737	75.0	79.0	
18 Trichlorofluoromethane	101	2.723	2.723	0.000	96	358375	75.0	85.2	
20 Ethyl ether	59	3.082	3.082	0.000	100	214135	75.0	77.2	
21 Acrolein	56	3.258	3.258	0.000	100	62132	175.0	184.3	
22 1,1-Dichloroethene	96	3.374	3.374	0.000	100	235889	75.0	77.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.423	3.423	0.000	100	246660	75.0	79.7	
24 Acetone	43	3.496	3.496	0.000	100	180387	150.0	166.0	
25 Iodomethane	142	3.581	3.581	0.000	100	334141	75.0	78.6	
26 Carbon disulfide	76	3.660	3.660	0.000	100	592248	75.0	79.2	
28 3-Chloro-1-propene	76	3.934	3.934	0.000	100	125423	75.0	77.6	
30 Methyl acetate	43	4.019	4.019	0.000	100	994505	375.0	391.2	
31 Methylene Chloride	84	4.147	4.147	0.000	100	256424	75.0	72.5	
32 2-Methyl-2-propanol	59	4.439	4.439	0.000	100	133756	750.0	743.6	
33 Acrylonitrile	53	4.554	4.554	0.000	100	1035956	750.0	792.2	
34 trans-1,2-Dichloroethene	96	4.560	4.560	0.000	100	251288	75.0	79.4	
35 Methyl tert-butyl ether	73	4.597	4.597	0.000	100	528520	75.0	75.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.980	4.980	0.000	100	392065	75.0	77.6	
37 1,1-Dichloroethane	63	5.175	5.175	0.000	100	435915	75.0	77.2	
38 Vinyl acetate	43	5.296	5.296	0.000	100	294456	75.0	73.5	
44 2,2-Dichloropropane	77	5.929	5.929	0.000	100	108858	75.0	77.1	
45 cis-1,2-Dichloroethene	96	5.941	5.941	0.000	100	259517	75.0	77.9	
46 2-Butanone (MEK)	43	5.990	5.990	0.000	100	259227	150.0	149.2	
49 Chlorobromomethane	128	6.227	6.227	0.000	100	109930	75.0	76.2	
51 Tetrahydrofuran	42	6.282	6.282	0.000	100	166594	150.0	153.1	
52 Chloroform	83	6.343	6.343	0.000	100	395935	75.0	77.2	
53 1,1,1-Trichloroethane	97	6.531	6.531	0.000	100	259963	75.0	79.4	
54 Cyclohexane	56	6.586	6.586	0.000	100	497889	75.0	79.2	
56 Carbon tetrachloride	117	6.720	6.720	0.000	100	203736	75.0	77.5	
55 1,1-Dichloropropene	75	6.726	6.726	0.000	100	326699	75.0	76.8	
57 Isobutyl alcohol	41	6.945	6.945	0.000	100	137203	1875.0	1937.9	M
58 Benzene	78	6.957	6.957	0.000	100	984614	75.0	78.3	
59 1,2-Dichloroethane	62	6.988	6.988	0.000	100	320594	75.0	77.9	
62 n-Heptane	43	7.280	7.280	0.000	100	335961	75.0	77.8	
64 Trichloroethene	130	7.669	7.669	0.000	100	242252	75.0	76.9	
66 Methylcyclohexane	83	7.864	7.864	0.000	100	446628	75.0	79.5	
67 1,2-Dichloropropane	63	7.906	7.906	0.000	100	238331	75.0	76.7	
68 Dibromomethane	93	8.022	8.022	0.000	100	130496	75.0	78.0	
70 1,4-Dioxane	88	8.058	8.058	0.000	100	50907	1500.0	1555.1	
71 Dichlorobromomethane	83	8.198	8.198	0.000	100	259871	75.0	76.1	
74 cis-1,3-Dichloropropene	75	8.661	8.661	0.000	100	247138	75.0	75.0	
75 4-Methyl-2-pentanone (MIBK)	43	8.825	8.825	0.000	100	531084	150.0	156.8	
76 Toluene	91	8.989	8.989	0.000	100	1017198	75.0	79.3	
77 trans-1,3-Dichloropropene	75	9.220	9.220	0.000	100	167274	75.0	72.2	
78 Ethyl methacrylate	69	9.318	9.318	0.000	100	221852	75.0	73.4	
79 1,1,2-Trichloroethane	97	9.403	9.403	0.000	100	183907	75.0	76.5	
80 Tetrachloroethene	164	9.537	9.537	0.000	100	194422	75.0	77.5	
81 1,3-Dichloropropane	76	9.561	9.561	0.000	100	342719	75.0	76.7	
82 2-Hexanone	43	9.658	9.658	0.000	100	402386	150.0	155.5	
84 Chlorodibromomethane	129	9.792	9.792	0.000	100	145315	75.0	75.7	
85 Ethylene Dibromide	107	9.902	9.902	0.000	100	179814	75.0	78.4	
86 3-Chlorobenzotrifluoride	180	10.370	10.370	0.000	100	388132	75.0	79.3	
87 Chlorobenzene	112	10.388	10.388	0.000	100	622968	75.0	76.7	
88 4-Chlorobenzotrifluoride	180	10.431	10.431	0.000	100	368570	75.0	77.9	
89 1,1,1,2-Tetrachloroethane	131	10.473	10.473	0.000	100	159225	75.0	75.9	
90 Ethylbenzene	106	10.504	10.504	0.000	100	366398	75.0	78.6	
91 m-Xylene & p-Xylene	106	10.619	10.619	0.000	100	454933	75.0	79.8	
92 o-Xylene	106	11.009	11.009	0.000	100	436586	75.0	78.3	
93 Styrene	104	11.027	11.027	0.000	100	712222	75.0	79.2	
94 Bromoform	173	11.209	11.209	0.000	100	90522	75.0	76.3	
96 2-Chlorobenzotrifluoride	180	11.276	11.276	0.000	100	386985	75.0	79.2	
97 Isopropylbenzene	105	11.380	11.380	0.000	100	1137215	75.0	81.7	
99 1,1,2,2-Tetrachloroethane	83	11.678	11.678	0.000	100	264462	75.0	76.7	
100 Bromobenzene	156	11.678	11.678	0.000	100	253502	75.0	74.9	
101 1,2,3-Trichloropropane	110	11.721	11.721	0.000	100	81225	75.0	73.0	
102 trans-1,4-Dichloro-2-buten	53	11.733	11.733	0.000	100	66879	75.0	72.3	
103 N-Propylbenzene	120	11.787	11.787	0.000	100	316980	75.0	75.9	
104 2-Chlorotoluene	126	11.873	11.873	0.000	100	262207	75.0	74.7	
105 3-Chlorotoluene	126	11.933	11.933	0.000	100	291288	75.0	74.3	

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	11.964	11.964	0.000	100	921783	75.0	79.2	
107 4-Chlorotoluene	126	11.982	11.982	0.000	100	296950	75.0	78.2	
108 tert-Butylbenzene	119	12.286	12.286	0.000	100	794422	75.0	78.8	
110 1,2,4-Trimethylbenzene	105	12.335	12.335	0.000	100	951216	75.0	79.6	
111 1,2-dichloro-4-(trifluorom	214	12.402	12.402	0.000	100	303120	75.0	80.3	
112 sec-Butylbenzene	105	12.511	12.511	0.000	100	1138120	75.0	80.2	
113 1,3-Dichlorobenzene	146	12.621	12.621	0.000	100	480001	75.0	77.0	
114 4-Isopropyltoluene	119	12.651	12.651	0.000	100	948139	75.0	80.9	
115 1,4-Dichlorobenzene	146	12.706	12.706	0.000	100	484138	75.0	76.0	
116 2,4-Dichloro-1-(trifluorom	214	12.755	12.755	0.000	100	289446	75.0	81.8	
118 2,5-Dichlorobenzotrifluori	214	12.803	12.803	0.000	100	309155	75.0	78.1	
120 n-Butylbenzene	91	13.065	13.065	0.000	100	861784	75.0	80.7	
121 1,2-Dichlorobenzene	146	13.083	13.083	0.000	100	440732	75.0	76.3	
122 1,2-Dibromo-3-Chloropropan	75	13.856	13.856	0.000	100	36318	75.0	76.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.008	14.008	0.000	100	1058653	225.0	242.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.428	14.428	0.000	100	694253	150.0	163.5	
126 1,2,4-Trichlorobenzene	180	14.695	14.695	0.000	100	240861	75.0	80.1	
127 Hexachlorobutadiene	225	14.866	14.866	0.000	100	112236	75.0	77.9	
128 Naphthalene	128	14.939	14.939	0.000	100	657935	75.0	83.4	
129 1,2,3-Trichlorobenzene	180	15.188	15.188	0.000	100	200345	75.0	81.3	
131 2,4,5-Trichlorotoluene	159	15.967	15.967	0.000	100	108037	75.0	81.5	
130 2,3,6-Trichlorotoluene	159	16.064	16.064	0.000	100	98974	75.0	82.7	
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 133 Xylenes, Total	106				0		150.0	158.1	
S 134 1,2-Dichloroethene, Total	96				0		150.0	157.3	
S 135 1,3-Dichloropropene, Total	1				0		150.0	147.2	

**QC Flag Legend**

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

**Reagents:**

VOAACRPRI_00003	Amount Added: 7.00	Units: uL	
voaWEEpri Res_00003	Amount Added: 3.00	Units: uL	
voaWKetpri Re_00003	Amount Added: 3.00	Units: uL	
VOA8260SURR_00032	Amount Added: 3.00	Units: uL	
VOA8260VOAPRI_00105	Amount Added: 3.00	Units: uL	
VOAVAPRI_00005	Amount Added: 3.00	Units: uL	
VOA8260INT_00030	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316006.D

Injection Date: 16-Mar-2015 13:29:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD15

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

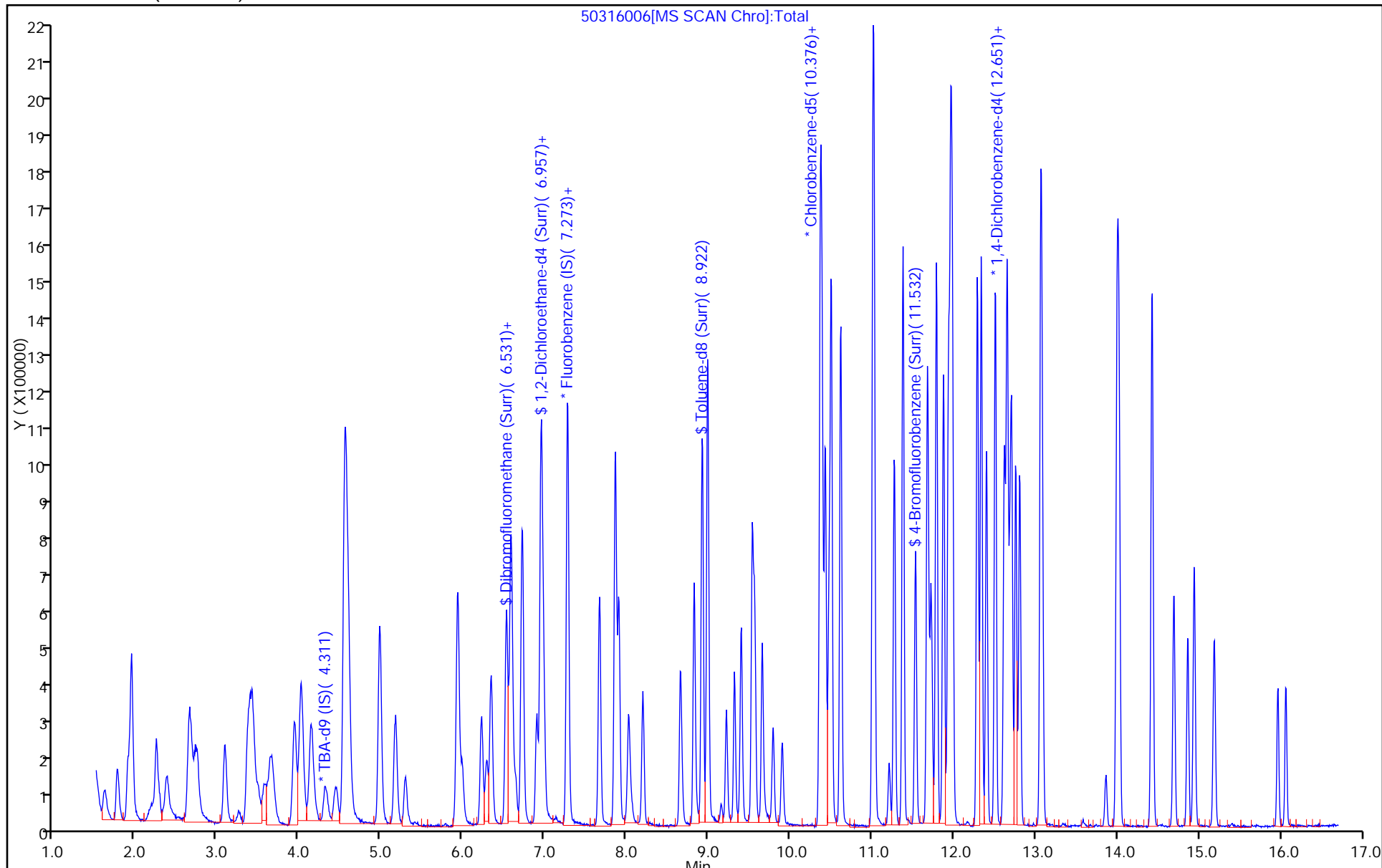
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



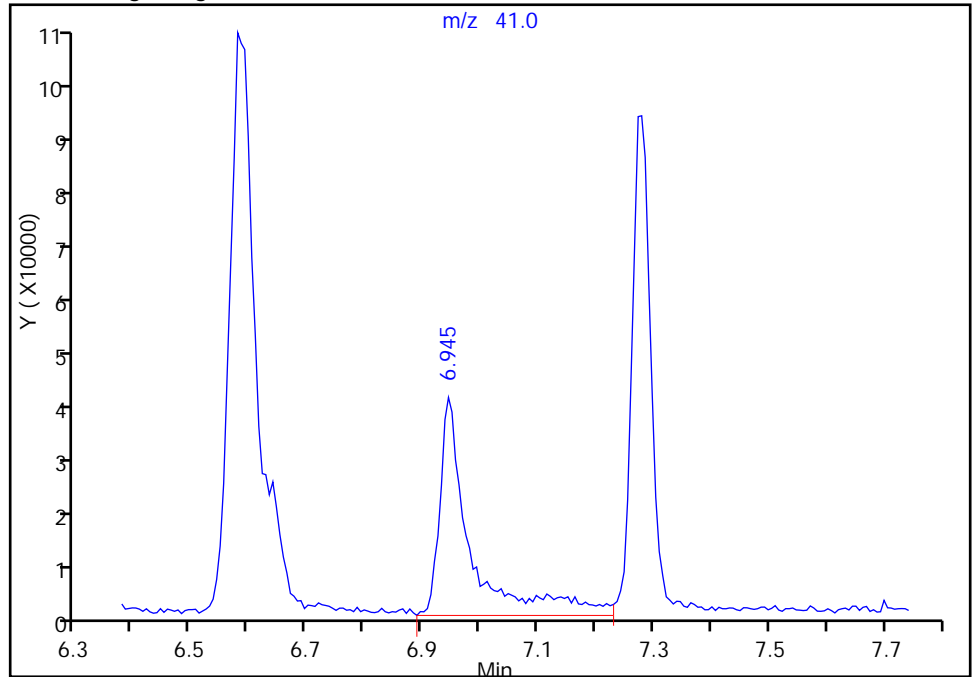
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316006.D  
Injection Date: 16-Mar-2015 13:29:30 Instrument ID: CHHP5  
Lims ID: IC VSTD15  
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

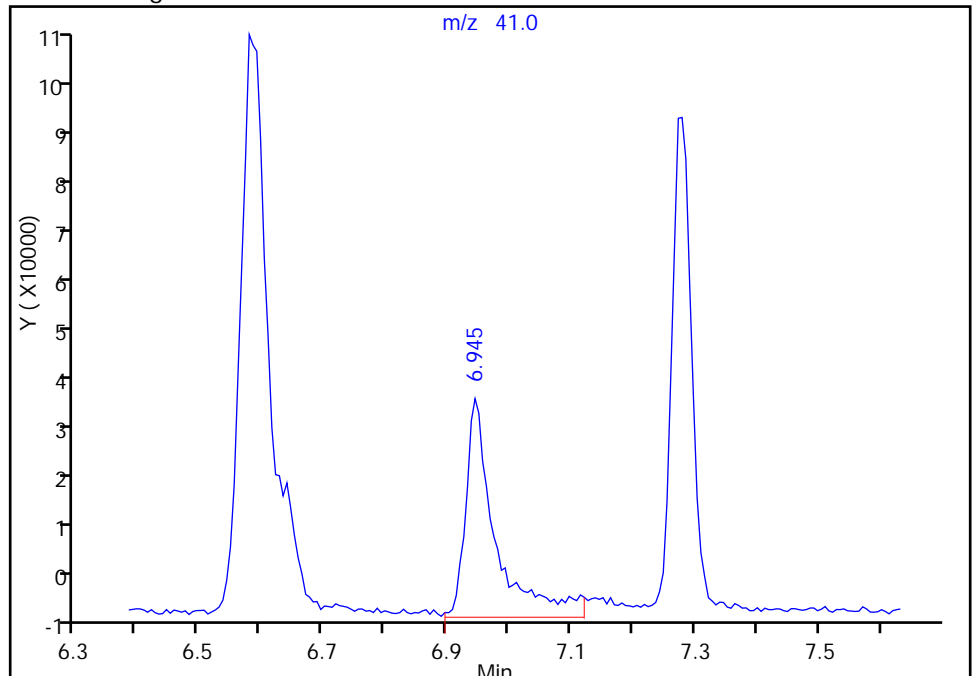
RT: 6.94  
Area: 150922  
Amount: 2067.3126  
Amount Units: ng

Processing Integration Results



RT: 6.94  
Area: 137203  
Amount: 1937.8985  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 17-Mar-2015 09:45:06  
Audit Action: Manually Integrated  
Audit Reason: Peak Tail



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316007.D  
 Lims ID: IC VSTD20  
 Client ID:  
 Sample Type: IC Calib Level: 5  
 Inject. Date: 16-Mar-2015 13:53:30 ALS Bottle#: 7 Worklist Smp#: 7  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD20  
 Misc. Info.: 180-0006031-007  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub4  
 Method: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 17-Mar-2015 10:59:28 Calib Date: 16-Mar-2015 16:17:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK012

First Level Reviewer: fergusond

Date: 17-Mar-2015 09:48:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.326	4.305	0.021	86	154462	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.270	7.273	-0.003	99	558174	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.367	10.364	0.003	99	128898	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.682	0.003	99	188542	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.528	6.525	0.003	99	248750	100.0	98.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.899	6.902	-0.003	97	335757	100.0	100.3	
\$ 7 Toluene-d8 (Surr)	98	8.919	8.922	-0.003	100	1053927	100.0	102.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.529	11.532	-0.003	98	379740	100.0	102.6	
11 Dichlorodifluoromethane	85	1.619	1.622	-0.003	98	243823	100.0	101.9	
12 Chloromethane	50	1.777	1.768	0.009	100	316915	100.0	96.0	
13 Vinyl chloride	62	1.905	1.896	0.009	100	370271	100.0	100.3	
14 Butadiene	39	1.947	1.944	0.003	100	415323	100.0	98.5	
15 Bromomethane	94	2.251	2.249	0.002	99	192846	100.0	101.0	
16 Chloroethane	64	2.373	2.376	-0.003	99	245673	100.0	96.2	
17 Dichlorofluoromethane	67	2.653	2.644	0.009	100	548270	100.0	94.0	
18 Trichlorofluoromethane	101	2.702	2.723	-0.021	98	437688	100.0	98.9	
20 Ethyl ether	59	3.085	3.082	0.003	100	293889	100.0	100.7	
21 Acrolein	56	3.261	3.258	0.003	99	71073	200.0	200.4	
22 1,1-Dichloroethene	96	3.377	3.374	0.003	98	318457	100.0	98.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.432	3.423	0.009	98	319162	100.0	98.0	
24 Acetone	43	3.492	3.496	-0.004	100	217095	200.0	189.9	
25 Iodomethane	142	3.596	3.581	0.015	99	439512	100.0	98.3	
26 Carbon disulfide	76	3.669	3.660	0.009	100	772081	100.0	98.1	
28 3-Chloro-1-propene	76	3.930	3.934	-0.004	99	163875	100.0	96.3	
30 Methyl acetate	43	4.022	4.019	0.003	100	1321970	500.0	494.2	
31 Methylene Chloride	84	4.143	4.147	-0.004	98	345226	100.0	92.7	
32 2-Methyl-2-propanol	59	4.435	4.439	-0.004	99	175500	1000.0	964.6	
33 Acrylonitrile	53	4.551	4.554	-0.003	100	1363975	1000.0	991.2	
34 trans-1,2-Dichloroethene	96	4.557	4.560	-0.003	95	327278	100.0	98.3	
35 Methyl tert-butyl ether	73	4.594	4.597	-0.003	99	727030	100.0	98.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.983	4.980	0.003	99	514868	100.0	96.8	
37 1,1-Dichloroethane	63	5.171	5.175	-0.004	100	595324	100.0	100.2	
38 Vinyl acetate	43	5.293	5.296	-0.003	100	419086	100.0	99.4	
44 2,2-Dichloropropane	77	5.926	5.929	-0.003	98	147216	100.0	99.1	
45 cis-1,2-Dichloroethene	96	5.938	5.941	-0.003	98	349805	100.0	99.7	
46 2-Butanone (MEK)	43	5.987	5.990	-0.003	100	371447	200.0	203.2	
49 Chlorobromomethane	128	6.230	6.227	0.003	98	150204	100.0	99.0	
51 Tetrahydrofuran	42	6.285	6.282	0.003	99	224920	200.0	196.4	
52 Chloroform	83	6.346	6.343	0.003	100	534362	100.0	99.0	
53 1,1,1-Trichloroethane	97	6.528	6.531	-0.003	99	344772	100.0	100.0	
54 Cyclohexane	56	6.589	6.586	0.003	99	649387	100.0	98.1	
56 Carbon tetrachloride	117	6.717	6.720	-0.003	98	274328	100.0	99.2	
55 1,1-Dichloropropene	75	6.723	6.726	-0.003	98	436454	100.0	97.5	
57 Isobutyl alcohol	41	6.942	6.945	-0.003	98	174166	2500.0	2337.7	M
58 Benzene	78	6.954	6.957	-0.003	99	1312435	100.0	99.2	
59 1,2-Dichloroethane	62	6.984	6.988	-0.004	99	429724	100.0	99.2	
62 n-Heptane	43	7.276	7.280	-0.004	99	443357	100.0	97.6	
64 Trichloroethene	130	7.666	7.669	-0.003	99	326599	100.0	98.5	
66 Methylcyclohexane	83	7.860	7.864	-0.004	100	583894	100.0	98.7	
67 1,2-Dichloropropane	63	7.903	7.906	-0.003	99	332279	100.0	101.6	
68 Dibromomethane	93	8.025	8.022	0.003	99	178905	100.0	101.6	
70 1,4-Dioxane	88	8.055	8.058	-0.003	99	66490	2000.0	1930.1	
71 Dichlorobromomethane	83	8.195	8.198	-0.003	98	363842	100.0	101.2	
74 cis-1,3-Dichloropropene	75	8.657	8.661	-0.004	99	345528	100.0	99.6	
75 4-Methyl-2-pentanone (MIBK)	43	8.822	8.825	-0.003	100	747218	200.0	214.2	
76 Toluene	91	8.992	8.989	0.003	100	1340817	100.0	101.5	
77 trans-1,3-Dichloropropene	75	9.217	9.220	-0.003	99	244258	100.0	102.4	
78 Ethyl methacrylate	69	9.314	9.318	-0.004	97	334858	100.0	107.6	
79 1,1,2-Trichloroethane	97	9.399	9.403	-0.004	99	252461	100.0	101.9	
80 Tetrachloroethene	164	9.539	9.537	0.002	99	261148	100.0	101.1	
81 1,3-Dichloropropane	76	9.564	9.561	0.003	100	467174	100.0	101.5	
82 2-Hexanone	43	9.655	9.658	-0.003	100	541680	200.0	203.2	
84 Chlorodibromomethane	129	9.789	9.792	-0.003	99	210013	100.0	106.2	
85 Ethylene Dibromide	107	9.898	9.902	-0.004	100	245946	100.0	104.0	
86 3-Chlorobenzotrifluoride	180	10.373	10.370	0.003	97	511845	100.0	101.6	
87 Chlorobenzene	112	10.391	10.388	0.003	100	845046	100.0	101.0	
88 4-Chlorobenzotrifluoride	180	10.428	10.431	-0.003	99	511237	100.0	104.9	
89 1,1,1,2-Tetrachloroethane	131	10.476	10.473	0.003	95	233228	100.0	107.9	
90 Ethylbenzene	106	10.501	10.504	-0.003	100	488611	100.0	101.8	
91 m-Xylene & p-Xylene	106	10.616	10.619	-0.003	100	592135	100.0	100.8	
92 o-Xylene	106	11.012	11.009	0.003	100	585609	100.0	101.9	
93 Styrene	104	11.024	11.027	-0.003	95	966850	100.0	104.4	
94 Bromoform	173	11.212	11.209	0.003	98	126605	100.0	103.7	
96 2-Chlorobenzotrifluoride	180	11.273	11.276	-0.003	99	521379	100.0	103.6	
97 Isopropylbenzene	105	11.377	11.380	-0.003	100	1474178	100.0	102.8	
99 1,1,2,2-Tetrachloroethane	83	11.675	11.678	-0.003	98	351798	100.0	99.0	
100 Bromobenzene	156	11.681	11.678	0.003	99	346996	100.0	99.4	
101 1,2,3-Trichloropropane	110	11.717	11.721	-0.003	97	111668	100.0	97.4	
102 trans-1,4-Dichloro-2-buten	53	11.729	11.733	-0.004	97	92761	100.0	97.3	
103 N-Propylbenzene	120	11.784	11.787	-0.003	100	419888	100.0	97.5	
104 2-Chlorotoluene	126	11.875	11.873	0.002	100	351403	100.0	97.2	
105 3-Chlorotoluene	126	11.936	11.933	0.003	98	415463	100.0	102.8	

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	11.961	11.964	-0.003	100	1188743	100.0	99.0	
107 4-Chlorotoluene	126	11.985	11.982	0.003	97	377870	100.0	96.5	
108 tert-Butylbenzene	119	12.289	12.286	0.003	99	1020106	100.0	98.1	
110 1,2,4-Trimethylbenzene	105	12.338	12.335	0.003	100	1214438	100.0	98.6	
111 1,2-dichloro-4-(trifluorom	214	12.399	12.402	-0.003	100	396211	100.0	101.8	
112 sec-Butylbenzene	105	12.508	12.511	-0.003	100	1462842	100.0	99.9	
113 1,3-Dichlorobenzene	146	12.618	12.621	-0.003	99	630675	100.0	98.1	
114 4-Isopropyltoluene	119	12.648	12.651	-0.003	100	1195021	100.0	98.9	
115 1,4-Dichlorobenzene	146	12.709	12.706	0.003	99	642365	100.0	97.8	
116 2,4-Dichloro-1-(trifluorom	214	12.758	12.755	0.003	98	358539	100.0	98.3	
118 2,5-Dichlorobenzotrifluori	214	12.806	12.803	0.003	99	406971	100.0	99.8	
120 n-Butylbenzene	91	13.062	13.065	-0.003	100	1093564	100.0	99.4	
121 1,2-Dichlorobenzene	146	13.080	13.083	-0.003	99	595901	100.0	100.1	
122 1,2-Dibromo-3-Chloropropan	75	13.859	13.856	0.003	95	47067	100.0	96.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.005	14.008	-0.003	100	1333690	300.0	296.3	
125 2,3- & 3,4- Dichlorotoluen	125	14.424	14.428	-0.004	100	866884	200.0	198.1	
126 1,2,4-Trichlorobenzene	180	14.692	14.695	-0.003	99	295444	100.0	95.3	
127 Hexachlorobutadiene	225	14.862	14.866	-0.004	98	140410	100.0	94.5	
128 Naphthalene	128	14.942	14.939	0.003	100	789643	100.0	97.0	
129 1,2,3-Trichlorobenzene	180	15.185	15.188	-0.003	98	242534	100.0	95.4	
131 2,4,5-Trichlorotoluene	159	15.964	15.967	-0.003	98	123791	100.0	90.6	
130 2,3,6-Trichlorotoluene	159	16.061	16.064	-0.003	98	110702	100.0	89.7	
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	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		200.0	202.8	
S 134 1,2-Dichloroethene, Total	96				0		200.0	198.0	
S 135 1,3-Dichloropropene, Total	1				0		200.0	202.0	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOAVAPRI_00005	Amount Added: 4.00	Units: uL	
VOA8260VOAPRI_00105	Amount Added: 4.00	Units: uL	
VOA8260SURR_00032	Amount Added: 4.00	Units: uL	
voaWEEpri Res_00003	Amount Added: 4.00	Units: uL	
voaWKetpri Re_00003	Amount Added: 4.00	Units: uL	
VOAACRPRI_00003	Amount Added: 8.00	Units: uL	
VOA8260INT_00030	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316007.D

Injection Date: 16-Mar-2015 13:53:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD20

Worklist Smp#: 7

Client ID:

Purge Vol: 5.000 mL

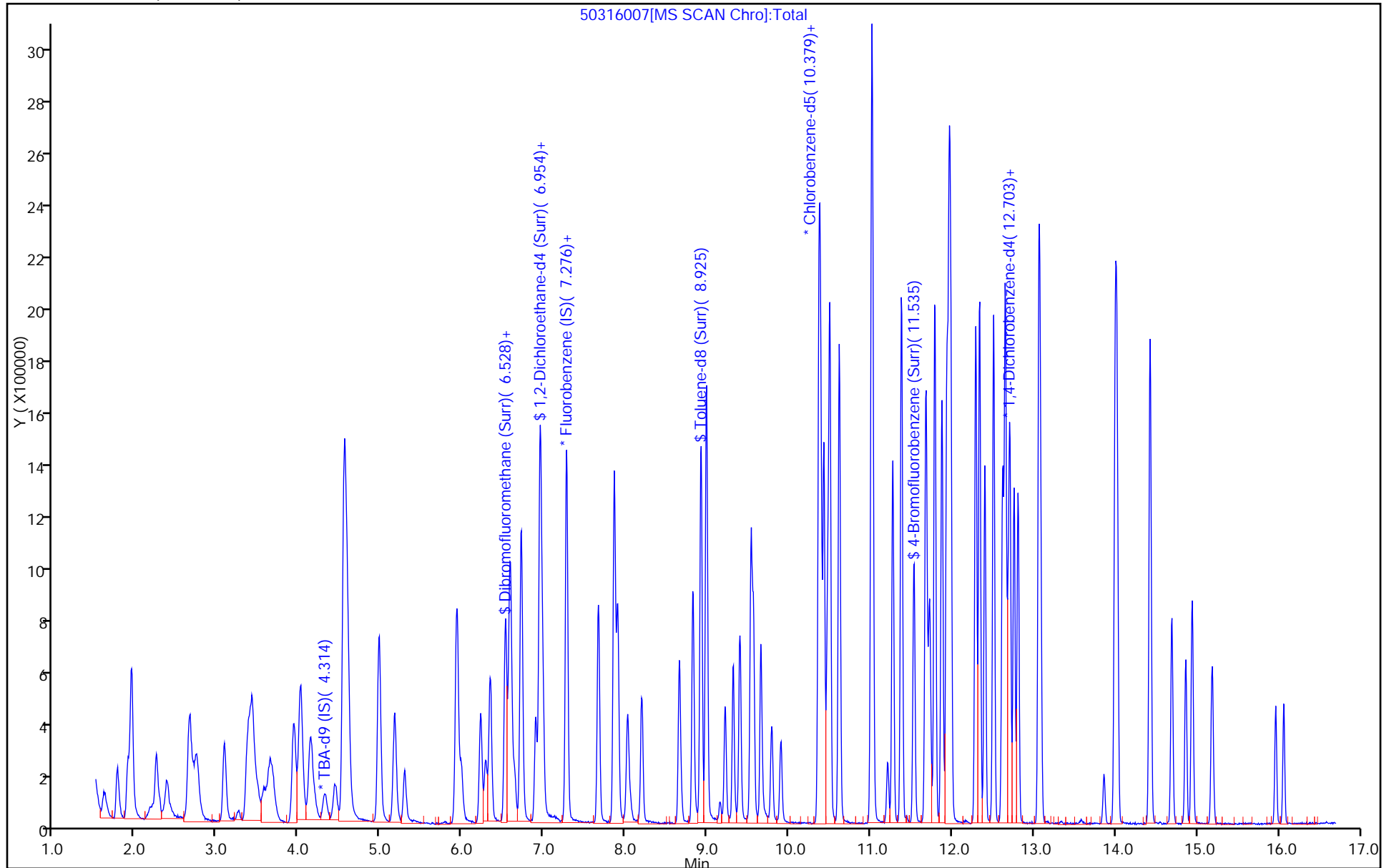
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



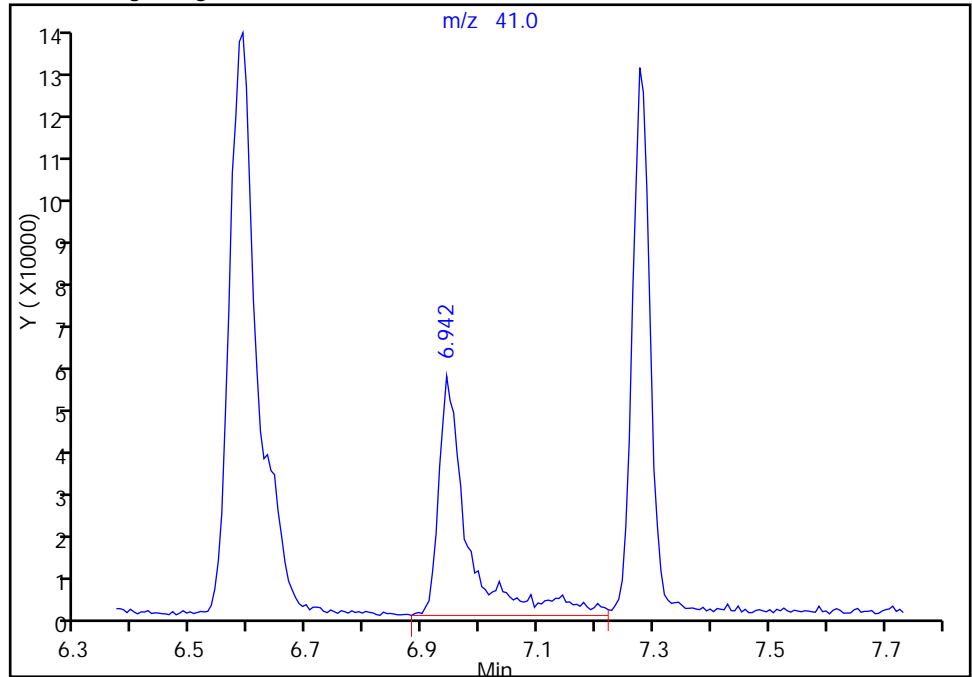
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316007.D  
Injection Date: 16-Mar-2015 13:53:30 Instrument ID: CHHP5  
Lims ID: IC VSTD20  
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

57 Isobutyl alcohol, CAS: 78-83-1

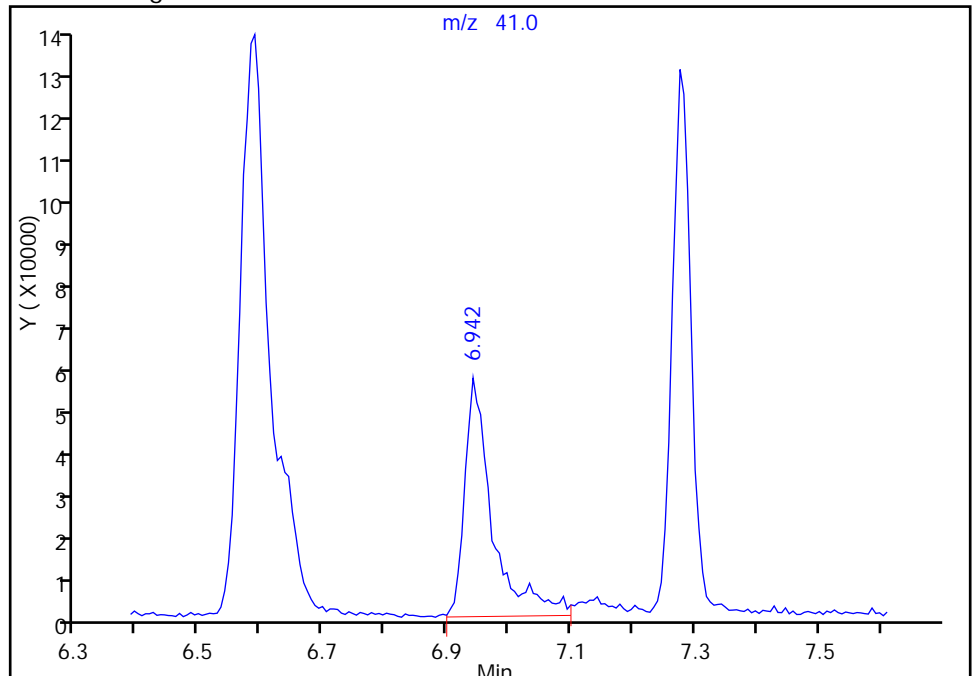
RT: 6.94  
Area: 197796  
Amount: 2559.7908  
Amount Units: ng

Processing Integration Results



RT: 6.94  
Area: 174166  
Amount: 2337.6542  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 17-Mar-2015 09:48:25  
Audit Action: Manually Integrated  
Audit Reason: Peak Tail

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316008.D  
 Lims ID: IC VSTD35  
 Client ID:  
 Sample Type: IC Calib Level: 6  
 Inject. Date: 16-Mar-2015 14:17:30 ALS Bottle#: 8 Worklist Smp#: 8  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD35  
 Misc. Info.: 180-0006031-008  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub4  
 Method: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 17-Mar-2015 10:59:29 Calib Date: 16-Mar-2015 16:17:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK012

First Level Reviewer: fergusond

Date: 17-Mar-2015 09:49:39

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.309	4.305	0.004	95	172412	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.271	7.273	-0.002	99	562344	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.362	10.364	-0.002	92	147916	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.686	12.682	0.004	95	201448	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.529	6.525	0.004	99	435320	175.0	170.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.902	-0.002	98	589491	175.0	174.8	
\$ 7 Toluene-d8 (Surr)	98	8.920	8.922	-0.002	99	1858068	175.0	157.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.530	11.532	-0.002	98	701915	175.0	165.3	
11 Dichlorodifluoromethane	85	1.614	1.622	-0.008	99	432190	175.0	179.3	
12 Chloromethane	50	1.772	1.768	0.004	100	573343	175.0	172.3	
13 Vinyl chloride	62	1.906	1.896	0.010	100	624000	175.0	167.8	
14 Butadiene	39	1.948	1.944	0.004	99	709784	175.0	167.1	
15 Bromomethane	94	2.252	2.249	0.003	100	307964	175.0	162.9	
16 Chloroethane	64	2.380	2.376	0.004	98	455903	175.0	177.2	
17 Dichlorofluoromethane	67	2.648	2.644	0.004	100	974888	175.0	166.0	
18 Trichlorofluoromethane	101	2.703	2.723	-0.020	98	772293	175.0	173.1	
20 Ethyl ether	59	3.086	3.082	0.004	99	519119	175.0	176.5	
21 Acrolein	56	3.250	3.258	-0.008	100	81646	225.0	228.5	
22 1,1-Dichloroethene	96	3.372	3.374	-0.002	98	562804	175.0	173.6	
23 1,1,2-Trichloro-1,2,2-trif	101	3.427	3.423	0.004	98	577719	175.0	176.1	
24 Acetone	43	3.493	3.496	-0.003	100	429781	350.0	373.1	
25 Iodomethane	142	3.573	3.581	-0.008	100	784350	175.0	174.1	
26 Carbon disulfide	76	3.652	3.660	-0.008	100	1381152	175.0	174.2	
28 3-Chloro-1-propene	76	3.931	3.934	-0.003	100	314052	175.0	183.2	
30 Methyl acetate	43	4.017	4.019	-0.002	100	2407305	875.0	893.2	
31 Methylene Chloride	84	4.138	4.147	-0.009	97	597904	175.0	159.4	
32 2-Methyl-2-propanol	59	4.442	4.439	0.003	99	351016	1750.0	1728.4	
33 Acrylonitrile	53	4.546	4.554	-0.008	99	2446379	1750.0	1764.6	
34 trans-1,2-Dichloroethene	96	4.558	4.560	-0.002	92	581552	175.0	173.4	
35 Methyl tert-butyl ether	73	4.595	4.597	-0.002	98	1347848	175.0	181.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.978	4.980	-0.002	99	929791	175.0	173.5	
37 1,1-Dichloroethane	63	5.166	5.175	-0.009	100	1052201	175.0	175.7	
38 Vinyl acetate	43	5.294	5.296	-0.002	100	831670	175.0	195.8	
44 2,2-Dichloropropane	77	5.927	5.929	-0.002	98	280515	175.0	187.4	
45 cis-1,2-Dichloroethene	96	5.933	5.941	-0.008	98	612812	175.0	173.4	
46 2-Butanone (MEK)	43	5.982	5.990	-0.008	100	665013	350.0	361.1	
49 Chlorobromomethane	128	6.225	6.227	-0.002	99	269375	175.0	176.2	
51 Tetrahydrofuran	42	6.286	6.282	0.004	100	415944	350.0	360.6	
52 Chloroform	83	6.341	6.343	-0.003	100	953676	175.0	175.3	
53 1,1,1-Trichloroethane	97	6.529	6.531	-0.002	99	639960	175.0	184.3	
54 Cyclohexane	56	6.584	6.586	-0.002	99	1161488	175.0	174.2	
56 Carbon tetrachloride	117	6.718	6.720	-0.002	100	504991	175.0	181.2	
55 1,1-Dichloropropene	75	6.724	6.726	-0.002	100	783682	175.0	173.7	
57 Isobutyl alcohol	41	6.943	6.945	-0.002	98	386141	4375.0	5144.3	
58 Benzene	78	6.955	6.957	-0.002	98	2286079	175.0	171.5	
59 1,2-Dichloroethane	62	6.985	6.988	-0.003	99	781760	175.0	179.2	
62 n-Heptane	43	7.277	7.280	-0.003	90	819785	175.0	179.1	
64 Trichloroethene	130	7.667	7.669	-0.002	99	586010	175.0	175.5	
66 Methylcyclohexane	83	7.861	7.864	-0.003	100	1055175	175.0	177.1	
67 1,2-Dichloropropane	63	7.904	7.906	-0.002	98	597514	175.0	181.3	
68 Dibromomethane	93	8.026	8.022	0.004	100	308441	175.0	173.8	
70 1,4-Dioxane	88	8.056	8.058	-0.002	97	132396	3500.0	3814.7	
71 Dichlorobromomethane	83	8.196	8.198	-0.002	100	663337	175.0	183.2	
74 cis-1,3-Dichloropropene	75	8.658	8.661	-0.003	100	681682	175.0	195.1	
75 4-Methyl-2-pentanone (MIBK)	43	8.823	8.825	-0.002	99	1390980	350.0	347.5	
76 Toluene	91	8.993	8.989	0.004	99	2347437	175.0	154.9	
77 trans-1,3-Dichloropropene	75	9.218	9.220	-0.002	98	502980	175.0	183.7	
78 Ethyl methacrylate	69	9.315	9.318	-0.003	98	654210	175.0	183.2	
79 1,1,2-Trichloroethane	97	9.400	9.403	-0.003	100	465584	175.0	163.8	
80 Tetrachloroethene	164	9.534	9.537	-0.003	99	477004	175.0	160.9	
81 1,3-Dichloropropane	76	9.565	9.561	0.004	99	854593	175.0	161.7	
82 2-Hexanone	43	9.656	9.658	-0.002	100	1103034	350.0	360.6	
84 Chlorodibromomethane	129	9.790	9.792	-0.002	99	406960	175.0	179.4	
85 Ethylene Dibromide	107	9.899	9.902	-0.003	99	461219	175.0	170.0	
86 3-Chlorobenzotrifluoride	180	10.374	10.370	0.004	87	925933	175.0	160.1	
87 Chlorobenzene	112	10.392	10.388	0.004	99	1507544	175.0	157.0	
88 4-Chlorobenzotrifluoride	180	10.429	10.431	-0.002	99	908777	175.0	162.5	
89 1,1,1,2-Tetrachloroethane	131	10.471	10.473	-0.002	95	439701	175.0	177.3	
90 Ethylbenzene	106	10.502	10.504	-0.002	99	889389	175.0	161.4	
91 m-Xylene & p-Xylene	106	10.617	10.619	-0.002	99	1092005	175.0	162.0	
92 o-Xylene	106	11.013	11.009	0.004	98	1059986	175.0	160.8	
93 Styrene	104	11.025	11.027	-0.002	93	1723778	175.0	162.3	
94 Bromoform	173	11.213	11.209	0.004	99	253560	175.0	180.9	
96 2-Chlorobenzotrifluoride	180	11.274	11.276	-0.002	99	922108	175.0	159.7	
97 Isopropylbenzene	105	11.378	11.380	-0.002	98	2580136	175.0	156.9	
99 1,1,2,2-Tetrachloroethane	83	11.676	11.678	-0.002	99	681581	175.0	167.2	
100 Bromobenzene	156	11.682	11.678	0.004	98	637569	175.0	171.0	
101 1,2,3-Trichloropropane	110	11.718	11.721	-0.002	98	214358	175.0	174.9	
102 trans-1,4-Dichloro-2-buten	53	11.730	11.733	-0.003	98	180624	175.0	177.3	
103 N-Propylbenzene	120	11.791	11.787	0.004	99	780243	175.0	169.6	
104 2-Chlorotoluene	126	11.876	11.873	0.003	99	666866	175.0	172.6	
105 3-Chlorotoluene	126	11.937	11.933	0.004	97	757051	175.0	175.3	

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	11.962	11.964	-0.002	99	2136446	175.0	166.6	
107 4-Chlorotoluene	126	11.986	11.982	0.004	97	711885	175.0	170.2	
108 tert-Butylbenzene	119	12.290	12.286	0.004	100	1828125	175.0	164.5	
110 1,2,4-Trimethylbenzene	105	12.339	12.335	0.004	98	2187785	175.0	166.2	
111 1,2-dichloro-4-(trifluorom	214	12.400	12.402	-0.002	100	719294	175.0	172.9	
112 sec-Butylbenzene	105	12.509	12.511	-0.002	99	2565671	175.0	164.1	
113 1,3-Dichlorobenzene	146	12.619	12.621	-0.002	99	1159025	175.0	168.7	
114 4-Isopropyltoluene	119	12.655	12.651	0.004	98	2157955	175.0	167.2	
115 1,4-Dichlorobenzene	146	12.704	12.706	-0.002	99	1196958	175.0	170.6	
116 2,4-Dichloro-1-(trifluorom	214	12.759	12.755	0.004	99	675783	175.0	173.5	
118 2,5-Dichlorobenzotrifluori	214	12.807	12.803	0.004	99	748317	175.0	171.7	
120 n-Butylbenzene	91	13.063	13.065	-0.002	99	1983203	175.0	168.7	
121 1,2-Dichlorobenzene	146	13.081	13.083	-0.002	99	1092014	175.0	171.7	
122 1,2-Dibromo-3-Chloropropan	75	13.860	13.856	0.004	95	97714	175.0	187.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.006	14.008	-0.002	99	2487475	525.0	517.3	
125 2,3- & 3,4- Dichlorotoluen	125	14.425	14.428	-0.003	98	1639357	350.0	350.6	
126 1,2,4-Trichlorobenzene	180	14.693	14.695	-0.002	100	608110	175.0	183.6	
127 Hexachlorobutadiene	225	14.863	14.866	-0.003	98	274932	175.0	173.1	
128 Naphthalene	128	14.943	14.939	0.004	100	1599300	175.0	183.9	
129 1,2,3-Trichlorobenzene	180	15.186	15.188	-0.002	100	504504	175.0	185.8	
131 2,4,5-Trichlorotoluene	159	15.965	15.967	-0.002	99	273662	175.0	187.4	
130 2,3,6-Trichlorotoluene	159	16.062	16.064	-0.002	99	246163	175.0	186.7	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
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	
S 133 Xylenes, Total	106				0		350.0	322.8	
S 134 1,2-Dichloroethene, Total	96				0		350.0	346.8	
S 135 1,3-Dichloropropene, Total	1				0		350.0	378.8	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOAACRPRI_00003	Amount Added: 9.00	Units: uL	
voaWEEpri Res_00003	Amount Added: 7.00	Units: uL	
voaWKetpri Re_00003	Amount Added: 7.00	Units: uL	
VOA8260SURRE_00032	Amount Added: 7.00	Units: uL	
VOA8260VOAPRI_00105	Amount Added: 7.00	Units: uL	
VOAVAPRI_00005	Amount Added: 7.00	Units: uL	
VOA8260INT_00030	Amount Added: 2.00	Units: uL	Run Reagent



TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316008.D

Injection Date: 16-Mar-2015 14:17:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD35

Worklist Smp#: 8

Client ID:

Purge Vol: 5.000 mL

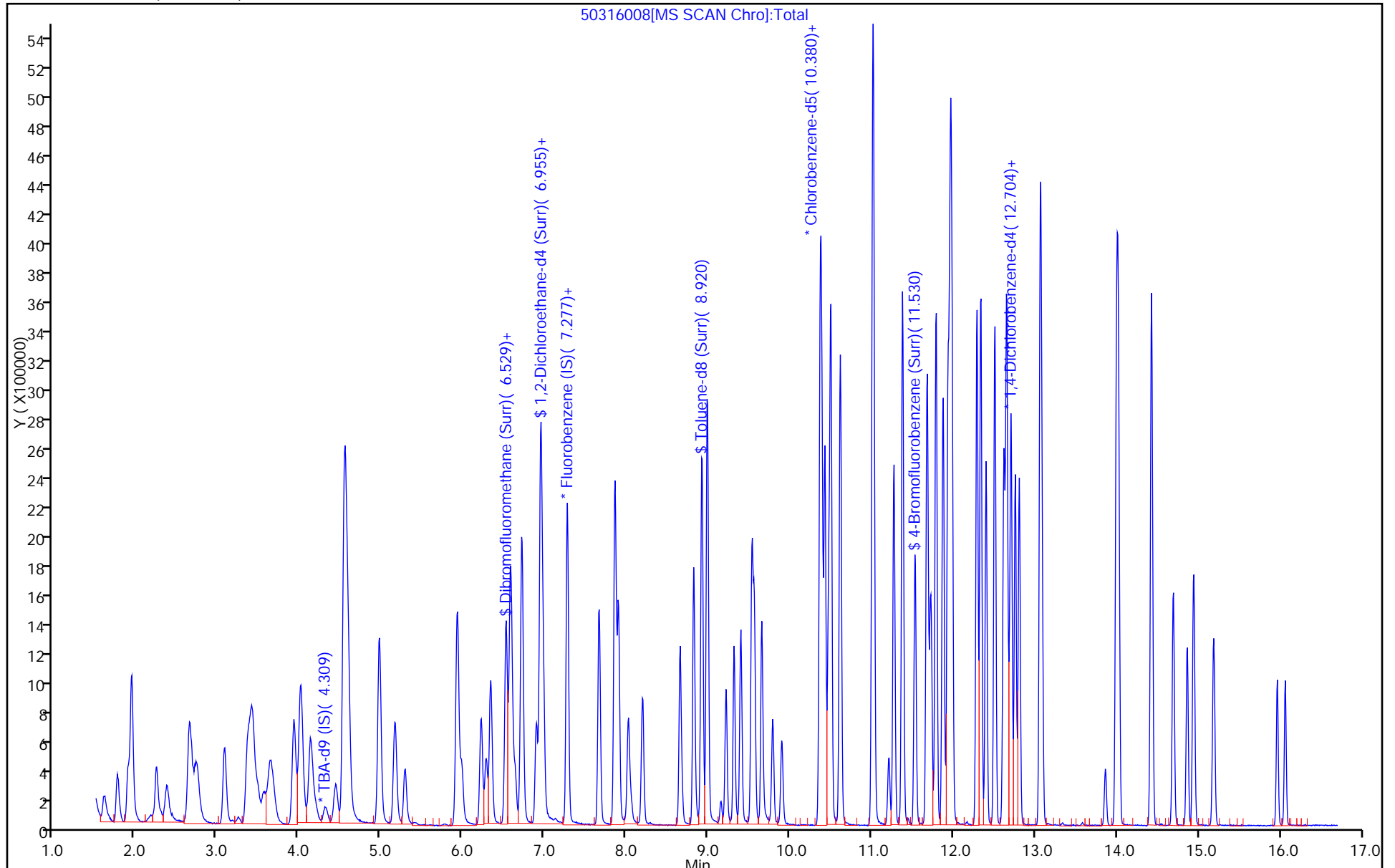
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316009.D  
 Lims ID: IC VSTD40  
 Client ID:  
 Sample Type: IC Calib Level: 7  
 Inject. Date: 16-Mar-2015 14:41:30 ALS Bottle#: 9 Worklist Smp#: 9  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD40  
 Misc. Info.: 180-0006031-009  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub4  
 Method: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 17-Mar-2015 10:59:31 Calib Date: 16-Mar-2015 16:17:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK012

First Level Reviewer: fergusond

Date: 17-Mar-2015 09:50:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.327	4.305	0.022	86	183503	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.271	7.273	-0.002	99	592746	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.368	10.364	0.004	94	147746	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.682	0.003	94	203483	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.529	6.525	0.004	99	526164	200.0	195.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.902	-0.002	98	691002	200.0	194.4	
\$ 7 Toluene-d8 (Surr)	98	8.926	8.922	0.004	99	2153477	200.0	182.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.529	11.532	-0.003	98	798953	200.0	188.3	
11 Dichlorodifluoromethane	85	1.619	1.622	-0.003	99	522240	200.0	205.5	
12 Chloromethane	50	1.778	1.768	0.010	100	674845	200.0	192.4	
13 Vinyl chloride	62	1.905	1.896	0.009	100	767804	200.0	195.9	
14 Butadiene	39	1.948	1.944	0.004	98	840803	200.0	187.8	
15 Bromomethane	94	2.252	2.249	0.003	100	366671	200.0	184.6	
16 Chloroethane	64	2.374	2.376	-0.002	99	530813	200.0	195.7	
17 Dichlorofluoromethane	67	2.654	2.644	0.010	99	1188936	200.0	192.0	
18 Trichlorofluoromethane	101	2.733	2.723	0.010	98	946313	200.0	201.3	
20 Ethyl ether	59	3.092	3.082	0.010	100	592652	200.0	191.1	
21 Acrolein	56	3.250	3.258	-0.008	100	95028	250.0	252.3	
22 1,1-Dichloroethene	96	3.378	3.374	0.004	98	662050	200.0	193.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.432	3.423	0.009	98	684103	200.0	197.9	
24 Acetone	43	3.505	3.496	0.009	100	489133	400.0	402.8	
25 Iodomethane	142	3.597	3.581	0.016	100	945860	200.0	199.2	
26 Carbon disulfide	76	3.664	3.660	0.004	100	1643948	200.0	196.7	
28 3-Chloro-1-propene	76	3.931	3.934	-0.003	99	393345	200.0	217.7	
30 Methyl acetate	43	4.022	4.019	0.003	99	2810332	1000.0	989.3	
31 Methylene Chloride	84	4.144	4.147	-0.003	98	703059	200.0	177.9	
32 2-Methyl-2-propanol	59	4.448	4.439	0.009	99	399281	2000.0	1847.2	
33 Acrylonitrile	53	4.552	4.554	-0.002	99	2868164	2000.0	1962.8	
34 trans-1,2-Dichloroethene	96	4.564	4.560	0.004	96	692220	200.0	195.8	
35 Methyl tert-butyl ether	73	4.600	4.597	0.003	98	1581345	200.0	202.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.978	4.980	-0.002	100	1096478	200.0	194.1	
37 1,1-Dichloroethane	63	5.172	5.175	-0.003	100	1250453	200.0	198.2	
38 Vinyl acetate	43	5.294	5.296	-0.002	100	1001771	200.0	223.8	
44 2,2-Dichloropropane	77	5.927	5.929	-0.002	98	338302	200.0	214.4	
45 cis-1,2-Dichloroethene	96	5.933	5.941	-0.008	98	721075	200.0	193.6	
46 2-Butanone (MEK)	43	5.987	5.990	-0.003	100	809232	400.0	416.8	
49 Chlorobromomethane	128	6.225	6.227	-0.002	98	311076	200.0	193.0	
51 Tetrahydrofuran	42	6.286	6.282	0.004	99	483324	400.0	397.5	
52 Chloroform	83	6.340	6.343	-0.003	100	1109416	200.0	193.5	
53 1,1,1-Trichloroethane	97	6.529	6.531	-0.002	99	768585	200.0	210.0	
54 Cyclohexane	56	6.584	6.586	-0.002	99	1366913	200.0	194.5	
56 Carbon tetrachloride	117	6.717	6.720	-0.003	99	612080	200.0	208.4	
55 1,1-Dichloropropene	75	6.724	6.726	-0.002	99	933326	200.0	196.3	
57 Isobutyl alcohol	41	6.949	6.945	0.004	98	433313	5000.0	5476.7	
58 Benzene	78	6.955	6.957	-0.002	97	2653105	200.0	188.9	
59 1,2-Dichloroethane	62	6.985	6.988	-0.003	99	907622	200.0	197.3	
62 n-Heptane	43	7.277	7.280	-0.003	88	940924	200.0	195.0	
64 Trichloroethene	130	7.666	7.669	-0.003	99	684010	200.0	194.4	
66 Methylcyclohexane	83	7.861	7.864	-0.003	100	1212427	200.0	193.1	
67 1,2-Dichloropropane	63	7.904	7.906	-0.002	98	700921	200.0	201.7	
68 Dibromomethane	93	8.025	8.022	0.003	99	370624	200.0	198.1	
70 1,4-Dioxane	88	8.062	8.058	0.004	98	146272	4000.0	3998.4	
71 Dichlorobromomethane	83	8.196	8.198	-0.002	100	773432	200.0	202.6	
74 cis-1,3-Dichloropropene	75	8.658	8.661	-0.003	99	829306	200.0	225.1	
75 4-Methyl-2-pentanone (MIBK)	43	8.822	8.825	-0.003	99	1617802	400.0	404.7	
76 Toluene	91	8.993	8.989	0.004	99	2714932	200.0	179.3	
77 trans-1,3-Dichloropropene	75	9.218	9.220	-0.002	98	613747	200.0	224.4	
78 Ethyl methacrylate	69	9.315	9.318	-0.003	98	782394	200.0	219.4	
79 1,1,2-Trichloroethane	97	9.400	9.403	-0.003	99	540864	200.0	190.5	
80 Tetrachloroethene	164	9.540	9.537	0.003	99	545517	200.0	184.2	
81 1,3-Dichloropropane	76	9.564	9.561	0.003	99	1001573	200.0	189.8	
82 2-Hexanone	43	9.656	9.658	-0.002	100	1305223	400.0	427.2	
84 Chlorodibromomethane	129	9.790	9.792	-0.002	99	473922	200.0	209.1	
85 Ethylene Dibromide	107	9.899	9.902	-0.003	100	534328	200.0	197.2	
86 3-Chlorobenzotrifluoride	180	10.374	10.370	0.004	88	1122812	200.0	194.4	
87 Chlorobenzene	112	10.392	10.388	0.004	99	1745676	200.0	182.0	
88 4-Chlorobenzotrifluoride	180	10.428	10.431	-0.003	99	1108797	200.0	198.5	
89 1,1,1,2-Tetrachloroethane	131	10.477	10.473	0.004	95	512980	200.0	207.1	
90 Ethylbenzene	106	10.501	10.504	-0.003	98	1044399	200.0	189.8	
91 m-Xylene & p-Xylene	106	10.617	10.619	-0.002	98	1256840	200.0	186.7	
92 o-Xylene	106	11.012	11.009	0.003	99	1214164	200.0	184.4	
93 Styrene	104	11.025	11.027	-0.002	97	1958961	200.0	184.6	
94 Bromoform	173	11.213	11.209	0.004	98	293938	200.0	210.0	
96 2-Chlorobenzotrifluoride	180	11.274	11.276	-0.002	99	1120386	200.0	194.2	
97 Isopropylbenzene	105	11.377	11.380	-0.003	98	2885608	200.0	175.6	
99 1,1,2,2-Tetrachloroethane	83	11.675	11.678	-0.003	98	772016	200.0	189.6	
100 Bromobenzene	156	11.682	11.678	0.004	99	740842	200.0	196.7	
101 1,2,3-Trichloropropane	110	11.718	11.721	-0.002	96	233938	200.0	189.0	
102 trans-1,4-Dichloro-2-buten	53	11.730	11.733	-0.003	98	211691	200.0	205.7	
103 N-Propylbenzene	120	11.791	11.787	0.004	98	887838	200.0	191.1	
104 2-Chlorotoluene	126	11.870	11.873	-0.003	99	756732	200.0	193.9	
105 3-Chlorotoluene	126	11.937	11.933	0.004	97	890638	200.0	204.2	

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	11.961	11.964	-0.003	99	2387945	200.0	184.4	
107 4-Chlorotoluene	126	11.980	11.982	-0.002	96	795532	200.0	188.3	
108 tert-Butylbenzene	119	12.290	12.286	0.004	99	2060731	200.0	183.6	
110 1,2,4-Trimethylbenzene	105	12.339	12.335	0.004	99	2461131	200.0	185.1	
111 1,2-dichloro-4-(trifluorom	214	12.399	12.402	-0.003	99	832435	200.0	198.1	
112 sec-Butylbenzene	105	12.509	12.511	-0.002	99	2854173	200.0	180.7	
113 1,3-Dichlorobenzene	146	12.618	12.621	-0.003	99	1308081	200.0	188.5	
114 4-Isopropyltoluene	119	12.655	12.651	0.004	98	2408127	200.0	184.7	
115 1,4-Dichlorobenzene	146	12.710	12.706	0.004	99	1348596	200.0	190.3	
116 2,4-Dichloro-1-(trifluorom	214	12.758	12.755	0.003	99	786683	200.0	199.9	
118 2,5-Dichlorobenzotrifluori	214	12.807	12.803	0.004	99	877059	200.0	199.2	
120 n-Butylbenzene	91	13.062	13.065	-0.003	98	2209671	200.0	186.1	
121 1,2-Dichlorobenzene	146	13.081	13.083	-0.002	99	1224311	200.0	190.6	
122 1,2-Dibromo-3-Chloropropan	75	13.859	13.856	0.003	94	112547	200.0	214.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.005	14.008	-0.003	98	2860911	600.0	589.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.425	14.428	-0.003	98	1868280	400.0	395.5	
126 1,2,4-Trichlorobenzene	180	14.693	14.695	-0.002	99	679520	200.0	203.2	
127 Hexachlorobutadiene	225	14.863	14.866	-0.003	99	307470	200.0	191.7	
128 Naphthalene	128	14.942	14.939	0.003	100	1786434	200.0	203.4	
129 1,2,3-Trichlorobenzene	180	15.186	15.188	-0.002	99	582911	200.0	212.5	
131 2,4,5-Trichlorotoluene	159	15.964	15.967	-0.003	98	315499	200.0	213.9	
130 2,3,6-Trichlorotoluene	159	16.062	16.064	-0.002	98	285573	200.0	214.4	
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 133 Xylenes, Total	106				0		400.0	371.1	
S 134 1,2-Dichloroethene, Total	96				0		400.0	389.4	
S 135 1,3-Dichloropropene, Total	1				0		400.0	449.6	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOAVAPRI_00005	Amount Added: 8.00	Units: uL	
VOA8260VOAPRI_00105	Amount Added: 8.00	Units: uL	
VOA8260SURR_00032	Amount Added: 8.00	Units: uL	
voaWEEpri Res_00003	Amount Added: 8.00	Units: uL	
voaWKetpri Re_00003	Amount Added: 8.00	Units: uL	
VOAACRPRI_00003	Amount Added: 10.00	Units: uL	
VOA8260INT_00030	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316009.D

Injection Date: 16-Mar-2015 14:41:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD40

Worklist Smp#: 9

Client ID:

Purge Vol: 5.000 mL

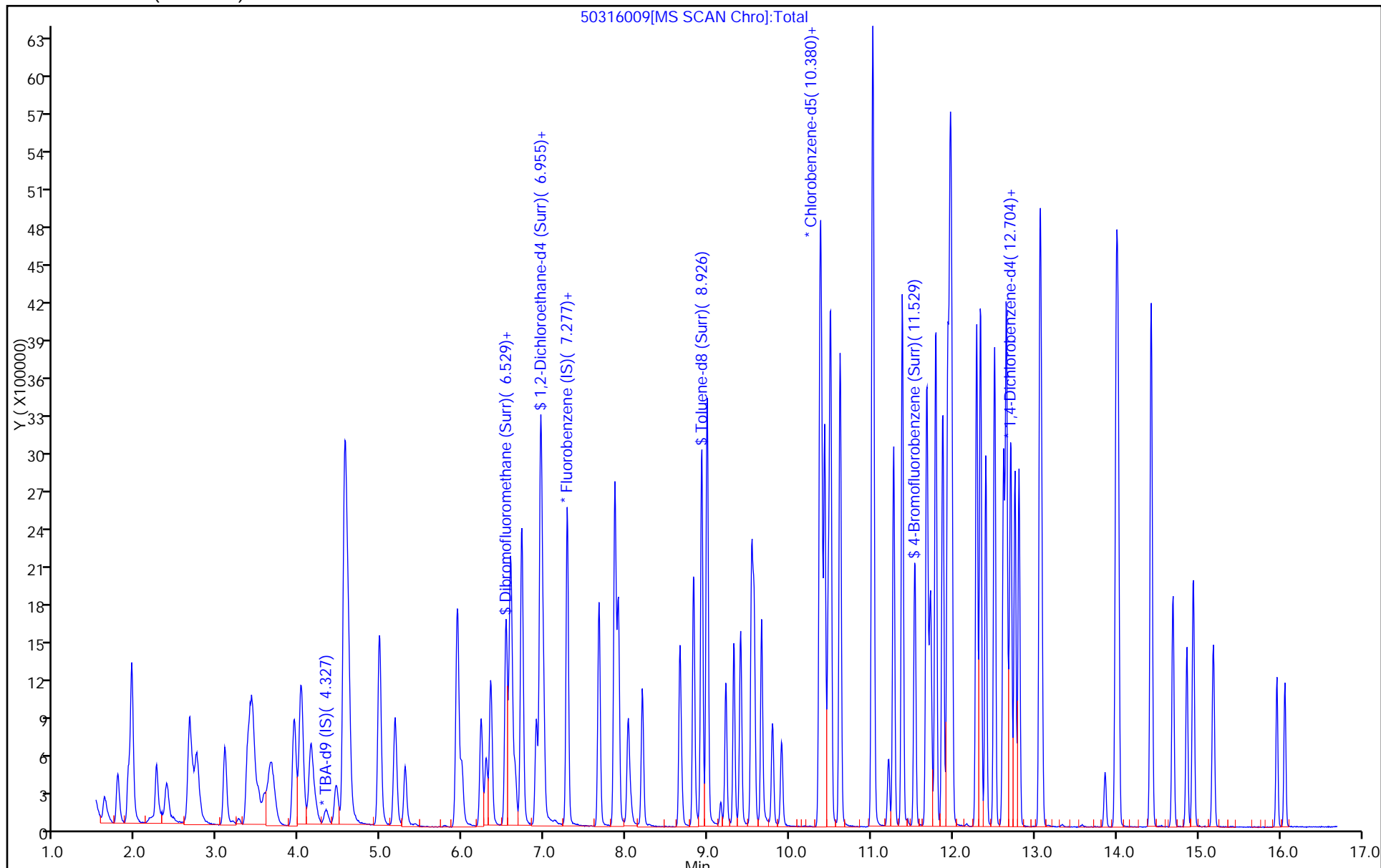
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316010.D  
 Lims ID: IC VSTD50  
 Client ID:  
 Sample Type: IC Calib Level: 8  
 Inject. Date: 16-Mar-2015 15:05:30 ALS Bottle#: 10 Worklist Smp#: 10  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD50  
 Misc. Info.: 180-0006031-010  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub4  
 Method: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 17-Mar-2015 10:59:32 Calib Date: 16-Mar-2015 16:17:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK012

First Level Reviewer: fergusond

Date: 17-Mar-2015 09:55:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.336	4.305	0.031	85	202534	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.275	7.273	0.002	99	620293	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.359	10.364	-0.005	77	161503	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.683	12.682	0.001	92	212327	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.527	6.525	0.001	99	664693	250.0	235.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.898	6.902	-0.004	99	889045	250.0	239.0	
\$ 7 Toluene-d8 (Surr)	98	8.923	8.922	0.001	98	2632400	250.0	204.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.533	11.532	0.001	98	1045249	250.0	225.4	
11 Dichlorodifluoromethane	85	1.617	1.622	-0.005	99	640090	250.0	240.7	
12 Chloromethane	50	1.775	1.768	0.007	100	855933	250.0	233.2	
13 Vinyl chloride	62	1.909	1.896	0.013	100	924535	250.0	225.4	
14 Butadiene	39	1.946	1.944	0.002	99	1005925	250.0	214.7	
15 Bromomethane	94	2.250	2.249	0.001	100	461680	250.0	223.1	
16 Chloroethane	64	2.371	2.376	-0.005	99	700467	250.0	246.8	
17 Dichlorofluoromethane	67	2.651	2.644	0.007	100	1511714	250.0	233.3	
18 Trichlorofluoromethane	101	2.724	2.723	0.001	98	1178605	250.0	239.5	
20 Ethyl ether	59	3.083	3.082	0.001	99	792637	250.0	244.3	
21 Acrolein	56	3.254	3.258	-0.004	96	109180	275.0	277.0	
22 1,1-Dichloroethene	96	3.375	3.374	0.001	98	827120	250.0	231.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.424	3.423	0.001	99	834802	250.0	230.7	
24 Acetone	43	3.497	3.496	0.001	99	621064	500.0	488.8	
25 Iodomethane	142	3.594	3.581	0.013	100	1201056	250.0	241.7	
26 Carbon disulfide	76	3.655	3.660	-0.005	100	2031733	250.0	232.3	
28 3-Chloro-1-propene	76	3.935	3.934	0.001	99	482122	250.0	255.0	
30 Methyl acetate	43	4.014	4.019	-0.005	99	3718382	1250.0	1250.8	
31 Methylene Chloride	84	4.142	4.147	-0.005	98	919183	250.0	222.2	
32 2-Methyl-2-propanol	59	4.446	4.439	0.007	98	537174	2500.0	2251.6	
33 Acrylonitrile	53	4.549	4.554	-0.005	99	3721902	2500.0	2433.9	
34 trans-1,2-Dichloroethene	96	4.562	4.560	0.002	97	882651	250.0	238.6	
35 Methyl tert-butyl ether	73	4.598	4.597	0.001	98	2130684	250.0	260.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.975	4.980	-0.005	99	1379168	250.0	233.3	
37 1,1-Dichloroethane	63	5.170	5.175	-0.005	99	1604398	250.0	242.9	
38 Vinyl acetate	43	5.292	5.296	-0.004	100	1337263	250.0	285.5	
44 2,2-Dichloropropane	77	5.924	5.929	-0.005	97	452022	250.0	273.8	
45 cis-1,2-Dichloroethene	96	5.936	5.941	-0.005	97	930230	250.0	238.7	
46 2-Butanone (MEK)	43	5.985	5.990	-0.005	100	1059138	500.0	521.3	
49 Chlorobromomethane	128	6.222	6.227	-0.005	99	404105	250.0	239.6	
51 Tetrahydrofuran	42	6.283	6.282	0.001	99	646482	500.0	508.1	
52 Chloroform	83	6.338	6.343	-0.005	100	1424461	250.0	237.4	
53 1,1,1-Trichloroethane	97	6.527	6.531	-0.005	99	971626	250.0	253.6	
54 Cyclohexane	56	6.581	6.586	-0.005	98	1669676	250.0	227.0	
56 Carbon tetrachloride	117	6.715	6.720	-0.005	99	790495	250.0	257.2	
55 1,1-Dichloropropene	75	6.721	6.726	-0.005	99	1159811	250.0	233.1	
57 Isobutyl alcohol	41	6.946	6.945	0.001	97	644697	6250.0	7786.6	
58 Benzene	78	6.952	6.957	-0.005	97	3351151	250.0	228.0	
59 1,2-Dichloroethane	62	6.983	6.988	-0.005	99	1159879	250.0	241.0	
62 n-Heptane	43	7.275	7.280	-0.005	86	1182643	250.0	234.2	
64 Trichloroethene	130	7.664	7.669	-0.005	99	860273	250.0	233.6	
66 Methylcyclohexane	83	7.859	7.864	-0.005	99	1519674	250.0	231.3	
67 1,2-Dichloropropane	63	7.907	7.906	0.001	99	918714	250.0	252.7	
68 Dibromomethane	93	8.023	8.022	0.001	99	479407	250.0	244.9	
70 1,4-Dioxane	88	8.053	8.058	-0.005	98	185631	5000.0	4848.9	
71 Dichlorobromomethane	83	8.199	8.198	0.001	100	1003399	250.0	251.2	
74 cis-1,3-Dichloropropene	75	8.656	8.661	-0.005	99	1098242	250.0	284.9	
75 4-Methyl-2-pentanone (MIBK)	43	8.820	8.825	-0.005	98	2109966	500.0	482.8	
76 Toluene	91	8.990	8.989	0.001	97	3368812	250.0	203.5	
77 trans-1,3-Dichloropropene	75	9.221	9.220	0.001	98	846559	250.0	283.2	
78 Ethyl methacrylate	69	9.319	9.318	0.001	98	1063861	250.0	272.9	
79 1,1,2-Trichloroethane	97	9.398	9.403	-0.005	99	706748	250.0	227.7	
80 Tetrachloroethene	164	9.538	9.537	0.001	99	690601	250.0	213.3	
81 1,3-Dichloropropane	76	9.562	9.561	0.001	100	1327847	250.0	230.2	
82 2-Hexanone	43	9.653	9.658	-0.005	99	1685534	500.0	504.7	
84 Chlorodibromomethane	129	9.787	9.792	-0.005	99	625118	250.0	252.3	
85 Ethylene Dibromide	107	9.903	9.902	0.001	99	713501	250.0	240.9	
86 3-Chlorobenzotrifluoride	180	10.371	10.370	0.001	87	1303041	250.0	206.4	
87 Chlorobenzene	112	10.390	10.388	0.002	98	2249414	250.0	214.5	
88 4-Chlorobenzotrifluoride	180	10.426	10.431	-0.005	99	1250140	250.0	204.8	
89 1,1,1,2-Tetrachloroethane	131	10.475	10.473	0.002	95	680608	250.0	251.4	
90 Ethylbenzene	106	10.499	10.504	-0.005	97	1329470	250.0	221.0	
91 m-Xylene & p-Xylene	106	10.621	10.619	0.002	97	1614511	250.0	219.4	
92 o-Xylene	106	11.010	11.009	0.001	94	1557898	250.0	216.4	
93 Styrene	104	11.022	11.027	-0.005	91	2525667	250.0	217.8	
94 Bromoform	173	11.211	11.209	0.002	99	395201	250.0	258.3	
96 2-Chlorobenzotrifluoride	180	11.272	11.276	-0.004	99	1298335	250.0	205.9	
97 Isopropylbenzene	105	11.381	11.380	0.001	97	3554151	250.0	197.9	
99 1,1,2,2-Tetrachloroethane	83	11.673	11.678	-0.005	98	1003707	250.0	225.5	
100 Bromobenzene	156	11.685	11.678	0.007	99	956763	250.0	243.5	
101 1,2,3-Trichloropropane	110	11.716	11.721	-0.004	97	325768	250.0	252.3	
102 trans-1,4-Dichloro-2-buten	53	11.728	11.733	-0.005	98	286166	250.0	266.5	
103 N-Propylbenzene	120	11.789	11.787	0.002	97	1131297	250.0	233.4	
104 2-Chlorotoluene	126	11.874	11.873	0.001	97	963573	250.0	236.6	
105 3-Chlorotoluene	126	11.935	11.933	0.002	96	1053875	250.0	231.5	

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	11.965	11.964	0.001	98	2983647	250.0	220.7	
107 4-Chlorotoluene	126	11.983	11.982	0.001	97	1062581	250.0	241.0	
108 tert-Butylbenzene	119	12.288	12.286	0.002	98	2516209	250.0	214.9	
110 1,2,4-Trimethylbenzene	105	12.336	12.335	0.001	97	3068942	250.0	221.2	
111 1,2-dichloro-4-(trifluorom	214	12.403	12.402	0.001	99	991010	250.0	226.1	
112 sec-Butylbenzene	105	12.507	12.511	-0.004	98	3463106	250.0	210.1	
113 1,3-Dichlorobenzene	146	12.616	12.621	-0.005	98	1687649	250.0	233.1	
114 4-Isopropyltoluene	119	12.653	12.651	0.002	97	2970922	250.0	218.3	
115 1,4-Dichlorobenzene	146	12.707	12.706	0.001	98	1736319	250.0	234.8	
116 2,4-Dichloro-1-(trifluorom	214	12.756	12.755	0.001	98	909481	250.0	221.5	
118 2,5-Dichlorobenzotrifluori	214	12.811	12.803	0.008	99	1042359	250.0	226.9	
120 n-Butylbenzene	91	13.060	13.065	-0.005	97	2715831	250.0	219.2	
121 1,2-Dichlorobenzene	146	13.078	13.083	-0.005	99	1565775	250.0	233.6	
122 1,2-Dibromo-3-Chloropropan	75	13.863	13.856	0.007	94	147059	250.0	268.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.003	14.008	-0.005	98	3379751	750.0	666.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.423	14.428	-0.005	97	2218229	500.0	450.0	
126 1,2,4-Trichlorobenzene	180	14.691	14.695	-0.004	99	825772	250.0	236.6	
127 Hexachlorobutadiene	225	14.861	14.866	-0.005	99	367792	250.0	219.8	
128 Naphthalene	128	14.940	14.939	0.001	99	2220927	250.0	242.4	
129 1,2,3-Trichlorobenzene	180	15.189	15.188	0.001	99	697862	250.0	243.8	
131 2,4,5-Trichlorotoluene	159	15.962	15.967	-0.005	99	364223	250.0	236.6	
130 2,3,6-Trichlorotoluene	159	16.065	16.064	0.001	98	323920	250.0	233.1	
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	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		500.0	435.9	
S 134 1,2-Dichloroethene, Total	96				0		500.0	477.2	
S 135 1,3-Dichloropropene, Total	1				0		500.0	568.1	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

## Reagents:

VOAACRPRI_00003	Amount Added: 11.00	Units: uL	
voaWEEpri Res_00003	Amount Added: 10.00	Units: uL	
voaWKetpri Re_00003	Amount Added: 10.00	Units: uL	
VOA8260SURRE_00032	Amount Added: 10.00	Units: uL	
VOA8260VOAPRI_00105	Amount Added: 10.00	Units: uL	
VOAVAPRI_00005	Amount Added: 10.00	Units: uL	
VOA8260INT_00030	Amount Added: 2.00	Units: uL	Run Reagent



TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316010.D

Injection Date: 16-Mar-2015 15:05:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD50

Worklist Smp#: 10

Client ID:

Purge Vol: 5.000 mL

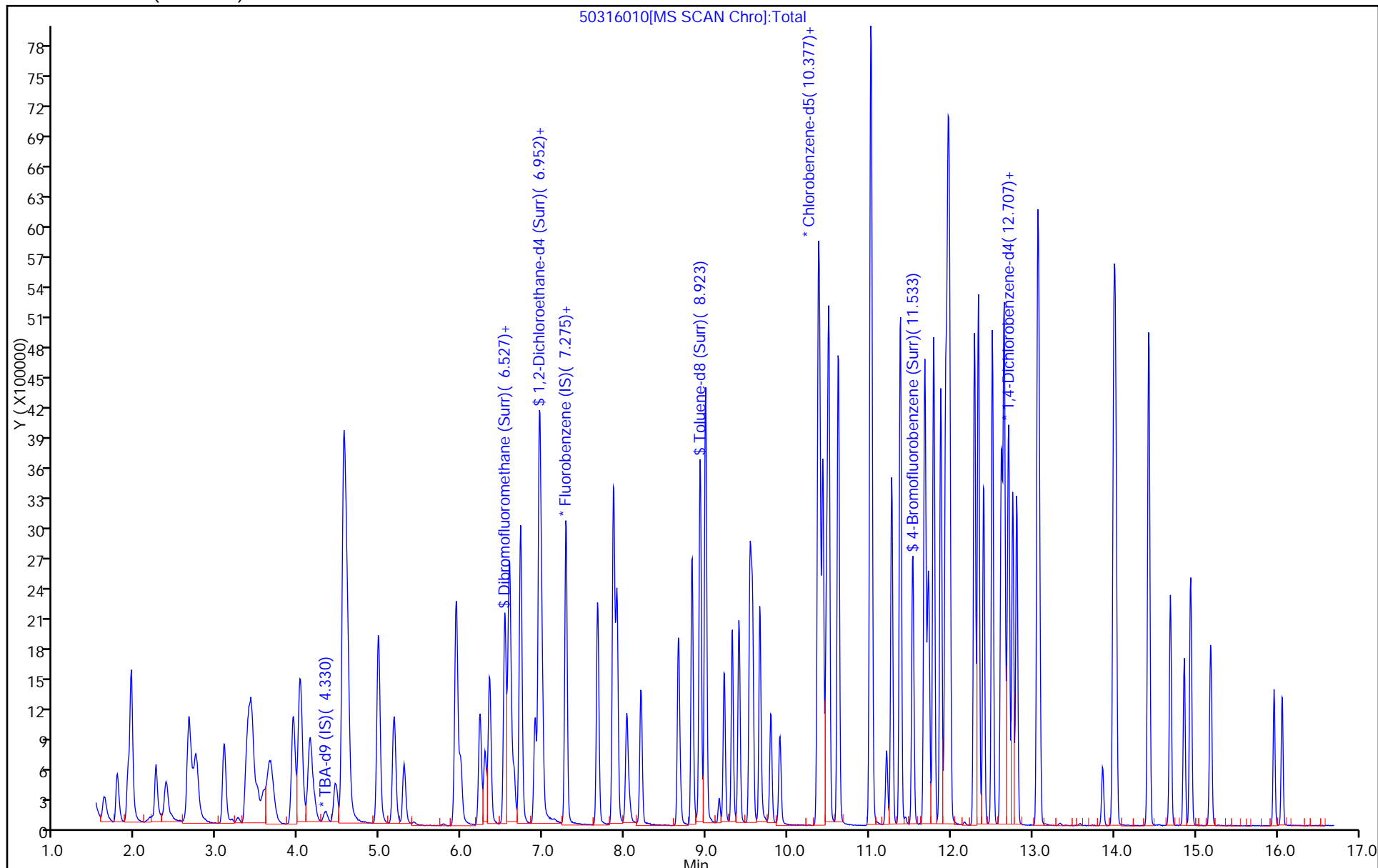
Dil. Factor: 1.0000

ALS Bottle#: 10

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D  
 Lims ID: IC VSTD1  
 Client ID:  
 Sample Type: IC Calib Level: 1  
 Inject. Date: 16-Mar-2015 16:17:30 ALS Bottle#: 13 Worklist Smp#: 13  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD1  
 Misc. Info.: 180-0006031-013  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub4  
 Method: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 17-Mar-2015 10:59:33 Calib Date: 16-Mar-2015 16:17:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK012

First Level Reviewer: fergusond

Date: 17-Mar-2015 10:01:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.317	4.305	0.012	83	148007	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.274	7.273	0.001	99	568509	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.364	10.364	0.000	74	121234	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.682	12.682	0.000	96	175081	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.526	6.525	0.001	93	14193	5.00	5.49	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.903	6.902	0.001	96	17152	5.00	5.03	
\$ 7 Toluene-d8 (Surr)	98	8.923	8.922	0.001	98	54935	5.00	5.68	
\$ 8 4-Bromofluorobenzene (Surr	95	11.532	11.532	0.000	92	19061	5.00	5.48	
11 Dichlorodifluoromethane	85	1.616	1.622	-0.006	96	11265	5.00	4.62	
12 Chloromethane	50	1.768	1.768	0.000	97	17972	5.00	5.34	M
13 Vinyl chloride	62	1.908	1.896	0.012	96	18981	5.00	5.05	
14 Butadiene	39	1.951	1.944	0.007	98	24095	5.00	5.61	
15 Bromomethane	94	2.249	2.249	0.000	85	18060	5.00	4.90	
16 Chloroethane	64	2.377	2.376	0.001	53	13187	5.00	5.07	
17 Dichlorofluoromethane	67	2.644	2.644	0.000	99	34297	5.00	5.78	
18 Trichlorofluoromethane	101	2.711	2.723	-0.012	92	20521	5.00	4.55	
20 Ethyl ether	59	3.082	3.082	0.000	94	16416	5.00	5.52	
21 Acrolein	56	3.247	3.258	-0.011	96	35289	100.0	97.7	M
22 1,1-Dichloroethene	96	3.368	3.374	-0.006	97	18234	5.00	5.56	
23 1,1,2-Trichloro-1,2,2-trif	101	3.435	3.423	0.012	90	16567	5.00	5.00	
24 Acetone	43	3.490	3.496	-0.006	93	29674	25.0	25.5	
25 Iodomethane	142	3.581	3.581	0.000	97	22824	5.00	5.01	
26 Carbon disulfide	76	3.648	3.660	-0.012	98	41336	5.00	5.16	
28 3-Chloro-1-propene	76	3.940	3.934	0.006	95	8006	5.00	4.62	
30 Methyl acetate	43	4.031	4.019	0.012	100	71022	25.0	26.1	
31 Methylene Chloride	84	4.135	4.147	-0.012	96	27978	5.00	7.38	
32 2-Methyl-2-propanol	59	4.433	4.439	-0.006	73	10830	50.0	62.1	
33 Acrylonitrile	53	4.555	4.554	0.001	99	71728	50.0	51.2	
34 trans-1,2-Dichloroethene	96	4.555	4.560	-0.005	57	17111	5.00	5.05	
35 Methyl tert-butyl ether	73	4.603	4.597	0.006	94	40058	5.00	5.34	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.974	4.980	-0.006	96	29021	5.00	5.36	
37 1,1-Dichloroethane	63	5.169	5.175	-0.006	99	29622	5.00	4.89	
38 Vinyl acetate	43	5.297	5.296	0.001	79	19067	5.00	4.44	
44 2,2-Dichloropropane	77	5.936	5.929	0.007	87	6267	5.00	4.14	
45 cis-1,2-Dichloroethene	96	5.936	5.941	-0.005	95	18951	5.00	5.30	
46 2-Butanone (MEK)	43	5.996	5.990	0.006	99	42054	25.0	22.6	
49 Chlorobromomethane	128	6.234	6.227	0.007	95	8619	5.00	5.58	
51 Tetrahydrofuran	42	6.288	6.282	0.006	75	11913	10.0	10.2	
52 Chloroform	83	6.343	6.343	0.000	97	29168	5.00	5.30	
53 1,1,1-Trichloroethane	97	6.532	6.531	0.001	93	15663	5.00	4.46	
54 Cyclohexane	56	6.580	6.586	-0.006	94	36280	5.00	5.38	
56 Carbon tetrachloride	117	6.720	6.720	0.000	97	13013	5.00	4.62	
55 1,1-Dichloropropene	75	6.720	6.726	-0.006	97	24060	5.00	5.28	
57 Isobutyl alcohol	41	6.958	6.945	0.013	95	8820	125.0	116.2	
58 Benzene	78	6.958	6.957	0.001	96	73700	5.00	5.47	
59 1,2-Dichloroethane	62	6.976	6.988	-0.012	98	22108	5.00	5.01	
62 n-Heptane	43	7.274	7.280	-0.006	58	23490	5.00	5.08	
64 Trichloroethene	130	7.669	7.669	0.000	96	18397	5.00	5.45	
66 Methylcyclohexane	83	7.858	7.864	-0.006	94	29934	5.00	4.97	
67 1,2-Dichloropropane	63	7.907	7.906	0.001	90	16916	5.00	5.08	
68 Dibromomethane	93	8.022	8.022	0.000	93	9562	5.00	5.33	
70 1,4-Dioxane	88	8.047	8.058	-0.012	33	3746	100.0	106.8	
71 Dichlorobromomethane	83	8.193	8.198	-0.006	98	16863	5.00	4.61	
74 cis-1,3-Dichloropropene	75	8.655	8.661	-0.006	98	15462	5.00	4.38	
75 4-Methyl-2-pentanone (MIBK)	43	8.831	8.825	0.006	99	75787	25.0	23.1	
76 Toluene	91	8.989	8.989	0.000	99	72597	5.00	5.84	
77 trans-1,3-Dichloropropene	75	9.208	9.220	-0.012	92	10481	5.00	4.67	
78 Ethyl methacrylate	69	9.318	9.318	0.000	94	13336	5.00	4.56	
79 1,1,2-Trichloroethane	97	9.403	9.403	0.000	95	13086	5.00	5.62	
80 Tetrachloroethene	164	9.531	9.537	-0.006	96	13716	5.00	5.64	
81 1,3-Dichloropropane	76	9.567	9.561	0.006	97	23188	5.00	5.35	
82 2-Hexanone	43	9.659	9.658	0.001	98	53734	25.0	21.4	M
84 Chlorodibromomethane	129	9.786	9.792	-0.006	95	7988	5.00	4.30	
85 Ethylene Dibromide	107	9.902	9.902	0.000	96	11471	5.00	5.16	
86 3-Chlorobenzotrifluoride	180	10.370	10.370	0.000	67	26148	5.00	5.52	
87 Chlorobenzene	112	10.389	10.388	0.001	98	47481	5.00	6.03	
88 4-Chlorobenzotrifluoride	180	10.425	10.431	-0.006	97	25927	5.00	5.66	
89 1,1,1,2-Tetrachloroethane	131	10.474	10.473	0.001	87	9154	5.00	4.50	
90 Ethylbenzene	106	10.504	10.504	0.000	99	24142	5.00	5.35	
91 m-Xylene & p-Xylene	106	10.614	10.619	-0.005	98	30126	5.00	5.45	
92 o-Xylene	106	11.015	11.009	0.006	97	32009	5.00	5.92	
93 Styrene	104	11.027	11.027	0.000	95	47061	5.00	5.41	
94 Bromoform	173	11.216	11.209	0.007	32	5157	5.00	4.49	
96 2-Chlorobenzotrifluoride	180	11.277	11.276	0.001	98	25441	5.00	5.37	
97 Isopropylbenzene	105	11.380	11.380	0.000	99	75470	5.00	5.60	
99 1,1,2,2-Tetrachloroethane	83	11.672	11.678	-0.006	93	19128	5.00	5.73	
100 Bromobenzene	156	11.691	11.678	0.012	97	16809	5.00	5.19	
101 1,2,3-Trichloropropane	110	11.721	11.721	0.001	89	5918	5.00	5.56	
102 trans-1,4-Dichloro-2-buten	53	11.739	11.733	0.006	50	4503	5.00	5.09	M
103 N-Propylbenzene	120	11.788	11.787	0.001	99	21543	5.00	5.39	
104 2-Chlorotoluene	126	11.873	11.873	0.000	99	17942	5.00	5.34	
105 3-Chlorotoluene	126	11.934	11.933	0.001	98	20174	5.00	5.37	

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	11.964	11.964	0.000	99	61438	5.00	5.51	
107 4-Chlorotoluene	126	11.983	11.982	0.000	94	19812	5.00	5.45	
108 tert-Butylbenzene	119	12.287	12.286	0.001	97	55729	5.00	5.77	
110 1,2,4-Trimethylbenzene	105	12.335	12.335	0.000	97	63098	5.00	5.52	
111 1,2-dichloro-4-(trifluorom	214	12.408	12.402	0.006	98	19333	5.00	5.35	
112 sec-Butylbenzene	105	12.506	12.511	-0.005	100	75379	5.00	5.55	
113 1,3-Dichlorobenzene	146	12.621	12.621	0.000	98	33497	5.00	5.61	
114 4-Isopropyltoluene	119	12.652	12.651	0.001	98	61054	5.00	5.44	
115 1,4-Dichlorobenzene	146	12.706	12.706	0.000	98	34596	5.00	5.67	
116 2,4-Dichloro-1-(trifluorom	214	12.755	12.755	0.000	94	17792	5.00	5.26	
118 2,5-Dichlorobenzotrifluori	214	12.810	12.803	0.007	96	20678	5.00	5.46	
120 n-Butylbenzene	91	13.065	13.065	0.000	99	54758	5.00	5.36	
121 1,2-Dichlorobenzene	146	13.084	13.083	0.001	99	30414	5.00	5.50	
122 1,2-Dibromo-3-Chloropropan	75	13.874	13.856	0.018	18	2299	5.00	5.08	
123 2,4- & 2,5- & 2,6- Dichlor	125	13.996	14.008	-0.012	93	71584	15.0	17.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.428	14.428	0.000	97	46257	10.0	11.4	
126 1,2,4-Trichlorobenzene	180	14.690	14.695	-0.005	94	17018	5.00	5.91	
127 Hexachlorobutadiene	225	14.866	14.866	0.000	90	8549	5.00	6.19	
128 Naphthalene	128	14.939	14.939	0.000	99	41842	5.00	5.54	
129 1,2,3-Trichlorobenzene	180	15.189	15.188	0.000	95	13823	5.00	5.86	
131 2,4,5-Trichlorotoluene	159	15.961	15.967	-0.006	94	8592	5.00	6.77	
130 2,3,6-Trichlorotoluene	159	16.058	16.064	-0.006	94	7658	5.00	6.68	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
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	
S 133 Xylenes, Total	106				0		10.0	11.4	
S 134 1,2-Dichloroethene, Total	96				0		10.0	10.4	
S 135 1,3-Dichloropropene, Total	1				0		10.0	9.05	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260SURR_00032	Amount Added: 0.20	Units: uL	
VOA8260VOAPRI_00105	Amount Added: 0.20	Units: uL	
VOAVAPRI_00005	Amount Added: 0.20	Units: uL	
voaWKetpri Re_00003	Amount Added: 0.80	Units: uL	
VOAACRPRI_00003	Amount Added: 4.00	Units: uL	
voaWEEpri Res_00003	Amount Added: 0.20	Units: uL	
VOA8260INT_00030	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D

Injection Date: 16-Mar-2015 16:17:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD1

Worklist Smp#: 13

Client ID:

Purge Vol: 5.000 mL

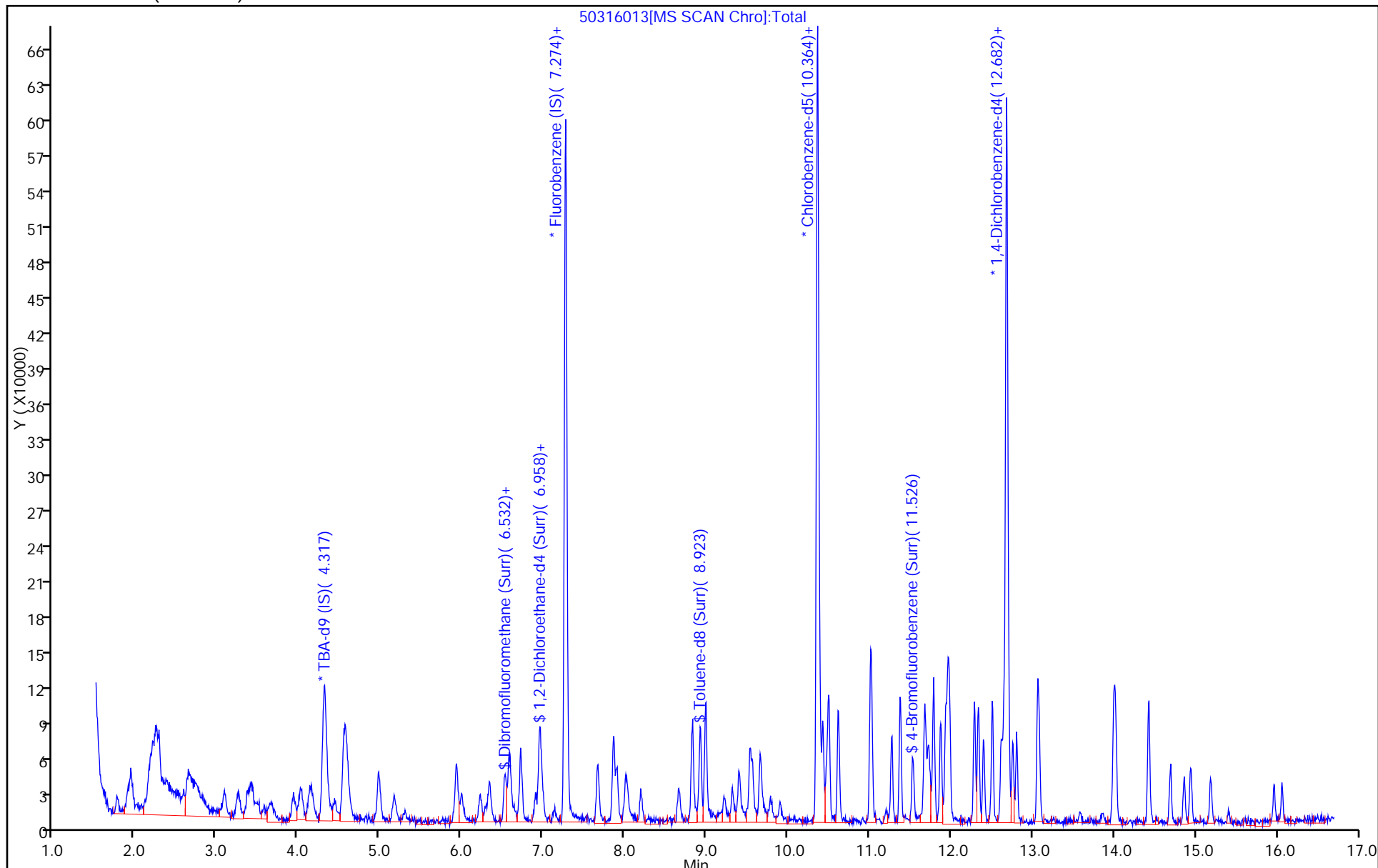
Dil. Factor: 1.0000

ALS Bottle#: 13

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



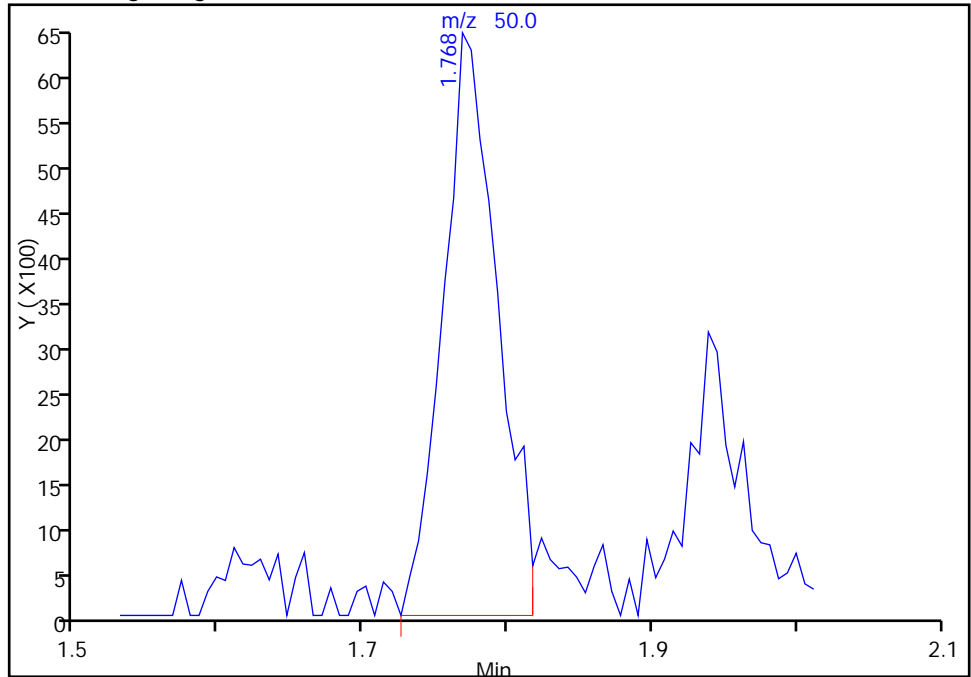
TestAmerica Pittsburgh

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Injection Date: 16-Mar-2015 16:17:30 Instrument ID: CHHP5  
Lims ID: IC VSTD1  
Client ID:  
Operator ID: 001562 ALS Bottle#: 13 Worklist Smp#: 13  
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

12 Chloromethane, CAS: 74-87-3

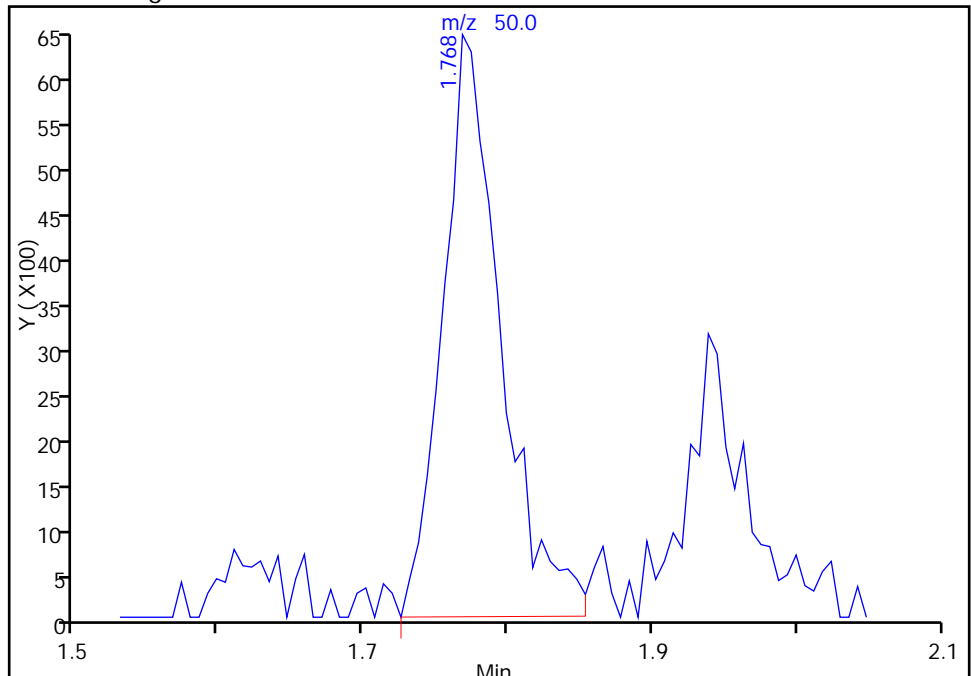
RT: 1.77  
Area: 16860  
Amount: 4.846171  
Amount Units: ng

Processing Integration Results



RT: 1.77  
Area: 17972  
Amount: 5.343308  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 17-Mar-2015 10:01:36  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

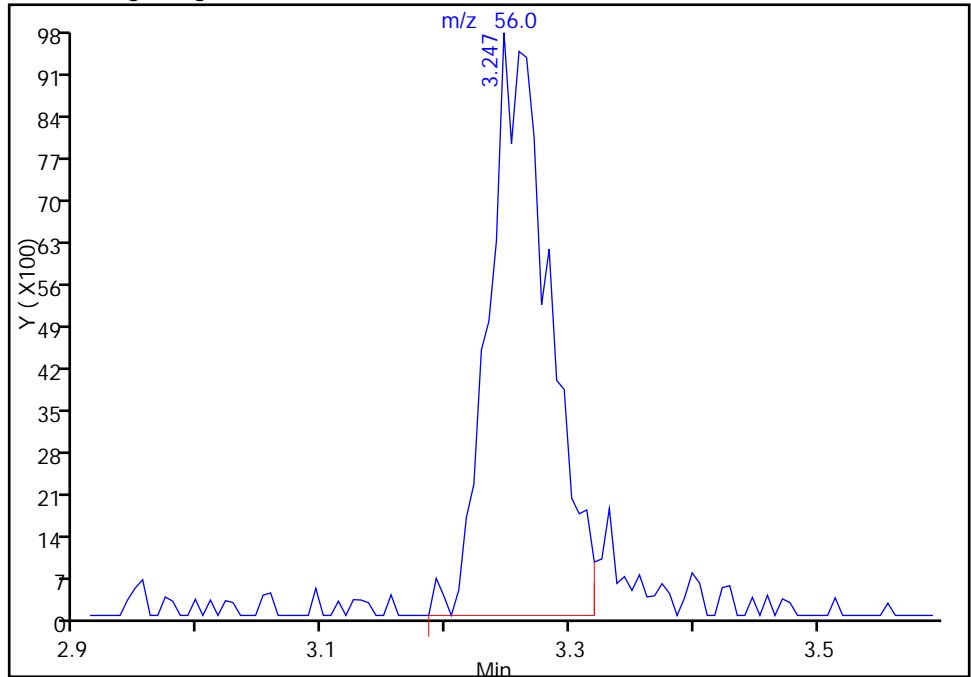
TestAmerica Pittsburgh

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Injection Date: 16-Mar-2015 16:17:30 Instrument ID: CHHP5  
Lims ID: IC VSTD1  
Client ID:  
Operator ID: 001562 ALS Bottle#: 13 Worklist Smp#: 13  
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

21 Acrolein, CAS: 107-02-8

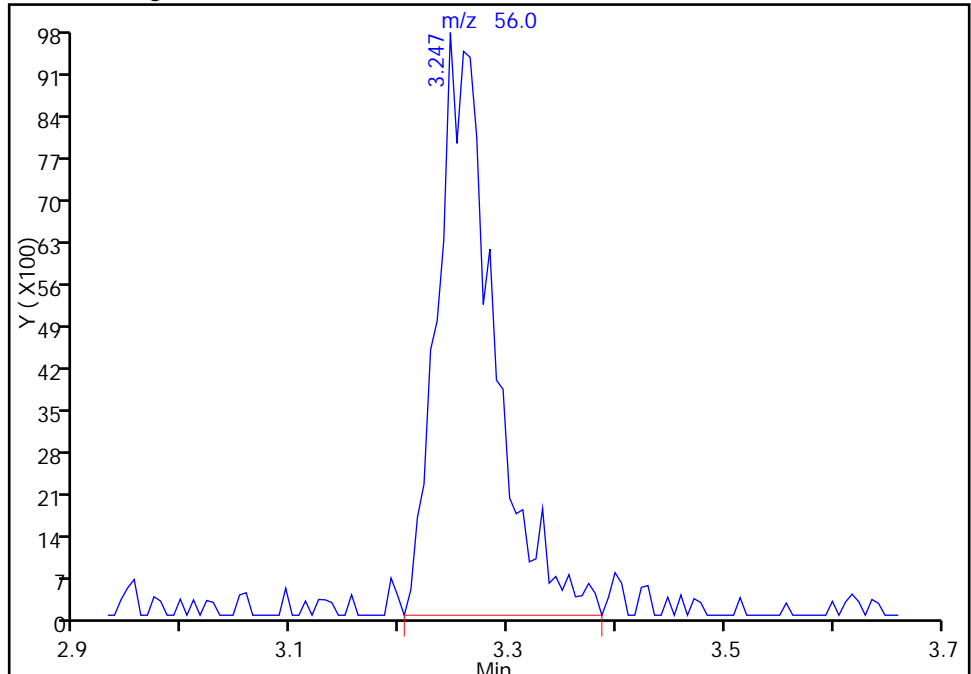
RT: 3.25  
Area: 33235  
Amount: 92.071591  
Amount Units: ng

Processing Integration Results



RT: 3.25  
Area: 35289  
Amount: 97.689446  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 17-Mar-2015 10:01:36  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

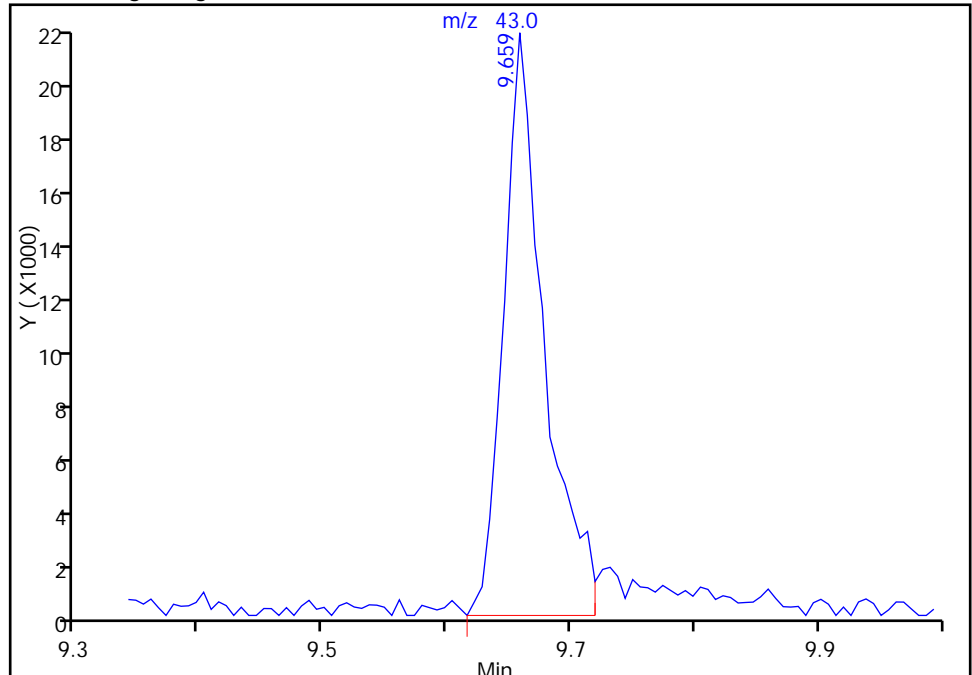
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D  
Injection Date: 16-Mar-2015 16:17:30 Instrument ID: CHHP5  
Lims ID: IC VSTD1  
Client ID:  
Operator ID: 001562 ALS Bottle#: 13 Worklist Smp#: 13  
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

82 2-Hexanone, CAS: 591-78-6

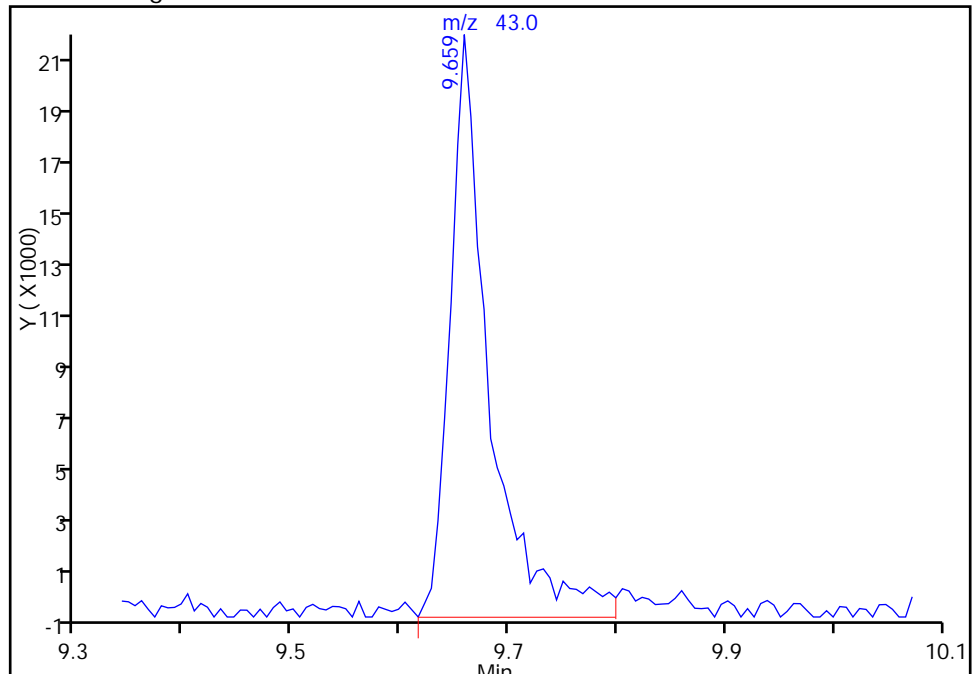
RT: 9.66  
Area: 48498  
Amount: 19.235523  
Amount Units: ng

Processing Integration Results



RT: 9.66  
Area: 53734  
Amount: 21.434406  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 17-Mar-2015 10:01:36  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography



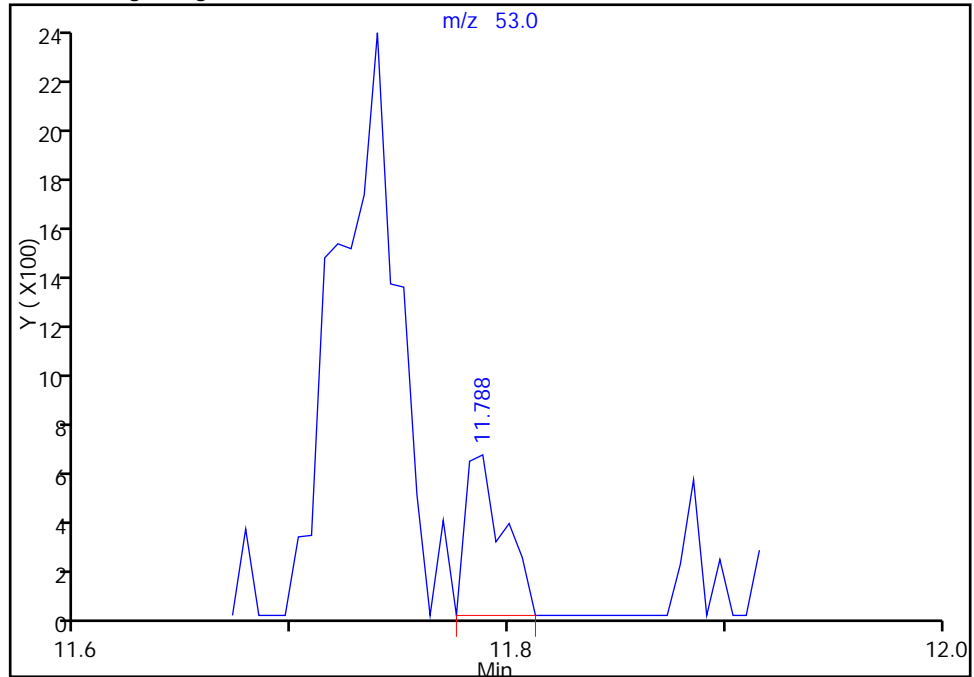
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D  
Injection Date: 16-Mar-2015 16:17:30 Instrument ID: CHHP5  
Lims ID: IC VSTD1  
Client ID:  
Operator ID: 001562 ALS Bottle#: 13 Worklist Smp#: 13  
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

102 trans-1,4-Dichloro-2-butene, CAS: 110-57-6

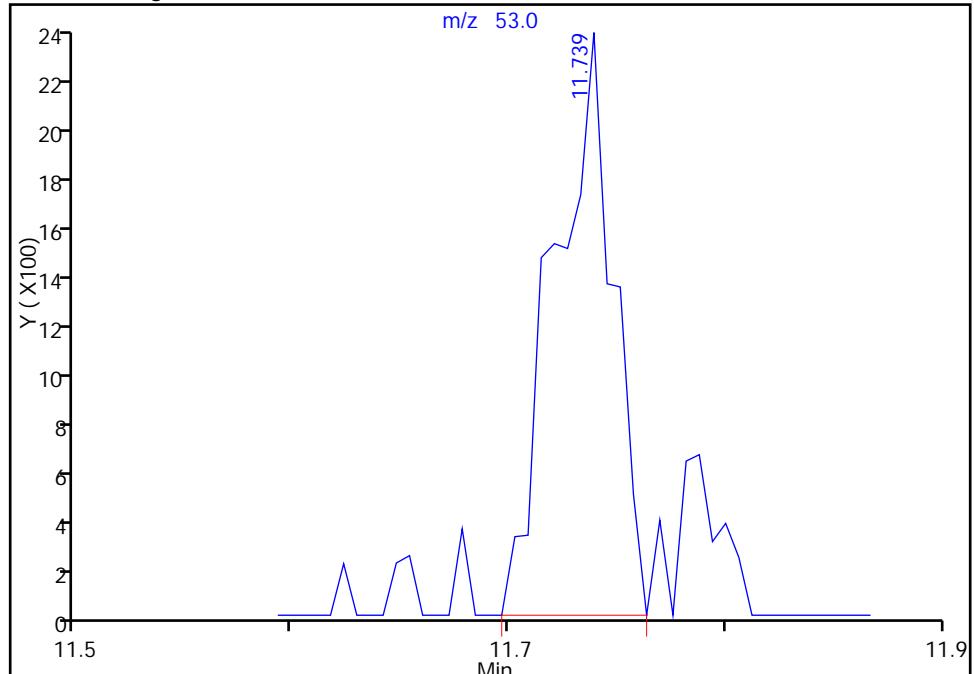
RT: 11.79  
Area: 798  
Amount: 0.892929  
Amount Units: ng

Processing Integration Results



RT: 11.74  
Area: 4503  
Amount: 5.086353  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 17-Mar-2015 10:01:36  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-136250/2 Calibration Date: 03/23/2015 11:20  
 Instrument ID: CHHP5 Calib Start Date: 03/16/2015 12:41  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 03/16/2015 16:17  
 Lab File ID: 50323002.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	0.2143	0.3363	0.1000	31.4	20.0	56.9*	20.0
Chloromethane	Ave	0.2958	0.3259	0.1000	22.0	20.0	10.2	20.0
Vinyl chloride	Ave	0.3306	0.3792	0.1000	22.9	20.0	14.7	20.0
Bromomethane	Lin2		0.2089	0.0500	24.6	20.0	23.1*	20.0
Chloroethane	Ave	0.2287	0.2765	0.0500	24.2	20.0	20.9*	20.0
Dichlorofluoromethane	Ave	0.5222	0.5917	0.0100	22.7	20.0	13.3	20.0
Trichlorofluoromethane	Ave	0.3966	0.4699	0.1000	23.7	20.0	18.5	20.0
Ethyl ether	Ave	0.2615	0.2591	0.0100	19.8	20.0	-0.9	20.0
Acrolein	Ave	0.0318	0.0308	0.0100	29.1	30.0	-3.0	20.0
1,1-Dichloroethene	Ave	0.2883	0.2781	0.1000	19.3	20.0	-3.6	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2916	0.2979	0.1000	20.4	20.0	2.1	20.0
Acetone	Ave	0.1024	0.0911	0.0500	26.7	30.0	-11.1	20.0
Iodomethane	Ave	0.4005	0.3993	0.0100	19.9	20.0	-0.3	20.0
Carbon disulfide	Ave	0.7051	0.7450	0.1000	21.1	20.0	5.7	20.0
Allyl chloride	Ave	0.1524	0.1473	0.0100	19.3	20.0	-3.3	20.0
Methyl acetate	Ave	0.2396	0.2092	0.1000	87.3	100	-12.7	20.0
Methylene Chloride	Ave	0.3335	0.3066	0.1000	18.4	20.0	-8.1	20.0
tert-Butyl alcohol	Ave	1.178	0.9887	0.0100	168	200	-16.1	20.0
Acrylonitrile	Ave	0.1233	0.1125	0.0100	183	200	-8.7	20.0
trans-1,2-Dichloroethene	Ave	0.2982	0.2975	0.1000	20.0	20.0	-0.2	20.0
Methyl tert-butyl ether	Ave	0.6593	0.6546	0.1000	19.9	20.0	-0.7	20.0
Hexane	Ave	0.4764	0.4536	0.0100	19.0	20.0	-4.8	20.0
1,1-Dichloroethane	Ave	0.5323	0.5407	0.2000	20.3	20.0	1.6	20.0
2,2-Dichloropropane	Ave	0.1331	0.1753	0.0100	26.3	20.0	31.7*	20.0
cis-1,2-Dichloroethene	Ave	0.3142	0.3021	0.1000	19.2	20.0	-3.9	20.0
2-Butanone (MEK)	Ave	0.1638	0.1207	0.0500	22.1	30.0	-26.3*	20.0
Bromochloromethane	Ave	0.1360	0.1273	0.0100	18.7	20.0	-6.4	20.0
Tetrahydrofuran	Ave	0.1026	0.0843	0.0100	32.9	40.0	-17.8	20.0
Chloroform	Ave	0.4836	0.4831	0.2000	20.0	20.0	-0.1	20.0
1,1,1-Trichloroethane	Ave	0.3088	0.3590	0.1000	23.3	20.0	16.3	20.0
Cyclohexane	Ave	0.5929	0.5512	0.1000	18.6	20.0	-7.0	20.0
Carbon tetrachloride	Ave	0.2478	0.3082	0.1000	24.9	20.0	24.4*	20.0
1,1-Dichloropropene	Ave	0.4011	0.4019	0.0100	20.0	20.0	0.2	20.0
Isobutyl alcohol	Ave	0.0067	0.0063*	0.0100	472	500	-5.6	20.0
Benzene	Ave	1.185	1.180	0.5000	19.9	20.0	-0.5	20.0
1,2-Dichloroethane	Ave	0.3880	0.3953	0.1000	20.4	20.0	1.9	20.0
n-Heptane	Ave	0.4071	0.3870	0.0100	19.0	20.0	-4.9	20.0
Trichloroethene	Ave	0.2969	0.2810	0.2000	18.9	20.0	-5.3	20.0
Methylcyclohexane	Ave	0.5297	0.5012	0.1000	18.9	20.0	-5.4	20.0
1,2-Dichloropropane	Ave	0.2931	0.2892	0.1000	19.7	20.0	-1.3	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-136250/2 Calibration Date: 03/23/2015 11:20  
 Instrument ID: CHHP5 Calib Start Date: 03/16/2015 12:41  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 03/16/2015 16:17  
 Lab File ID: 50323002.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
Dibromomethane	Ave	0.1578	0.1521	0.0100	19.3	20.0	-3.6	20.0
1,4-Dioxane	Ave	0.0031	0.0024*	0.0100	317	400	-20.8*	20.0
Bromodichloromethane	Ave	0.3220	0.3542	0.2000	22.0	20.0	10.0	20.0
cis-1,3-Dichloropropene	Ave	0.3107	0.3624	0.2000	23.3	20.0	16.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.353	1.158	0.1000	25.7	30.0	-14.4	20.0
Toluene	Ave	5.124	5.273	0.4000	20.6	20.0	2.9	20.0
trans-1,3-Dichloropropene	Ave	0.9254	1.247	0.1000	27.0	20.0	34.8*	20.0
Ethyl methacrylate	Ave	1.207	1.199	0.0100	19.9	20.0	-0.7	20.0
1,1,2-Trichloroethane	Ave	0.9609	0.9769	0.1000	20.3	20.0	1.7	20.0
Tetrachloroethene	Ave	1.002	1.016	0.2000	20.3	20.0	1.4	20.0
1,3-Dichloropropane	Ave	1.786	1.792	0.0100	20.1	20.0	0.3	20.0
2-Hexanone	Ave	1.034	0.8459	0.1000	24.5	30.0	-18.2	20.0
Dibromochloromethane	Ave	0.7670	0.9403	0.1000	24.5	20.0	22.6*	20.0
1,2-Dibromoethane (EDB)	Ave	0.9169	0.9341	0.1000	20.4	20.0	1.9	20.0
3-Chlorobenzotrifluoride	Ave	1.955	2.124	0.0100	10.9	10.0	8.7	20.0
Chlorobenzene	Ave	3.246	3.278	0.5000	20.2	20.0	1.0	20.0
4-Chlorobenzotrifluoride	Ave	1.890	1.987	0.0100	10.5	10.0	5.1	20.0
1,1,1,2-Tetrachloroethane	Ave	0.8382	1.002	0.0100	23.9	20.0	19.6	20.0
Ethylbenzene	Ave	1.863	1.880	0.1000	20.2	20.0	0.9	20.0
m-Xylene & p-Xylene	Ave	2.278	2.270	0.1000	19.9	20.0	-0.3	20.0
o-Xylene	Ave	2.228	2.239	0.3000	20.1	20.0	0.5	20.0
Styrene	Ave	3.591	3.653	0.3000	20.3	20.0	1.7	20.0
Bromoform	Ave	0.4737	0.5855	0.1000	24.7	20.0	23.6*	20.0
2-Chlorobenzotrifluoride	Ave	1.952	2.137	0.0100	10.9	10.0	9.5	20.0
Isopropylbenzene	Ave	5.560	5.651	0.1000	20.3	20.0	1.6	20.0
1,1,2,2-Tetrachloroethane	Ave	1.378	1.379	0.3000	20.0	20.0	0.0	20.0
Bromobenzene	Ave	0.9254	0.8548	0.0100	18.5	20.0	-7.6	20.0
1,2,3-Trichloropropane	Ave	0.3041	0.2743	0.0100	18.0	20.0	-9.8	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2528	0.2282	0.0100	18.1	20.0	-9.7	20.0
N-Propylbenzene	Ave	1.142	1.066	0.0100	18.7	20.0	-6.6	20.0
2-Chlorotoluene	Ave	0.9591	0.8967	0.0100	18.7	20.0	-6.5	20.0
3-Chlorotoluene	Ave	1.072	1.053	0.0100	9.82	10.0	-1.8	20.0
1,3,5-Trimethylbenzene	Ave	3.183	2.954	0.0100	18.6	20.0	-7.2	20.0
4-Chlorotoluene	Ave	1.038	0.9834	0.0100	18.9	20.0	-5.3	20.0
tert-Butylbenzene	Ave	2.758	2.527	0.0100	18.3	20.0	-8.4	20.0
1,2,4-Trimethylbenzene	Ave	3.267	3.015	0.0100	18.5	20.0	-7.7	20.0
3,4-Dichlorobenzotrifluoride	Ave	1.032	1.056	0.0100	10.2	10.0	2.3	20.0
sec-Butylbenzene	Ave	3.881	3.635	0.0100	18.7	20.0	-6.4	20.0
1,3-Dichlorobenzene	Ave	1.705	1.575	0.6000	18.5	20.0	-7.6	20.0
4-Isopropyltoluene	Ave	3.204	2.954	0.0100	18.4	20.0	-7.8	20.0
1,4-Dichlorobenzene	Ave	1.741	1.610	0.5000	18.5	20.0	-7.5	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-136250/2 Calibration Date: 03/23/2015 11:20  
 Instrument ID: CHHP5 Calib Start Date: 03/16/2015 12:41  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 03/16/2015 16:17  
 Lab File ID: 50323002.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
2,4-Dichlorobenzotrifluoride	Ave	0.9669	0.9780	0.0100	10.1	10.0	1.2	20.0
2,5-Dichlorobenzotrifluoride	Ave	1.082	1.083	0.0100	10.0	10.0	0.1	20.0
n-Butylbenzene	Ave	2.918	2.701	0.0100	18.5	20.0	-7.4	20.0
1,2-Dichlorobenzene	Ave	1.579	1.447	0.4000	18.3	20.0	-8.4	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1292	0.1207	0.0500	18.7	20.0	-6.6	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.194	1.121	0.0100	28.2	30.0	-6.1	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.161	1.033	0.0100	17.8	20.0	-11.0	20.0
1,2,4-Trichlorobenzene	Ave	0.8219	0.6657	0.2000	16.2	20.0	-19.0	20.0
Hexachlorobutadiene	Ave	0.3941	0.3343	0.0100	17.0	20.0	-15.2	20.0
Naphthalene	Ave	2.158	1.581	0.0100	14.7	20.0	-26.7*	20.0
1,2,3-Trichlorobenzene	Ave	0.6740	0.5204	0.0100	15.4	20.0	-22.8*	20.0
2,4,5-Trichlorotoluene	Ave	0.3624	0.2509	0.0100	6.92	10.0	-30.8*	20.0
2,3,6-Trichlorotoluene	Ave	0.3273	0.2201	0.0100	6.72	10.0	-32.8*	20.0
Dibromofluoromethane (Surr)	Ave	0.2274	0.2217		9.75	10.0	-2.5	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2998	0.2982		9.95	10.0	-0.5	20.0
Toluene-d8 (Surr)	Ave	3.986	4.183		10.5	10.0	4.9	20.0
4-Bromofluorobenzene (Surr)	Ave	1.436	1.453		10.1	10.0	1.2	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323002.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 23-Mar-2015 11:20:30 ALS Bottle#: 2 Worklist Smp#: 2  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: CCVIS  
 Misc. Info.: 180-0006128-002  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub6  
 Method: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 23-Mar-2015 13:28:57 Calib Date: 18-Mar-2015 16:19:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150318-6071.b\50318010.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK037

First Level Reviewer: fergusond

Date: 23-Mar-2015 11:44:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.302	4.302	0.000	98	133456	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.271	7.271	0.000	99	518750	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.361	10.361	0.000	98	117369	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.685	0.000	97	180107	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.522	6.522	0.000	84	114995	50.0	48.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.900	0.000	99	154676	50.0	49.7	
\$ 7 Toluene-d8 (Surr)	98	8.925	8.925	0.000	100	490969	50.0	52.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.529	11.529	0.000	96	170572	50.0	50.6	
11 Dichlorodifluoromethane	85	1.613	1.613	0.000	98	348941	100.0	156.9	
12 Chloromethane	50	1.777	1.777	0.000	99	338160	100.0	110.2	
13 Vinyl chloride	62	1.905	1.905	0.000	100	393456	100.0	114.7	
14 Butadiene	39	1.948	1.948	0.000	98	449225	100.0	114.7	
15 Bromomethane	94	2.252	2.252	0.000	99	216677	100.0	123.1	
16 Chloroethane	64	2.380	2.380	0.000	99	286883	100.0	120.9	
17 Dichlorofluoromethane	67	2.647	2.647	0.000	100	613845	100.0	113.3	
18 Trichlorofluoromethane	101	2.714	2.714	0.000	98	487527	100.0	118.5	
20 Ethyl ether	59	3.085	3.085	0.000	100	268835	100.0	99.1	
21 Acrolein	56	3.250	3.250	0.000	98	47950	150.0	145.5	
22 1,1-Dichloroethene	96	3.377	3.377	0.000	97	288479	100.0	96.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.426	3.426	0.000	98	309040	100.0	102.1	
24 Acetone	43	3.493	3.493	0.000	100	141756	150.0	133.4	
25 Iodomethane	142	3.566	3.566	0.000	100	414225	100.0	99.7	
26 Carbon disulfide	76	3.645	3.645	0.000	100	772882	100.0	105.7	
28 3-Chloro-1-propene	76	3.931	3.931	0.000	100	152840	100.0	96.7	
30 Methyl acetate	43	4.016	4.016	0.000	100	1085308	500.0	436.5	
31 Methylene Chloride	84	4.138	4.138	0.000	97	318068	100.0	91.9	
32 2-Methyl-2-propanol	59	4.430	4.430	0.000	98	131949	1000.0	839.4	
33 Acrylonitrile	53	4.545	4.545	0.000	100	1167518	1000.0	912.9	
34 trans-1,2-Dichloroethene	96	4.558	4.558	0.000	90	308655	100.0	99.8	
35 Methyl tert-butyl ether	73	4.594	4.594	0.000	99	679114	100.0	99.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.977	4.977	0.000	99	470553	100.0	95.2	
37 1,1-Dichloroethane	63	5.166	5.166	0.000	100	560931	100.0	101.6	
44 2,2-Dichloropropane	77	5.920	5.920	0.000	97	181831	100.0	131.7	
45 cis-1,2-Dichloroethene	96	5.938	5.938	0.000	97	313384	100.0	96.1	
46 2-Butanone (MEK)	43	5.987	5.987	0.000	99	187903	150.0	110.6	
49 Chlorobromomethane	128	6.218	6.218	0.000	99	132088	100.0	93.6	
51 Tetrahydrofuran	42	6.285	6.285	0.000	98	174929	200.0	164.4	
52 Chloroform	83	6.340	6.340	0.000	100	501200	100.0	99.9	
53 1,1,1-Trichloroethane	97	6.522	6.522	0.000	84	372502	100.0	116.3	
54 Cyclohexane	56	6.583	6.583	0.000	99	571843	100.0	93.0	
56 Carbon tetrachloride	117	6.717	6.717	0.000	98	319729	100.0	124.4	
55 1,1-Dichloropropene	75	6.723	6.723	0.000	98	416927	100.0	100.2	
57 Isobutyl alcohol	41	6.936	6.936	0.000	97	163441	2500.0	2360.4	
58 Benzene	78	6.954	6.954	0.000	99	1223772	100.0	99.5	
59 1,2-Dichloroethane	62	6.985	6.985	0.000	99	410134	100.0	101.9	
62 n-Heptane	43	7.277	7.277	0.000	99	401514	100.0	95.1	
64 Trichloroethene	130	7.666	7.666	0.000	99	291530	100.0	94.7	
66 Methylcyclohexane	83	7.861	7.861	0.000	99	519983	100.0	94.6	
67 1,2-Dichloropropane	63	7.903	7.903	0.000	97	300017	100.0	98.7	
68 Dibromomethane	93	8.019	8.019	0.000	99	157835	100.0	96.4	
70 1,4-Dioxane	88	8.056	8.056	0.000	97	50685	2000.0	1583.1	M
71 Dichlorobromomethane	83	8.195	8.195	0.000	100	367492	100.0	110.0	
73 2-Chloroethyl vinyl ether	63	8.518	8.518	0.000	98	152742	100.0	89.1	
74 cis-1,3-Dichloropropene	75	8.658	8.658	0.000	99	376007	100.0	116.6	
75 4-Methyl-2-pentanone (MIBK)	43	8.822	8.822	0.000	99	407756	150.0	128.4	
76 Toluene	91	8.986	8.986	0.000	100	1237843	100.0	102.9	
77 trans-1,3-Dichloropropene	75	9.217	9.217	0.000	98	292785	100.0	134.8	
78 Ethyl methacrylate	69	9.315	9.315	0.000	97	281388	100.0	99.3	
79 1,1,2-Trichloroethane	97	9.400	9.400	0.000	99	229308	100.0	101.7	
80 Tetrachloroethene	164	9.534	9.534	0.000	99	238507	100.0	101.4	
81 1,3-Dichloropropane	76	9.564	9.564	0.000	99	420538	100.0	100.3	
82 2-Hexanone	43	9.655	9.655	0.000	99	297837	150.0	122.7	
84 Chlorodibromomethane	129	9.789	9.789	0.000	99	220717	100.0	122.6	
85 Ethylene Dibromide	107	9.899	9.899	0.000	100	219261	100.0	101.9	
86 3-Chlorobenzotrifluoride	180	10.373	10.373	0.000	96	249326	50.0	54.3	
87 Chlorobenzene	112	10.392	10.392	0.000	99	769435	100.0	101.0	
88 4-Chlorobenzotrifluoride	180	10.428	10.428	0.000	99	233235	50.0	52.6	
89 1,1,1,2-Tetrachloroethane	131	10.471	10.471	0.000	93	235227	100.0	119.6	
90 Ethylbenzene	106	10.501	10.501	0.000	100	441240	100.0	100.9	
91 m-Xylene & p-Xylene	106	10.617	10.617	0.000	100	532962	100.0	99.7	
92 o-Xylene	106	11.012	11.012	0.000	100	525618	100.0	100.5	
93 Styrene	104	11.024	11.024	0.000	99	857545	100.0	101.7	
94 Bromoform	173	11.213	11.213	0.000	98	137429	100.0	123.6	
96 2-Chlorobenzotrifluoride	180	11.274	11.274	0.000	100	250869	50.0	54.7	
97 Isopropylbenzene	105	11.377	11.377	0.000	100	1326514	100.0	101.6	
99 1,1,2,2-Tetrachloroethane	83	11.675	11.675	0.000	98	323595	100.0	100.0	
100 Bromobenzene	156	11.681	11.681	0.000	98	307893	100.0	92.4	
101 1,2,3-Trichloropropane	110	11.718	11.718	0.000	98	98799	100.0	90.2	
102 trans-1,4-Dichloro-2-buten	53	11.730	11.730	0.000	97	82195	100.0	90.3	
103 N-Propylbenzene	120	11.791	11.791	0.000	100	384158	100.0	93.4	
104 2-Chlorotoluene	126	11.876	11.876	0.000	100	323011	100.0	93.5	
105 3-Chlorotoluene	126	11.937	11.937	0.000	98	189660	50.0	49.1	

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	11.961	11.961	0.000	100	1064168	100.0	92.8	
107 4-Chlorotoluene	126	11.979	11.979	0.000	98	354220	100.0	94.7	
108 tert-Butylbenzene	119	12.290	12.290	0.000	100	910145	100.0	91.6	
110 1,2,4-Trimethylbenzene	105	12.332	12.332	0.000	99	1086072	100.0	92.3	
111 1,2-dichloro-4-(trifluorom	214	12.399	12.399	0.000	100	190114	50.0	51.1	
112 sec-Butylbenzene	105	12.509	12.509	0.000	100	1309277	100.0	93.6	
113 1,3-Dichlorobenzene	146	12.618	12.618	0.000	100	567279	100.0	92.4	
114 4-Isopropyltoluene	119	12.655	12.655	0.000	100	1064034	100.0	92.2	
115 1,4-Dichlorobenzene	146	12.709	12.709	0.000	99	580098	100.0	92.5	
116 2,4-Dichloro-1-(trifluorom	214	12.758	12.758	0.000	99	176141	50.0	50.6	
118 2,5-Dichlorobenzotrifluori	214	12.807	12.807	0.000	100	195071	50.0	50.1	
120 n-Butylbenzene	91	13.062	13.062	0.000	100	972871	100.0	92.6	
121 1,2-Dichlorobenzene	146	13.080	13.080	0.000	100	521174	100.0	91.6	
122 1,2-Dibromo-3-Chloropropan	75	13.859	13.859	0.000	92	43465	100.0	93.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.005	14.005	0.000	99	605554	150.0	140.9	
124 1,3,5-Trichlorobenzene	180	14.072	14.072	0.000	98	152936	50.0	44.3	
125 2,3- & 3,4- Dichlorotoluen	125	14.425	14.425	0.000	99	372266	100.0	89.0	
126 1,2,4-Trichlorobenzene	180	14.693	14.693	0.000	99	239779	100.0	81.0	
127 Hexachlorobutadiene	225	14.863	14.863	0.000	97	120414	100.0	84.8	
128 Naphthalene	128	14.942	14.942	0.000	100	569578	100.0	73.3	
129 1,2,3-Trichlorobenzene	180	15.191	15.191	0.000	98	187457	100.0	77.2	
131 2,4,5-Trichlorotoluene	159	15.964	15.964	0.000	98	45196	50.0	34.6	
130 2,3,6-Trichlorotoluene	159	16.061	16.061	0.000	98	39640	50.0	33.6	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-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 134 1,2-Dichloroethene, Total	96				0		200.0	195.9	
S 133 Xylenes, Total	106				0		200.0	200.1	
S 135 1,3-Dichloropropene, Total	1				0		200.0	251.4	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

#### Review Flags

M - Manually Integrated

### Reagents:

voaW2CLEpRest_00001	Amount Added: 2.00	Units: uL	
voaW8260voaPr_00005	Amount Added: 4.00	Units: uL	
voaWKetpri Re_00003	Amount Added: 2.00	Units: uL	
voaWEEpri Res_00003	Amount Added: 2.00	Units: uL	
VOAACRPRI_00003	Amount Added: 6.00	Units: uL	
voaW1,3,5TCab_00001	Amount Added: 2.00	Units: uL	
VOA8260INT_00030	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323002.D

Injection Date: 23-Mar-2015 11:20:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

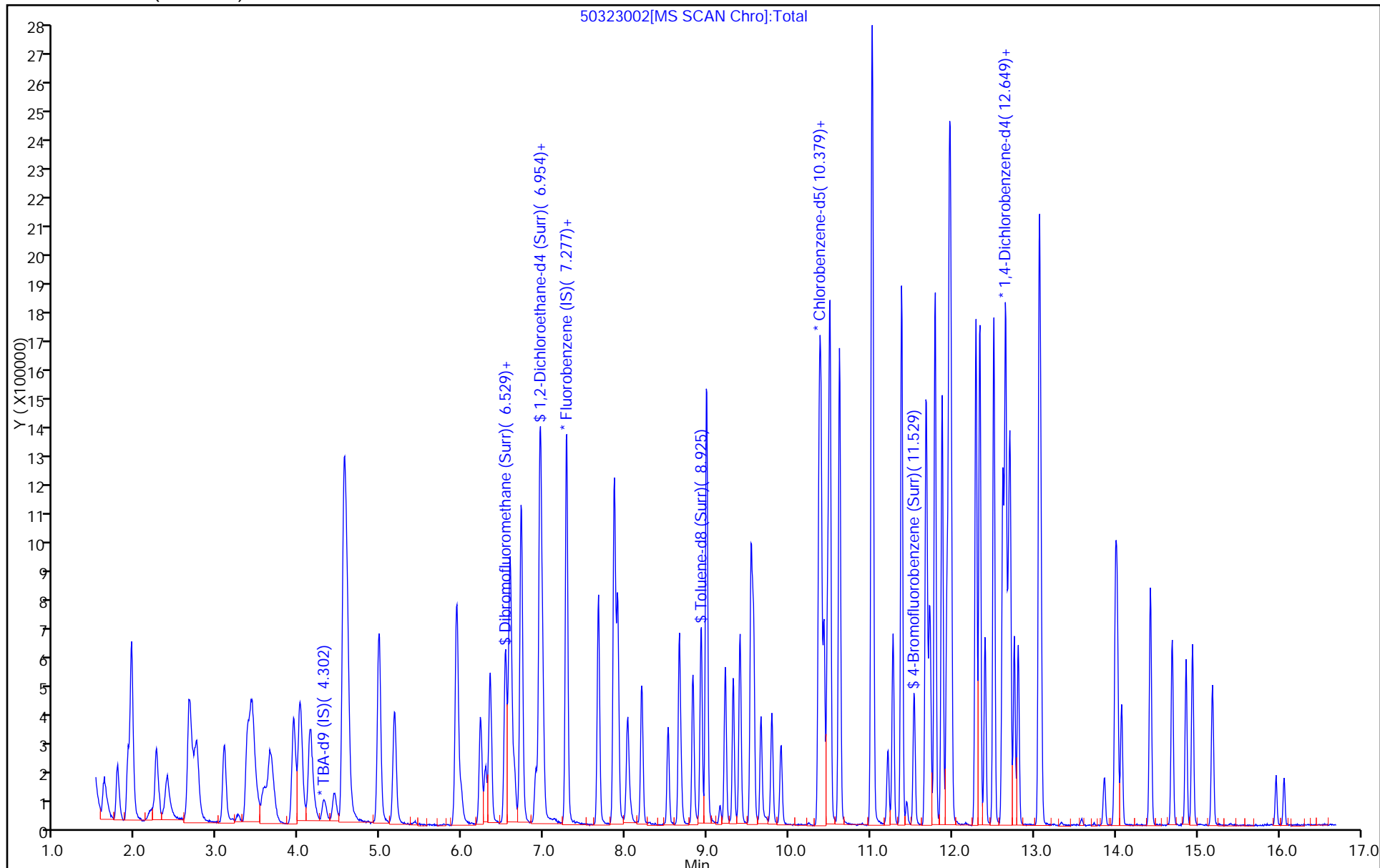
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





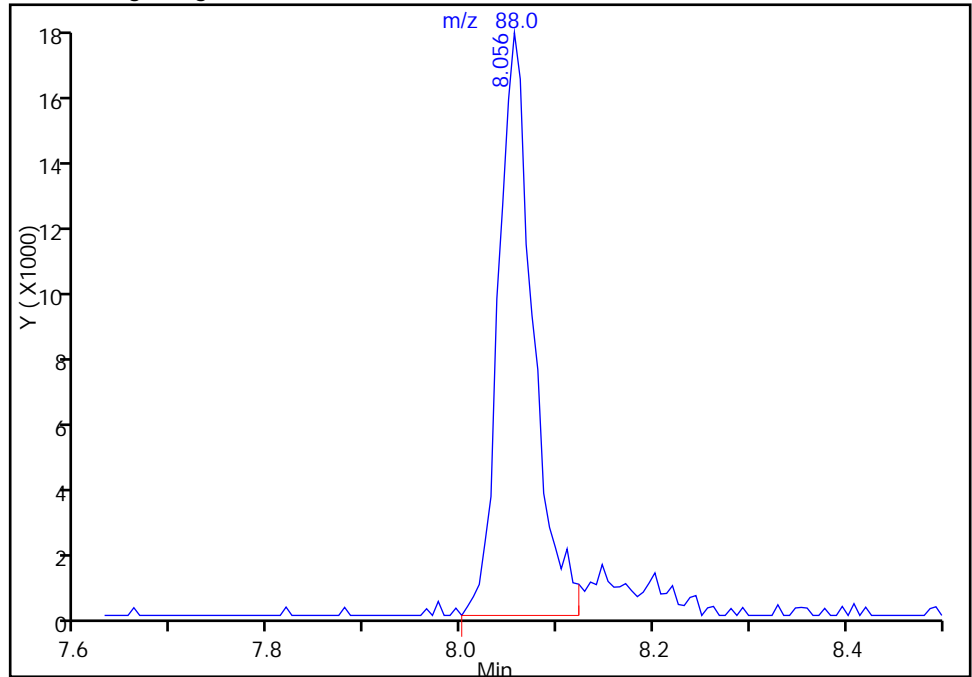
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323002.D  
Injection Date: 23-Mar-2015 11:20:30 Instrument ID: CHHP5  
Lims ID: CCVIS  
Client ID:  
Operator ID: 001562 ALS Bottle#: 2 Worklist Smp#: 2  
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

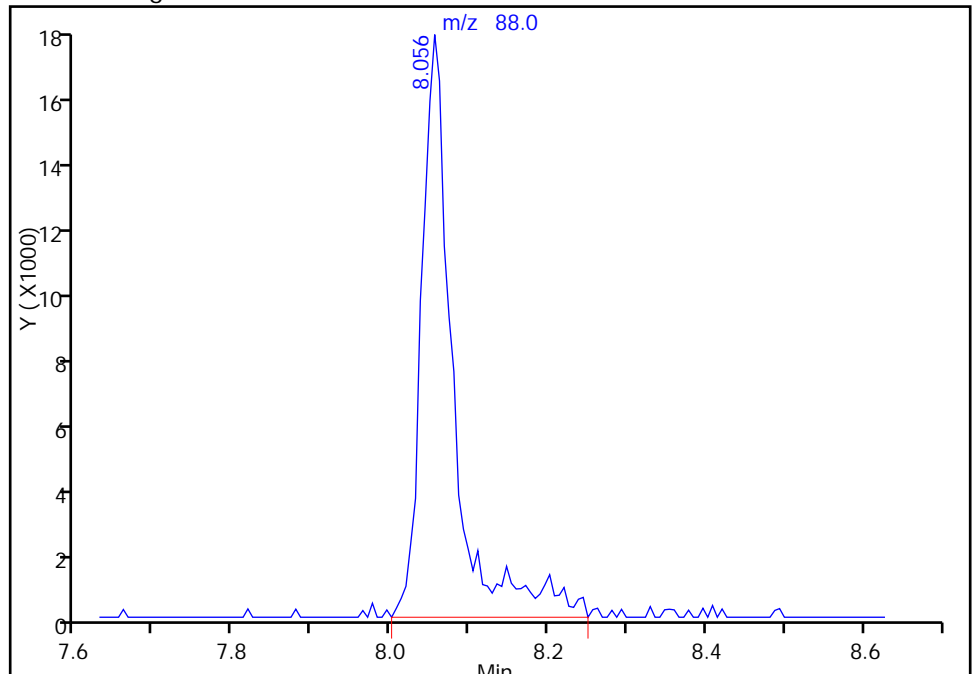
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Area: 44683  
Amount: 1395.6492  
Amount Units: ng

Processing Integration Results



RT: 8.06  
Area: 50685  
Amount: 1583.1184  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 23-Mar-2015 12:02:25  
Audit Action: Manually Integrated  
Audit Reason: Peak Tail

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-136250/2 Calibration Date: 03/23/2015 11:20  
 Instrument ID: CHHP5 Calib Start Date: 03/18/2015 13:31  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 03/18/2015 16:19  
 Lab File ID: 50323002.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
2-Chloroethyl vinyl ether	Ave	0.1652	0.1472	0.0100	17.8	20.0	-10.9	20.0
1,3,5-Trichlorobenzene	Ave	0.9577	0.8491	0.0100	8.87	10.0	-11.3	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323002.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 23-Mar-2015 11:20:30 ALS Bottle#: 2 Worklist Smp#: 2  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: CCVIS  
 Misc. Info.: 180-0006128-002  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub6  
 Method: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 23-Mar-2015 13:28:57 Calib Date: 18-Mar-2015 16:19:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CHHP5\20150318-6071.b\50318010.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK037

First Level Reviewer: fergusond

Date: 23-Mar-2015 11:44:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.302	4.302	0.000	98	133456	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.271	7.271	0.000	99	518750	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.361	10.361	0.000	98	117369	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.685	0.000	97	180107	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.522	6.522	0.000	84	114995	50.0	48.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.900	6.900	0.000	99	154676	50.0	49.7	
\$ 7 Toluene-d8 (Surr)	98	8.925	8.925	0.000	100	490969	50.0	52.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.529	11.529	0.000	96	170572	50.0	50.6	
11 Dichlorodifluoromethane	85	1.613	1.613	0.000	98	348941	100.0	156.9	
12 Chloromethane	50	1.777	1.777	0.000	99	338160	100.0	110.2	
13 Vinyl chloride	62	1.905	1.905	0.000	100	393456	100.0	114.7	
14 Butadiene	39	1.948	1.948	0.000	98	449225	100.0	114.7	
15 Bromomethane	94	2.252	2.252	0.000	99	216677	100.0	123.1	
16 Chloroethane	64	2.380	2.380	0.000	99	286883	100.0	120.9	
17 Dichlorofluoromethane	67	2.647	2.647	0.000	100	613845	100.0	113.3	
18 Trichlorofluoromethane	101	2.714	2.714	0.000	98	487527	100.0	118.5	
20 Ethyl ether	59	3.085	3.085	0.000	100	268835	100.0	99.1	
21 Acrolein	56	3.250	3.250	0.000	98	47950	150.0	145.5	
22 1,1-Dichloroethene	96	3.377	3.377	0.000	97	288479	100.0	96.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.426	3.426	0.000	98	309040	100.0	102.1	
24 Acetone	43	3.493	3.493	0.000	100	141756	150.0	133.4	
25 Iodomethane	142	3.566	3.566	0.000	100	414225	100.0	99.7	
26 Carbon disulfide	76	3.645	3.645	0.000	100	772882	100.0	105.7	
28 3-Chloro-1-propene	76	3.931	3.931	0.000	100	152840	100.0	96.7	
30 Methyl acetate	43	4.016	4.016	0.000	100	1085308	500.0	436.5	
31 Methylene Chloride	84	4.138	4.138	0.000	97	318068	100.0	91.9	
32 2-Methyl-2-propanol	59	4.430	4.430	0.000	98	131949	1000.0	839.4	
33 Acrylonitrile	53	4.545	4.545	0.000	100	1167518	1000.0	912.9	
34 trans-1,2-Dichloroethene	96	4.558	4.558	0.000	90	308655	100.0	99.8	
35 Methyl tert-butyl ether	73	4.594	4.594	0.000	99	679114	100.0	99.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.977	4.977	0.000	99	470553	100.0	95.2	
37 1,1-Dichloroethane	63	5.166	5.166	0.000	100	560931	100.0	101.6	
44 2,2-Dichloropropane	77	5.920	5.920	0.000	97	181831	100.0	131.7	
45 cis-1,2-Dichloroethene	96	5.938	5.938	0.000	97	313384	100.0	96.1	
46 2-Butanone (MEK)	43	5.987	5.987	0.000	99	187903	150.0	110.6	
49 Chlorobromomethane	128	6.218	6.218	0.000	99	132088	100.0	93.6	
51 Tetrahydrofuran	42	6.285	6.285	0.000	98	174929	200.0	164.4	
52 Chloroform	83	6.340	6.340	0.000	100	501200	100.0	99.9	
53 1,1,1-Trichloroethane	97	6.522	6.522	0.000	84	372502	100.0	116.3	
54 Cyclohexane	56	6.583	6.583	0.000	99	571843	100.0	93.0	
56 Carbon tetrachloride	117	6.717	6.717	0.000	98	319729	100.0	124.4	
55 1,1-Dichloropropene	75	6.723	6.723	0.000	98	416927	100.0	100.2	
57 Isobutyl alcohol	41	6.936	6.936	0.000	97	163441	2500.0	2360.4	
58 Benzene	78	6.954	6.954	0.000	99	1223772	100.0	99.5	
59 1,2-Dichloroethane	62	6.985	6.985	0.000	99	410134	100.0	101.9	
62 n-Heptane	43	7.277	7.277	0.000	99	401514	100.0	95.1	
64 Trichloroethene	130	7.666	7.666	0.000	99	291530	100.0	94.7	
66 Methylcyclohexane	83	7.861	7.861	0.000	99	519983	100.0	94.6	
67 1,2-Dichloropropane	63	7.903	7.903	0.000	97	300017	100.0	98.7	
68 Dibromomethane	93	8.019	8.019	0.000	99	157835	100.0	96.4	
70 1,4-Dioxane	88	8.056	8.056	0.000	97	50685	2000.0	1583.1	M
71 Dichlorobromomethane	83	8.195	8.195	0.000	100	367492	100.0	110.0	
73 2-Chloroethyl vinyl ether	63	8.518	8.518	0.000	98	152742	100.0	89.1	
74 cis-1,3-Dichloropropene	75	8.658	8.658	0.000	99	376007	100.0	116.6	
75 4-Methyl-2-pentanone (MIBK)	43	8.822	8.822	0.000	99	407756	150.0	128.4	
76 Toluene	91	8.986	8.986	0.000	100	1237843	100.0	102.9	
77 trans-1,3-Dichloropropene	75	9.217	9.217	0.000	98	292785	100.0	134.8	
78 Ethyl methacrylate	69	9.315	9.315	0.000	97	281388	100.0	99.3	
79 1,1,2-Trichloroethane	97	9.400	9.400	0.000	99	229308	100.0	101.7	
80 Tetrachloroethene	164	9.534	9.534	0.000	99	238507	100.0	101.4	
81 1,3-Dichloropropane	76	9.564	9.564	0.000	99	420538	100.0	100.3	
82 2-Hexanone	43	9.655	9.655	0.000	99	297837	150.0	122.7	
84 Chlorodibromomethane	129	9.789	9.789	0.000	99	220717	100.0	122.6	
85 Ethylene Dibromide	107	9.899	9.899	0.000	100	219261	100.0	101.9	
86 3-Chlorobenzotrifluoride	180	10.373	10.373	0.000	96	249326	50.0	54.3	
87 Chlorobenzene	112	10.392	10.392	0.000	99	769435	100.0	101.0	
88 4-Chlorobenzotrifluoride	180	10.428	10.428	0.000	99	233235	50.0	52.6	
89 1,1,1,2-Tetrachloroethane	131	10.471	10.471	0.000	93	235227	100.0	119.6	
90 Ethylbenzene	106	10.501	10.501	0.000	100	441240	100.0	100.9	
91 m-Xylene & p-Xylene	106	10.617	10.617	0.000	100	532962	100.0	99.7	
92 o-Xylene	106	11.012	11.012	0.000	100	525618	100.0	100.5	
93 Styrene	104	11.024	11.024	0.000	99	857545	100.0	101.7	
94 Bromoform	173	11.213	11.213	0.000	98	137429	100.0	123.6	
96 2-Chlorobenzotrifluoride	180	11.274	11.274	0.000	100	250869	50.0	54.7	
97 Isopropylbenzene	105	11.377	11.377	0.000	100	1326514	100.0	101.6	
99 1,1,2,2-Tetrachloroethane	83	11.675	11.675	0.000	98	323595	100.0	100.0	
100 Bromobenzene	156	11.681	11.681	0.000	98	307893	100.0	92.4	
101 1,2,3-Trichloropropane	110	11.718	11.718	0.000	98	98799	100.0	90.2	
102 trans-1,4-Dichloro-2-buten	53	11.730	11.730	0.000	97	82195	100.0	90.3	
103 N-Propylbenzene	120	11.791	11.791	0.000	100	384158	100.0	93.4	
104 2-Chlorotoluene	126	11.876	11.876	0.000	100	323011	100.0	93.5	
105 3-Chlorotoluene	126	11.937	11.937	0.000	98	189660	50.0	49.1	

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	11.961	11.961	0.000	100	1064168	100.0	92.8	
107 4-Chlorotoluene	126	11.979	11.979	0.000	98	354220	100.0	94.7	
108 tert-Butylbenzene	119	12.290	12.290	0.000	100	910145	100.0	91.6	
110 1,2,4-Trimethylbenzene	105	12.332	12.332	0.000	99	1086072	100.0	92.3	
111 1,2-dichloro-4-(trifluorom	214	12.399	12.399	0.000	100	190114	50.0	51.1	
112 sec-Butylbenzene	105	12.509	12.509	0.000	100	1309277	100.0	93.6	
113 1,3-Dichlorobenzene	146	12.618	12.618	0.000	100	567279	100.0	92.4	
114 4-Isopropyltoluene	119	12.655	12.655	0.000	100	1064034	100.0	92.2	
115 1,4-Dichlorobenzene	146	12.709	12.709	0.000	99	580098	100.0	92.5	
116 2,4-Dichloro-1-(trifluorom	214	12.758	12.758	0.000	99	176141	50.0	50.6	
118 2,5-Dichlorobenzotrifluori	214	12.807	12.807	0.000	100	195071	50.0	50.1	
120 n-Butylbenzene	91	13.062	13.062	0.000	100	972871	100.0	92.6	
121 1,2-Dichlorobenzene	146	13.080	13.080	0.000	100	521174	100.0	91.6	
122 1,2-Dibromo-3-Chloropropan	75	13.859	13.859	0.000	92	43465	100.0	93.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.005	14.005	0.000	99	605554	150.0	140.9	
124 1,3,5-Trichlorobenzene	180	14.072	14.072	0.000	98	152936	50.0	44.3	
125 2,3- & 3,4- Dichlorotoluen	125	14.425	14.425	0.000	99	372266	100.0	89.0	
126 1,2,4-Trichlorobenzene	180	14.693	14.693	0.000	99	239779	100.0	81.0	
127 Hexachlorobutadiene	225	14.863	14.863	0.000	97	120414	100.0	84.8	
128 Naphthalene	128	14.942	14.942	0.000	100	569578	100.0	73.3	
129 1,2,3-Trichlorobenzene	180	15.191	15.191	0.000	98	187457	100.0	77.2	
131 2,4,5-Trichlorotoluene	159	15.964	15.964	0.000	98	45196	50.0	34.6	
130 2,3,6-Trichlorotoluene	159	16.061	16.061	0.000	98	39640	50.0	33.6	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-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 134 1,2-Dichloroethene, Total	96				0		200.0	195.9	
S 133 Xylenes, Total	106				0		200.0	200.1	
S 135 1,3-Dichloropropene, Total	1				0		200.0	251.4	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

#### Review Flags

M - Manually Integrated

### Reagents:

voaW2CLEpRest_00001	Amount Added: 2.00	Units: uL	
voaW8260voaPr_00005	Amount Added: 4.00	Units: uL	
voaWKetpri Re_00003	Amount Added: 2.00	Units: uL	
voaWEEpri Res_00003	Amount Added: 2.00	Units: uL	
VOAACRPRI_00003	Amount Added: 6.00	Units: uL	
voaW1,3,5TCab_00001	Amount Added: 2.00	Units: uL	
VOA8260INT_00030	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323002.D

Injection Date: 23-Mar-2015 11:20:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

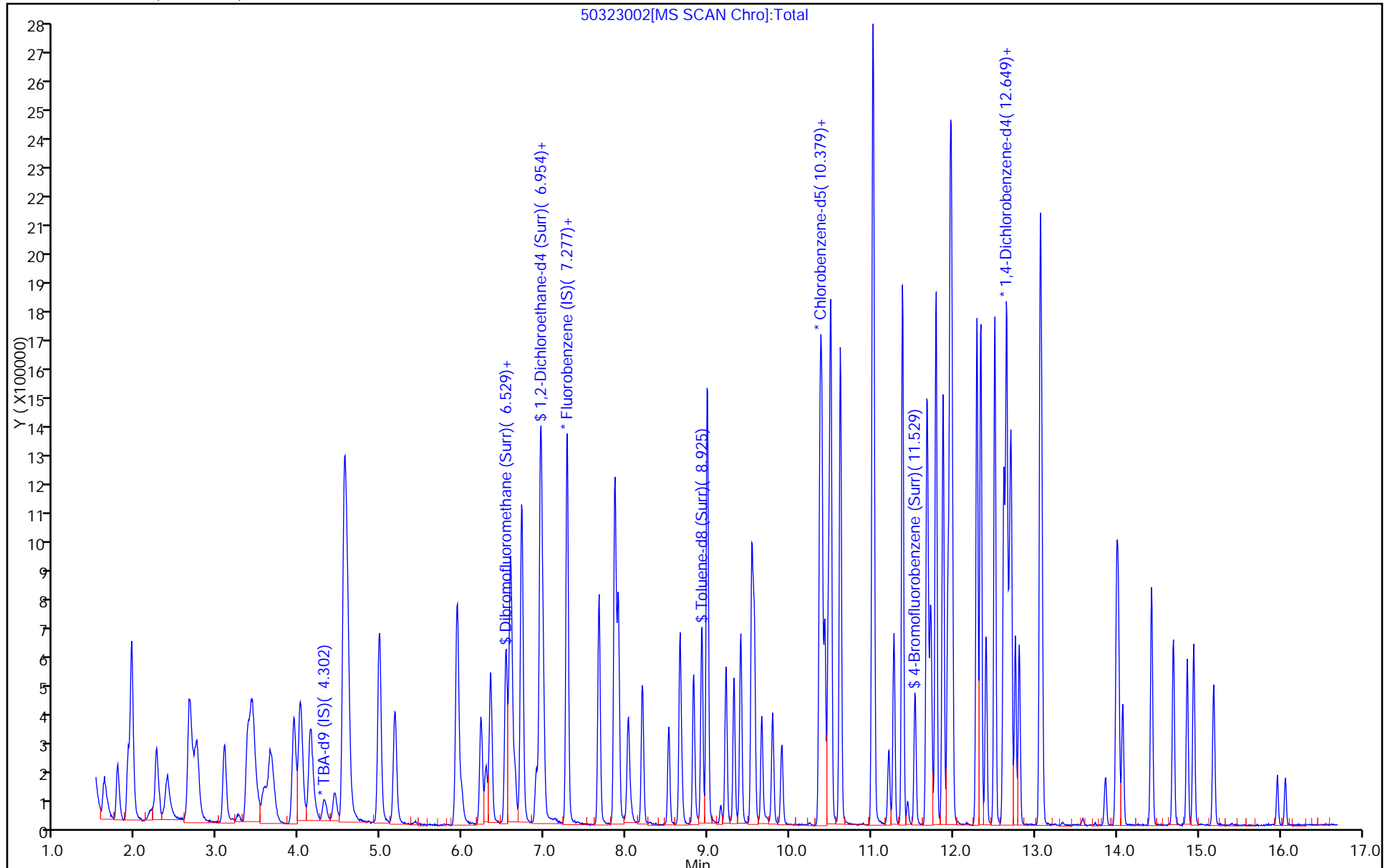
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-136397/4 Calibration Date: 03/24/2015 13:06  
 Instrument ID: CHHP5 Calib Start Date: 03/16/2015 12:41  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 03/16/2015 16:17  
 Lab File ID: 50324004.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	0.2143	0.3055	0.1000	14.3	10.0	42.6*	20.0
Chloromethane	Ave	0.2958	0.3338	0.1000	11.3	10.0	12.8	20.0
Vinyl chloride	Ave	0.3306	0.3665	0.1000	11.1	10.0	10.9	20.0
Bromomethane	Lin2		0.2422	0.0500	13.9	10.0	38.7*	20.0
Chloroethane	Ave	0.2287	0.2907	0.0500	12.7	10.0	27.1*	20.0
Dichlorofluoromethane	Ave	0.5222	0.6185	0.0100	11.8	10.0	18.4	20.0
Trichlorofluoromethane	Ave	0.3966	0.4657	0.1000	11.7	10.0	17.4	20.0
Ethyl ether	Ave	0.2615	0.2773	0.0100	10.6	10.0	6.0	20.0
Acrolein	Ave	0.0318	0.0255	0.0100	24.1	30.0	-19.7	20.0
1,1-Dichloroethene	Ave	0.2883	0.2598	0.1000	9.01	10.0	-9.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2916	0.2852	0.1000	9.78	10.0	-2.2	20.0
Acetone	Ave	0.1024	0.1165	0.0500	22.7	20.0	13.7	20.0
Iodomethane	Ave	0.4005	0.3797	0.0100	9.48	10.0	-5.2	20.0
Carbon disulfide	Ave	0.7051	0.6958	0.1000	9.87	10.0	-1.3	20.0
Allyl chloride	Ave	0.1524	0.1271	0.0100	8.34	10.0	-16.6	20.0
Methyl acetate	Ave	0.2396	0.2215	0.1000	46.2	50.0	-7.6	20.0
Methylene Chloride	Ave	0.3335	0.3071	0.1000	9.21	10.0	-7.9	20.0
tert-Butyl alcohol	Ave	1.178	1.179	0.0100	100	100	0.1	20.0
Acrylonitrile	Ave	0.1233	0.1142	0.0100	92.7	100	-7.3	20.0
trans-1,2-Dichloroethene	Ave	0.2982	0.2872	0.1000	9.63	10.0	-3.7	20.0
Methyl tert-butyl ether	Ave	0.6593	0.6414	0.1000	9.73	10.0	-2.7	20.0
Hexane	Ave	0.4764	0.4306	0.0100	9.04	10.0	-9.6	20.0
1,1-Dichloroethane	Ave	0.5323	0.5461	0.2000	10.3	10.0	2.6	20.0
Vinyl acetate	Ave	0.3776	0.3571	0.0100	9.46	10.0	-5.4	20.0
2,2-Dichloropropane	Ave	0.1331	0.1608	0.0100	12.1	10.0	20.8*	20.0
cis-1,2-Dichloroethene	Ave	0.3142	0.2936	0.1000	9.34	10.0	-6.6	20.0
2-Butanone (MEK)	Ave	0.1638	0.1328	0.0500	16.2	20.0	-18.9	20.0
Bromochloromethane	Ave	0.1360	0.1281	0.0100	9.42	10.0	-5.8	20.0
Tetrahydrofuran	Ave	0.1026	0.0841	0.0100	16.4	20.0	-18.0	20.0
Chloroform	Ave	0.4836	0.5053	0.2000	10.4	10.0	4.5	20.0
1,1,1-Trichloroethane	Ave	0.3088	0.3467	0.1000	11.2	10.0	12.3	20.0
Cyclohexane	Ave	0.5929	0.5180	0.1000	8.74	10.0	-12.6	20.0
Carbon tetrachloride	Ave	0.2478	0.2913	0.1000	11.8	10.0	17.5	20.0
1,1-Dichloropropene	Ave	0.4011	0.4070	0.0100	10.1	10.0	1.5	20.0
Isobutyl alcohol	Ave	0.0067	0.0059*	0.0100	221	250	-11.5	20.0
Benzene	Ave	1.185	1.160	0.5000	9.79	10.0	-2.1	20.0
1,2-Dichloroethane	Ave	0.3880	0.3968	0.1000	10.2	10.0	2.3	20.0
n-Heptane	Ave	0.4071	0.3583	0.0100	8.80	10.0	-12.0	20.0
Trichloroethene	Ave	0.2969	0.2725	0.2000	9.18	10.0	-8.2	20.0
Methylcyclohexane	Ave	0.5297	0.4663	0.1000	8.80	10.0	-12.0	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-136397/4 Calibration Date: 03/24/2015 13:06  
 Instrument ID: CHHP5 Calib Start Date: 03/16/2015 12:41  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 03/16/2015 16:17  
 Lab File ID: 50324004.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2931	0.2880	0.1000	9.83	10.0	-1.7	20.0
Dibromomethane	Ave	0.1578	0.1476	0.0100	9.36	10.0	-6.4	20.0
1,4-Dioxane	Ave	0.0031	0.0024*	0.0100	152	200	-23.9*	20.0
Bromodichloromethane	Ave	0.3220	0.3368	0.2000	10.5	10.0	4.6	20.0
cis-1,3-Dichloropropene	Ave	0.3107	0.3280	0.2000	10.6	10.0	5.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.353	1.095	0.1000	16.2	20.0	-19.1	20.0
Toluene	Ave	5.124	5.415	0.4000	10.6	10.0	5.7	20.0
trans-1,3-Dichloropropene	Ave	0.9254	1.093	0.1000	11.8	10.0	18.1	20.0
Ethyl methacrylate	Ave	1.207	1.163	0.0100	9.64	10.0	-3.6	20.0
1,1,2-Trichloroethane	Ave	0.9609	0.9596	0.1000	9.99	10.0	-0.1	20.0
Tetrachloroethene	Ave	1.002	0.9882	0.2000	9.86	10.0	-1.4	20.0
1,3-Dichloropropane	Ave	1.786	1.845	0.0100	10.3	10.0	3.3	20.0
2-Hexanone	Ave	1.034	0.8611	0.1000	16.7	20.0	-16.7	20.0
Dibromochloromethane	Ave	0.7670	0.8512	0.1000	11.1	10.0	11.0	20.0
1,2-Dibromoethane (EDB)	Ave	0.9169	0.8960	0.1000	9.77	10.0	-2.3	20.0
3-Chlorobenzotrifluoride	Ave	1.955	1.886	0.0100	9.65	10.0	-3.5	20.0
Chlorobenzene	Ave	3.246	3.248	0.5000	10.0	10.0	0.0	20.0
4-Chlorobenzotrifluoride	Ave	1.890	1.745	0.0100	9.23	10.0	-7.7	20.0
1,1,1,2-Tetrachloroethane	Ave	0.8382	0.9738	0.0100	11.6	10.0	16.2	20.0
Ethylbenzene	Ave	1.863	1.823	0.1000	9.79	10.0	-2.1	20.0
m-Xylene & p-Xylene	Ave	2.278	2.241	0.1000	9.84	10.0	-1.6	20.0
o-Xylene	Ave	2.228	2.140	0.3000	9.61	10.0	-3.9	20.0
Styrene	Ave	3.591	3.500	0.3000	9.75	10.0	-2.5	20.0
Bromoform	Ave	0.4737	0.5030	0.1000	10.6	10.0	6.2	20.0
2-Chlorobenzotrifluoride	Ave	1.952	1.804	0.0100	9.24	10.0	-7.6	20.0
Isopropylbenzene	Ave	5.560	5.503	0.1000	9.90	10.0	-1.0	20.0
1,1,2,2-Tetrachloroethane	Ave	1.378	1.356	0.3000	9.84	10.0	-1.6	20.0
Bromobenzene	Ave	0.9254	0.8737	0.0100	9.44	10.0	-5.6	20.0
1,2,3-Trichloropropane	Ave	0.3041	0.3084	0.0100	10.1	10.0	1.4	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2528	0.2061	0.0100	8.15	10.0	-18.5	20.0
N-Propylbenzene	Ave	1.142	1.031	0.0100	9.03	10.0	-9.7	20.0
2-Chlorotoluene	Ave	0.9591	0.8823	0.0100	9.20	10.0	-8.0	20.0
3-Chlorotoluene	Ave	1.072	1.067	0.0100	9.95	10.0	-0.5	20.0
1,3,5-Trimethylbenzene	Ave	3.183	3.102	0.0100	9.75	10.0	-2.5	20.0
4-Chlorotoluene	Ave	1.038	0.9942	0.0100	9.58	10.0	-4.2	20.0
tert-Butylbenzene	Ave	2.758	2.553	0.0100	9.26	10.0	-7.4	20.0
1,2,4-Trimethylbenzene	Ave	3.267	3.055	0.0100	9.35	10.0	-6.5	20.0
3,4-Dichlorobenzotrifluoride	Ave	1.032	0.9295	0.0100	9.00	10.0	-10.0	20.0
sec-Butylbenzene	Ave	3.881	3.697	0.0100	9.52	10.0	-4.8	20.0
1,3-Dichlorobenzene	Ave	1.705	1.577	0.6000	9.25	10.0	-7.5	20.0
4-Isopropyltoluene	Ave	3.204	2.953	0.0100	9.22	10.0	-7.8	20.0



FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-136397/4 Calibration Date: 03/24/2015 13:06  
 Instrument ID: CHHP5 Calib Start Date: 03/16/2015 12:41  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 03/16/2015 16:17  
 Lab File ID: 50324004.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
1,4-Dichlorobenzene	Ave	1.741	1.669	0.5000	9.59	10.0	-4.1	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.9669	0.8613	0.0100	8.91	10.0	-10.9	20.0
2,5-Dichlorobenzotrifluoride	Ave	1.082	0.9450	0.0100	8.74	10.0	-12.6	20.0
n-Butylbenzene	Ave	2.918	2.623	0.0100	8.99	10.0	-10.1	20.0
1,2-Dichlorobenzene	Ave	1.579	1.457	0.4000	9.23	10.0	-7.7	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1292	0.1187	0.0500	9.19	10.0	-8.1	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.194	0.998	0.0100	25.1	30.0	-16.4	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.161	0.9193	0.0100	15.8	20.0	-20.8*	20.0
1,2,4-Trichlorobenzene	Ave	0.8219	0.6033	0.2000	7.34	10.0	-26.6*	20.0
Hexachlorobutadiene	Ave	0.3941	0.2872	0.0100	7.29	10.0	-27.1*	20.0
Naphthalene	Ave	2.158	1.422	0.0100	6.59	10.0	-34.1*	20.0
1,2,3-Trichlorobenzene	Ave	0.6740	0.4673	0.0100	6.93	10.0	-30.7*	20.0
2,4,5-Trichlorotoluene	Ave	0.3624	0.2005	0.0100	5.53	10.0	-44.7*	20.0
2,3,6-Trichlorotoluene	Ave	0.3273	0.1787	0.0100	5.46	10.0	-45.4*	20.0
Dibromofluoromethane (Surr)	Ave	0.2274	0.2195		9.65	10.0	-3.5	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2998	0.2985		9.96	10.0	-0.4	20.0
Toluene-d8 (Surr)	Ave	3.986	4.205		10.5	10.0	5.5	20.0
4-Bromofluorobenzene (Surr)	Ave	1.436	1.391		9.69	10.0	-3.1	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\50324004.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 24-Mar-2015 13:06:30 ALS Bottle#: 4 Worklist Smp#: 4  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: CCVIS  
 Misc. Info.: 180-0006148-004  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub11  
 Method: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 24-Mar-2015 16:20:44 Calib Date: 18-Mar-2015 16:19:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150318-6071.b\50318010.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK052

First Level Reviewer: fergusond

Date: 24-Mar-2015 13:34:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.306	4.306	0.000	99	115344	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.268	7.268	0.000	99	489484	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.359	10.359	0.000	99	107803	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.683	12.683	0.000	96	156019	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.520	6.520	0.000	96	107457	50.0	48.3	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.903	6.903	0.000	97	146130	50.0	49.8	
\$ 7 Toluene-d8 (Surr)	98	8.923	8.923	0.000	100	453316	50.0	52.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.533	11.533	0.000	98	149946	50.0	48.4	
11 Dichlorodifluoromethane	85	1.617	1.617	0.000	99	149550	50.0	71.3	
12 Chloromethane	50	1.775	1.775	0.000	100	163393	50.0	56.4	
13 Vinyl chloride	62	1.903	1.903	0.000	100	179403	50.0	55.4	
14 Butadiene	39	1.945	1.945	0.000	99	205190	50.0	55.5	
15 Bromomethane	94	2.256	2.256	0.000	100	118575	50.0	69.4	
16 Chloroethane	64	2.402	2.402	0.000	99	142303	50.0	63.5	
17 Dichlorofluoromethane	67	2.651	2.651	0.000	100	302735	50.0	59.2	
18 Trichlorofluoromethane	101	2.724	2.724	0.000	95	227927	50.0	58.7	
20 Ethyl ether	59	3.083	3.083	0.000	99	135707	50.0	53.0	
21 Acrolein	56	3.259	3.259	0.000	98	37443	150.0	120.4	
22 1,1-Dichloroethene	96	3.381	3.381	0.000	97	127183	50.0	45.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.430	3.430	0.000	97	139587	50.0	48.9	
24 Acetone	43	3.491	3.491	0.000	99	114006	100.0	113.7	
25 Iodomethane	142	3.600	3.600	0.000	100	185849	50.0	47.4	
26 Carbon disulfide	76	3.667	3.667	0.000	100	340601	50.0	49.3	
28 3-Chloro-1-propene	76	3.935	3.935	0.000	100	62217	50.0	41.7	
30 Methyl acetate	43	4.020	4.020	0.000	100	542192	250.0	231.1	
31 Methylene Chloride	84	4.141	4.141	0.000	96	150307	50.0	46.0	
32 2-Methyl-2-propanol	59	4.440	4.440	0.000	98	68018	500.0	500.6	
34 trans-1,2-Dichloroethene	96	4.555	4.555	0.000	90	140597	50.0	48.2	
33 Acrylonitrile	53	4.555	4.555	0.000	99	559096	500.0	463.3	
35 Methyl tert-butyl ether	73	4.592	4.592	0.000	100	313954	50.0	48.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.981	4.981	0.000	98	210754	50.0	45.2	
37 1,1-Dichloroethane	63	5.170	5.170	0.000	99	267326	50.0	51.3	
38 Vinyl acetate	43	5.291	5.291	0.000	100	174809	50.0	47.3	
44 2,2-Dichloropropane	77	5.924	5.924	0.000	97	78698	50.0	60.4	
45 cis-1,2-Dichloroethene	96	5.942	5.942	0.000	97	143709	50.0	46.7	
46 2-Butanone (MEK)	43	5.985	5.985	0.000	99	130036	100.0	81.1	
49 Chlorobromomethane	128	6.216	6.216	0.000	98	62716	50.0	47.1	
51 Tetrahydrofuran	42	6.283	6.283	0.000	97	82358	100.0	82.0	
52 Chloroform	83	6.338	6.338	0.000	99	247328	50.0	52.2	
53 1,1,1-Trichloroethane	97	6.526	6.526	0.000	96	169698	50.0	56.1	
54 Cyclohexane	56	6.587	6.587	0.000	98	253564	50.0	43.7	
56 Carbon tetrachloride	117	6.715	6.715	0.000	99	142564	50.0	58.8	
55 1,1-Dichloropropene	75	6.721	6.721	0.000	99	199239	50.0	50.7	
57 Isobutyl alcohol	41	6.946	6.946	0.000	98	72302	1250.0	1106.6	
58 Benzene	78	6.952	6.952	0.000	99	567822	50.0	49.0	
59 1,2-Dichloroethane	62	6.982	6.982	0.000	100	194240	50.0	51.1	
62 n-Heptane	43	7.274	7.274	0.000	81	175400	50.0	44.0	
64 Trichloroethene	130	7.664	7.664	0.000	98	133389	50.0	45.9	
66 Methylcyclohexane	83	7.858	7.858	0.000	99	228236	50.0	44.0	
67 1,2-Dichloropropane	63	7.901	7.901	0.000	97	140965	50.0	49.1	
68 Dibromomethane	93	8.029	8.029	0.000	98	72269	50.0	46.8	
70 1,4-Dioxane	88	8.047	8.047	0.000	96	22983	1000.0	760.8	M
71 Dichlorobromomethane	83	8.193	8.193	0.000	99	164876	50.0	52.3	
73 2-Chloroethyl vinyl ether	63	8.515	8.515	0.000	99	145656	100.0	90.1	
74 cis-1,3-Dichloropropene	75	8.655	8.655	0.000	99	160550	50.0	52.8	
75 4-Methyl-2-pentanone (MIBK)	43	8.820	8.820	0.000	99	236102	100.0	80.9	
76 Toluene	91	8.990	8.990	0.000	99	583803	50.0	52.8	
77 trans-1,3-Dichloropropene	75	9.215	9.215	0.000	98	117858	50.0	59.1	
78 Ethyl methacrylate	69	9.312	9.312	0.000	98	125385	50.0	48.2	
79 1,1,2-Trichloroethane	97	9.398	9.398	0.000	98	103446	50.0	49.9	
80 Tetrachloroethene	164	9.531	9.531	0.000	98	106535	50.0	49.3	
81 1,3-Dichloropropane	76	9.562	9.562	0.000	99	198844	50.0	51.6	
82 2-Hexanone	43	9.653	9.653	0.000	100	185659	100.0	83.3	
84 Chlorodibromomethane	129	9.787	9.787	0.000	99	91756	50.0	55.5	
85 Ethylene Dibromide	107	9.902	9.902	0.000	99	96590	50.0	48.9	
86 3-Chlorobenzotrifluoride	180	10.371	10.371	0.000	95	203324	50.0	48.2	
87 Chlorobenzene	112	10.389	10.389	0.000	100	350158	50.0	50.0	
88 4-Chlorobenzotrifluoride	180	10.426	10.426	0.000	98	188097	50.0	46.2	
89 1,1,1,2-Tetrachloroethane	131	10.474	10.474	0.000	94	104979	50.0	58.1	
90 Ethylbenzene	106	10.499	10.499	0.000	100	196555	50.0	48.9	
91 m-Xylene & p-Xylene	106	10.614	10.614	0.000	100	241567	50.0	49.2	
92 o-Xylene	106	11.010	11.010	0.000	99	230744	50.0	48.0	
93 Styrene	104	11.022	11.022	0.000	99	377286	50.0	48.7	
94 Bromoform	173	11.204	11.204	0.000	96	54225	50.0	53.1	
96 2-Chlorobenzotrifluoride	180	11.271	11.271	0.000	99	194464	50.0	46.2	
97 Isopropylbenzene	105	11.375	11.375	0.000	100	593272	50.0	49.5	
99 1,1,2,2-Tetrachloroethane	83	11.673	11.673	0.000	98	146187	50.0	49.2	
100 Bromobenzene	156	11.679	11.679	0.000	99	136318	50.0	47.2	
101 1,2,3-Trichloropropane	110	11.721	11.721	0.000	97	48123	50.0	50.7	
102 trans-1,4-Dichloro-2-buten	53	11.734	11.734	0.000	97	32149	50.0	40.8	
103 N-Propylbenzene	120	11.782	11.782	0.000	100	160909	50.0	45.2	
104 2-Chlorotoluene	126	11.874	11.874	0.000	100	137661	50.0	46.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.934	11.934	0.000	98	166479	50.0	49.8	
106 1,3,5-Trimethylbenzene	105	11.959	11.959	0.000	99	483948	50.0	48.7	
107 4-Chlorotoluene	126	11.977	11.977	0.000	98	155117	50.0	47.9	
108 tert-Butylbenzene	119	12.287	12.287	0.000	99	398250	50.0	46.3	
110 1,2,4-Trimethylbenzene	105	12.336	12.336	0.000	99	476631	50.0	46.8	
111 1,2-dichloro-4-(trifluorom	214	12.397	12.397	0.000	99	145018	50.0	45.0	
112 sec-Butylbenzene	105	12.506	12.506	0.000	100	576756	50.0	47.6	
113 1,3-Dichlorobenzene	146	12.616	12.616	0.000	99	246030	50.0	46.2	
114 4-Isopropyltoluene	119	12.652	12.652	0.000	100	460781	50.0	46.1	
115 1,4-Dichlorobenzene	146	12.701	12.701	0.000	99	260417	50.0	47.9	
116 2,4-Dichloro-1-(trifluorom	214	12.756	12.756	0.000	98	134381	50.0	44.5	
118 2,5-Dichlorobenzotrifluori	214	12.804	12.804	0.000	99	147444	50.0	43.7	
120 n-Butylbenzene	91	13.060	13.060	0.000	100	409171	50.0	44.9	
121 1,2-Dichlorobenzene	146	13.078	13.078	0.000	98	227309	50.0	46.1	
122 1,2-Dibromo-3-Chloropropan	75	13.863	13.863	0.000	95	18519	50.0	45.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.003	14.003	0.000	99	467092	150.0	125.4	
124 1,3,5-Trichlorobenzene	180	14.070	14.070	0.000	98	131497	50.0	44.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.429	14.429	0.000	99	286842	100.0	79.2	
126 1,2,4-Trichlorobenzene	180	14.690	14.690	0.000	98	94122	50.0	36.7	
127 Hexachlorobutadiene	225	14.861	14.861	0.000	95	44804	50.0	36.4	
128 Naphthalene	128	14.940	14.940	0.000	100	221807	50.0	32.9	
129 1,2,3-Trichlorobenzene	180	15.183	15.183	0.000	99	72910	50.0	34.7	
131 2,4,5-Trichlorotoluene	159	15.962	15.962	0.000	98	31280	50.0	27.7	
130 2,3,6-Trichlorotoluene	159	16.059	16.059	0.000	97	27877	50.0	27.3	
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 133 Xylenes, Total	106				0		100.0	97.2	
S 134 1,2-Dichloroethene, Total	96				0		100.0	94.9	
S 135 1,3-Dichloropropene, Total	1				0		100.0	111.9	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

#### Review Flags

M - Manually Integrated

**Reagents:**

voaW8260voaPr_00005	Amount Added: 2.00	Units: uL	
voaWKetpri Re_00003	Amount Added: 2.00	Units: uL	
voaWEEpri Res_00003	Amount Added: 2.00	Units: uL	
voaW1,3,5TCab_00001	Amount Added: 2.00	Units: uL	
VOAVAPRI_00005	Amount Added: 2.00	Units: uL	
voaW2CLEpRest_00001	Amount Added: 2.00	Units: uL	
VOAACRPRI_00003	Amount Added: 6.00	Units: uL	
VOA8260INT_00030	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\50324004.D

Injection Date: 24-Mar-2015 13:06:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL

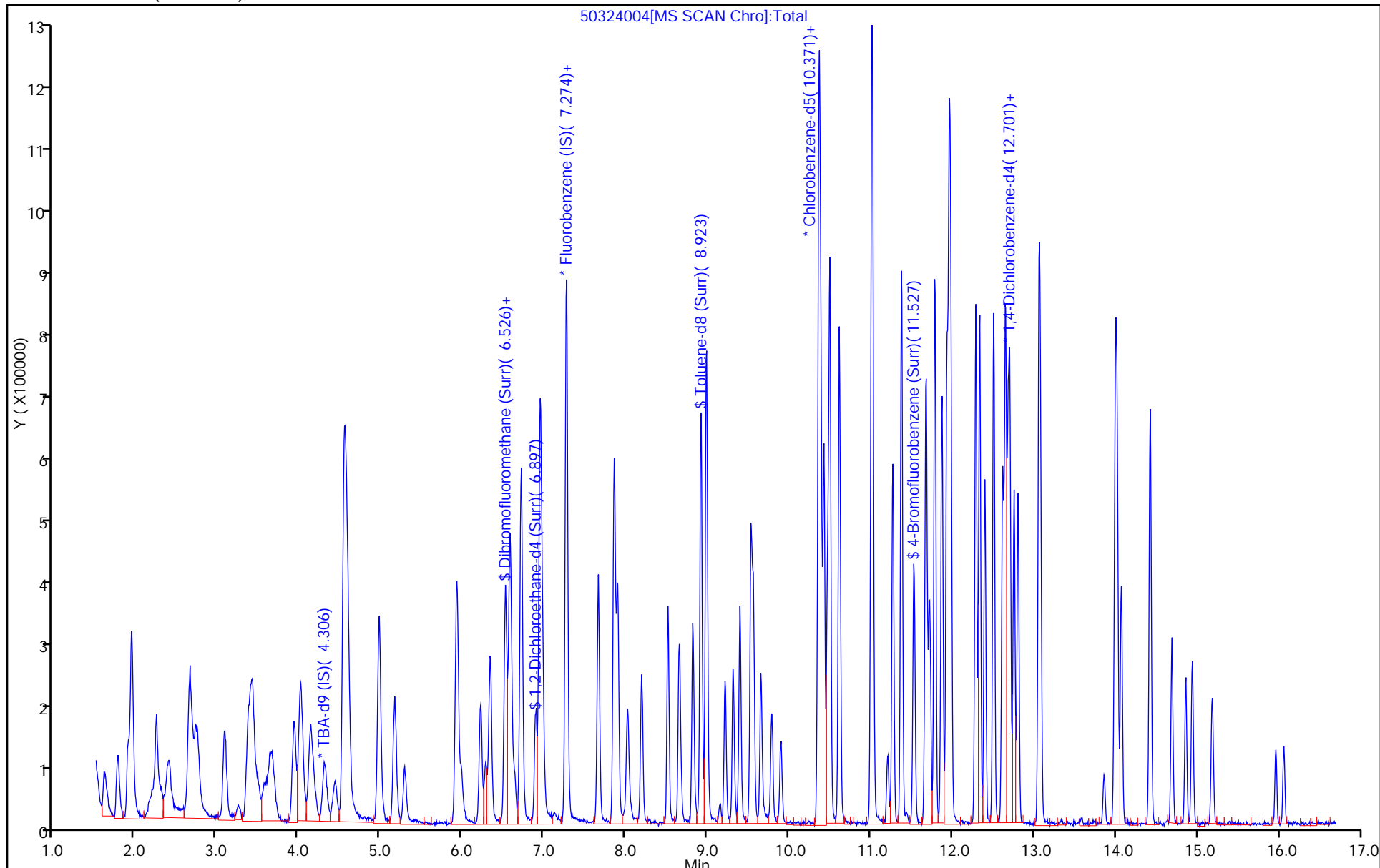
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



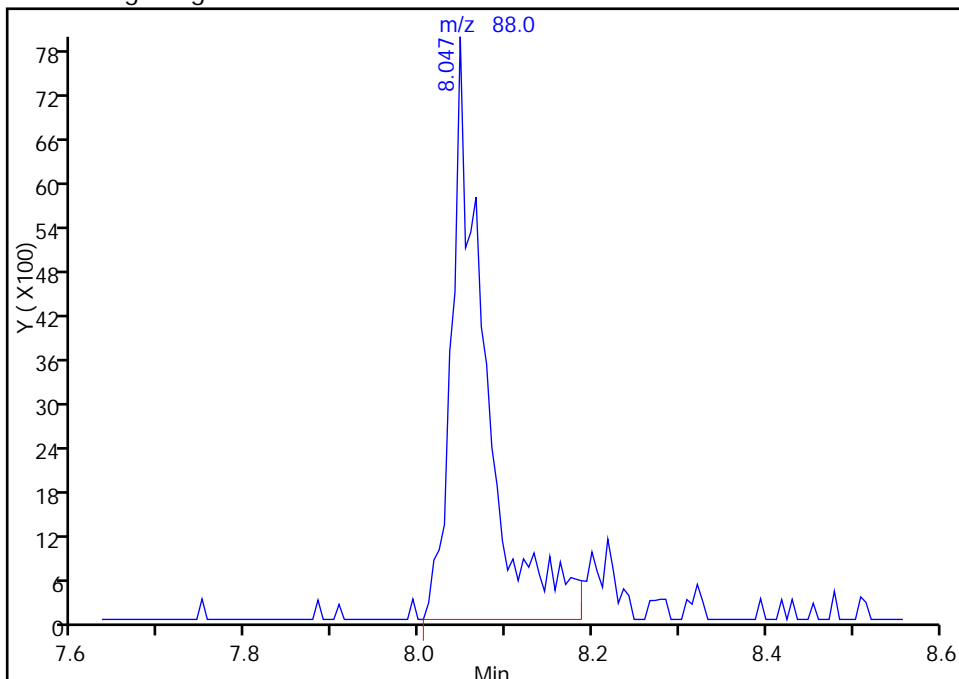
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\50324004.D  
Injection Date: 24-Mar-2015 13:06:30 Instrument ID: CHHP5  
Lims ID: CCVIS  
Client ID:  
Operator ID: 001562 ALS Bottle#: 4 Worklist Smp#: 4  
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

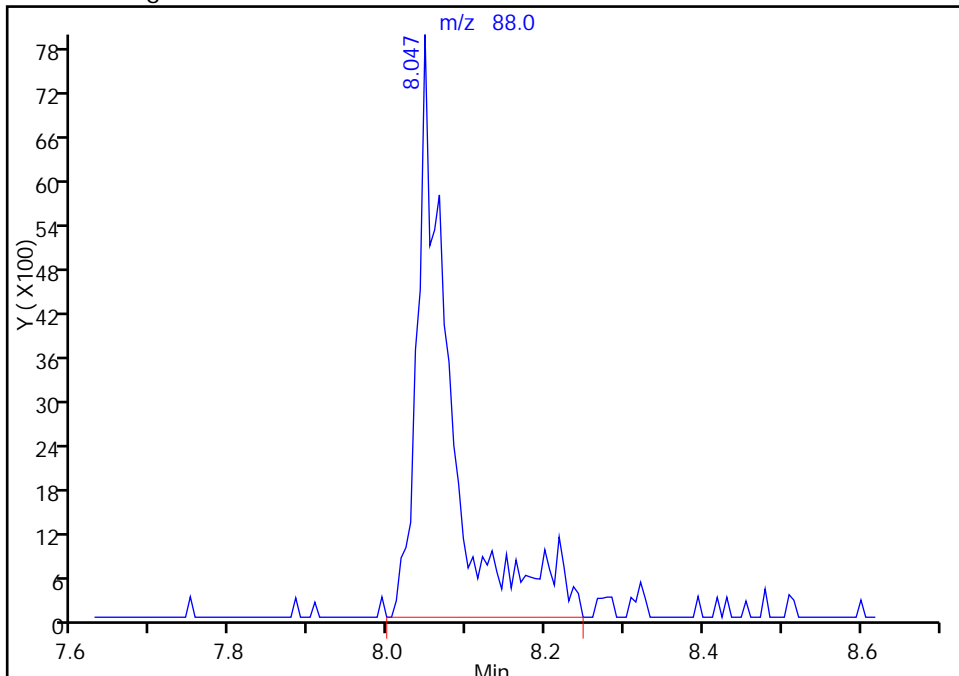
RT: 8.05  
Area: 21059  
Amount: 697.0939  
Amount Units: ng

Processing Integration Results



RT: 8.05  
Area: 22983  
Amount: 760.7821  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 24-Mar-2015 13:34:12  
Audit Action: Manually Integrated  
Audit Reason: Peak Tail

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-136397/4 Calibration Date: 03/24/2015 13:06  
 Instrument ID: CHHP5 Calib Start Date: 03/18/2015 13:31  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 03/18/2015 16:19  
 Lab File ID: 50324004.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
2-Chloroethyl vinyl ether	Ave	0.1652	0.1488	0.0100	18.0	20.0	-9.9	20.0
1,3,5-Trichlorobenzene	Ave	0.9577	0.8428	0.0100	8.80	10.0	-12.0	20.0



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\50324004.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 24-Mar-2015 13:06:30 ALS Bottle#: 4 Worklist Smp#: 4  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: CCVIS  
 Misc. Info.: 180-0006148-004  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub11  
 Method: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 24-Mar-2015 16:20:44 Calib Date: 18-Mar-2015 16:19:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150318-6071.b\50318010.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK052

First Level Reviewer: fergusond

Date: 24-Mar-2015 13:34:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.306	4.306	0.000	99	115344	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.268	7.268	0.000	99	489484	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.359	10.359	0.000	99	107803	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.683	12.683	0.000	96	156019	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.520	6.520	0.000	96	107457	50.0	48.3	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.903	6.903	0.000	97	146130	50.0	49.8	
\$ 7 Toluene-d8 (Surr)	98	8.923	8.923	0.000	100	453316	50.0	52.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.533	11.533	0.000	98	149946	50.0	48.4	
11 Dichlorodifluoromethane	85	1.617	1.617	0.000	99	149550	50.0	71.3	
12 Chloromethane	50	1.775	1.775	0.000	100	163393	50.0	56.4	
13 Vinyl chloride	62	1.903	1.903	0.000	100	179403	50.0	55.4	
14 Butadiene	39	1.945	1.945	0.000	99	205190	50.0	55.5	
15 Bromomethane	94	2.256	2.256	0.000	100	118575	50.0	69.4	
16 Chloroethane	64	2.402	2.402	0.000	99	142303	50.0	63.5	
17 Dichlorofluoromethane	67	2.651	2.651	0.000	100	302735	50.0	59.2	
18 Trichlorofluoromethane	101	2.724	2.724	0.000	95	227927	50.0	58.7	
20 Ethyl ether	59	3.083	3.083	0.000	99	135707	50.0	53.0	
21 Acrolein	56	3.259	3.259	0.000	98	37443	150.0	120.4	
22 1,1-Dichloroethene	96	3.381	3.381	0.000	97	127183	50.0	45.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.430	3.430	0.000	97	139587	50.0	48.9	
24 Acetone	43	3.491	3.491	0.000	99	114006	100.0	113.7	
25 Iodomethane	142	3.600	3.600	0.000	100	185849	50.0	47.4	
26 Carbon disulfide	76	3.667	3.667	0.000	100	340601	50.0	49.3	
28 3-Chloro-1-propene	76	3.935	3.935	0.000	100	62217	50.0	41.7	
30 Methyl acetate	43	4.020	4.020	0.000	100	542192	250.0	231.1	
31 Methylene Chloride	84	4.141	4.141	0.000	96	150307	50.0	46.0	
32 2-Methyl-2-propanol	59	4.440	4.440	0.000	98	68018	500.0	500.6	
34 trans-1,2-Dichloroethene	96	4.555	4.555	0.000	90	140597	50.0	48.2	
33 Acrylonitrile	53	4.555	4.555	0.000	99	559096	500.0	463.3	
35 Methyl tert-butyl ether	73	4.592	4.592	0.000	100	313954	50.0	48.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.981	4.981	0.000	98	210754	50.0	45.2	
37 1,1-Dichloroethane	63	5.170	5.170	0.000	99	267326	50.0	51.3	
38 Vinyl acetate	43	5.291	5.291	0.000	100	174809	50.0	47.3	
44 2,2-Dichloropropane	77	5.924	5.924	0.000	97	78698	50.0	60.4	
45 cis-1,2-Dichloroethene	96	5.942	5.942	0.000	97	143709	50.0	46.7	
46 2-Butanone (MEK)	43	5.985	5.985	0.000	99	130036	100.0	81.1	
49 Chlorobromomethane	128	6.216	6.216	0.000	98	62716	50.0	47.1	
51 Tetrahydrofuran	42	6.283	6.283	0.000	97	82358	100.0	82.0	
52 Chloroform	83	6.338	6.338	0.000	99	247328	50.0	52.2	
53 1,1,1-Trichloroethane	97	6.526	6.526	0.000	96	169698	50.0	56.1	
54 Cyclohexane	56	6.587	6.587	0.000	98	253564	50.0	43.7	
56 Carbon tetrachloride	117	6.715	6.715	0.000	99	142564	50.0	58.8	
55 1,1-Dichloropropene	75	6.721	6.721	0.000	99	199239	50.0	50.7	
57 Isobutyl alcohol	41	6.946	6.946	0.000	98	72302	1250.0	1106.6	
58 Benzene	78	6.952	6.952	0.000	99	567822	50.0	49.0	
59 1,2-Dichloroethane	62	6.982	6.982	0.000	100	194240	50.0	51.1	
62 n-Heptane	43	7.274	7.274	0.000	81	175400	50.0	44.0	
64 Trichloroethene	130	7.664	7.664	0.000	98	133389	50.0	45.9	
66 Methylcyclohexane	83	7.858	7.858	0.000	99	228236	50.0	44.0	
67 1,2-Dichloropropane	63	7.901	7.901	0.000	97	140965	50.0	49.1	
68 Dibromomethane	93	8.029	8.029	0.000	98	72269	50.0	46.8	
70 1,4-Dioxane	88	8.047	8.047	0.000	96	22983	1000.0	760.8	M
71 Dichlorobromomethane	83	8.193	8.193	0.000	99	164876	50.0	52.3	
73 2-Chloroethyl vinyl ether	63	8.515	8.515	0.000	99	145656	100.0	90.1	
74 cis-1,3-Dichloropropene	75	8.655	8.655	0.000	99	160550	50.0	52.8	
75 4-Methyl-2-pentanone (MIBK)	43	8.820	8.820	0.000	99	236102	100.0	80.9	
76 Toluene	91	8.990	8.990	0.000	99	583803	50.0	52.8	
77 trans-1,3-Dichloropropene	75	9.215	9.215	0.000	98	117858	50.0	59.1	
78 Ethyl methacrylate	69	9.312	9.312	0.000	98	125385	50.0	48.2	
79 1,1,2-Trichloroethane	97	9.398	9.398	0.000	98	103446	50.0	49.9	
80 Tetrachloroethene	164	9.531	9.531	0.000	98	106535	50.0	49.3	
81 1,3-Dichloropropane	76	9.562	9.562	0.000	99	198844	50.0	51.6	
82 2-Hexanone	43	9.653	9.653	0.000	100	185659	100.0	83.3	
84 Chlorodibromomethane	129	9.787	9.787	0.000	99	91756	50.0	55.5	
85 Ethylene Dibromide	107	9.902	9.902	0.000	99	96590	50.0	48.9	
86 3-Chlorobenzotrifluoride	180	10.371	10.371	0.000	95	203324	50.0	48.2	
87 Chlorobenzene	112	10.389	10.389	0.000	100	350158	50.0	50.0	
88 4-Chlorobenzotrifluoride	180	10.426	10.426	0.000	98	188097	50.0	46.2	
89 1,1,1,2-Tetrachloroethane	131	10.474	10.474	0.000	94	104979	50.0	58.1	
90 Ethylbenzene	106	10.499	10.499	0.000	100	196555	50.0	48.9	
91 m-Xylene & p-Xylene	106	10.614	10.614	0.000	100	241567	50.0	49.2	
92 o-Xylene	106	11.010	11.010	0.000	99	230744	50.0	48.0	
93 Styrene	104	11.022	11.022	0.000	99	377286	50.0	48.7	
94 Bromoform	173	11.204	11.204	0.000	96	54225	50.0	53.1	
96 2-Chlorobenzotrifluoride	180	11.271	11.271	0.000	99	194464	50.0	46.2	
97 Isopropylbenzene	105	11.375	11.375	0.000	100	593272	50.0	49.5	
99 1,1,2,2-Tetrachloroethane	83	11.673	11.673	0.000	98	146187	50.0	49.2	
100 Bromobenzene	156	11.679	11.679	0.000	99	136318	50.0	47.2	
101 1,2,3-Trichloropropane	110	11.721	11.721	0.000	97	48123	50.0	50.7	
102 trans-1,4-Dichloro-2-buten	53	11.734	11.734	0.000	97	32149	50.0	40.8	
103 N-Propylbenzene	120	11.782	11.782	0.000	100	160909	50.0	45.2	
104 2-Chlorotoluene	126	11.874	11.874	0.000	100	137661	50.0	46.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.934	11.934	0.000	98	166479	50.0	49.8	
106 1,3,5-Trimethylbenzene	105	11.959	11.959	0.000	99	483948	50.0	48.7	
107 4-Chlorotoluene	126	11.977	11.977	0.000	98	155117	50.0	47.9	
108 tert-Butylbenzene	119	12.287	12.287	0.000	99	398250	50.0	46.3	
110 1,2,4-Trimethylbenzene	105	12.336	12.336	0.000	99	476631	50.0	46.8	
111 1,2-dichloro-4-(trifluorom	214	12.397	12.397	0.000	99	145018	50.0	45.0	
112 sec-Butylbenzene	105	12.506	12.506	0.000	100	576756	50.0	47.6	
113 1,3-Dichlorobenzene	146	12.616	12.616	0.000	99	246030	50.0	46.2	
114 4-Isopropyltoluene	119	12.652	12.652	0.000	100	460781	50.0	46.1	
115 1,4-Dichlorobenzene	146	12.701	12.701	0.000	99	260417	50.0	47.9	
116 2,4-Dichloro-1-(trifluorom	214	12.756	12.756	0.000	98	134381	50.0	44.5	
118 2,5-Dichlorobenzotrifluori	214	12.804	12.804	0.000	99	147444	50.0	43.7	
120 n-Butylbenzene	91	13.060	13.060	0.000	100	409171	50.0	44.9	
121 1,2-Dichlorobenzene	146	13.078	13.078	0.000	98	227309	50.0	46.1	
122 1,2-Dibromo-3-Chloropropan	75	13.863	13.863	0.000	95	18519	50.0	45.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.003	14.003	0.000	99	467092	150.0	125.4	
124 1,3,5-Trichlorobenzene	180	14.070	14.070	0.000	98	131497	50.0	44.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.429	14.429	0.000	99	286842	100.0	79.2	
126 1,2,4-Trichlorobenzene	180	14.690	14.690	0.000	98	94122	50.0	36.7	
127 Hexachlorobutadiene	225	14.861	14.861	0.000	95	44804	50.0	36.4	
128 Naphthalene	128	14.940	14.940	0.000	100	221807	50.0	32.9	
129 1,2,3-Trichlorobenzene	180	15.183	15.183	0.000	99	72910	50.0	34.7	
131 2,4,5-Trichlorotoluene	159	15.962	15.962	0.000	98	31280	50.0	27.7	
130 2,3,6-Trichlorotoluene	159	16.059	16.059	0.000	97	27877	50.0	27.3	
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 133 Xylenes, Total	106				0		100.0	97.2	
S 134 1,2-Dichloroethene, Total	96				0		100.0	94.9	
S 135 1,3-Dichloropropene, Total	1				0		100.0	111.9	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

#### Review Flags

M - Manually Integrated

**Reagents:**

voaW8260voaPr_00005	Amount Added: 2.00	Units: uL	
voaWKetpri Re_00003	Amount Added: 2.00	Units: uL	
voaWEEpri Res_00003	Amount Added: 2.00	Units: uL	
voaW1,3,5TCab_00001	Amount Added: 2.00	Units: uL	
VOAVAPRI_00005	Amount Added: 2.00	Units: uL	
voaW2CLEpRest_00001	Amount Added: 2.00	Units: uL	
VOAACRPRI_00003	Amount Added: 6.00	Units: uL	
VOA8260INT_00030	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\50324004.D

Injection Date: 24-Mar-2015 13:06:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL

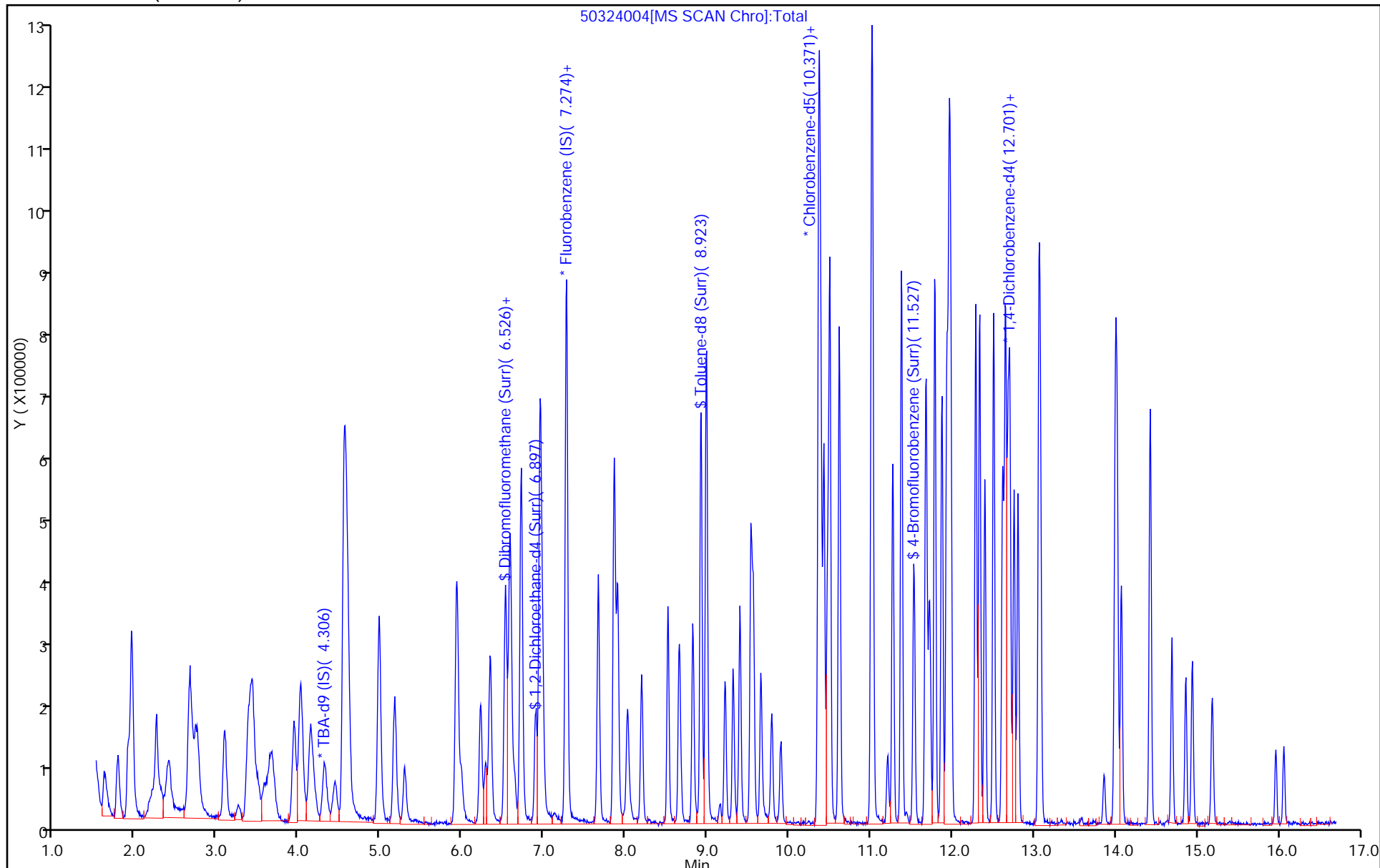
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316001.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 16-Mar-2015 10:49:30 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Sample Info: BFB  
 Misc. Info.: 180-0006031-001  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 17-Mar-2015 10:59:24 Calib Date: 16-Mar-2015 16:17:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316013.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK012

First Level Reviewer: fergusond Date: 16-Mar-2015 11:15:59

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	8.341	8.341	0.000	0	133980	NR	NR	
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**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

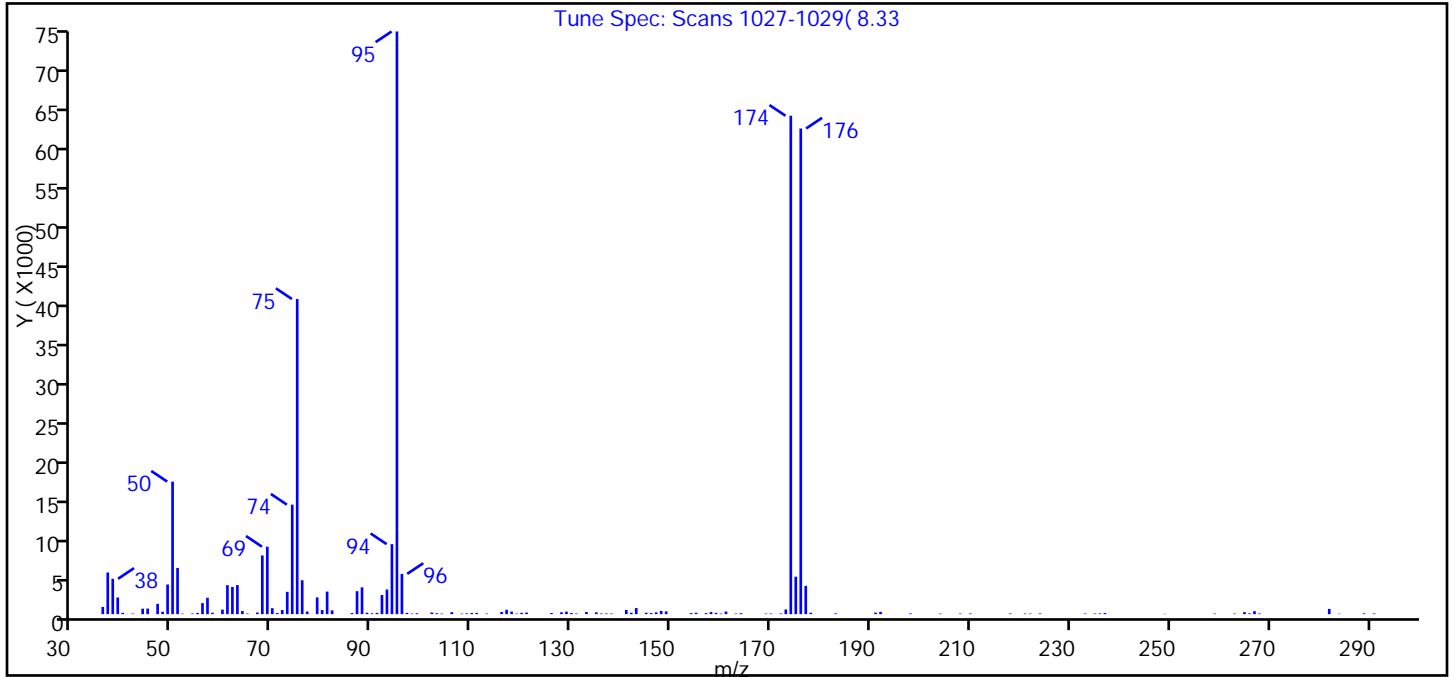
**Reagents:**

VOA BFB 25\_00001 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316001.D  
 Injection Date: 16-Mar-2015 10:49:30 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	22.7
75	30 to 60% of m/z 95	54.1
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.8 (0.9)
174	50 to 120% of m/z 95	85.5
175	5 to 9% of m/z 174	6.4 (7.5)
176	Greater than 95% but less than 101% of m/z 174	83.4 (97.4)
177	5 to 9% of m/z 176	4.9 (5.8)

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316001.D\MSVOA\_LL\_CHHP5.rslt\spectra.d  
Injection Date: 16-Mar-2015 10:49:30  
Spectrum: Tune Spec: Scans 1027-1029( 8.33  
Base Peak: 95.00  
Minimum % Base Peak: 0  
Number of Points: 132

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	922	75.00	40336	119.00	71	173.00	604
37.00	5329	76.00	4335	120.00	170	174.00	63792
38.00	4528	77.00	339	121.00	203	175.00	4791
39.00	2130	79.00	2142	126.00	145	176.00	62160
40.00	163	80.00	527	128.00	241	177.00	3622
42.00	71	81.00	2886	129.00	320	178.00	182
44.00	700	82.00	482	130.00	150	183.00	99
45.00	713	86.00	138	131.00	72	191.00	196
47.00	1323	87.00	2939	133.00	273	192.00	286
48.00	310	88.00	3429	135.00	226	195.00	9
49.00	3792	89.00	182	136.00	81	198.00	98
50.00	16960	90.00	101	137.00	87	204.00	68
51.00	5912	91.00	160	138.00	71	208.00	75
52.00	63	92.00	2448	141.00	541	210.00	85
54.00	83	93.00	3152	142.00	172	218.00	87
55.00	155	94.00	8961	143.00	779	221.00	76
56.00	1409	95.00	74576	145.00	182	222.00	70
57.00	2093	96.00	5155	146.00	133	224.00	88
58.00	180	97.00	159	147.00	227	233.00	73
60.00	582	98.00	71	148.00	412	235.00	76
61.00	3707	99.00	112	149.00	352	236.00	88
62.00	3479	102.00	212	154.00	135	237.00	141
63.00	3721	103.00	120	155.00	179	249.00	43
64.00	392	104.00	75	157.00	135	259.00	70
65.00	71	106.00	253	158.00	274	263.00	71
67.00	207	108.00	68	159.00	163	265.00	262
68.00	7510	109.00	97	160.00	73	266.00	100
69.00	8635	110.00	146	161.00	334	267.00	377
70.00	764	111.00	161	163.00	71	268.00	85
71.00	139	113.00	71	164.00	125	282.00	672
72.00	524	116.00	278	169.00	70	284.00	50
73.00	2854	117.00	558	170.00	78	289.00	99
74.00	14015	118.00	332	172.00	82	291.00	87



m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	922	75.00	40336	119.00	71	173.00	604
37.00	5329	76.00	4335	120.00	170	174.00	63792
38.00	4528	77.00	339	121.00	203	175.00	4791
39.00	2130	79.00	2142	126.00	145	176.00	62160
40.00	163	80.00	527	128.00	241	177.00	3622
42.00	71	81.00	2886	129.00	320	178.00	182
44.00	700	82.00	482	130.00	150	183.00	99
45.00	713	86.00	138	131.00	72	191.00	196
47.00	1323	87.00	2939	133.00	273	192.00	286
48.00	310	88.00	3429	135.00	226	195.00	9
49.00	3792	89.00	182	136.00	81	198.00	98
50.00	16960	90.00	101	137.00	87	204.00	68
51.00	5912	91.00	160	138.00	71	208.00	75
52.00	63	92.00	2448	141.00	541	210.00	85
54.00	83	93.00	3152	142.00	172	218.00	87
55.00	155	94.00	8961	143.00	779	221.00	76
56.00	1409	95.00	74576	145.00	182	222.00	70
57.00	2093	96.00	5155	146.00	133	224.00	88
58.00	180	97.00	159	147.00	227	233.00	73
60.00	582	98.00	71	148.00	412	235.00	76
61.00	3707	99.00	112	149.00	352	236.00	88
62.00	3479	102.00	212	154.00	135	237.00	141
63.00	3721	103.00	120	155.00	179	249.00	43
64.00	392	104.00	75	157.00	135	259.00	70
65.00	71	106.00	253	158.00	274	263.00	71
67.00	207	108.00	68	159.00	163	265.00	262
68.00	7510	109.00	97	160.00	73	266.00	100
69.00	8635	110.00	146	161.00	334	267.00	377
70.00	764	111.00	161	163.00	71	268.00	85
71.00	139	113.00	71	164.00	125	282.00	672
72.00	524	116.00	278	169.00	70	284.00	50
73.00	2854	117.00	558	170.00	78	289.00	99
74.00	14015	118.00	332	172.00	82	291.00	87

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150316-6031.b\50316001.D

Injection Date: 16-Mar-2015 10:49:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

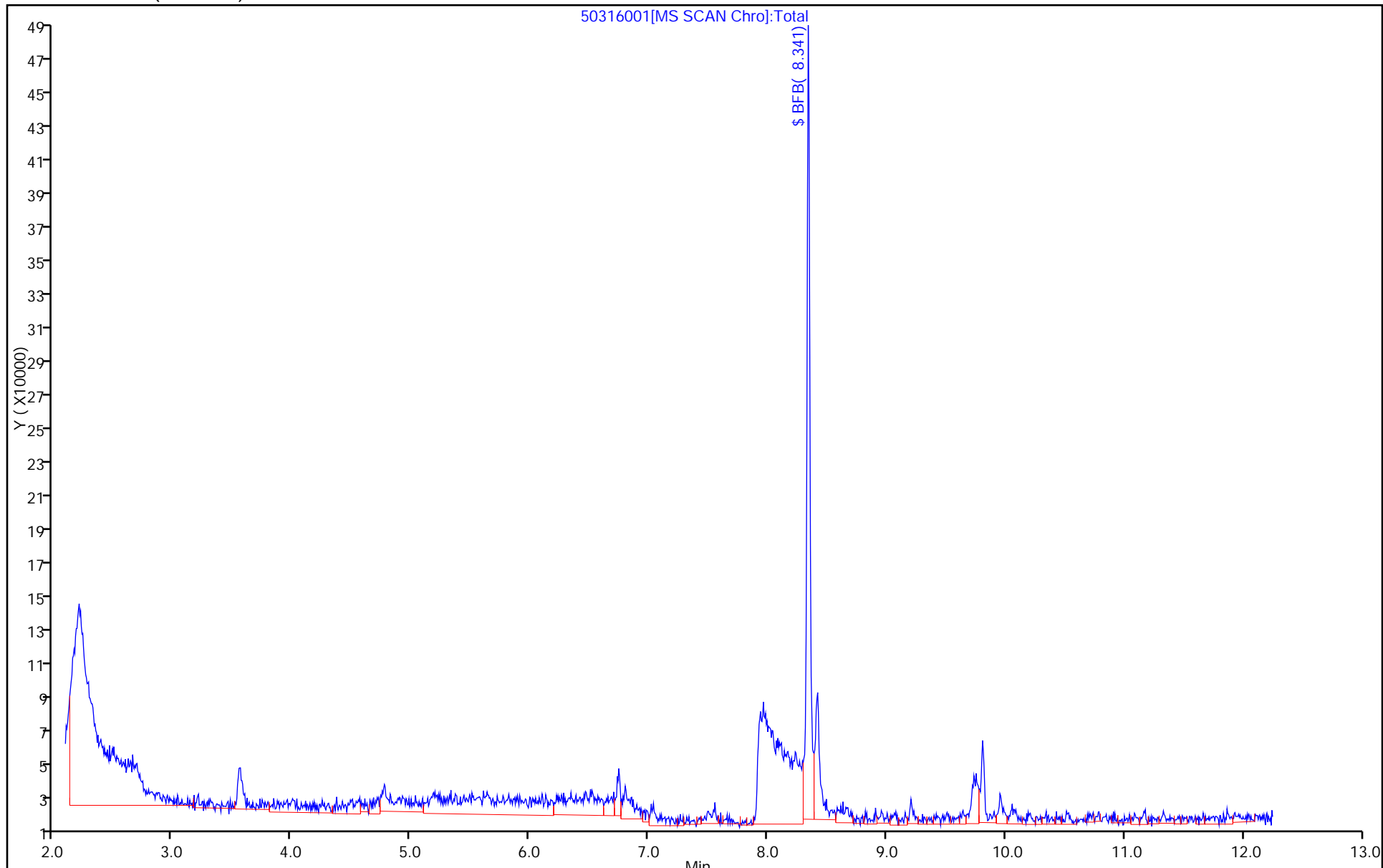
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323001.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 23-Mar-2015 10:37:30 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Sample Info: BFB  
 Misc. Info.: 180-0006128-001  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\MMSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 23-Mar-2015 13:28:56 Calib Date: 18-Mar-2015 16:19:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150318-6071.b\50318010.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK037

First Level Reviewer: fergusond Date: 23-Mar-2015 10:52:53

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	8.341	8.341	0.000	0	87565	NR	NR	
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**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

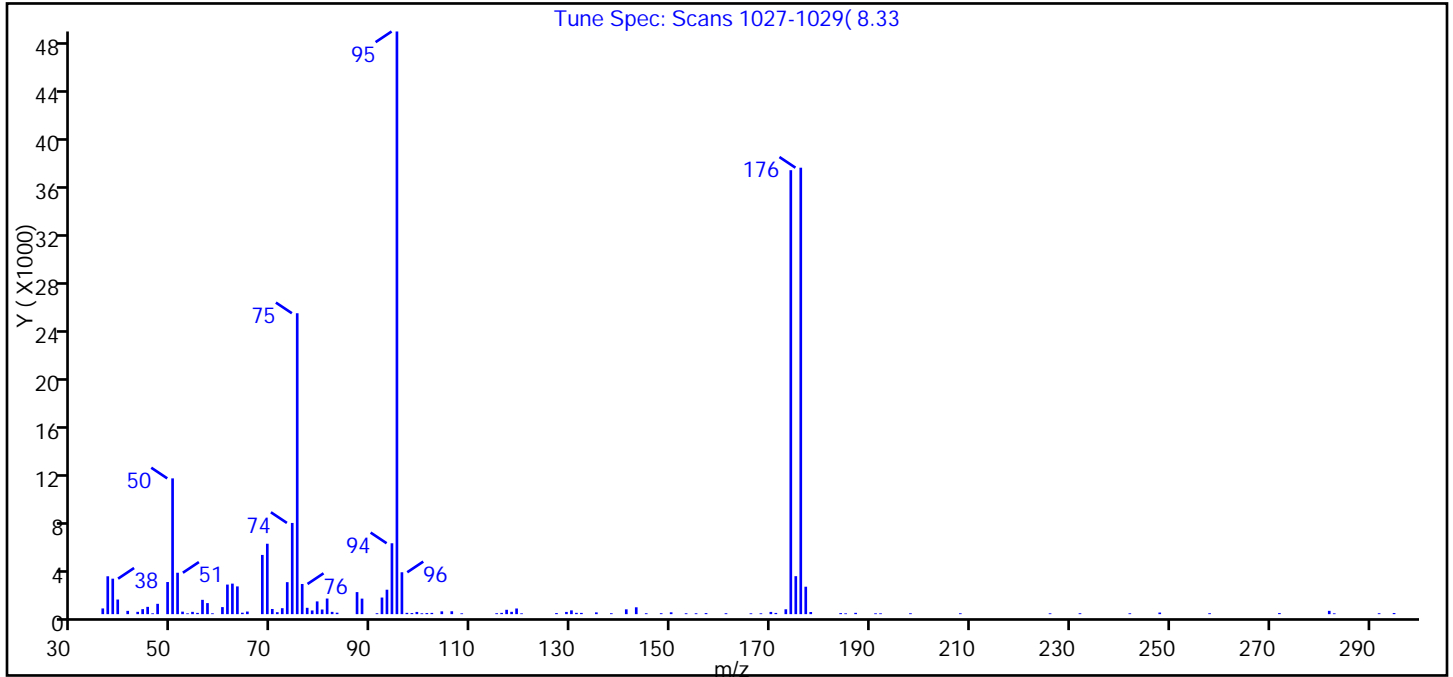
**Reagents:**

VOABFB25\_00059 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323001.D  
 Injection Date: 23-Mar-2015 10:37:30 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	23.3
75	30 to 60% of m/z 95	51.6
96	5 to 9% of m/z 95	7.2
173	Less than 2% of m/z 174	0.8 (1.1)
174	50 to 120% of m/z 95	76.2
175	5 to 9% of m/z 174	6.5 (8.6)
176	Greater than 95% but less than 101% of m/z 174	76.6 (100.6)
177	5 to 9% of m/z 176	4.7 (6.1)

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323001.D\MSVOA\_LL\_CHHP5.rslt\spectra.d  
 Injection Date: 23-Mar-2015 10:37:30  
 Spectrum: Tune Spec: Scans 1027-1029( 8.33  
 Base Peak: 95.00  
 Minimum % Base Peak: 0  
 Number of Points: 108

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	475	69.00	5859	101.00	90	166.00	68
37.00	3152	70.00	429	102.00	105	168.00	68
38.00	2952	71.00	161	104.00	233	170.00	185
39.00	1217	72.00	495	106.00	240	171.00	102
41.00	273	73.00	2662	108.00	67	173.00	405
43.00	193	74.00	7590	115.00	77	174.00	36944
44.00	417	75.00	25040	116.00	105	175.00	3160
45.00	607	76.00	2510	117.00	362	176.00	37152
46.00	68	77.00	527	118.00	193	177.00	2283
47.00	860	78.00	307	119.00	470	178.00	178
49.00	2672	79.00	1061	120.00	67	184.00	87
50.00	11298	80.00	387	127.00	89	185.00	68
51.00	3446	81.00	1299	129.00	185	187.00	109
52.00	208	82.00	190	130.00	315	191.00	69
53.00	67	83.00	122	131.00	109	192.00	68
54.00	191	87.00	1834	132.00	105	198.00	73
55.00	106	88.00	1292	135.00	147	208.00	72
56.00	1191	91.00	76	138.00	75	226.00	69
57.00	919	92.00	1382	141.00	401	232.00	76
58.00	71	93.00	2033	143.00	571	242.00	72
60.00	586	94.00	5899	145.00	75	248.00	132
61.00	2461	95.00	48488	148.00	76	258.00	77
62.00	2540	96.00	3485	150.00	152	272.00	89
63.00	2308	97.00	109	153.00	73	282.00	274
64.00	119	98.00	91	155.00	73	283.00	67
65.00	216	99.00	184	157.00	89	292.00	76
68.00	4928	100.00	71	161.00	76	295.00	94

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323001.D

Injection Date: 23-Mar-2015 10:37:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

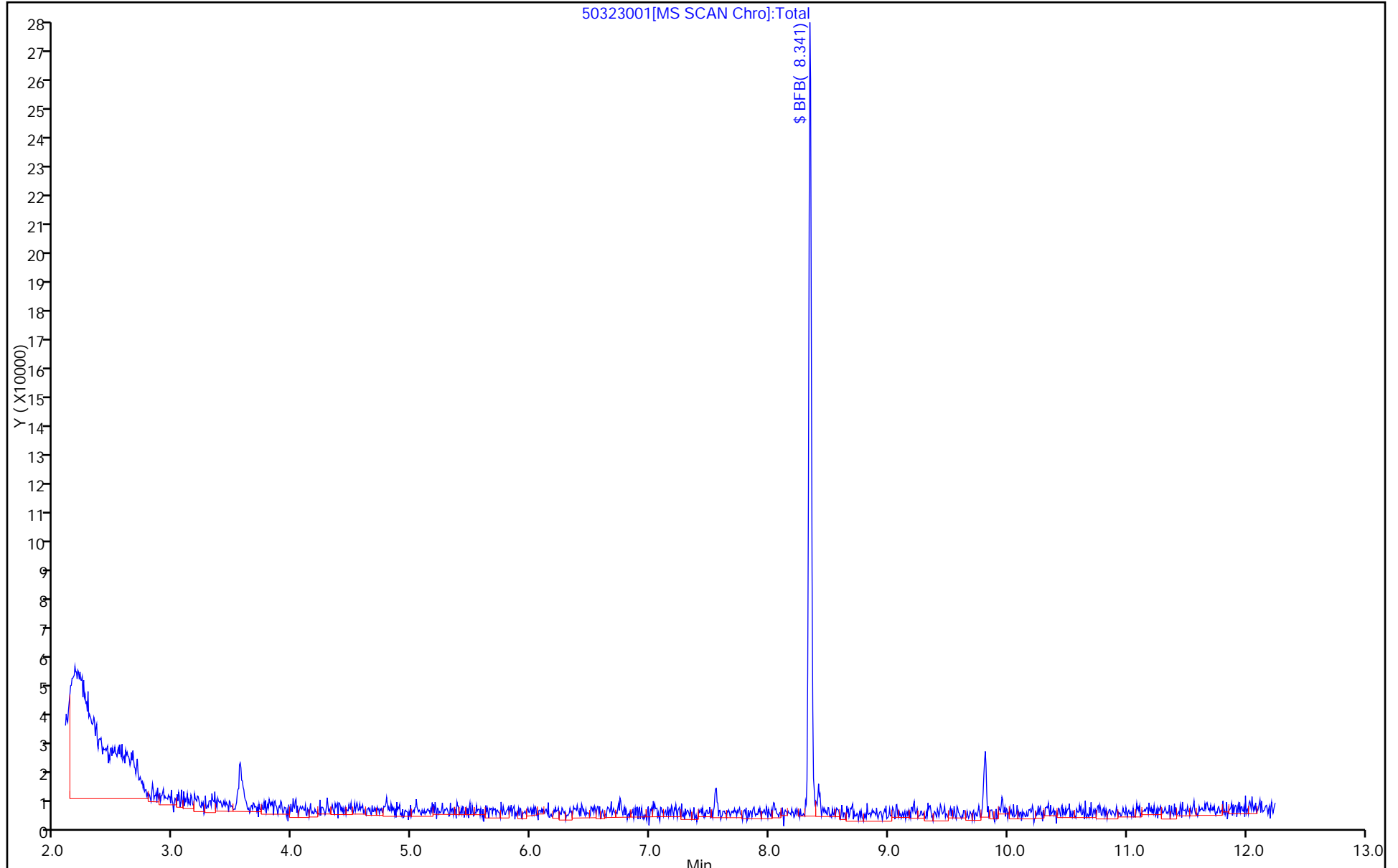
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\50324001.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 24-Mar-2015 11:22:30 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Sample Info: BFB  
 Misc. Info.: 180-0006148-001  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\MMSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 24-Mar-2015 16:20:42 Calib Date: 18-Mar-2015 16:19:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150318-6071.b\50318010.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK052

First Level Reviewer: fergusond Date: 24-Mar-2015 11:35:26

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	8.341	8.341	0.000	0	76858	NR	NR	
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**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

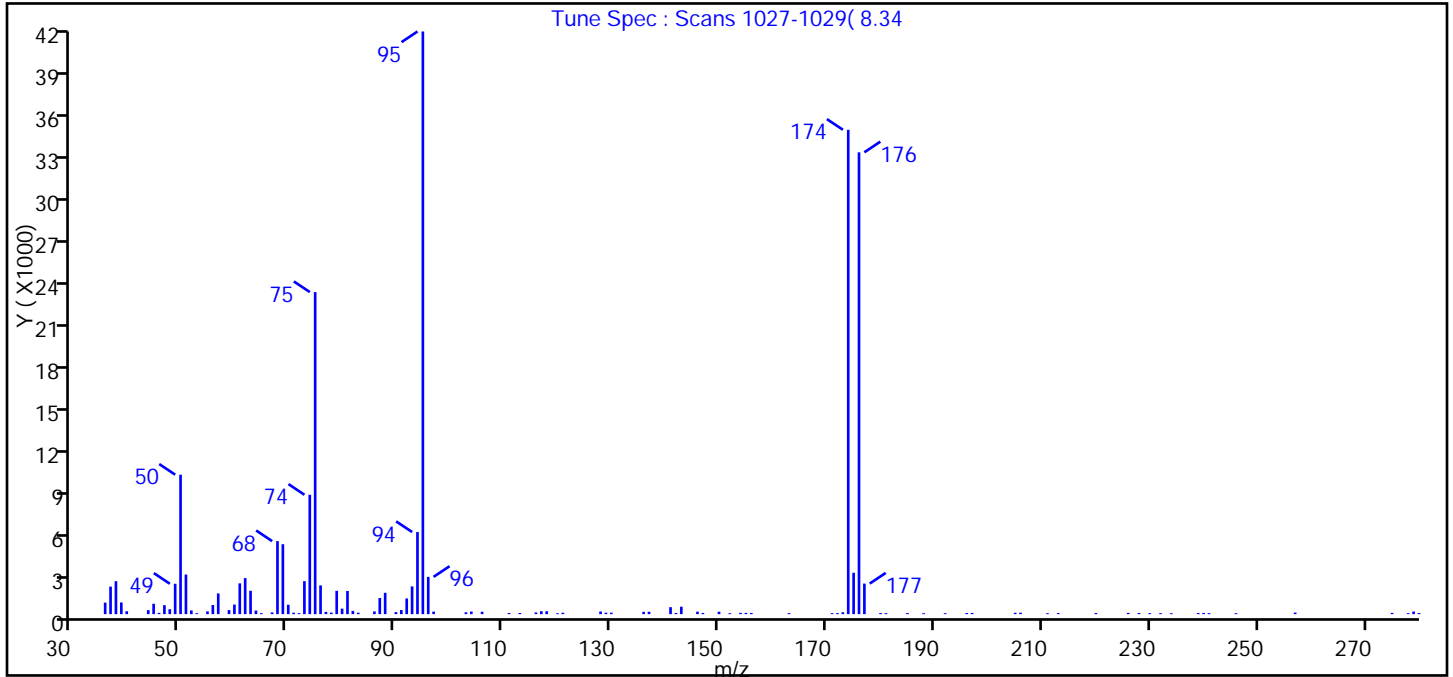
**Reagents:**

VOABFB25\_00059 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\50324001.D  
 Injection Date: 24-Mar-2015 11:22:30 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	23.9
75	30 to 60% of m/z 95	55.3
96	5 to 9% of m/z 95	6.4
173	Less than 2% of m/z 174	0.3 (0.4)
174	50 to 120% of m/z 95	83.1
175	5 to 9% of m/z 174	7.1 (8.5)
176	Greater than 95% but less than 101% of m/z 174	79.3 (95.3)
177	5 to 9% of m/z 176	5.2 (6.6)



Data File: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\50324001.D\MSVOA\_LL\_CHHP5.rslt\spectra.d  
Injection Date: 24-Mar-2015 11:22:30  
Spectrum: Tune Spec : Scans 1027-1029( 8.34  
Base Peak: 95.00  
Minimum % Base Peak: 0  
Number of Points: 112

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	815	70.00	666	111.00	83	176.00	32776
37.00	1954	71.00	103	113.00	81	177.00	2169
38.00	2338	72.00	72	116.00	119	180.00	76
39.00	831	73.00	2340	117.00	207	181.00	71
40.00	205	74.00	8472	118.00	204	185.00	76
44.00	286	75.00	22856	120.00	67	188.00	68
45.00	738	76.00	2040	121.00	102	192.00	68
46.00	89	77.00	163	128.00	189	196.00	79
47.00	636	78.00	108	129.00	104	197.00	88
48.00	350	79.00	1657	130.00	105	205.00	99
49.00	2156	80.00	391	136.00	165	206.00	104
50.00	9896	81.00	1644	137.00	169	211.00	68
51.00	2812	82.00	232	141.00	495	213.00	76
52.00	264	83.00	104	142.00	83	220.00	86
53.00	69	86.00	192	143.00	527	226.00	91
55.00	195	87.00	1146	146.00	176	228.00	86
56.00	649	88.00	1514	147.00	85	230.00	72
57.00	1469	90.00	144	150.00	172	232.00	70
59.00	289	91.00	290	152.00	68	234.00	69
60.00	678	92.00	1115	154.00	92	239.00	79
61.00	2184	93.00	1968	155.00	93	240.00	87
62.00	2558	94.00	5827	156.00	85	241.00	74
63.00	1658	95.00	41352	163.00	73	246.00	68
64.00	255	96.00	2645	171.00	71	257.00	114
65.00	71	97.00	181	172.00	75	275.00	91
67.00	123	103.00	133	173.00	133	278.00	68
68.00	5182	104.00	184	174.00	34376	279.00	185
69.00	4963	106.00	170	175.00	2935	280.00	80

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\50324001.D

Injection Date: 24-Mar-2015 11:22:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

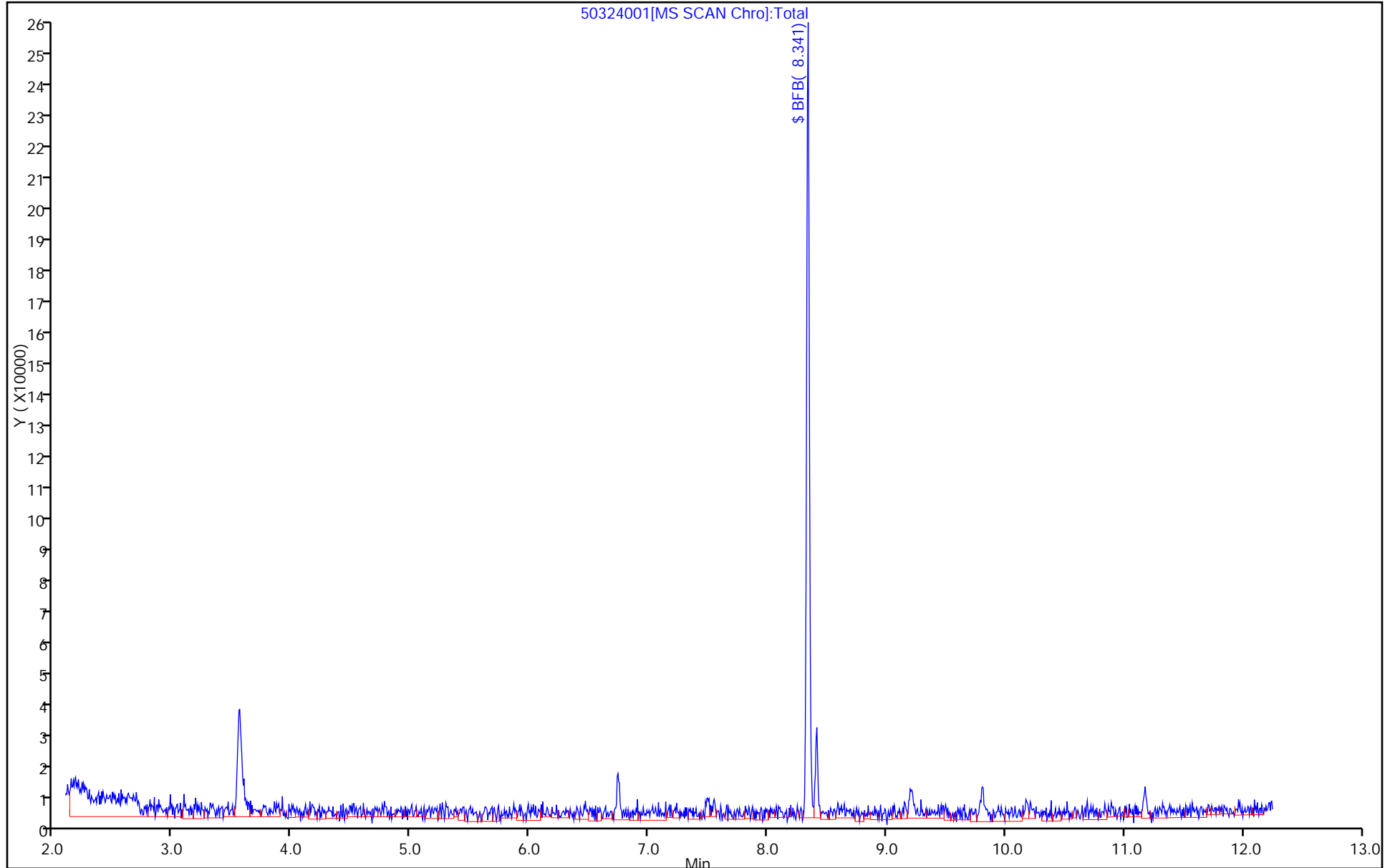
Dil. Factor: 1.0000

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.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-136250/6  
 Matrix: Water Lab File ID: 50323006.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5(mL) Date Analyzed: 03/23/2015 13:04  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18(mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 136250 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	0.353	J	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	1.0	U	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-136250/6  
 Matrix: Water Lab File ID: 50323006.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5(mL) Date Analyzed: 03/23/2015 13:04  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18(mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 136250 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20
107-13-1	Acrylonitrile	20	U	20	0.55
123-91-1	1,4-Dioxane	200	U	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		64-135
2037-26-5	Toluene-d8 (Surr)	102		71-118
460-00-4	4-Bromofluorobenzene (Surr)	102		70-118
1868-53-7	Dibromofluoromethane (Surr)	108		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323006.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 23-Mar-2015 13:04:30 ALS Bottle#: 6 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: MB  
 Misc. Info.: 180-0006128-006  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\MMSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 23-Mar-2015 14:49:31 Calib Date: 18-Mar-2015 16:19:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150318-6071.b\50318010.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK037

First Level Reviewer: fergusond

Date: 23-Mar-2015 14:49:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.296	4.292	0.004	98	124541	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.277	7.273	0.004	100	433605	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.367	10.363	0.004	99	98808	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.681	0.004	94	155774	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.528	6.522	0.006	55	106702	50.0	54.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.906	6.900	0.006	97	141163	50.0	54.3	
\$ 7 Toluene-d8 (Surr)	98	8.925	8.925	0.000	100	399834	50.0	50.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.535	11.529	0.006	97	145175	50.0	51.2	
11 Dichlorodifluoromethane	85		1.613					ND	
12 Chloromethane	50		1.777					ND	
13 Vinyl chloride	62		1.905					ND	
14 Butadiene	39		1.948					ND	
15 Bromomethane	94		2.252					ND	
16 Chloroethane	64		2.380					ND	
17 Dichlorofluoromethane	67		2.647					ND	
18 Trichlorofluoromethane	101		2.714					ND	
19 Ethanol	45		3.004					ND	
20 Ethyl ether	59		3.085					ND	
21 Acrolein	56		3.250					ND	
22 1,1-Dichloroethene	96		3.377					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.426					ND	
24 Acetone	43		3.493					ND	
25 Iodomethane	142		3.566					ND	
26 Carbon disulfide	76		3.645					ND	
27 Isopropyl alcohol	45		3.783					ND	
29 Acetonitrile	40		3.929					ND	
28 3-Chloro-1-propene	76		3.931					ND	
30 Methyl acetate	43		4.016					ND	
31 Methylene Chloride	84	4.144	4.138	0.006	37	5104		1.77	M
32 2-Methyl-2-propanol	59		4.430					ND	
33 Acrylonitrile	53		4.545					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		4.558					ND	
35 Methyl tert-butyl ether	73		4.594					ND	
36 Hexane	57		4.977					ND	
37 1,1-Dichloroethane	63		5.166					ND	
38 Vinyl acetate	43		5.296					ND	
39 2-Chloro-1,3-butadiene	53		5.304					ND	
41 Isopropyl ether	45		5.322					ND	
40 Isopropyl ether TIC	45		5.409					ND	
42 Tert-butyl ethyl ether	59		5.796					ND	
44 2,2-Dichloropropane	77		5.920					ND	
45 cis-1,2-Dichloroethene	96		5.938					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
46 2-Butanone (MEK)	43		5.987					ND	
47 Propionitrile	54		6.064					ND	
48 Ethyl acetate	43		6.082					ND	
49 Chlorobromomethane	128		6.218					ND	
50 Methacrylonitrile	41		6.240					ND	
51 Tetrahydrofuran	42		6.285					ND	
52 Chloroform	83		6.340					ND	
53 1,1,1-Trichloroethane	97		6.522					ND	
54 Cyclohexane	56		6.583					ND	
56 Carbon tetrachloride	117		6.717					ND	
55 1,1-Dichloropropene	75		6.723					ND	
57 Isobutyl alcohol	41		6.936					ND	
58 Benzene	78		6.954					ND	
59 1,2-Dichloroethane	62		6.985					ND	
61 Tert-amyl methyl ether	73		7.110					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.277					ND	
63 n-Butanol	56		7.652					ND	
64 Trichloroethene	130		7.666					ND	
65 Ethyl acrylate	55		7.816					ND	
66 Methylcyclohexane	83		7.861					ND	
67 1,2-Dichloropropane	63		7.903					ND	
68 Dibromomethane	93		8.019					ND	
69 Methyl methacrylate	69		8.053					ND	
70 1,4-Dioxane	88		8.056					ND	
71 Dichlorobromomethane	83		8.195					ND	
72 2-Nitropropane	41		8.443					ND	
73 2-Chloroethyl vinyl ether	63		8.518					ND	
74 cis-1,3-Dichloropropene	75		8.658					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.822					ND	
76 Toluene	91		8.986					ND	
77 trans-1,3-Dichloropropene	75		9.217					ND	
78 Ethyl methacrylate	69		9.315					ND	
79 1,1,2-Trichloroethane	97		9.400					ND	
80 Tetrachloroethene	164		9.534					ND	
81 1,3-Dichloropropane	76		9.564					ND	
82 2-Hexanone	43		9.655					ND	
83 n-Butyl acetate	43		9.787					ND	
84 Chlorodibromomethane	129		9.789					ND	
85 Ethylene Dibromide	107		9.899					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.373					ND	
87 Chlorobenzene	112		10.392					ND	
88 4-Chlorobenzotrifluoride	180		10.428					ND	
89 1,1,1,2-Tetrachloroethane	131		10.471					ND	
90 Ethylbenzene	106		10.501					ND	
91 m-Xylene & p-Xylene	106		10.617					ND	
92 o-Xylene	106		11.012					ND	
93 Styrene	104		11.024					ND	
94 Bromoform	173		11.213					ND	
96 2-Chlorobenzotrifluoride	180		11.274					ND	
95 Cyclohexanol	57	11.286	11.280	0.006	1	256		NC	
97 Isopropylbenzene	105		11.377					ND	
98 Cyclohexanone	55		11.472					ND	
99 1,1,2,2-Tetrachloroethane	83		11.675					ND	
100 Bromobenzene	156		11.681					ND	
101 1,2,3-Trichloropropane	110		11.718					ND	
102 trans-1,4-Dichloro-2-buten	53		11.730					ND	
103 N-Propylbenzene	120		11.791					ND	
104 2-Chlorotoluene	126		11.876					ND	
105 3-Chlorotoluene	126		11.937					ND	
106 1,3,5-Trimethylbenzene	105		11.961					ND	
107 4-Chlorotoluene	126		11.979					ND	
108 tert-Butylbenzene	119		12.290					ND	
109 Pentachloroethane	167		12.312					ND	
110 1,2,4-Trimethylbenzene	105		12.332					ND	
111 1,2-dichloro-4-(trifluorom	214		12.399					ND	
112 sec-Butylbenzene	105		12.509					ND	
113 1,3-Dichlorobenzene	146		12.618					ND	
114 4-Isopropyltoluene	119		12.655					ND	
115 1,4-Dichlorobenzene	146		12.709					ND	
117 1,2,3-Trimethylbenzene	105		12.756					ND	
116 2,4-Dichloro-1-(triflourom	214		12.758					ND	
118 2,5-Dichlorobenzotrifluori	214		12.807					ND	
119 Benzyl chloride	91		12.847					ND	
120 n-Butylbenzene	91		13.062					ND	
121 1,2-Dichlorobenzene	146		13.080					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.859					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.005					ND	
124 1,3,5-Trichlorobenzene	180		14.076					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.425					ND	
126 1,2,4-Trichlorobenzene	180		14.693					ND	
127 Hexachlorobutadiene	225		14.863					ND	
128 Naphthalene	128		14.942					ND	
129 1,2,3-Trichlorobenzene	180		15.191					ND	
131 2,4,5-Trichlorotoluene	159		15.964					ND	
130 2,3,6-Trichlorotoluene	159		16.061					ND	
132 2-Methylnaphthalene	142		16.077					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
147 2,4-Dichlorotoluene	1		0.000					ND	
146 2,5-Dichlorotoluene	1		0.000					ND	
150 2,6-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323006.D

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
151 Isooctane	57		0.000						ND
149 3,4-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 153 1,2 Epoxybutane TIC	42		0.000						ND
T 136 Mesityl oxide TIC	83		0.000						ND
T 137 Tetrahydrofuran TIC	42		0.000						ND
T 138 Methyl n-amyl ketone TIC	43		0.000						ND

**QC Flag Legend**

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

**Reagents:**

VOA8260INT\_00030

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00032

Amount Added: 2.00

Units: uL

Run Reagent



TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323006.D

Injection Date: 23-Mar-2015 13:04:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: MB

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

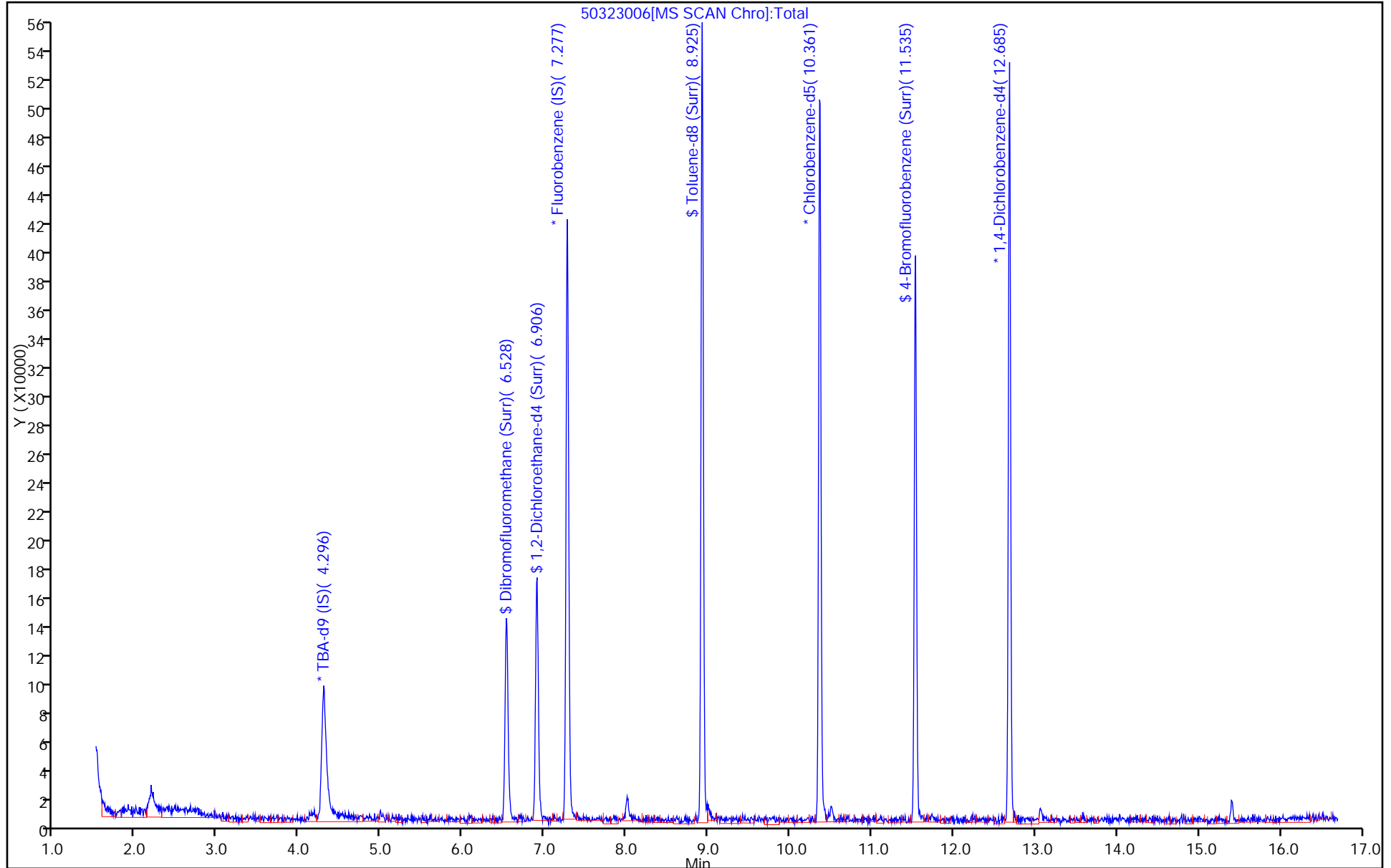
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323006.D

Injection Date: 23-Mar-2015 13:04:30

Instrument ID: CHHP5

Lims ID: MB

Client ID:

Operator ID: 001562

ALS Bottle#: 6

Worklist Smp#: 6

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

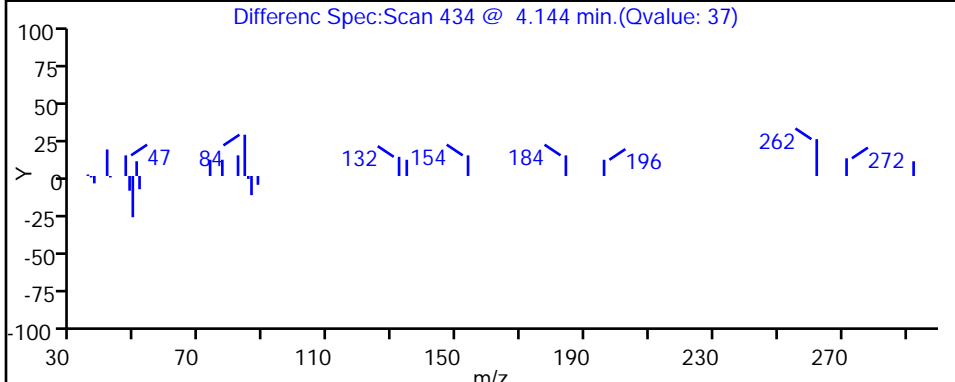
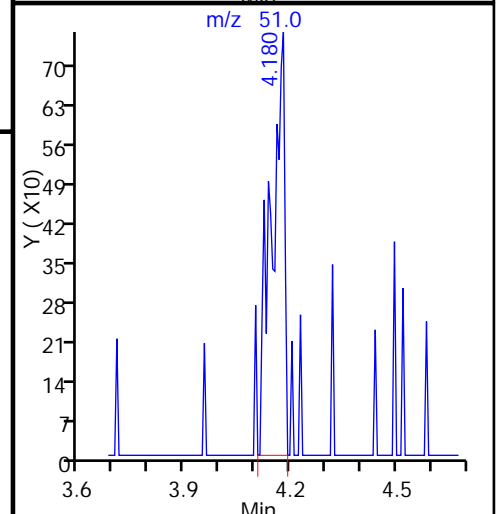
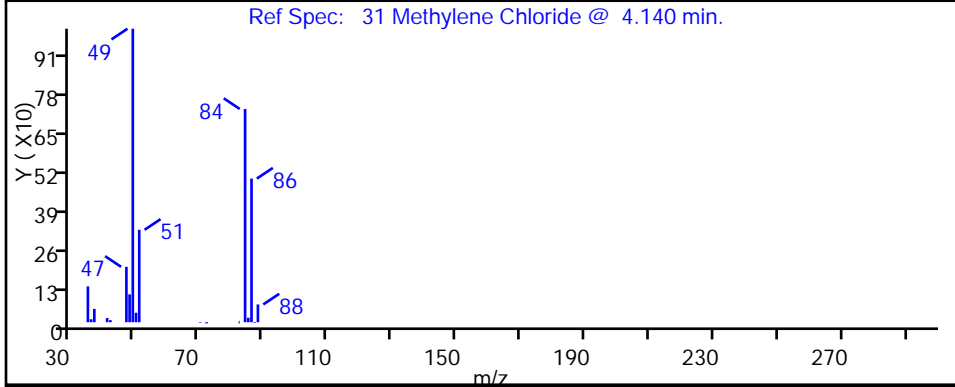
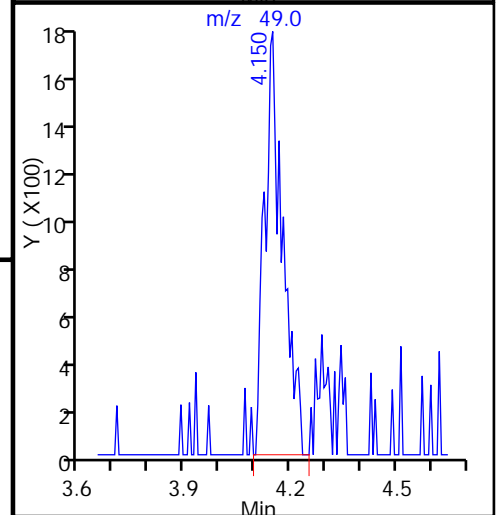
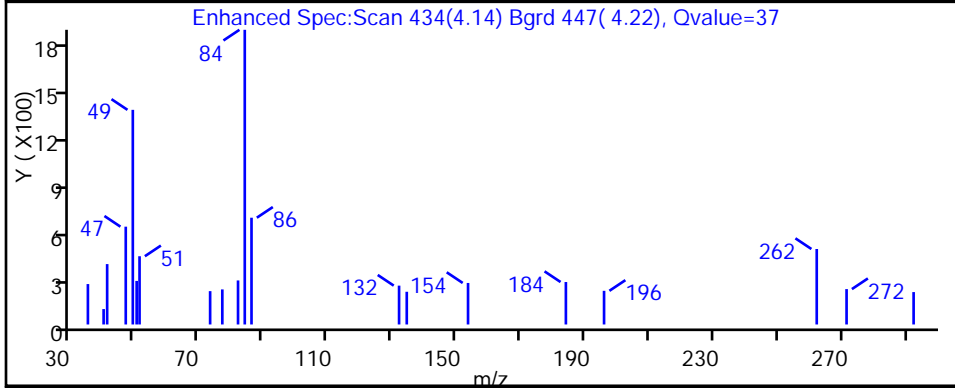
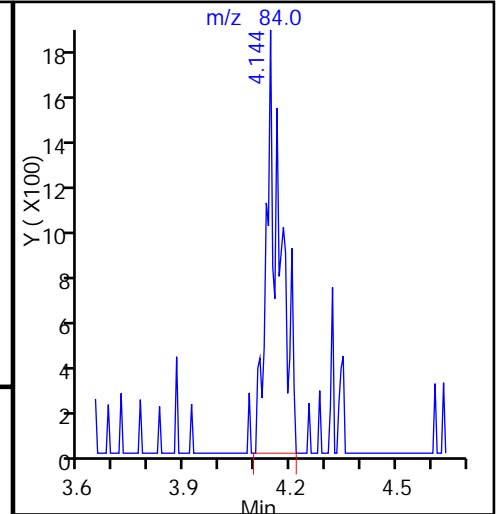
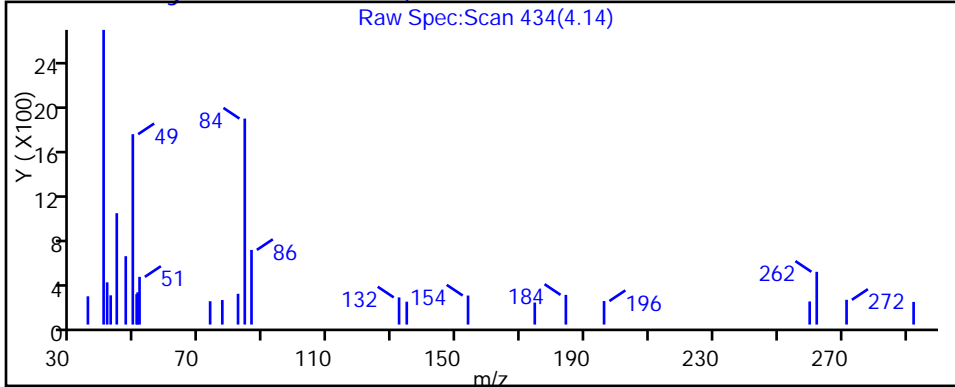
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

### 31 Methylene Chloride, CAS: 75-09-2



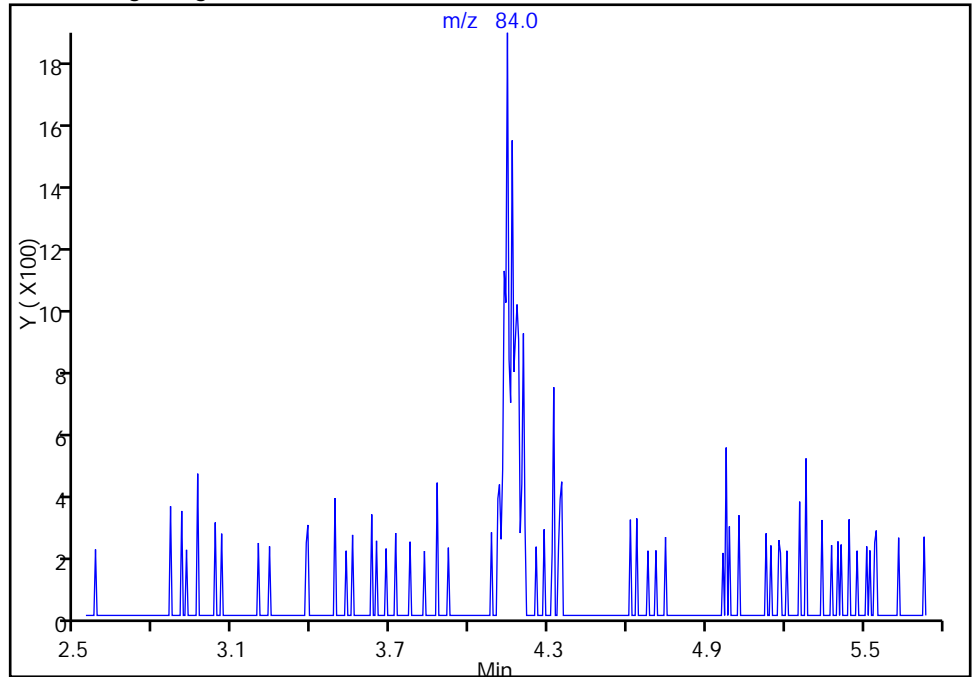
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323006.D  
Injection Date: 23-Mar-2015 13:04:30 Instrument ID: CHHP5  
Lims ID: MB  
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

31 Methylene Chloride, CAS: 75-09-2

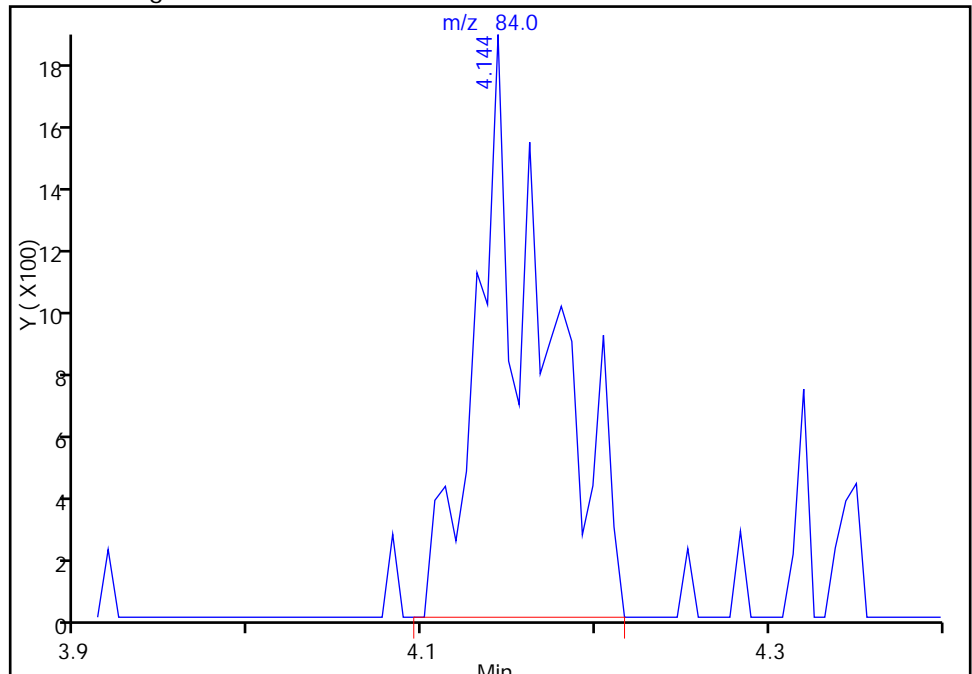
Not Detected  
Expected RT: 4.14

Processing Integration Results



Manual Integration Results

RT: 4.14  
Area: 5104  
Amount: 1.765037  
Amount Units: ng



Reviewer: fergusond, 23-Mar-2015 13:28:55  
Audit Action: Manually Integrated  
Audit Reason: Split Peak

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-136397/6  
 Matrix: Water Lab File ID: 50324006.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5(mL) Date Analyzed: 03/24/2015 13:57  
 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.: 136397 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	1.0	U	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-136397/6  
 Matrix: Water Lab File ID: 50324006.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5(mL) Date Analyzed: 03/24/2015 13:57  
 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.: 136397 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20
107-13-1	Acrylonitrile	20	U	20	0.55
123-91-1	1,4-Dioxane	200	U	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		64-135
2037-26-5	Toluene-d8 (Surr)	104		71-118
460-00-4	4-Bromofluorobenzene (Surr)	98		70-118
1868-53-7	Dibromofluoromethane (Surr)	102		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\50324006.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 24-Mar-2015 13:57:30 ALS Bottle#: 6 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: MB  
 Misc. Info.: 180-0006148-006  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\MMSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 25-Mar-2015 07:20:06 Calib Date: 18-Mar-2015 16:19:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150318-6071.b\50318010.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK031

First Level Reviewer: gordonk

Date: 25-Mar-2015 07:20:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.290	4.306	-0.016	97	133166	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.271	7.268	0.003	100	499355	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.362	10.359	0.003	99	109758	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.685	12.683	0.002	93	143379	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.535	6.520	0.015	54	115988	50.0	51.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.894	6.903	-0.009	97	166136	50.0	55.5	
\$ 7 Toluene-d8 (Surr)	98	8.926	8.923	0.003	99	454943	50.0	52.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.530	11.533	-0.003	97	154035	50.0	48.9	
11 Dichlorodifluoromethane	85		1.617					ND	
12 Chloromethane	50		1.775					ND	
13 Vinyl chloride	62		1.903					ND	
14 Butadiene	39		1.945					ND	
15 Bromomethane	94		2.256					ND	
16 Chloroethane	64		2.402					ND	
17 Dichlorofluoromethane	67		2.651					ND	
18 Trichlorofluoromethane	101		2.724					ND	
19 Ethanol	45		3.013					ND	
20 Ethyl ether	59		3.083					ND	
21 Acrolein	56		3.259					ND	
22 1,1-Dichloroethene	96		3.381					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.430					ND	
24 Acetone	43		3.491					ND	
25 Iodomethane	142		3.600					ND	
26 Carbon disulfide	76		3.667					ND	
27 Isopropyl alcohol	45		3.780					ND	
28 3-Chloro-1-propene	76		3.935					ND	
29 Acetonitrile	40		3.944					ND	
30 Methyl acetate	43		4.020					ND	
31 Methylene Chloride	84		4.141					ND	
32 2-Methyl-2-propanol	59		4.440					ND	
34 trans-1,2-Dichloroethene	96		4.555					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
33 Acrylonitrile	53		4.555					ND	
35 Methyl tert-butyl ether	73		4.592					ND	
36 Hexane	57		4.981					ND	
37 1,1-Dichloroethane	63		5.170					ND	
38 Vinyl acetate	43		5.291					ND	
39 2-Chloro-1,3-butadiene	53		5.301					ND	
41 Isopropyl ether	45		5.319					ND	
40 Isopropyl ether TIC	45		5.409					ND	
42 Tert-butyl ethyl ether	59		5.794					ND	
44 2,2-Dichloropropane	77		5.924					ND	
45 cis-1,2-Dichloroethene	96		5.942					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
46 2-Butanone (MEK)	43		5.985					ND	
47 Propionitrile	54		6.061					ND	
48 Ethyl acetate	43		6.080					ND	
49 Chlorobromomethane	128		6.216					ND	
50 Methacrylonitrile	41		6.238					ND	
51 Tetrahydrofuran	42		6.283					ND	
52 Chloroform	83		6.338					ND	
53 1,1,1-Trichloroethane	97		6.526					ND	
54 Cyclohexane	56		6.587					ND	
56 Carbon tetrachloride	117		6.715					ND	
55 1,1-Dichloropropene	75		6.721					ND	
57 Isobutyl alcohol	41		6.946					ND	
58 Benzene	78		6.952					ND	
59 1,2-Dichloroethane	62		6.982					ND	
61 Tert-amyl methyl ether	73		7.102					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.274					ND	
63 n-Butanol	56		7.655					ND	
64 Trichloroethene	130		7.664					ND	
65 Ethyl acrylate	55		7.807					ND	
66 Methylcyclohexane	83		7.858					ND	
67 1,2-Dichloropropane	63		7.901					ND	
68 Dibromomethane	93		8.029					ND	
70 1,4-Dioxane	88		8.047					ND	
69 Methyl methacrylate	69		8.051					ND	
71 Dichlorobromomethane	83		8.193					ND	
72 2-Nitropropane	41		8.440					ND	
73 2-Chloroethyl vinyl ether	63		8.515					ND	
74 cis-1,3-Dichloropropene	75		8.655					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.820					ND	
76 Toluene	91		8.990					ND	
77 trans-1,3-Dichloropropene	75		9.215					ND	
78 Ethyl methacrylate	69		9.312					ND	
79 1,1,2-Trichloroethane	97		9.398					ND	
80 Tetrachloroethene	164		9.531					ND	
81 1,3-Dichloropropane	76		9.562					ND	
82 2-Hexanone	43		9.653					ND	
83 n-Butyl acetate	43		9.784					ND	
84 Chlorodibromomethane	129		9.787					ND	
85 Ethylene Dibromide	107		9.902					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.371					ND	
87 Chlorobenzene	112		10.389					ND	
88 4-Chlorobenzotrifluoride	180		10.426					ND	
89 1,1,1,2-Tetrachloroethane	131		10.474					ND	
90 Ethylbenzene	106		10.499					ND	
91 m-Xylene & p-Xylene	106		10.614					ND	
92 o-Xylene	106		11.010					ND	
93 Styrene	104		11.022					ND	
94 Bromoform	173		11.204					ND	
96 2-Chlorobenzotrifluoride	180		11.271					ND	
95 Cyclohexanol	57		11.280					ND	
97 Isopropylbenzene	105		11.375					ND	
98 Cyclohexanone	55		11.469					ND	
99 1,1,2,2-Tetrachloroethane	83		11.673					ND	
100 Bromobenzene	156		11.679					ND	
101 1,2,3-Trichloropropane	110		11.721					ND	
102 trans-1,4-Dichloro-2-buten	53		11.734					ND	
103 N-Propylbenzene	120		11.782					ND	
104 2-Chlorotoluene	126		11.874					ND	
105 3-Chlorotoluene	126		11.934					ND	
106 1,3,5-Trimethylbenzene	105		11.959					ND	
107 4-Chlorotoluene	126		11.977					ND	
108 tert-Butylbenzene	119		12.287					ND	
109 Pentachloroethane	167		12.309					ND	
110 1,2,4-Trimethylbenzene	105		12.336					ND	
111 1,2-dichloro-4-(trifluorom	214		12.397					ND	
112 sec-Butylbenzene	105		12.506					ND	
113 1,3-Dichlorobenzene	146		12.616					ND	
114 4-Isopropyltoluene	119		12.652					ND	
115 1,4-Dichlorobenzene	146		12.701					ND	
116 2,4-Dichloro-1-(triflourom	214		12.756					ND	
117 1,2,3-Trimethylbenzene	105		12.759					ND	
118 2,5-Dichlorobenzotrifluori	214		12.804					ND	
119 Benzyl chloride	91		12.844					ND	
120 n-Butylbenzene	91		13.060					ND	
121 1,2-Dichlorobenzene	146		13.078					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.863					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.003					ND	
124 1,3,5-Trichlorobenzene	180		14.070					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.429					ND	
126 1,2,4-Trichlorobenzene	180		14.690					ND	
127 Hexachlorobutadiene	225		14.861					ND	
128 Naphthalene	128		14.940					ND	
129 1,2,3-Trichlorobenzene	180		15.183					ND	
131 2,4,5-Trichlorotoluene	159		15.962					ND	
130 2,3,6-Trichlorotoluene	159		16.059					ND	
132 2-Methylnaphthalene	142		16.081					ND	
146 2,5-Dichlorotoluene	1		0.000					ND	
150 2,6-Dichlorotoluene	1		0.000					ND	
151 Isooctane	57		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	



Data File: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\50324006.D

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
148 2,3-Dichlorotoluene	1		0.000						ND
147 2,4-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 153 1,2 Epoxybutane TIC	42		0.000						ND
T 136 Mesityl oxide TIC	83		0.000						ND
T 137 Tetrahydrofuran TIC	42		0.000						ND
T 138 Methyl n-amyl ketone TIC	43		0.000						ND

**Reagents:**

VOA8260INT\_00030

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00032

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\50324006.D

Injection Date: 24-Mar-2015 13:57:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: MB

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

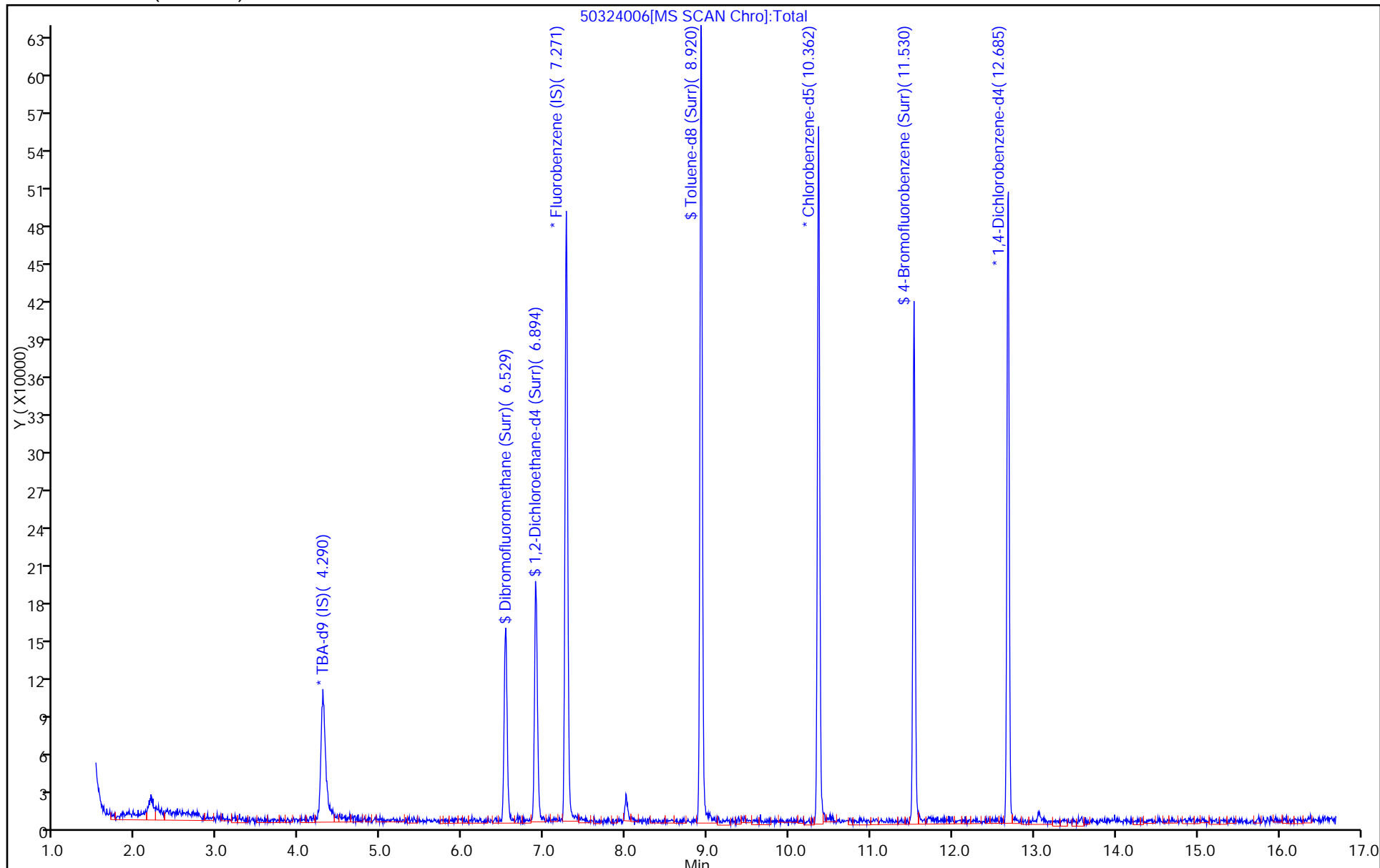
Dil. Factor: 1.0000

ALS Bottle#: 6

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.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-136250/9  
 Matrix: Water Lab File ID: 50323009.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5(mL) Date Analyzed: 03/23/2015 14:30  
 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.: 136250 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	11.8		1.0	0.28
75-01-4	Vinyl chloride	11.9		1.0	0.23
74-83-9	Bromomethane	13.4		1.0	0.31
75-00-3	Chloroethane	11.8		1.0	0.21
75-35-4	1,1-Dichloroethene	9.56		1.0	0.30
67-64-1	Acetone	21.0		5.0	2.5
75-15-0	Carbon disulfide	9.19		1.0	0.21
75-09-2	Methylene Chloride	9.78		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	10.0		1.0	0.17
1634-04-4	Methyl tert-butyl ether	10.4		1.0	0.18
75-34-3	1,1-Dichloroethane	11.1		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	10.1		1.0	0.24
74-97-5	Bromochloromethane	10.1		1.0	0.18
78-93-3	2-Butanone (MEK)	16.6		5.0	0.55
67-66-3	Chloroform	11.1		1.0	0.17
71-55-6	1,1,1-Trichloroethane	11.1		1.0	0.29
56-23-5	Carbon tetrachloride	12.0		1.0	0.14
71-43-2	Benzene	10.5		1.0	0.11
107-06-2	1,2-Dichloroethane	10.8		1.0	0.21
79-01-6	Trichloroethene	9.98		1.0	0.14
78-87-5	1,2-Dichloropropane	10.2		1.0	0.095
75-27-4	Bromodichloromethane	11.1		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	11.0		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	16.7		5.0	0.53
108-88-3	Toluene	10.8		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	11.9		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.4		1.0	0.20
127-18-4	Tetrachloroethene	9.90		1.0	0.15
591-78-6	2-Hexanone	14.2		5.0	0.16
124-48-1	Dibromochloromethane	11.5		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.7		1.0	0.18
108-90-7	Chlorobenzene	10.6		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	11.7		1.0	0.28
100-41-4	Ethylbenzene	9.85		1.0	0.23
1330-20-7	Xylenes, Total	19.8		3.0	0.49
100-42-5	Styrene	10.1		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-136250/9  
 Matrix: Water Lab File ID: 50323009.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5(mL) Date Analyzed: 03/23/2015 14:30  
 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.: 136250 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10.9		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.4		1.0	0.20
107-13-1	Acrylonitrile	101		20	0.55
123-91-1	1,4-Dioxane	154	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		64-135
2037-26-5	Toluene-d8 (Surr)	100		71-118
460-00-4	4-Bromofluorobenzene (Surr)	94		70-118
1868-53-7	Dibromofluoromethane (Surr)	100		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323009.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 23-Mar-2015 14:30:30 ALS Bottle#: 9 Worklist Smp#: 9  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: LCS  
 Misc. Info.: 180-0006128-009  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\MMSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 23-Mar-2015 14:48:20 Calib Date: 18-Mar-2015 16:19:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150318-6071.b\50318010.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK037

First Level Reviewer: fergusond

Date: 23-Mar-2015 14:48:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.309	4.292	0.017	99	104649	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.272	7.273	-0.001	99	467634	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.368	10.363	0.005	98	107136	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.686	12.681	0.005	96	157627	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.524	6.522	0.002	98	106863	50.0	50.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.901	6.900	0.001	99	144798	50.0	51.6	
\$ 7 Toluene-d8 (Surr)	98	8.920	8.925	-0.005	100	425832	50.0	49.9	
\$ 8 4-Bromofluorobenzene (Surr	95	11.530	11.529	0.001	98	144274	50.0	46.9	
11 Dichlorodifluoromethane	85	1.626	1.613	0.013	98	153364	50.0	76.5	
12 Chloromethane	50	1.778	1.777	0.001	99	163485	50.0	59.1	
13 Vinyl chloride	62	1.900	1.905	-0.005	100	183628	50.0	59.4	
14 Butadiene	39	1.949	1.948	0.001	99	199846	50.0	56.6	
15 Bromomethane	94	2.253	2.252	0.001	98	109993	50.0	67.2	
16 Chloroethane	64	2.399	2.380	0.019	99	125770	50.0	58.8	
17 Dichlorofluoromethane	67	2.661	2.647	0.014	100	275778	50.0	56.5	
18 Trichlorofluoromethane	101	2.709	2.714	-0.005	93	204618	50.0	55.2	
20 Ethyl ether	59	3.092	3.085	0.007	98	136238	50.0	55.7	
21 Acrolein	56	3.257	3.250	0.007	96	41123	150.0	138.4	
22 1,1-Dichloroethene	96	3.378	3.377	0.001	97	128929	50.0	47.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.433	3.426	0.007	98	136355	50.0	50.0	
24 Acetone	43	3.500	3.493	0.007	100	100726	100.0	105.1	
25 Iodomethane	142	3.597	3.566	0.031	99	195466	50.0	52.2	
26 Carbon disulfide	76	3.676	3.645	0.031	100	303138	50.0	46.0	
28 3-Chloro-1-propene	76	3.938	3.931	0.007	98	67475	50.0	47.3	
30 Methyl acetate	43	4.023	4.016	0.007	100	555577	250.0	247.9	
31 Methylene Chloride	84	4.145	4.138	0.007	97	152570	50.0	48.9	
32 2-Methyl-2-propanol	59	4.443	4.430	0.013	96	57738	500.0	468.4	
33 Acrylonitrile	53	4.552	4.545	0.007	99	584385	500.0	506.9	
34 trans-1,2-Dichloroethene	96	4.571	4.558	0.013	68	139755	50.0	50.1	
35 Methyl tert-butyl ether	73	4.595	4.594	0.001	99	320659	50.0	52.0	
36 Hexane	57	4.984	4.977	0.007	97	203267	50.0	45.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.173	5.166	0.007	100	275271	50.0	55.3	
38 Vinyl acetate	43	5.295	5.296	-0.001	100	181911	50.0	51.5	
44 2,2-Dichloropropane	77	5.927	5.920	0.007	97	74475	50.0	59.8	
45 cis-1,2-Dichloroethene	96	5.940	5.938	0.002	97	148596	50.0	50.6	
46 2-Butanone (MEK)	43	5.988	5.987	0.001	99	127338	100.0	83.1	
49 Chlorobromomethane	128	6.219	6.218	0.001	98	64238	50.0	50.5	
51 Tetrahydrofuran	42	6.292	6.285	0.007	99	83231	100.0	86.8	
52 Chloroform	83	6.347	6.340	0.007	100	250348	50.0	55.4	
53 1,1,1-Trichloroethane	97	6.530	6.522	0.008	98	159836	50.0	55.3	
54 Cyclohexane	56	6.590	6.583	0.007	96	254847	50.0	46.0	
56 Carbon tetrachloride	117	6.718	6.717	0.001	99	138682	50.0	59.8	
55 1,1-Dichloropropene	75	6.724	6.723	0.001	99	202198	50.0	53.9	
57 Isobutyl alcohol	41	6.943	6.936	0.007	98	62214	1250.0	996.7	
58 Benzene	78	6.955	6.954	0.001	99	584366	50.0	52.7	
59 1,2-Dichloroethane	62	6.986	6.985	0.001	99	195998	50.0	54.0	
62 n-Heptane	43	7.278	7.277	0.001	79	170596	50.0	44.8	
64 Trichloroethene	130	7.667	7.666	0.001	98	138495	50.0	49.9	
66 Methylcyclohexane	83	7.862	7.861	0.001	99	231924	50.0	46.8	
67 1,2-Dichloropropane	63	7.898	7.903	-0.005	94	140468	50.0	51.2	
68 Dibromomethane	93	8.026	8.019	0.007	98	77296	50.0	52.4	
70 1,4-Dioxane	88	8.063	8.056	0.007	94	22260	1000.0	771.3	M
71 Dichlorobromomethane	83	8.203	8.195	0.008	100	167713	50.0	55.7	
73 2-Chloroethyl vinyl ether	63	8.519	8.518	0.001	99	144590	100.0	93.6	
74 cis-1,3-Dichloropropene	75	8.659	8.658	0.001	99	160028	50.0	55.1	
75 4-Methyl-2-pentanone (MIBK)	43	8.823	8.822	0.001	99	241407	100.0	83.3	
76 Toluene	91	8.993	8.986	0.007	99	590586	50.0	53.8	
77 trans-1,3-Dichloropropene	75	9.219	9.217	0.002	97	118445	50.0	59.7	
78 Ethyl methacrylate	69	9.316	9.315	0.001	97	126938	50.0	49.1	
79 1,1,2-Trichloroethane	97	9.401	9.400	0.001	97	107213	50.0	52.1	
80 Tetrachloroethene	164	9.535	9.534	0.001	98	106297	50.0	49.5	
81 1,3-Dichloropropane	76	9.565	9.564	0.001	98	199789	50.0	52.2	
82 2-Hexanone	43	9.657	9.655	0.002	99	156739	100.0	70.8	
84 Chlorodibromomethane	129	9.790	9.789	0.001	99	94091	50.0	57.3	
85 Ethylene Dibromide	107	9.900	9.899	0.001	98	105144	50.0	53.5	
86 3-Chlorobenzotrifluoride	180	10.374	10.373	0.001	96	218029	50.0	52.1	
87 Chlorobenzene	112	10.393	10.392	0.001	99	367271	50.0	52.8	
88 4-Chlorobenzotrifluoride	180	10.429	10.428	0.001	99	215657	50.0	53.2	
89 1,1,1,2-Tetrachloroethane	131	10.472	10.471	0.001	96	105106	50.0	58.5	
90 Ethylbenzene	106	10.502	10.501	0.001	100	196615	50.0	49.3	
91 m-Xylene & p-Xylene	106	10.618	10.617	0.001	99	244885	50.0	50.2	
92 o-Xylene	106	11.013	11.012	0.001	97	233350	50.0	48.9	
93 Styrene	104	11.025	11.024	0.001	93	387388	50.0	50.4	
94 Bromoform	173	11.214	11.213	0.001	97	55188	50.0	54.4	
96 2-Chlorobenzotrifluoride	180	11.275	11.274	0.001	99	217646	50.0	52.0	
97 Isopropylbenzene	105	11.378	11.377	0.001	100	611716	50.0	51.3	
99 1,1,2,2-Tetrachloroethane	83	11.676	11.675	0.001	97	152992	50.0	51.8	
100 Bromobenzene	156	11.682	11.681	0.001	97	140611	50.0	48.2	
101 1,2,3-Trichloropropane	110	11.719	11.718	0.001	97	43689	50.0	45.6	
102 trans-1,4-Dichloro-2-buten	53	11.731	11.730	0.001	97	33232	50.0	41.7	
103 N-Propylbenzene	120	11.792	11.791	0.001	100	166095	50.0	46.2	
104 2-Chlorotoluene	126	11.877	11.876	0.001	100	143489	50.0	47.5	
105 3-Chlorotoluene	126	11.938	11.937	0.001	99	187471	50.0	55.5	

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	11.962	11.961	0.001	100	487489	50.0	48.6	
107 4-Chlorotoluene	126	11.980	11.979	0.001	99	157175	50.0	48.0	
108 tert-Butylbenzene	119	12.291	12.290	0.001	100	406687	50.0	46.8	
110 1,2,4-Trimethylbenzene	105	12.333	12.332	0.001	99	493335	50.0	47.9	
111 1,2-dichloro-4-(trifluorom	214	12.400	12.399	0.001	98	165933	50.0	51.0	
112 sec-Butylbenzene	105	12.510	12.509	0.001	100	579412	50.0	47.4	
113 1,3-Dichlorobenzene	146	12.619	12.618	0.001	98	257568	50.0	47.9	
114 4-Isopropyltoluene	119	12.650	12.655	-0.005	100	472153	50.0	46.7	
115 1,4-Dichlorobenzene	146	12.704	12.709	-0.005	99	265980	50.0	48.5	
116 2,4-Dichloro-1-(trifluorom	214	12.759	12.758	0.001	98	154101	50.0	50.6	
118 2,5-Dichlorobenzotrifluori	214	12.808	12.807	0.001	99	167704	50.0	49.2	
120 n-Butylbenzene	91	13.063	13.062	0.001	100	420379	50.0	45.7	
121 1,2-Dichlorobenzene	146	13.082	13.080	0.002	99	238541	50.0	47.9	
122 1,2-Dibromo-3-Chloropropan	75	13.860	13.859	0.001	97	19160	50.0	47.0	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.006	14.005	0.001	99	525625	150.0	139.7	
124 1,3,5-Trichlorobenzene	180	14.073	14.076	-0.003	97	122648	50.0	40.6	
125 2,3- & 3,4- Dichlorotoluen	125	14.426	14.425	0.001	99	327016	100.0	89.4	
126 1,2,4-Trichlorobenzene	180	14.694	14.693	0.001	99	98253	50.0	37.9	
127 Hexachlorobutadiene	225	14.864	14.863	0.001	98	47794	50.0	38.5	
128 Naphthalene	128	14.943	14.942	0.001	100	233718	50.0	34.4	
129 1,2,3-Trichlorobenzene	180	15.186	15.191	-0.005	98	78419	50.0	36.9	
131 2,4,5-Trichlorotoluene	159	15.959	15.964	-0.005	98	33362	50.0	29.2	
130 2,3,6-Trichlorotoluene	159	16.062	16.061	0.001	96	31024	50.0	30.1	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	100.7	
S 133 Xylenes, Total	106				0		100.0	99.0	
S 135 1,3-Dichloropropene, Total	1				0		100.0	114.8	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

#### Review Flags

M - Manually Integrated

**Reagents:**

voaW1,3,5TCab_00001	Amount Added: 2.00	Units: uL	
voaW8260voa2n_00005	Amount Added: 2.00	Units: uL	
voaWKet2 Rest_00002	Amount Added: 2.00	Units: uL	
VOAEE2ND_00001	Amount Added: 2.00	Units: uL	
voaWVA2nd Res_00006	Amount Added: 2.00	Units: uL	
voaW2cle2ndRe_00002	Amount Added: 2.00	Units: uL	
VOAACRO2ND_00005	Amount Added: 6.00	Units: uL	
VOA8260INT_00030	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added: 2.00	Units: uL	Run Reagent



TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323009.D

Injection Date: 23-Mar-2015 14:30:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: LCS

Worklist Smp#: 9

Client ID:

Purge Vol: 5.000 mL

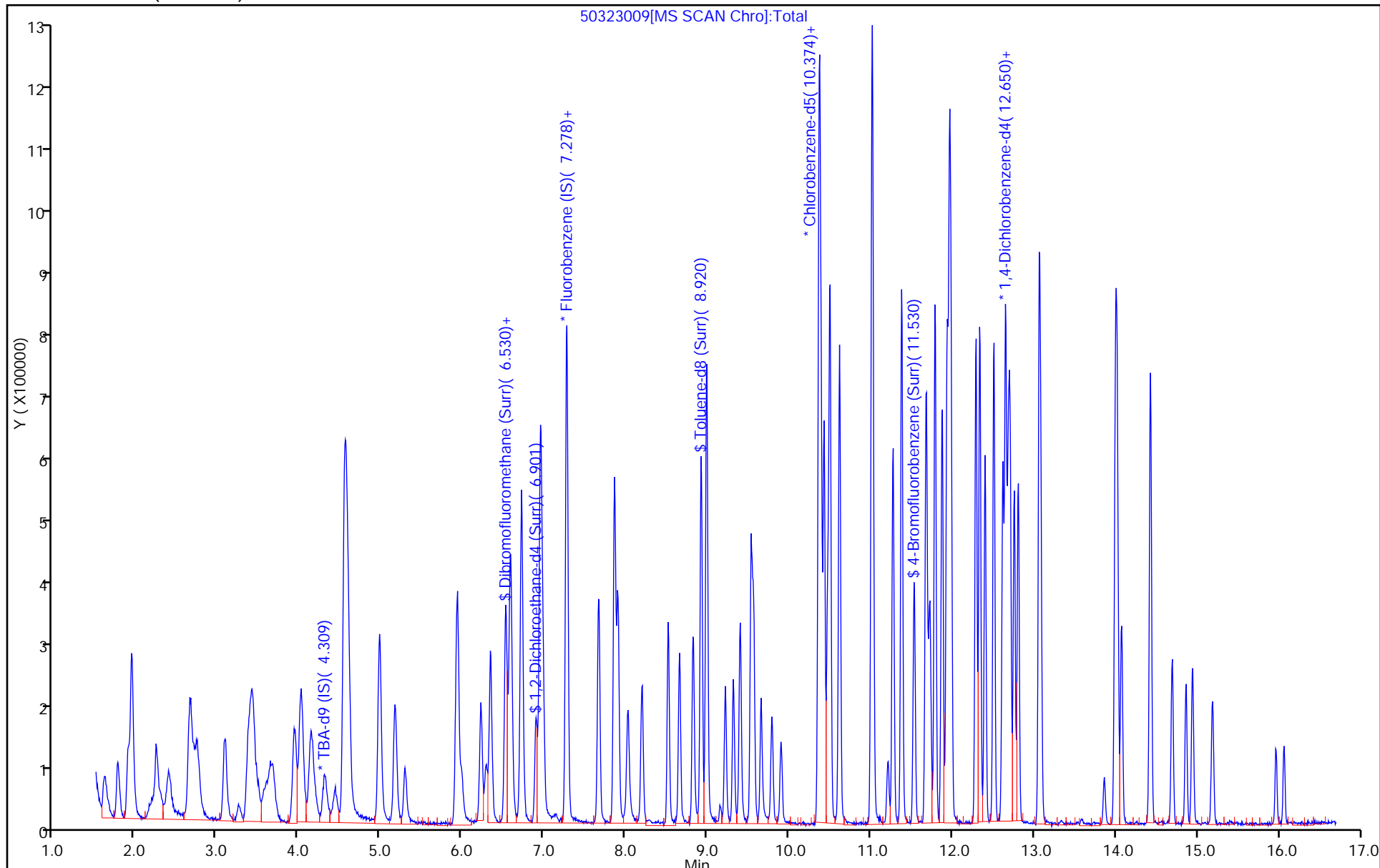
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



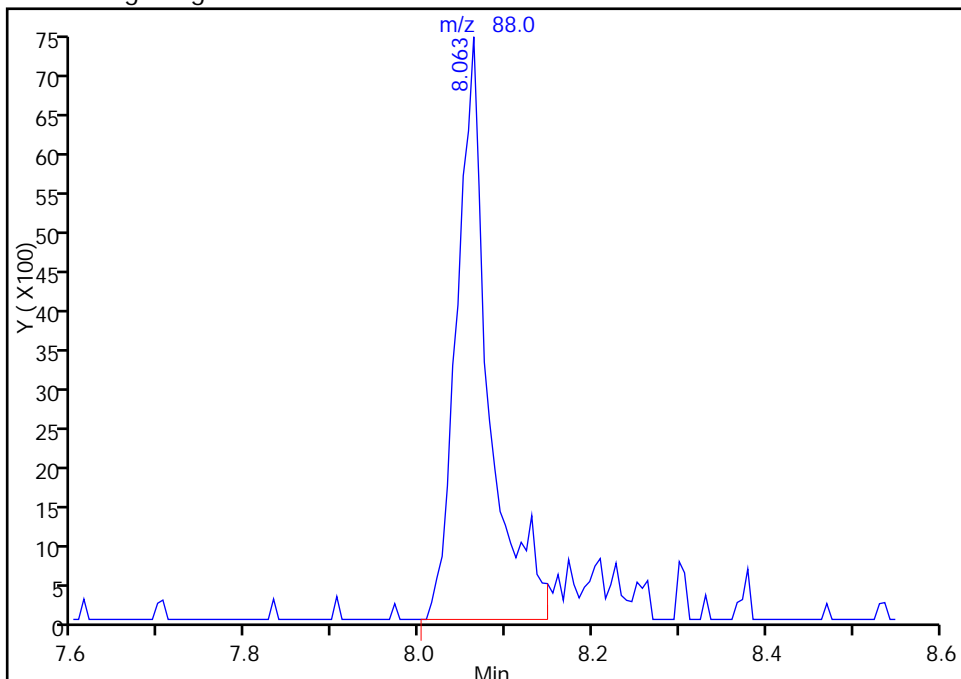
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323009.D  
Injection Date: 23-Mar-2015 14:30:30 Instrument ID: CHHP5  
Lims ID: LCS  
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

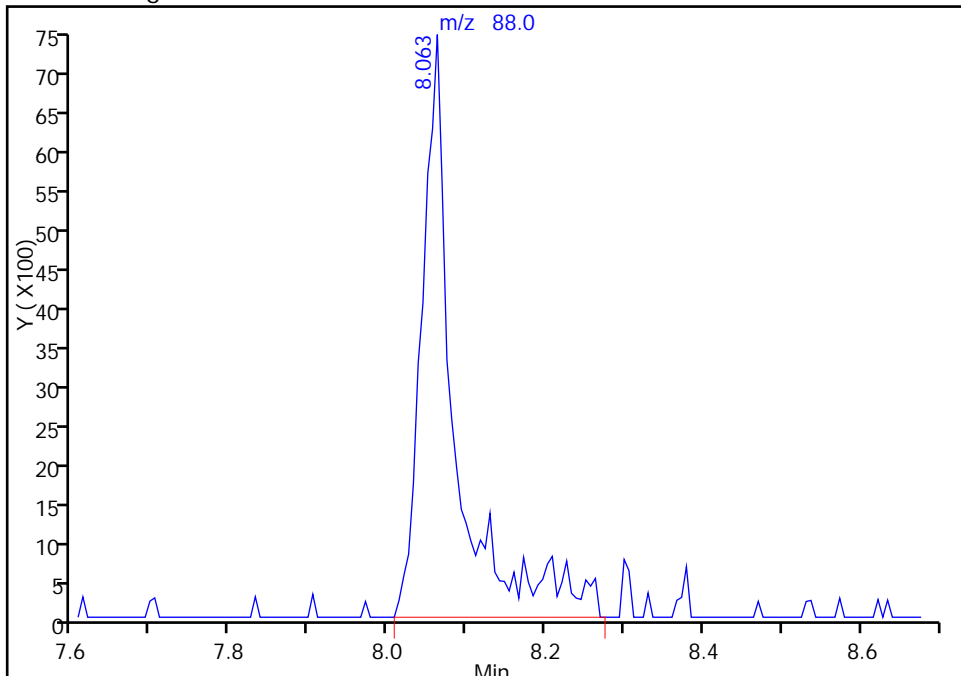
RT: 8.06  
Area: 19119  
Amount: 662.4470  
Amount Units: ng

Processing Integration Results



RT: 8.06  
Area: 22260  
Amount: 771.2784  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 23-Mar-2015 14:48:20  
Audit Action: Manually Integrated  
Audit Reason: Peak Tail

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-136397/9  
 Matrix: Water Lab File ID: 50324009.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5(mL) Date Analyzed: 03/24/2015 15:24  
 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.: 136397 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	10.1		1.0	0.28
75-01-4	Vinyl chloride	10.9		1.0	0.23
74-83-9	Bromomethane	12.1		1.0	0.31
75-00-3	Chloroethane	12.2		1.0	0.21
75-35-4	1,1-Dichloroethene	9.20		1.0	0.30
67-64-1	Acetone	21.5		5.0	2.5
75-15-0	Carbon disulfide	9.01		1.0	0.21
75-09-2	Methylene Chloride	9.00		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.26		1.0	0.17
1634-04-4	Methyl tert-butyl ether	9.14		1.0	0.18
75-34-3	1,1-Dichloroethane	9.93		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	9.19		1.0	0.24
74-97-5	Bromochloromethane	8.89		1.0	0.18
78-93-3	2-Butanone (MEK)	15.7		5.0	0.55
67-66-3	Chloroform	9.75		1.0	0.17
71-55-6	1,1,1-Trichloroethane	10.1		1.0	0.29
56-23-5	Carbon tetrachloride	10.6		1.0	0.14
71-43-2	Benzene	9.84		1.0	0.11
107-06-2	1,2-Dichloroethane	10.1		1.0	0.21
79-01-6	Trichloroethene	9.27		1.0	0.14
78-87-5	1,2-Dichloropropane	9.67		1.0	0.095
75-27-4	Bromodichloromethane	9.85		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	10.0		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	15.3		5.0	0.53
108-88-3	Toluene	9.97		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	10.6		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.66		1.0	0.20
127-18-4	Tetrachloroethene	9.24		1.0	0.15
591-78-6	2-Hexanone	12.7		5.0	0.16
124-48-1	Dibromochloromethane	10.1		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.22		1.0	0.18
108-90-7	Chlorobenzene	9.51		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.7		1.0	0.28
100-41-4	Ethylbenzene	9.25		1.0	0.23
1330-20-7	Xylenes, Total	18.3		3.0	0.49
100-42-5	Styrene	9.27		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-136397/9  
 Matrix: Water Lab File ID: 50324009.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5(mL) Date Analyzed: 03/24/2015 15:24  
 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.: 136397 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.56		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.20		1.0	0.20
107-13-1	Acrylonitrile	91.4		20	0.55
123-91-1	1,4-Dioxane	149	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		64-135
2037-26-5	Toluene-d8 (Surr)	96		71-118
460-00-4	4-Bromofluorobenzene (Surr)	91		70-118
1868-53-7	Dibromofluoromethane (Surr)	89		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\50324009.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 24-Mar-2015 15:24:30 ALS Bottle#: 9 Worklist Smp#: 9  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: LCS  
 Misc. Info.: 180-0006148-009  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 25-Mar-2015 07:27:37 Calib Date: 18-Mar-2015 16:19:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150318-6071.b\50318010.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK031

First Level Reviewer: gordonk

Date: 25-Mar-2015 07:28:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.303	4.306	-0.003	97	123226	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.272	7.268	0.004	96	496991	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.363	10.359	0.004	97	115769	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.680	12.683	-0.003	96	163017	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.530	6.520	0.010	98	100849	50.0	44.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.901	6.903	-0.002	97	151519	50.0	50.8	
\$ 7 Toluene-d8 (Surr)	98	8.921	8.923	-0.002	100	442045	50.0	47.9	
\$ 8 4-Bromofluorobenzene (Surr	95	11.524	11.533	-0.009	98	151078	50.0	45.5	
11 Dichlorodifluoromethane	85	1.621	1.617	0.004	99	136960	50.0	64.3	
12 Chloromethane	50	1.785	1.775	0.010	100	148866	50.0	50.6	
13 Vinyl chloride	62	1.907	1.903	0.003	99	178973	50.0	54.5	
14 Butadiene	39	1.955	1.945	0.010	99	201830	50.0	53.8	
15 Bromomethane	94	2.259	2.256	0.003	99	105631	50.0	60.3	
16 Chloroethane	64	2.405	2.402	0.003	99	138592	50.0	61.0	
17 Dichlorofluoromethane	67	2.661	2.651	0.010	100	296057	50.0	57.0	
18 Trichlorofluoromethane	101	2.722	2.724	-0.002	99	209208	50.0	53.1	
20 Ethyl ether	59	3.093	3.083	0.010	98	130176	50.0	50.1	
21 Acrolein	56	3.263	3.259	0.004	96	40265	150.0	127.5	
22 1,1-Dichloroethene	96	3.403	3.381	0.022	94	131838	50.0	46.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.446	3.430	0.016	98	135689	50.0	46.8	
24 Acetone	43	3.488	3.491	-0.003	99	109356	100.0	107.4	
25 Iodomethane	142	3.628	3.600	0.028	99	179737	50.0	45.1	
26 Carbon disulfide	76	3.671	3.667	0.004	100	315872	50.0	45.1	
28 3-Chloro-1-propene	76	3.944	3.935	0.009	96	63115	50.0	41.7	
30 Methyl acetate	43	4.024	4.020	0.004	100	553101	250.0	232.2	
31 Methylene Chloride	84	4.139	4.141	-0.002	98	149217	50.0	45.0	
32 2-Methyl-2-propanol	59	4.437	4.440	-0.003	95	61956	500.0	426.8	
34 trans-1,2-Dichloroethene	96	4.565	4.555	0.010	93	137181	50.0	46.3	
33 Acrylonitrile	53	4.553	4.555	-0.002	100	560104	500.0	457.1	
35 Methyl tert-butyl ether	73	4.601	4.592	0.009	99	299661	50.0	45.7	
36 Hexane	57	4.985	4.981	0.004	97	207616	50.0	43.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.173	5.170	0.003	100	262684	50.0	49.6	
38 Vinyl acetate	43	5.289	5.291	-0.002	100	167669	50.0	44.7	
44 2,2-Dichloropropane	77	5.922	5.924	-0.002	98	66588	50.0	50.3	
45 cis-1,2-Dichloroethene	96	5.940	5.942	-0.002	98	143548	50.0	46.0	
46 2-Butanone (MEK)	43	5.989	5.985	0.003	100	127673	100.0	78.4	
49 Chlorobromomethane	128	6.220	6.216	0.004	98	60098	50.0	44.5	
51 Tetrahydrofuran	42	6.287	6.283	0.004	98	81706	100.0	80.1	
52 Chloroform	83	6.347	6.338	0.009	100	234223	50.0	48.7	
53 1,1,1-Trichloroethane	97	6.530	6.526	0.004	98	154871	50.0	50.5	
54 Cyclohexane	56	6.591	6.587	0.004	96	254616	50.0	43.2	
56 Carbon tetrachloride	117	6.719	6.715	0.004	99	130203	50.0	52.9	
55 1,1-Dichloropropene	75	6.725	6.721	0.004	99	201464	50.0	50.5	
57 Isobutyl alcohol	41	6.944	6.946	-0.002	98	61081	1250.0	920.8	
58 Benzene	78	6.956	6.952	0.004	99	579484	50.0	49.2	
59 1,2-Dichloroethane	62	6.980	6.982	-0.002	98	194007	50.0	50.3	
62 n-Heptane	43	7.278	7.274	0.004	77	173557	50.0	42.9	
64 Trichloroethene	130	7.668	7.664	0.004	99	136726	50.0	46.3	
66 Methylcyclohexane	83	7.862	7.858	0.004	98	226113	50.0	42.9	
67 1,2-Dichloropropane	63	7.899	7.901	-0.002	96	140903	50.0	48.4	
68 Dibromomethane	93	8.020	8.029	-0.009	98	74425	50.0	47.4	
70 1,4-Dioxane	88	8.057	8.047	0.010	96	22811	1000.0	743.7	M
71 Dichlorobromomethane	83	8.197	8.193	0.004	99	157605	50.0	49.2	
73 2-Chloroethyl vinyl ether	63	8.519	8.515	0.004	98	150548	100.0	91.7	
74 cis-1,3-Dichloropropene	75	8.659	8.655	0.004	99	154501	50.0	50.0	
75 4-Methyl-2-pentanone (MIBK)	43	8.823	8.820	0.003	99	239628	100.0	76.5	
76 Toluene	91	8.988	8.990	-0.002	100	591157	50.0	49.8	
77 trans-1,3-Dichloropropene	75	9.219	9.215	0.004	99	113385	50.0	52.9	
78 Ethyl methacrylate	69	9.316	9.312	0.004	97	128104	50.0	45.8	
79 1,1,2-Trichloroethane	97	9.395	9.398	-0.003	99	107498	50.0	48.3	
80 Tetrachloroethene	164	9.535	9.531	0.004	98	107160	50.0	46.2	
81 1,3-Dichloropropane	76	9.566	9.562	0.004	98	192679	50.0	46.6	
82 2-Hexanone	43	9.657	9.653	0.004	99	151873	100.0	63.4	
84 Chlorodibromomethane	129	9.791	9.787	0.004	96	89788	50.0	50.6	
85 Ethylene Dibromide	107	9.900	9.902	-0.002	99	97854	50.0	46.1	
86 3-Chlorobenzotrifluoride	180	10.369	10.371	-0.002	97	222556	50.0	49.2	
87 Chlorobenzene	112	10.387	10.389	-0.002	100	357427	50.0	47.5	
88 4-Chlorobenzotrifluoride	180	10.429	10.426	0.003	99	208927	50.0	47.7	
89 1,1,1,2-Tetrachloroethane	131	10.472	10.474	-0.002	95	103649	50.0	53.4	
90 Ethylbenzene	106	10.496	10.499	-0.003	100	199417	50.0	46.2	
91 m-Xylene & p-Xylene	106	10.618	10.614	0.004	100	239765	50.0	45.5	
92 o-Xylene	106	11.013	11.010	0.003	98	238051	50.0	46.1	
93 Styrene	104	11.026	11.022	0.004	99	385311	50.0	46.3	
94 Bromoform	173	11.208	11.204	0.004	96	52410	50.0	47.8	
96 2-Chlorobenzotrifluoride	180	11.275	11.271	0.004	100	218713	50.0	48.4	
97 Isopropylbenzene	105	11.378	11.375	0.003	100	606406	50.0	47.1	
99 1,1,2,2-Tetrachloroethane	83	11.670	11.673	-0.003	97	146745	50.0	46.0	
100 Bromobenzene	156	11.683	11.679	0.004	99	135399	50.0	44.9	
101 1,2,3-Trichloropropane	110	11.719	11.721	-0.002	96	46462	50.0	46.9	
102 trans-1,4-Dichloro-2-buten	53	11.725	11.734	-0.009	95	29572	50.0	35.9	
103 N-Propylbenzene	120	11.786	11.782	0.004	100	168479	50.0	45.3	
104 2-Chlorotoluene	126	11.877	11.874	0.003	100	139711	50.0	44.7	
105 3-Chlorotoluene	126	11.938	11.934	0.004	99	180782	50.0	51.7	

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	11.962	11.959	0.003	100	488618	50.0	47.1	
107 4-Chlorotoluene	126	11.981	11.977	0.004	97	160345	50.0	47.4	
108 tert-Butylbenzene	119	12.285	12.287	-0.002	99	401420	50.0	44.6	
110 1,2,4-Trimethylbenzene	105	12.334	12.336	-0.002	97	486933	50.0	45.7	
111 1,2-dichloro-4-(trifluorom	214	12.400	12.397	0.003	99	163170	50.0	48.5	
112 sec-Butylbenzene	105	12.504	12.506	-0.002	100	587896	50.0	46.5	
113 1,3-Dichlorobenzene	146	12.619	12.616	0.003	98	247095	50.0	44.5	
114 4-Isopropyltoluene	119	12.650	12.652	-0.002	100	476706	50.0	45.6	
115 1,4-Dichlorobenzene	146	12.705	12.701	0.004	99	262287	50.0	46.2	
116 2,4-Dichloro-1-(trifluorom	214	12.753	12.756	-0.003	98	145916	50.0	46.3	
118 2,5-Dichlorobenzotrifluori	214	12.808	12.804	0.004	98	169638	50.0	48.1	
120 n-Butylbenzene	91	13.058	13.060	-0.002	100	425241	50.0	44.7	
121 1,2-Dichlorobenzene	146	13.082	13.078	0.004	99	233276	50.0	45.3	
122 1,2-Dibromo-3-Chloropropan	75	13.854	13.863	-0.009	93	16573	50.0	39.3	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.000	14.003	-0.003	99	530845	150.0	136.4	
125 2,3- & 3,4- Dichlorotoluen	125	14.420	14.429	-0.009	100	328340	100.0	86.8	
126 1,2,4-Trichlorobenzene	180	14.688	14.690	-0.002	97	94630	50.0	35.3	
127 Hexachlorobutadiene	225	14.858	14.861	-0.003	97	46950	50.0	36.5	
128 Naphthalene	128	14.937	14.940	-0.003	100	231029	50.0	32.8	
129 1,2,3-Trichlorobenzene	180	15.187	15.183	0.004	98	71763	50.0	32.7	
131 2,4,5-Trichlorotoluene	159	15.959	15.962	-0.003	97	35327	50.0	29.9	
130 2,3,6-Trichlorotoluene	159	16.057	16.059	-0.002	97	31533	50.0	29.6	
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	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	91.6	
S 134 1,2-Dichloroethene, Total	96				0		100.0	92.2	
S 135 1,3-Dichloropropene, Total	1				0		100.0	102.9	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

voaW8260voa2n_00005	Amount Added: 2.00	Units: uL	
voaWKet2 Rest_00002	Amount Added: 2.00	Units: uL	
VOAEE2ND_00001	Amount Added: 2.00	Units: uL	
voaWVA2nd Res_00006	Amount Added: 2.00	Units: uL	
voaW2cle2ndRe_00002	Amount Added: 2.00	Units: uL	
VOAACRO2ND_00005	Amount Added: 6.00	Units: uL	
VOA8260INT_00030	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\50324009.D

Injection Date: 24-Mar-2015 15:24:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: LCS

Worklist Smp#: 9

Client ID:

Purge Vol: 5.000 mL

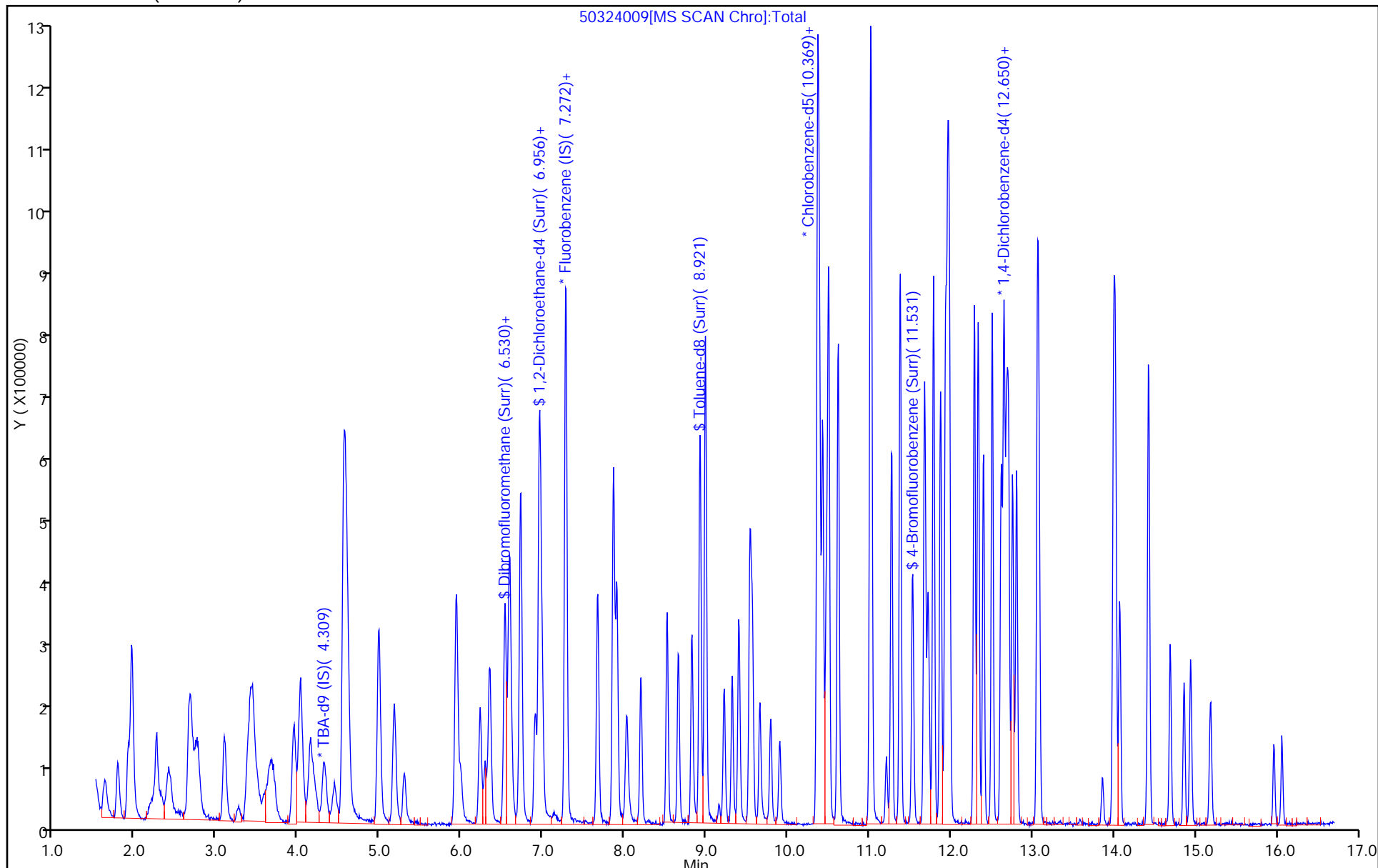
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





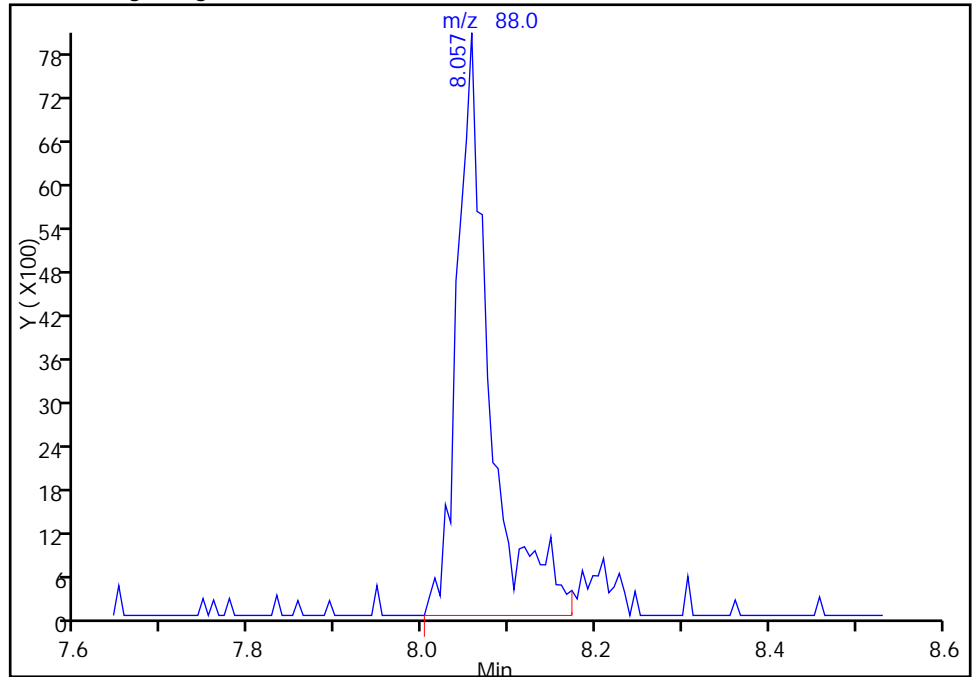
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150324-6148.b\50324009.D  
Injection Date: 24-Mar-2015 15:24:30 Instrument ID: CHHP5  
Lims ID: LCS  
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

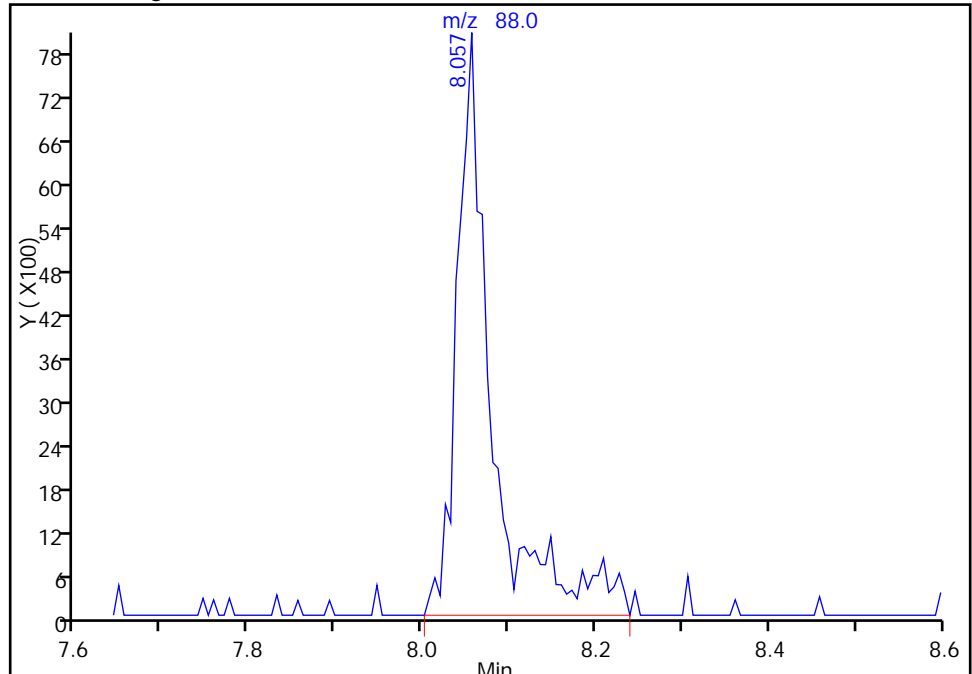
RT: 8.06  
Area: 21084  
Amount: 687.3795  
Amount Units: ng

Processing Integration Results



RT: 8.06  
Area: 22811  
Amount: 743.6830  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 24-Mar-2015 15:44:30  
Audit Action: Manually Integrated  
Audit Reason: Peak Tail

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-164-0/1-0 MS Lab Sample ID: 180-42137-1 MS  
 Matrix: Water Lab File ID: 50323010.D  
 Analysis Method: 8260C Date Collected: 03/16/2015 15:37  
 Sample wt/vol: 5(mL) Date Analyzed: 03/23/2015 14:54  
 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.: 136250 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	12.2		1.0	0.28
75-01-4	Vinyl chloride	11.6		1.0	0.23
74-83-9	Bromomethane	13.5		1.0	0.31
75-00-3	Chloroethane	12.2		1.0	0.21
75-35-4	1,1-Dichloroethene	9.66		1.0	0.30
67-64-1	Acetone	25.9		5.0	2.5
75-15-0	Carbon disulfide	8.97		1.0	0.21
75-09-2	Methylene Chloride	10.5		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	10.3		1.0	0.17
1634-04-4	Methyl tert-butyl ether	11.0		1.0	0.18
75-34-3	1,1-Dichloroethane	11.0		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	10.4		1.0	0.24
74-97-5	Bromochloromethane	10.7		1.0	0.18
78-93-3	2-Butanone (MEK)	20.8		5.0	0.55
67-66-3	Chloroform	11.4		1.0	0.17
71-55-6	1,1,1-Trichloroethane	11.4		1.0	0.29
56-23-5	Carbon tetrachloride	12.0		1.0	0.14
71-43-2	Benzene	10.9		1.0	0.11
107-06-2	1,2-Dichloroethane	11.5		1.0	0.21
79-01-6	Trichloroethene	10.6		1.0	0.14
78-87-5	1,2-Dichloropropane	11.1		1.0	0.095
75-27-4	Bromodichloromethane	11.2		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	11.4		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	19.0		5.0	0.53
108-88-3	Toluene	10.9		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	12.5		1.0	0.15
79-00-5	1,1,2-Trichloroethane	11.5		1.0	0.20
127-18-4	Tetrachloroethene	10.4		1.0	0.15
591-78-6	2-Hexanone	15.1		5.0	0.16
124-48-1	Dibromochloromethane	11.6		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	11.0		1.0	0.18
108-90-7	Chlorobenzene	10.7		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	11.9		1.0	0.28
100-41-4	Ethylbenzene	10.4		1.0	0.23
1330-20-7	Xylenes, Total	20.3		3.0	0.49
100-42-5	Styrene	10.5		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-164-0/1-0 MS Lab Sample ID: 180-42137-1 MS  
 Matrix: Water Lab File ID: 50323010.D  
 Analysis Method: 8260C Date Collected: 03/16/2015 15:37  
 Sample wt/vol: 5(mL) Date Analyzed: 03/23/2015 14:54  
 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.: 136250 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	11.0		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.5		1.0	0.20
107-13-1	Acrylonitrile	110		20	0.55
123-91-1	1,4-Dioxane	176	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		64-135
2037-26-5	Toluene-d8 (Surr)	101		71-118
460-00-4	4-Bromofluorobenzene (Surr)	101		70-118
1868-53-7	Dibromofluoromethane (Surr)	100		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323010.D  
 Lims ID: 180-42137-C-1 MS  
 Client ID:  
 Sample Type: MS  
 Inject. Date: 23-Mar-2015 14:54:30 ALS Bottle#: 10 Worklist Smp#: 10  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-42137-C-1 MS  
 Misc. Info.: 180-0006128-010  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 24-Mar-2015 07:24:21 Calib Date: 18-Mar-2015 16:19:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150318-6071.b\50318010.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK052

First Level Reviewer: fergusond

Date: 24-Mar-2015 07:24:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.322	4.292	0.030	97	122466	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.278	7.273	0.005	100	455599	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.363	10.363	0.000	98	105952	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.686	12.681	0.005	95	150335	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.530	6.522	0.008	98	103461	50.0	49.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.901	6.900	0.001	97	150845	50.0	55.2	
\$ 7 Toluene-d8 (Surr)	98	8.921	8.925	-0.004	100	426060	50.0	50.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.531	11.529	0.002	98	153121	50.0	50.3	
11 Dichlorodifluoromethane	85	1.621	1.613	0.008	98	139283	50.0	71.3	
12 Chloromethane	50	1.779	1.777	0.002	100	164905	50.0	61.2	
13 Vinyl chloride	62	1.907	1.905	0.002	100	175062	50.0	58.1	
14 Butadiene	39	1.949	1.948	0.001	98	200653	50.0	58.3	
15 Bromomethane	94	2.253	2.252	0.001	98	107830	50.0	67.7	
16 Chloroethane	64	2.393	2.380	0.013	99	126925	50.0	60.9	
17 Dichlorofluoromethane	67	2.661	2.647	0.014	100	278558	50.0	58.5	
18 Trichlorofluoromethane	101	2.691	2.714	-0.023	97	198161	50.0	54.8	
20 Ethyl ether	59	3.093	3.085	0.008	98	134792	50.0	56.6	
21 Acrolein	56	3.269	3.250	0.019	97	45206	150.0	156.2	
22 1,1-Dichloroethene	96	3.385	3.377	0.008	98	126854	50.0	48.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.440	3.426	0.014	97	136568	50.0	51.4	
24 Acetone	43	3.494	3.493	0.001	99	120871	100.0	129.5	
25 Iodomethane	142	3.616	3.566	0.050	100	195257	50.0	53.5	
26 Carbon disulfide	76	3.683	3.645	0.038	100	288193	50.0	44.9	
28 3-Chloro-1-propene	76	3.944	3.931	0.013	100	65596	50.0	47.2	
30 Methyl acetate	43	4.030	4.016	0.014	100	587321	250.0	269.0	
31 Methylene Chloride	84	4.151	4.138	0.013	97	160167	50.0	52.7	
32 2-Methyl-2-propanol	59	4.437	4.430	0.007	98	80978	500.0	561.3	
33 Acrylonitrile	53	4.559	4.545	0.014	99	618631	500.0	550.8	
34 trans-1,2-Dichloroethene	96	4.571	4.558	0.013	89	139863	50.0	51.5	
35 Methyl tert-butyl ether	73	4.601	4.594	0.007	99	331166	50.0	55.1	
36 Hexane	57	4.985	4.977	0.008	99	198939	50.0	45.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.173	5.166	0.007	99	267803	50.0	55.2	
38 Vinyl acetate	43	5.295	5.296	-0.001	100	206930	50.0	60.1	
44 2,2-Dichloropropane	77	5.922	5.920	0.002	97	71664	50.0	59.1	
45 cis-1,2-Dichloroethene	96	5.940	5.938	0.002	97	148547	50.0	51.9	
46 2-Butanone (MEK)	43	5.989	5.987	0.002	100	154849	100.0	103.8	
49 Chlorobromomethane	128	6.232	6.218	0.014	99	65975	50.0	53.3	
51 Tetrahydrofuran	42	6.287	6.285	0.002	99	96758	100.0	103.5	
52 Chloroform	83	6.347	6.340	0.007	99	251443	50.0	57.1	
53 1,1,1-Trichloroethane	97	6.530	6.522	0.008	98	160860	50.0	57.2	
54 Cyclohexane	56	6.585	6.583	0.002	97	254813	50.0	47.2	
56 Carbon tetrachloride	117	6.725	6.717	0.008	99	135447	50.0	60.0	
55 1,1-Dichloropropene	75	6.725	6.723	0.002	99	195522	50.0	53.5	
57 Isobutyl alcohol	41	6.950	6.936	0.014	98	74648	1250.0	1227.5	
58 Benzene	78	6.956	6.954	0.002	99	590848	50.0	54.7	
59 1,2-Dichloroethane	62	6.986	6.985	0.001	98	202868	50.0	57.4	
62 n-Heptane	43	7.278	7.277	0.001	81	177057	50.0	47.7	
64 Trichloroethene	130	7.668	7.666	0.002	99	144021	50.0	53.2	
66 Methylcyclohexane	83	7.862	7.861	0.001	99	228335	50.0	47.3	
67 1,2-Dichloropropane	63	7.905	7.903	0.002	98	148132	50.0	55.5	
68 Dibromomethane	93	8.020	8.019	0.001	98	80829	50.0	56.2	
70 1,4-Dioxane	88	8.057	8.056	0.001	94	24688	1000.0	878.0	M
71 Dichlorobromomethane	83	8.197	8.195	0.002	99	164447	50.0	56.0	
74 cis-1,3-Dichloropropene	75	8.659	8.658	0.001	98	161476	50.0	57.0	
75 4-Methyl-2-pentanone (MIBK)	43	8.823	8.822	0.001	99	272639	100.0	95.1	
76 Toluene	91	8.994	8.986	0.008	100	589819	50.0	54.3	
77 trans-1,3-Dichloropropene	75	9.219	9.217	0.002	98	122093	50.0	62.3	
78 Ethyl methacrylate	69	9.316	9.315	0.001	97	133344	50.0	52.1	
79 1,1,2-Trichloroethane	97	9.401	9.400	0.001	97	116860	50.0	57.4	
80 Tetrachloroethene	164	9.535	9.534	0.001	98	110793	50.0	52.2	
81 1,3-Dichloropropane	76	9.566	9.564	0.002	99	213582	50.0	56.4	
82 2-Hexanone	43	9.657	9.655	0.002	100	165248	100.0	75.4	
84 Chlorodibromomethane	129	9.791	9.789	0.002	98	93866	50.0	57.8	
85 Ethylene Dibromide	107	9.900	9.899	0.001	99	107164	50.0	55.2	
86 3-Chlorobenzotrifluoride	180	10.369	10.373	-0.004	95	216713	50.0	52.3	
87 Chlorobenzene	112	10.393	10.392	0.001	100	369166	50.0	53.7	
88 4-Chlorobenzotrifluoride	180	10.429	10.428	0.001	99	212997	50.0	53.2	
89 1,1,1,2-Tetrachloroethane	131	10.472	10.471	0.001	95	105893	50.0	59.6	
90 Ethylbenzene	106	10.496	10.501	-0.005	100	204325	50.0	51.8	
91 m-Xylene & p-Xylene	106	10.618	10.617	0.001	99	242898	50.0	50.3	
92 o-Xylene	106	11.013	11.012	0.001	96	241823	50.0	51.2	
93 Styrene	104	11.026	11.024	0.002	98	400864	50.0	52.7	
94 Bromoform	173	11.208	11.213	-0.005	96	55341	50.0	55.1	
96 2-Chlorobenzotrifluoride	180	11.275	11.274	0.001	99	216185	50.0	52.3	
97 Isopropylbenzene	105	11.378	11.377	0.001	100	607750	50.0	51.6	
99 1,1,2,2-Tetrachloroethane	83	11.670	11.675	-0.005	94	153586	50.0	52.6	
100 Bromobenzene	156	11.683	11.681	0.002	98	145764	50.0	52.4	
101 1,2,3-Trichloropropane	110	11.719	11.718	0.001	96	47868	50.0	52.4	
102 trans-1,4-Dichloro-2-buten	53	11.731	11.730	0.001	96	34441	50.0	45.3	
103 N-Propylbenzene	120	11.792	11.791	0.001	100	166920	50.0	48.6	
104 2-Chlorotoluene	126	11.871	11.876	-0.005	100	144120	50.0	50.0	
105 3-Chlorotoluene	126	11.932	11.937	-0.005	100	172690	50.0	53.6	
106 1,3,5-Trimethylbenzene	105	11.962	11.961	0.001	99	500997	50.0	52.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
107 4-Chlorotoluene	126	11.981	11.979	0.002	99	166936	50.0	53.5	
108 tert-Butylbenzene	119	12.291	12.290	0.001	99	414400	50.0	50.0	
110 1,2,4-Trimethylbenzene	105	12.334	12.332	0.002	97	497203	50.0	50.6	
111 1,2-dichloro-4-(trifluorom	214	12.401	12.399	0.001	99	162209	50.0	52.3	
112 sec-Butylbenzene	105	12.510	12.509	0.001	100	584379	50.0	50.1	
113 1,3-Dichlorobenzene	146	12.620	12.618	0.002	99	263913	50.0	51.5	
114 4-Isopropyltoluene	119	12.650	12.655	-0.005	100	472678	50.0	49.1	
115 1,4-Dichlorobenzene	146	12.711	12.709	0.002	100	272857	50.0	52.1	
116 2,4-Dichloro-1-(trifluorom	214	12.759	12.758	0.001	98	153200	50.0	52.7	
118 2,5-Dichlorobenzotrifluori	214	12.808	12.807	0.001	99	166563	50.0	51.2	
120 n-Butylbenzene	91	13.064	13.062	0.002	100	422370	50.0	48.1	
121 1,2-Dichlorobenzene	146	13.082	13.080	0.002	99	253879	50.0	53.5	
122 1,2-Dibromo-3-Chloropropan	75	13.861	13.859	0.002	95	20212	50.0	52.0	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.007	14.005	0.002	100	537543	150.0	149.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.426	14.425	0.001	99	335543	100.0	96.1	
126 1,2,4-Trichlorobenzene	180	14.694	14.693	0.001	99	111238	50.0	45.0	
127 Hexachlorobutadiene	225	14.858	14.863	-0.005	97	48777	50.0	41.2	
128 Naphthalene	128	14.943	14.942	0.001	100	265114	50.0	40.9	
129 1,2,3-Trichlorobenzene	180	15.187	15.191	-0.004	98	82628	50.0	40.8	
131 2,4,5-Trichlorotoluene	159	15.959	15.964	-0.005	98	39154	50.0	35.9	
130 2,3,6-Trichlorotoluene	159	16.063	16.061	0.002	97	35730	50.0	36.3	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
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	
S 133 Xylenes, Total	106				0		100.0	101.5	
S 134 1,2-Dichloroethene, Total	96				0		100.0	103.4	
S 135 1,3-Dichloropropene, Total	1				0		100.0	119.3	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOAACRO2ND_00005	Amount Added: 6.00	Units: uL	
voaWVA2nd Res_00006	Amount Added: 2.00	Units: uL	
VOAEE2ND_00001	Amount Added: 2.00	Units: uL	
voaWKet2 Rest_00002	Amount Added: 2.00	Units: uL	
voaW8260voa2n_00005	Amount Added: 2.00	Units: uL	
VOA8260INT_00030	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323010.D

Injection Date: 23-Mar-2015 14:54:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-42137-C-1 MS

Worklist Smp#: 10

Client ID:

Purge Vol: 5.000 mL

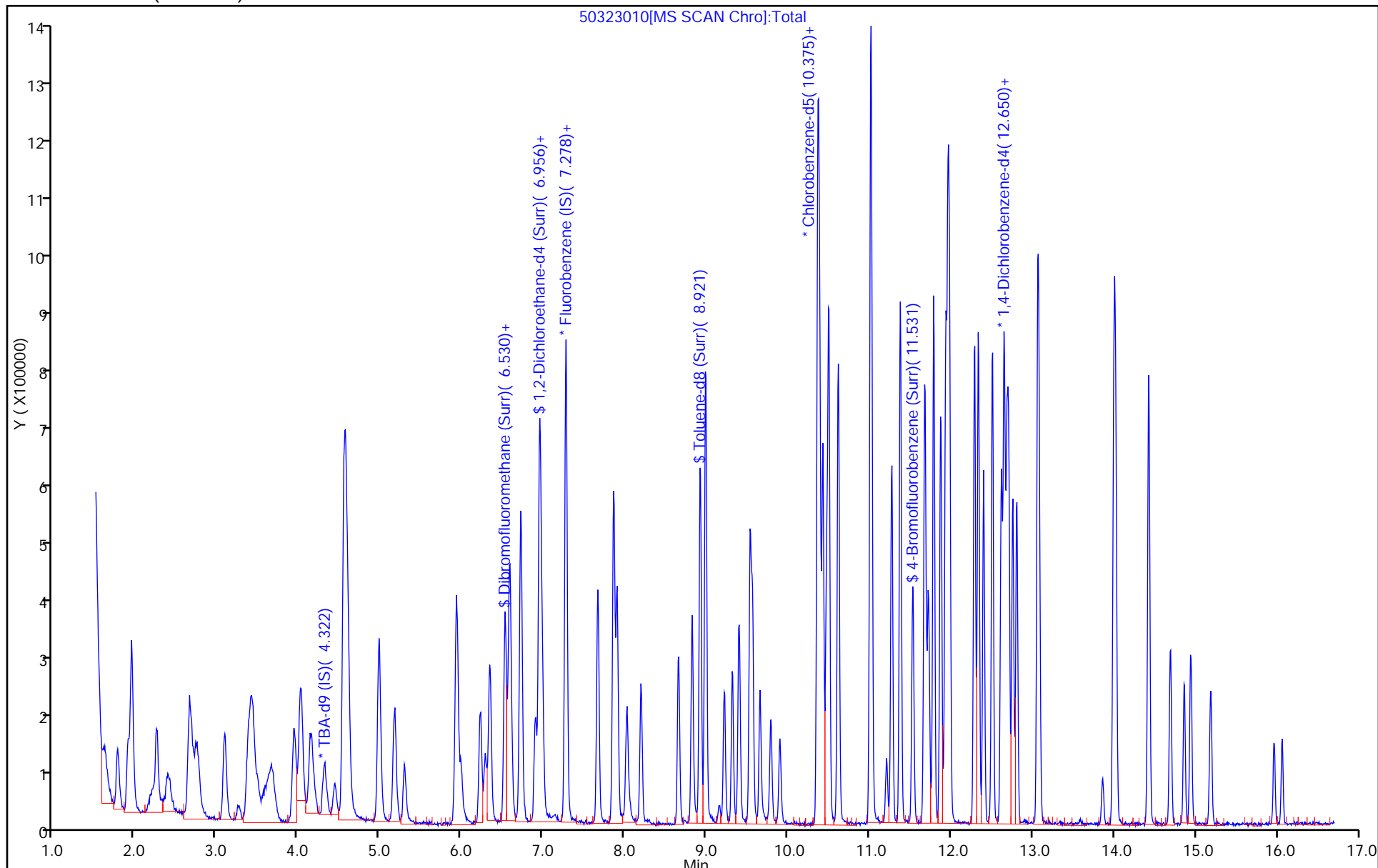
Dil. Factor: 1.0000

ALS Bottle#: 10

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



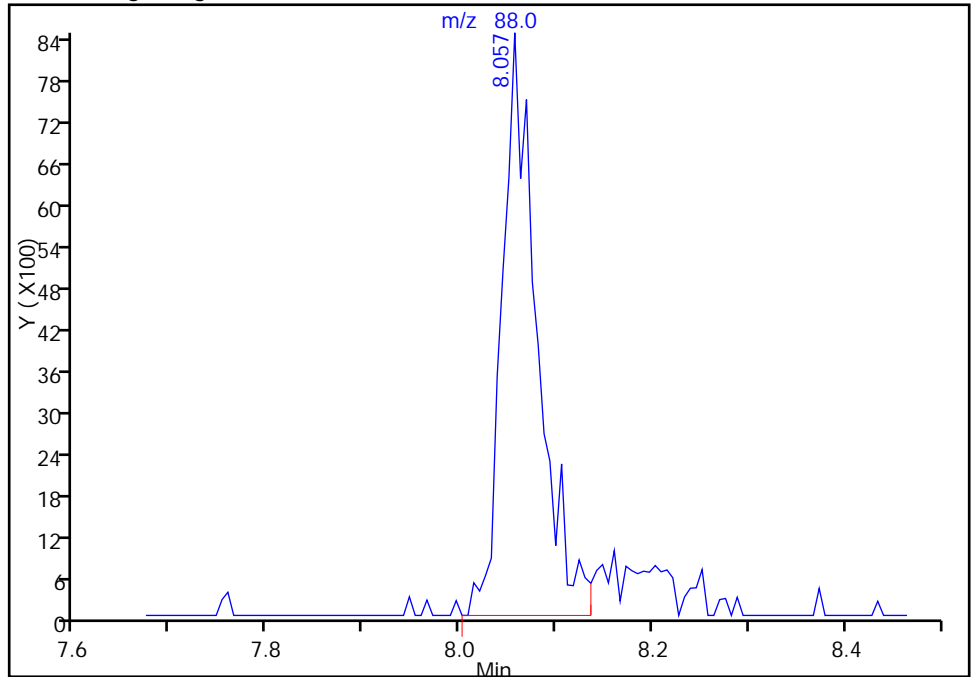
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323010.D  
Injection Date: 23-Mar-2015 14:54:30 Instrument ID: CHHP5  
Lims ID: 180-42137-C-1 MS  
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

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

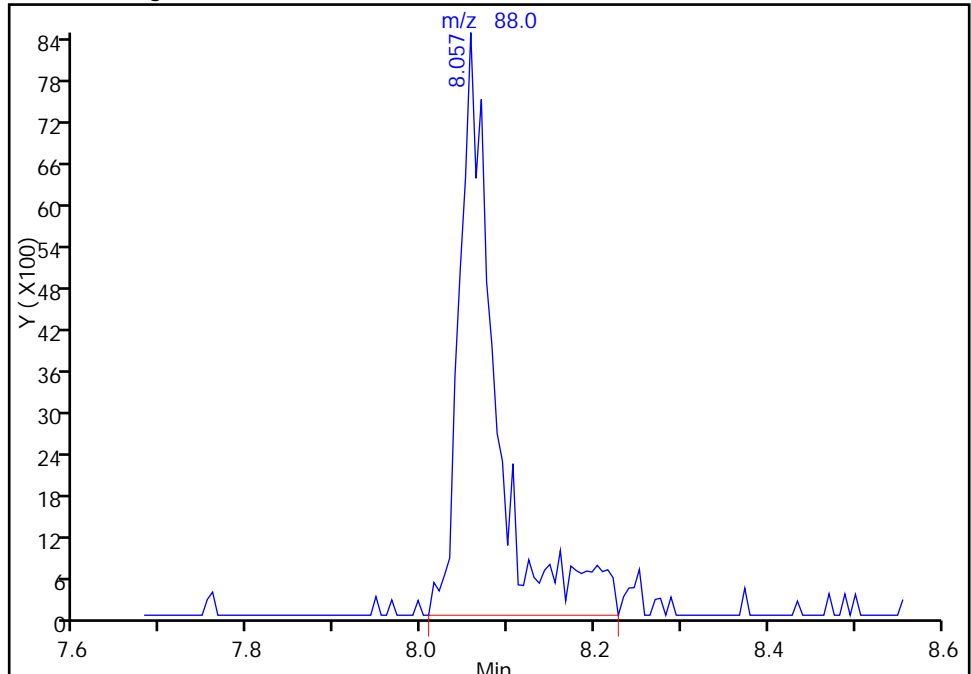
RT: 8.06  
Area: 21476  
Amount: 763.7702  
Amount Units: ng

Processing Integration Results



RT: 8.06  
Area: 24688  
Amount: 878.0014  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 24-Mar-2015 07:24:21  
Audit Action: Manually Integrated  
Audit Reason: Peak Tail



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-164-0/1-0 MSD Lab Sample ID: 180-42137-1 MSD  
 Matrix: Water Lab File ID: 50323011.D  
 Analysis Method: 8260C Date Collected: 03/16/2015 15:37  
 Sample wt/vol: 5(mL) Date Analyzed: 03/23/2015 15:18  
 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.: 136250 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	11.4		1.0	0.28
75-01-4	Vinyl chloride	11.1		1.0	0.23
74-83-9	Bromomethane	13.1		1.0	0.31
75-00-3	Chloroethane	12.3		1.0	0.21
75-35-4	1,1-Dichloroethene	9.54		1.0	0.30
67-64-1	Acetone	22.2		5.0	2.5
75-15-0	Carbon disulfide	8.71		1.0	0.21
75-09-2	Methylene Chloride	9.32		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	10.2		1.0	0.17
1634-04-4	Methyl tert-butyl ether	10.6		1.0	0.18
75-34-3	1,1-Dichloroethane	10.6		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	10.1		1.0	0.24
74-97-5	Bromochloromethane	10.2		1.0	0.18
78-93-3	2-Butanone (MEK)	19.7		5.0	0.55
67-66-3	Chloroform	10.7		1.0	0.17
71-55-6	1,1,1-Trichloroethane	10.5		1.0	0.29
56-23-5	Carbon tetrachloride	10.9		1.0	0.14
71-43-2	Benzene	10.4		1.0	0.11
107-06-2	1,2-Dichloroethane	10.8		1.0	0.21
79-01-6	Trichloroethene	10.2		1.0	0.14
78-87-5	1,2-Dichloropropane	10.4		1.0	0.095
75-27-4	Bromodichloromethane	10.4		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	10.5		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	18.1		5.0	0.53
108-88-3	Toluene	10.5		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	11.9		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.7		1.0	0.20
127-18-4	Tetrachloroethene	9.82		1.0	0.15
591-78-6	2-Hexanone	15.6		5.0	0.16
124-48-1	Dibromochloromethane	11.2		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.5		1.0	0.18
108-90-7	Chlorobenzene	10.4		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.7		1.0	0.28
100-41-4	Ethylbenzene	9.90		1.0	0.23
1330-20-7	Xylenes, Total	19.6		3.0	0.49
100-42-5	Styrene	10.1		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-164-0/1-0 MSD Lab Sample ID: 180-42137-1 MSD  
 Matrix: Water Lab File ID: 50323011.D  
 Analysis Method: 8260C Date Collected: 03/16/2015 15:37  
 Sample wt/vol: 5(mL) Date Analyzed: 03/23/2015 15:18  
 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.: 136250 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.97		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.2		1.0	0.20
107-13-1	Acrylonitrile	99.2		20	0.55
123-91-1	1,4-Dioxane	153	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		64-135
2037-26-5	Toluene-d8 (Surr)	100		71-118
460-00-4	4-Bromofluorobenzene (Surr)	99		70-118
1868-53-7	Dibromofluoromethane (Surr)	99		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323011.D  
 Lims ID: 180-42137-B-1 MSD  
 Client ID:  
 Sample Type: MSD  
 Inject. Date: 23-Mar-2015 15:18:30 ALS Bottle#: 11 Worklist Smp#: 11  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-42137-B-1 MSD  
 Misc. Info.: 180-0006128-011  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 24-Mar-2015 07:26:33 Calib Date: 18-Mar-2015 16:19:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150318-6071.b\50318010.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK052

First Level Reviewer: fergusond

Date: 24-Mar-2015 07:26:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.315	4.292	0.023	97	124564	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.272	7.273	-0.001	100	490705	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.362	10.363	-0.001	98	114127	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.680	12.681	-0.001	96	161646	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.530	6.522	0.008	99	110212	50.0	49.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.907	6.900	0.007	96	150412	50.0	51.1	
\$ 7 Toluene-d8 (Surr)	98	8.920	8.925	-0.005	100	454148	50.0	49.9	
\$ 8 4-Bromofluorobenzene (Surr	95	11.530	11.529	0.001	98	161421	50.0	49.3	
11 Dichlorodifluoromethane	85	1.614	1.613	0.001	48	153305	50.0	72.9	
12 Chloromethane	50	1.772	1.777	-0.005	100	165191	50.0	56.9	
13 Vinyl chloride	62	1.900	1.905	-0.005	99	180519	50.0	55.6	
14 Butadiene	39	1.943	1.948	-0.005	97	204696	50.0	55.2	
15 Bromomethane	94	2.253	2.252	0.001	97	112773	50.0	65.6	
16 Chloroethane	64	2.387	2.380	0.007	99	137681	50.0	61.3	
17 Dichlorofluoromethane	67	2.654	2.647	0.007	100	291119	50.0	56.8	
18 Trichlorofluoromethane	101	2.715	2.714	0.001	98	211662	50.0	54.4	
20 Ethyl ether	59	3.092	3.085	0.007	99	145117	50.0	56.5	
21 Acrolein	56	3.263	3.250	0.013	99	43790	150.0	140.4	
22 1,1-Dichloroethene	96	3.384	3.377	0.007	98	135025	50.0	47.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.433	3.426	0.007	98	139066	50.0	48.6	
24 Acetone	43	3.500	3.493	0.007	99	111508	100.0	110.9	
25 Iodomethane	142	3.597	3.566	0.031	99	201444	50.0	51.2	
26 Carbon disulfide	76	3.664	3.645	0.019	100	301423	50.0	43.6	
28 3-Chloro-1-propene	76	3.932	3.931	0.001	99	64640	50.0	43.2	
30 Methyl acetate	43	4.023	4.016	0.007	100	595939	250.0	253.4	
31 Methylene Chloride	84	4.145	4.138	0.007	97	152462	50.0	46.6	
32 2-Methyl-2-propanol	59	4.449	4.430	0.019	95	65754	500.0	448.1	
33 Acrylonitrile	53	4.552	4.545	0.007	100	600169	500.0	496.1	
34 trans-1,2-Dichloroethene	96	4.565	4.558	0.007	94	148602	50.0	50.8	
35 Methyl tert-butyl ether	73	4.595	4.594	0.001	99	341459	50.0	52.8	
36 Hexane	57	4.984	4.977	0.007	98	210849	50.0	45.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.173	5.166	0.007	100	277733	50.0	53.2	
38 Vinyl acetate	43	5.301	5.296	0.005	100	217226	50.0	58.6	
44 2,2-Dichloropropane	77	5.927	5.920	0.007	96	73280	50.0	56.1	
45 cis-1,2-Dichloroethene	96	5.939	5.938	0.001	96	155884	50.0	50.6	
46 2-Butanone (MEK)	43	5.988	5.987	0.001	100	158386	100.0	98.5	
49 Chlorobromomethane	128	6.232	6.218	0.014	99	68367	50.0	51.2	
51 Tetrahydrofuran	42	6.286	6.285	0.001	99	97889	100.0	97.3	
52 Chloroform	83	6.341	6.340	0.001	99	253754	50.0	53.5	
53 1,1,1-Trichloroethane	97	6.530	6.522	0.008	99	158700	50.0	52.4	
54 Cyclohexane	56	6.590	6.583	0.007	96	258286	50.0	44.4	
56 Carbon tetrachloride	117	6.712	6.717	-0.005	99	132662	50.0	54.6	
55 1,1-Dichloropropene	75	6.724	6.723	0.001	99	199501	50.0	50.7	
57 Isobutyl alcohol	41	6.943	6.936	0.007	98	72845	1250.0	1112.2	
58 Benzene	78	6.955	6.954	0.001	99	604538	50.0	52.0	
59 1,2-Dichloroethane	62	6.986	6.985	0.001	98	205448	50.0	54.0	
62 n-Heptane	43	7.278	7.277	0.001	79	176354	50.0	44.1	
64 Trichloroethene	130	7.667	7.666	0.001	99	148941	50.0	51.1	
66 Methylcyclohexane	83	7.862	7.861	0.001	99	235555	50.0	45.3	
67 1,2-Dichloropropane	63	7.904	7.903	0.001	98	150182	50.0	52.2	
68 Dibromomethane	93	8.020	8.019	0.001	98	78941	50.0	51.0	
70 1,4-Dioxane	88	8.057	8.056	0.001	98	23211	1000.0	766.4	M
71 Dichlorobromomethane	83	8.203	8.195	0.008	99	165014	50.0	52.2	
74 cis-1,3-Dichloropropene	75	8.653	8.658	-0.005	99	159911	50.0	52.4	
75 4-Methyl-2-pentanone (MIBK)	43	8.823	8.822	0.001	100	280173	100.0	90.7	
76 Toluene	91	8.987	8.986	0.001	100	612427	50.0	52.4	
77 trans-1,3-Dichloropropene	75	9.218	9.217	0.001	98	125581	50.0	59.5	
78 Ethyl methacrylate	69	9.316	9.315	0.001	98	139456	50.0	50.6	
79 1,1,2-Trichloroethane	97	9.401	9.400	0.001	98	117456	50.0	53.6	
80 Tetrachloroethene	164	9.535	9.534	0.001	98	112374	50.0	49.1	
81 1,3-Dichloropropane	76	9.565	9.564	0.001	99	216648	50.0	53.1	
82 2-Hexanone	43	9.656	9.655	0.001	99	183641	100.0	77.8	
84 Chlorodibromomethane	129	9.790	9.789	0.001	99	97721	50.0	55.8	
85 Ethylene Dibromide	107	9.900	9.899	0.001	99	109838	50.0	52.5	
86 3-Chlorobenzotrifluoride	180	10.368	10.373	-0.005	93	221794	50.0	49.7	
87 Chlorobenzene	112	10.393	10.392	0.001	100	384275	50.0	51.9	
88 4-Chlorobenzotrifluoride	180	10.429	10.428	0.001	99	210721	50.0	48.8	
89 1,1,1,2-Tetrachloroethane	131	10.478	10.471	0.007	96	102103	50.0	53.4	
90 Ethylbenzene	106	10.502	10.501	0.001	100	210408	50.0	49.5	
91 m-Xylene & p-Xylene	106	10.618	10.617	0.001	100	254926	50.0	49.0	
92 o-Xylene	106	11.013	11.012	0.001	99	249125	50.0	49.0	
93 Styrene	104	11.025	11.024	0.001	99	414883	50.0	50.6	
94 Bromoform	173	11.208	11.213	-0.005	97	53893	50.0	49.8	
96 2-Chlorobenzotrifluoride	180	11.275	11.274	0.001	99	217231	50.0	48.7	
97 Isopropylbenzene	105	11.378	11.377	0.001	100	619897	50.0	48.8	
99 1,1,2,2-Tetrachloroethane	83	11.676	11.675	0.001	98	160501	50.0	51.0	
100 Bromobenzene	156	11.682	11.681	0.001	99	149236	50.0	49.9	
101 1,2,3-Trichloropropane	110	11.725	11.718	0.007	97	49958	50.0	50.8	
102 trans-1,4-Dichloro-2-buten	53	11.731	11.730	0.001	96	38196	50.0	46.7	
103 N-Propylbenzene	120	11.786	11.791	-0.005	100	170779	50.0	46.3	
104 2-Chlorotoluene	126	11.871	11.876	-0.005	100	150736	50.0	48.6	
105 3-Chlorotoluene	126	11.932	11.937	-0.005	99	172919	50.0	49.9	
106 1,3,5-Trimethylbenzene	105	11.962	11.961	0.001	100	496657	50.0	48.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
107 4-Chlorotoluene	126	11.980	11.979	0.001	99	173302	50.0	51.6	
108 tert-Butylbenzene	119	12.291	12.290	0.001	99	419508	50.0	47.1	
110 1,2,4-Trimethylbenzene	105	12.333	12.332	0.001	97	513887	50.0	48.7	
111 1,2-dichloro-4-(trifluorom	214	12.400	12.399	0.001	99	157521	50.0	47.2	
112 sec-Butylbenzene	105	12.510	12.509	0.001	100	596018	50.0	47.5	
113 1,3-Dichlorobenzene	146	12.619	12.618	0.001	99	272448	50.0	49.4	
114 4-Isopropyltoluene	119	12.650	12.655	-0.005	100	491062	50.0	47.4	
115 1,4-Dichlorobenzene	146	12.704	12.709	-0.005	99	280381	50.0	49.8	
116 2,4-Dichloro-1-(trifluorom	214	12.759	12.758	0.001	97	152471	50.0	48.8	
118 2,5-Dichlorobenzotrifluori	214	12.808	12.807	0.001	99	163596	50.0	46.8	
120 n-Butylbenzene	91	13.057	13.062	-0.005	100	431564	50.0	45.7	
121 1,2-Dichlorobenzene	146	13.081	13.080	0.001	98	258084	50.0	50.6	
122 1,2-Dibromo-3-Chloropropan	75	13.866	13.859	0.007	95	18315	50.0	43.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.006	14.005	0.001	99	539492	150.0	139.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.426	14.425	0.001	100	346313	100.0	92.3	
126 1,2,4-Trichlorobenzene	180	14.694	14.693	0.001	98	110803	50.0	41.7	
127 Hexachlorobutadiene	225	14.864	14.863	0.001	98	53136	50.0	41.7	
128 Naphthalene	128	14.937	14.942	-0.005	100	272587	50.0	39.1	
129 1,2,3-Trichlorobenzene	180	15.180	15.191	-0.011	99	85700	50.0	39.3	
131 2,4,5-Trichlorotoluene	159	15.965	15.964	0.001	98	39582	50.0	33.8	
130 2,3,6-Trichlorotoluene	159	16.056	16.061	-0.005	97	37392	50.0	35.3	
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 133 Xylenes, Total	106				0		100.0	98.0	
S 134 1,2-Dichloroethene, Total	96				0		100.0	101.3	
S 135 1,3-Dichloropropene, Total	1				0		100.0	111.9	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

voaW8260voa2n_00005	Amount Added: 2.00	Units: uL	
voaWKet2 Rest_00002	Amount Added: 2.00	Units: uL	
VOAEE2ND_00001	Amount Added: 2.00	Units: uL	
voaWVA2nd Res_00006	Amount Added: 2.00	Units: uL	
VOAACRO2ND_00005	Amount Added: 6.00	Units: uL	
VOA8260INT_00030	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00032	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323011.D

Injection Date: 23-Mar-2015 15:18:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-42137-B-1 MSD

Worklist Smp#: 11

Client ID:

Purge Vol: 5.000 mL

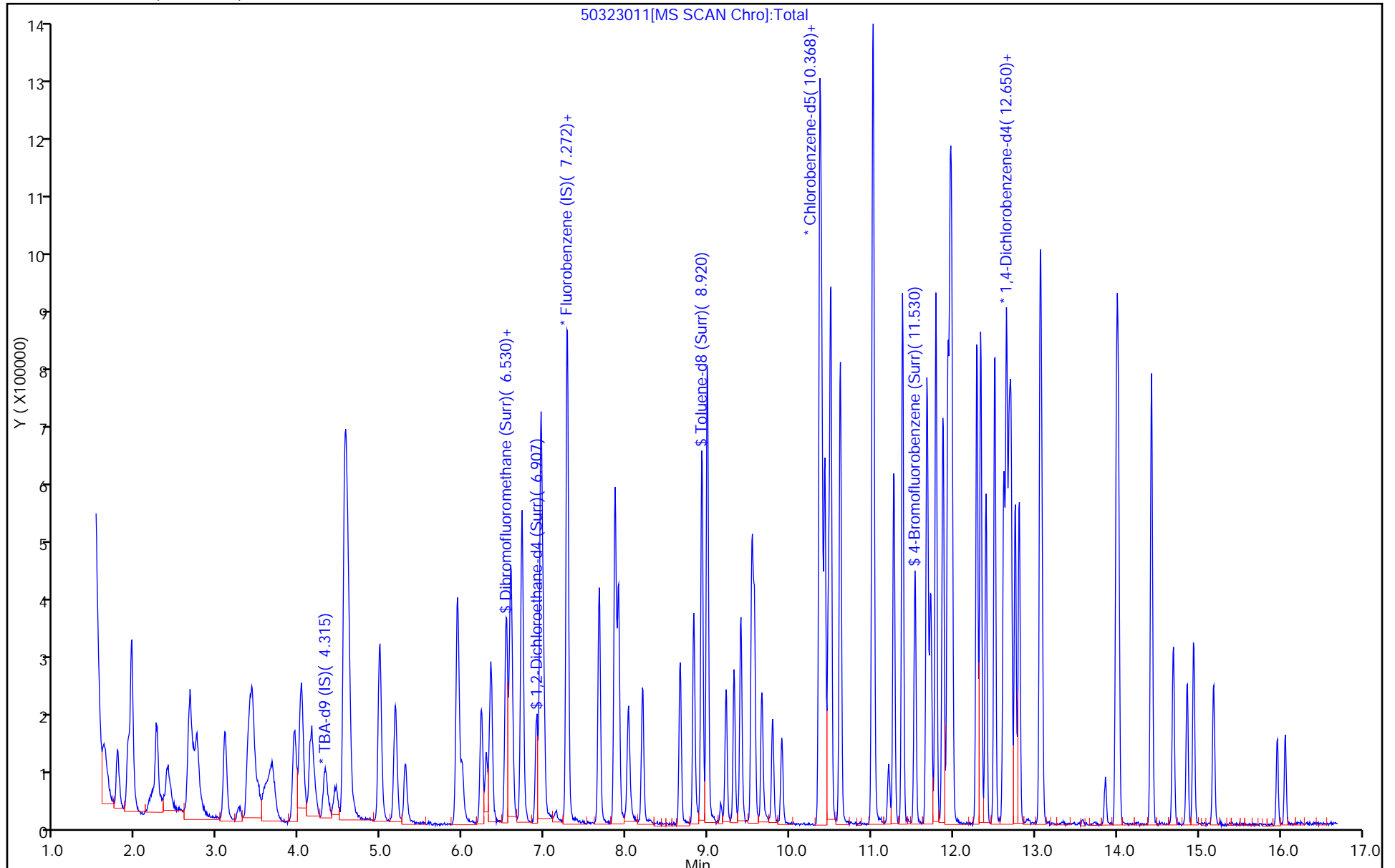
Dil. Factor: 1.0000

ALS Bottle#: 11

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



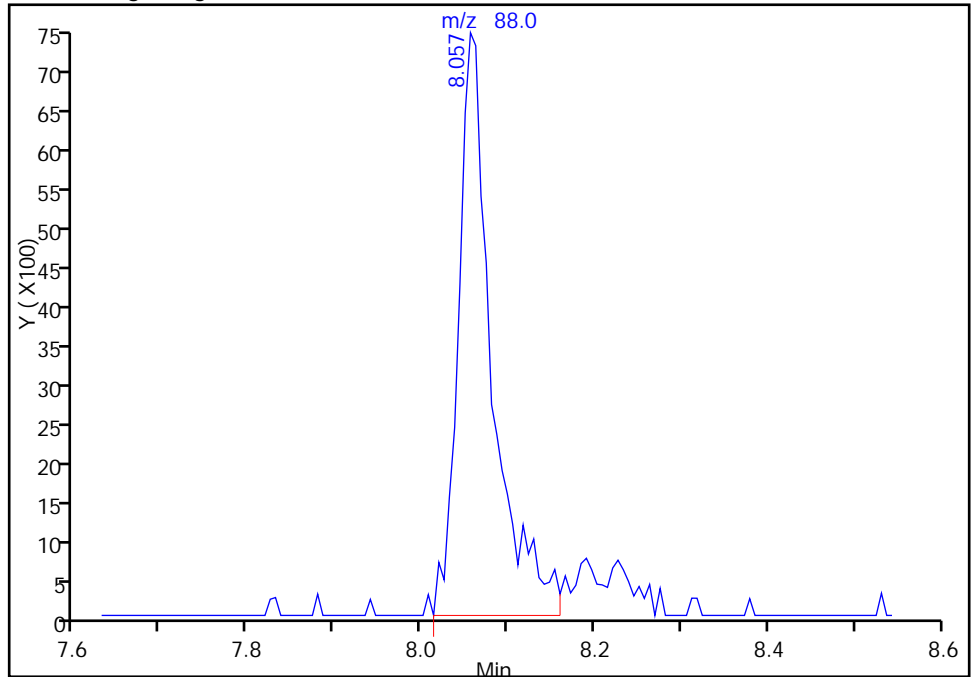
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150323-6128.b\50323011.D  
Injection Date: 23-Mar-2015 15:18:30 Instrument ID: CHHP5  
Lims ID: 180-42137-B-1 MSD  
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

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

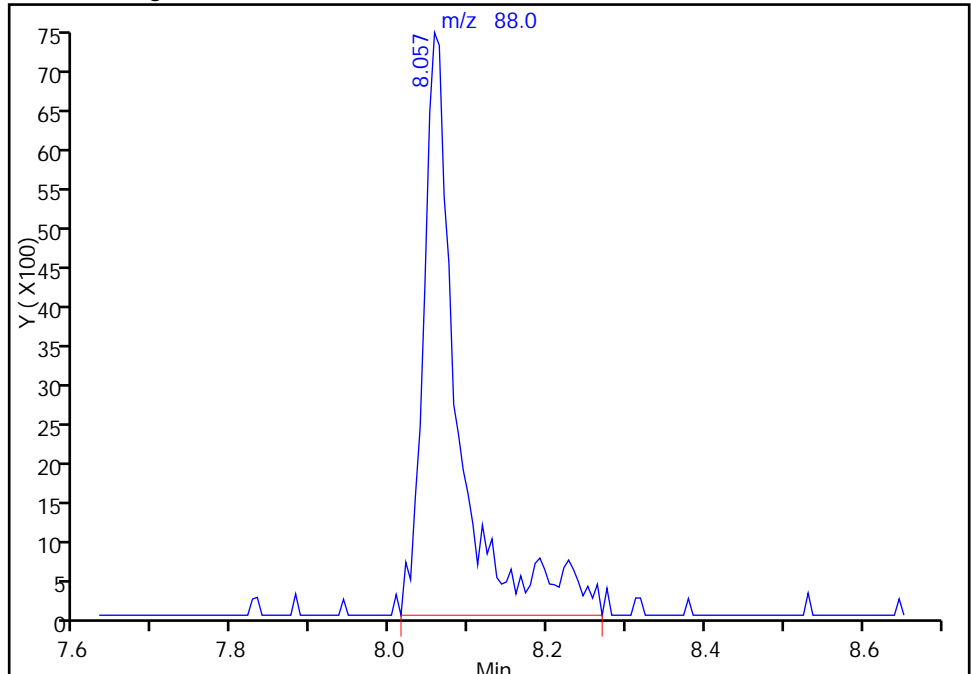
RT: 8.06  
Area: 20335  
Amount: 671.4532  
Amount Units: ng

Processing Integration Results



RT: 8.06  
Area: 23211  
Amount: 766.4175  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 24-Mar-2015 07:26:33  
Audit Action: Manually Integrated  
Audit Reason: Peak Tail

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 Start Date: 03/16/2015 10:49

Analysis Batch Number: 135593 End Date: 03/16/2015 17:05

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-135593/1		03/16/2015 10:49	1	50316001.D	DB-624 0.18 (mm)
IC 180-135593/4		03/16/2015 12:41	1	50316004.D	DB-624 0.18 (mm)
ICIS 180-135593/5		03/16/2015 13:05	1	50316005.D	DB-624 0.18 (mm)
IC 180-135593/6		03/16/2015 13:29	1	50316006.D	DB-624 0.18 (mm)
IC 180-135593/7		03/16/2015 13:53	1	50316007.D	DB-624 0.18 (mm)
IC 180-135593/8		03/16/2015 14:17	1	50316008.D	DB-624 0.18 (mm)
IC 180-135593/9		03/16/2015 14:41	1	50316009.D	DB-624 0.18 (mm)
IC 180-135593/10		03/16/2015 15:05	1	50316010.D	DB-624 0.18 (mm)
IC 180-135593/13		03/16/2015 16:17	1	50316013.D	DB-624 0.18 (mm)
ICV 180-135593/15		03/16/2015 17:05	1		DB-624 0.18 (mm)



GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 Start Date: 03/23/2015 10:37

Analysis Batch Number: 136250 End Date: 03/23/2015 22:08

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-136250/1		03/23/2015 10:37	1	50323001.D	DB-624 0.18 (mm)
CCVIS 180-136250/2		03/23/2015 11:20	1	50323002.D	DB-624 0.18 (mm)
ZZZZZ		03/23/2015 11:20	1		DB-624 0.18 (mm)
CCV 180-136250/3		03/23/2015 11:44	1	50323003.D	DB-624 0.18 (mm)
CCV 180-136250/4		03/23/2015 12:16	1	50323004.D	DB-624 0.18 (mm)
MB 180-136250/6		03/23/2015 13:04	1	50323006.D	DB-624 0.18 (mm)
180-42137-1	HD-MW-164-0/1-0	03/23/2015 13:41	1	50323007.D	DB-624 0.18 (mm)
180-42137-5	HD-QC1-0/1-2	03/23/2015 14:06	1	50323008.D	DB-624 0.18 (mm)
LCS 180-136250/9		03/23/2015 14:30	1	50323009.D	DB-624 0.18 (mm)
180-42137-1 MS	HD-MW-164-0/1-0 MS	03/23/2015 14:54	1	50323010.D	DB-624 0.18 (mm)
180-42137-1 MSD	HD-MW-164-0/1-0 MSD	03/23/2015 15:18	1	50323011.D	DB-624 0.18 (mm)
180-42137-2	HD-MW-165-0/1-0	03/23/2015 16:06	1	50323013.D	DB-624 0.18 (mm)
180-42137-3	HD-MW-163-0/1-0	03/23/2015 16:30	1	50323014.D	DB-624 0.18 (mm)
180-42137-4 DL	HD-MW-161-0/1-0 DL	03/23/2015 16:54	10	50323015.D	DB-624 0.18 (mm)
ZZZZZ		03/23/2015 17:18	1		DB-624 0.18 (mm)
ZZZZZ		03/23/2015 17:42	20		DB-624 0.18 (mm)
ZZZZZ		03/23/2015 18:31	1		DB-624 0.18 (mm)
ZZZZZ		03/23/2015 20:07	1		DB-624 0.18 (mm)
ZZZZZ		03/23/2015 20:55	5		DB-624 0.18 (mm)
ZZZZZ		03/23/2015 21:19	1		DB-624 0.18 (mm)
ZZZZZ		03/23/2015 21:44	1		DB-624 0.18 (mm)
ZZZZZ		03/23/2015 22:08	1		DB-624 0.18 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-42137-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 Start Date: 03/24/2015 11:22

Analysis Batch Number: 136397 End Date: 03/24/2015 22:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-136397/1		03/24/2015 11:22	1	50324001.D	DB-624 0.18 (mm)
CCV 180-136397/3		03/24/2015 12:24	1	50324003.D	DB-624 0.18 (mm)
CCVIS 180-136397/4		03/24/2015 13:06	1	50324004.D	DB-624 0.18 (mm)
MB 180-136397/6		03/24/2015 13:57	1	50324006.D	DB-624 0.18 (mm)
ZZZZZ		03/24/2015 14:35	1		DB-624 0.18 (mm)
ZZZZZ		03/24/2015 14:59	1		DB-624 0.18 (mm)
LCS 180-136397/9		03/24/2015 15:24	1	50324009.D	DB-624 0.18 (mm)
ZZZZZ		03/24/2015 17:00	1		DB-624 0.18 (mm)
ZZZZZ		03/24/2015 17:24	1		DB-624 0.18 (mm)
ZZZZZ		03/24/2015 17:48	12.5		DB-624 0.18 (mm)
ZZZZZ		03/24/2015 18:12	1		DB-624 0.18 (mm)
ZZZZZ		03/24/2015 18:36	12.5		DB-624 0.18 (mm)
ZZZZZ		03/24/2015 19:01	12.5		DB-624 0.18 (mm)
ZZZZZ		03/24/2015 19:25	1		DB-624 0.18 (mm)
ZZZZZ		03/24/2015 19:49	1		DB-624 0.18 (mm)
ZZZZZ		03/24/2015 20:13	1		DB-624 0.18 (mm)
ZZZZZ		03/24/2015 20:37	40		DB-624 0.18 (mm)
ZZZZZ		03/24/2015 21:01	1		DB-624 0.18 (mm)
ZZZZZ		03/24/2015 21:25	1		DB-624 0.18 (mm)
ZZZZZ		03/24/2015 21:50	1		DB-624 0.18 (mm)
ZZZZZ		03/24/2015 22:14	4		DB-624 0.18 (mm)
180-42137-4	HD-MW-161-0/1-0	03/24/2015 22:38	1	50324027.D	DB-624 0.18 (mm)

# Shipping and Receiving Documents

TestAmerica Pittsburgh  
 11 Alpha Drive  
 Pittsburgh, PA 15238  
 Phone 412.963.7058 fax 412.963.2470

### Chain of Custody Record



TestAmerica Laboratories, Inc.  
 COC No: TAP2015031701  
 of COCs

Client Contact Groundwater Sciences Corporation 601 Market Place St. Suite 310 Lansburg, PA 17110 Phone 717) 901-8180 FAX 717) 657-1611 Project Name: SPBA Groundwater Sampling Site: Harley-Davidson, York PA Quote # 18000557		Project Manager: Jennifer S. Reese Tel/Fax: 717-901-8181 / (717) 657-1611 Analysis Turnaround Time Calendar (C) or Work Days (W) TAT if different from Below: Standard <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input checked="" type="checkbox"/> 5 days <input type="checkbox"/> 1 day		Site Contact: Jennifer S. Reese Lab Contact: Carrie Gamber Date Submitted: _____ Carrier: FEDEX		Job No. 10012.26 Container No. 1 SDG No.							
Sample Identification		Sample Date		Sample Time		Sample Type		Matrix		# of Cont.		VOCs (8260C)	
HD-MW-164-0/1-0		3/16/15		1537		Water		GW		3		X	
HD-MW-165-0/1-0		3/17/15		0945		Water		GW		3		X	
HD-MW-163-0/1-0		3/17/15		1312		Water		GW		3		X	
HD-MW-161-0/1-0		3/17/15		1538		Water		GW		3		X	
HD-QC1-0/1-2		3/17/15		1200		Trip Blank		W		2		X	
OR 302													
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown		Number of Containers		3		1		1					
Preservation Used: 1=Ice, 2=HCl, 3=HNO3, 4=H2SO4, 5=NaOH, 6=Unpreserved, 7=Na2S2O3		Field Filter		N		N		N					

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

Relinquished by (Print and Sign): Ryan Ulrich  
 Relinquished by: [Signature]  
 Relinquished by: [Signature]

Received by: [Signature]  
 Received by: [Signature]  
 Received by: [Signature]

Company: GSC  
 Company: TA  
 Company: TA

Date/Time: 3/17/15 1610  
 Date/Time: 3/17/15 1750  
 Date/Time: 3/17/15 1610

Company: TA  
 Company: TA  
 Company: TA

Special Instructions/QC Requirements & Comments: CLP Like Deliverables



180-42137 Vwaybill

ORIGIN ID: KPDA (610) 337-9992  
SAMPLE RECEIPT  
TEST AMERICA  
1008 WEST 9TH AVE  
KING OF PRUSSIA, PA 19406  
UNITED STATES US

SHIP DATE: 17MAR15  
ACTWGT: 23.0 LB  
CAD: 8490299/INET3610

BILL RECIPIENT

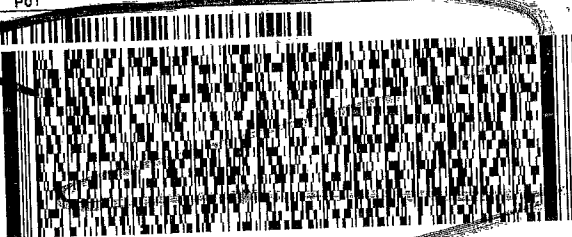
TO **SAMPLE RECEIPT**  
**TEST AMERICA - PITTSBURGH**  
**301 ALPHA DR**

**PITTSBURGH PA 15238**

(412) 963-7058

REF

INV:  
PO:



**FedEx**  
Express



J151215023701UY

**WED - 18 MAR 3:00P**  
**STANDARD OVERNIGHT**

TRK# 7731 5043 9106  
0201

**EV AGCA**

**15238**  
**PA-US PIT**

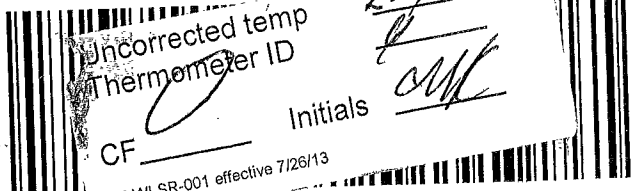
Part of 156237-435 PITZ 11/14

Uncorrected temp  
Thermometer ID

CF \_\_\_\_\_  
PT-WI-SR-001 effective 7/26/13

Initials

4.4 °C  
*[Handwritten signature]*



## Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-42137-1

**Login Number: 42137**  
**List Number: 1**  
**Creator: Watson, Debbie**

**List Source: TestAmerica Pittsburgh**

Question	Answer	Comment
Radioactivity wasn't checked or is <= 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.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	