

## ANALYTICAL REPORT

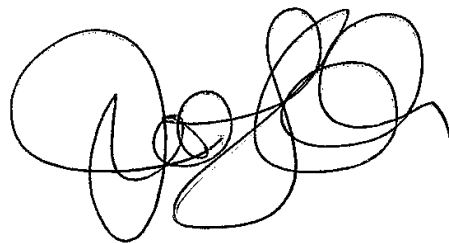
Job Number: 180-48399-1

Job Description: Harley Davidson

For:

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

Attention: Allan Miller



Approved for release.  
Jill L Colussy  
Project Manager I  
10/19/2015 10:50 AM

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10/19/2015

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# Definitions/Glossary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

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## Qualifiers

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### GC/MS VOA

Qualifier	Qualifier Description
^c	CCV Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
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: 180-48399-1**

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

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

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

### **RECEIPT**

The samples were received on 10/03/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.1 C.

The chain of custody listed sample HD-QC14-0/1-2. The containers for this sample were labeled HD-QC13-0/1-2. The identification was logged in off of the chain of custody.

### **VOLATILES**

Due to the concentration of target compounds detected, Samples several samples were analyzed at a dilution. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) analyzed in batch 180-156820 was outside the method criteria for the following analytes: 2-Hexanone, Bromoform, Bromomethane 1,4-Dioxane, and Chloromethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detections for the affected analytes are considered estimated.

The continuing calibration verification (CCV) analyzed in batch 180-156816 was outside the method criteria for the following analytes: 1,4-Dioxane, 2-Butanone, 2-Hexanone, Acetone, Acrylonitrile, and Chloroethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detections for the affected analytes are considered estimated.

The continuing calibration verification (CCV) analyzed in batch 180-156975 was outside the method criteria for the following analyte: Bromomethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 180-157127 was outside the method criteria for the following analytes: 1,4-Dioxane, Acetone, Chloroethane, Vinyl chloride, and Bromomethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detections for the affected analytes are considered estimated.

# Detection Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

## Client Sample ID: HD-TATE (S-6)-0/1-0

Lab Sample ID: 180-48399-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.23	J	1.0	0.17	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-SOFTAIL LIFT STATION-0/1-0

Lab Sample ID: 180-48399-2

No Detections.

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

Lab Sample ID: 180-48399-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.26	J	1.0	0.17	ug/L	1		8260C	Total/NA
Trichloroethene	9.3		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	350	E	1.0	0.15	ug/L	1		8260C	Total/NA
Trichloroethene - DL	9.2	J	10	1.4	ug/L	10		8260C	Total/NA
Tetrachloroethene - DL	300		10	1.5	ug/L	10		8260C	Total/NA

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

Lab Sample ID: 180-48399-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.20	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	44		1.0	0.15	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-MW-166-0/1-0

Lab Sample ID: 180-48399-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.86	J	1.0	0.17	ug/L	1		8260C	Total/NA
Trichloroethene	1.2		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	1.0		1.0	0.15	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-MW-167-0/1-0

Lab Sample ID: 180-48399-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.31	J	1.0	0.17	ug/L	1		8260C	Total/NA
Trichloroethene	1.8		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	7.4		1.0	0.15	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-MW-168-0/1-0

Lab Sample ID: 180-48399-7

No Detections.

## Client Sample ID: HD-MW-103S-0/1-0

Lab Sample ID: 180-48399-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.3		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.16	J	1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	5.4		1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform	0.48	J	1.0	0.17	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	1.1		1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	100	E	1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	28		1.0	0.15	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene - DL	4.7	J	5.0	1.2	ug/L	5		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pittsburgh

# Detection Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

## Client Sample ID: HD-MW-103S-0/1-0 (Continued)

Lab Sample ID: 180-48399-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene - DL	94		5.0	0.72	ug/L	5		8260C	Total/NA
Tetrachloroethene - DL	22		5.0	0.74	ug/L	5		8260C	Total/NA

## Client Sample ID: HD-MW-103D-0/1-0

Lab Sample ID: 180-48399-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2.0		1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform	0.44	J	1.0	0.17	ug/L	1		8260C	Total/NA
Trichloroethene	18		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	9.6		1.0	0.15	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-MW-102S-0/1-0

Lab Sample ID: 180-48399-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	5.7		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.62	J	1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	3.7		1.0	0.24	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	3.8		1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	27		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	12		1.0	0.15	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-MW-102D-0/1-0

Lab Sample ID: 180-48399-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	10		1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform	0.45	J	1.0	0.17	ug/L	1		8260C	Total/NA
Trichloroethene	150	E	1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	11		1.0	0.15	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene - DL	7.4	J	10	2.4	ug/L	10		8260C	Total/NA
Trichloroethene - DL	120		10	1.4	ug/L	10		8260C	Total/NA
Tetrachloroethene - DL	7.4	J	10	1.5	ug/L	10		8260C	Total/NA

## Client Sample ID: HD-QC4-0/1-3

Lab Sample ID: 180-48399-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.3	^c	5.0	2.5	ug/L	1		8260C	Total/NA
2-Butanone (MEK)	1.9	J ^c	5.0	0.55	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-QC4-0/1-4

Lab Sample ID: 180-48399-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.5	J	5.0	2.5	ug/L	1		8260C	Total/NA
2-Butanone (MEK)	1.4	J	5.0	0.55	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-QC14-0/1-2

Lab Sample ID: 180-48399-14

No Detections.

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: 180-48399-1

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

**Client Sample ID: HD-TATE (S-6)-0/1-0**

**Date Collected: 10/02/15 11:10**

**Date Received: 10/03/15 09:00**

**Lab Sample ID: 180-48399-1**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			10/13/15 19:10	1
Vinyl chloride	ND		1.0	0.23	ug/L			10/13/15 19:10	1
Bromomethane	ND	^c	1.0	0.31	ug/L			10/13/15 19:10	1
Chloroethane	ND	^c	1.0	0.21	ug/L			10/13/15 19:10	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			10/13/15 19:10	1
Acetone	ND		5.0	2.5	ug/L			10/13/15 19:10	1
Carbon disulfide	ND		1.0	0.21	ug/L			10/13/15 19:10	1
Methylene Chloride	ND		1.0	0.13	ug/L			10/13/15 19:10	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			10/13/15 19:10	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			10/13/15 19:10	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			10/13/15 19:10	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			10/13/15 19:10	1
Bromochloromethane	ND		1.0	0.18	ug/L			10/13/15 19:10	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			10/13/15 19:10	1
<b>Chloroform</b>	<b>0.23</b>	<b>J</b>	1.0	0.17	ug/L			10/13/15 19:10	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			10/13/15 19:10	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			10/13/15 19:10	1
Benzene	ND		1.0	0.11	ug/L			10/13/15 19:10	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/13/15 19:10	1
Trichloroethene	ND		1.0	0.14	ug/L			10/13/15 19:10	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			10/13/15 19:10	1
Bromodichloromethane	ND		1.0	0.13	ug/L			10/13/15 19:10	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			10/13/15 19:10	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			10/13/15 19:10	1
Toluene	ND		1.0	0.15	ug/L			10/13/15 19:10	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			10/13/15 19:10	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			10/13/15 19:10	1
Tetrachloroethene	ND		1.0	0.15	ug/L			10/13/15 19:10	1
2-Hexanone	ND	^c	5.0	0.16	ug/L			10/13/15 19:10	1
Dibromochloromethane	ND		1.0	0.14	ug/L			10/13/15 19:10	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			10/13/15 19:10	1
Chlorobenzene	ND		1.0	0.14	ug/L			10/13/15 19:10	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			10/13/15 19:10	1
Ethylbenzene	ND		1.0	0.23	ug/L			10/13/15 19:10	1
Xylenes, Total	ND		3.0	0.49	ug/L			10/13/15 19:10	1
Styrene	ND		1.0	0.097	ug/L			10/13/15 19:10	1
Bromoform	ND	^c	1.0	0.19	ug/L			10/13/15 19:10	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			10/13/15 19:10	1
Acrylonitrile	ND		20	0.55	ug/L			10/13/15 19:10	1
1,4-Dioxane	ND		200	34	ug/L			10/13/15 19:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		64 - 135		10/13/15 19:10	1
Toluene-d8 (Surr)	109		71 - 118		10/13/15 19:10	1
4-Bromofluorobenzene (Surr)	98		70 - 118		10/13/15 19:10	1
Dibromofluoromethane (Surr)	87		70 - 128		10/13/15 19:10	1



# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

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

**Client Sample ID: HD-SOFTAIL LIFT STATION-0/1-0**

**Lab Sample ID: 180-48399-2**

**Date Collected: 10/02/15 13:30**

**Matrix: Water**

**Date Received: 10/03/15 09:00**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			10/13/15 19:34	1
Vinyl chloride	ND		1.0	0.23	ug/L			10/13/15 19:34	1
Bromomethane	ND	^c	1.0	0.31	ug/L			10/13/15 19:34	1
Chloroethane	ND	^c	1.0	0.21	ug/L			10/13/15 19:34	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			10/13/15 19:34	1
Acetone	ND		5.0	2.5	ug/L			10/13/15 19:34	1
Carbon disulfide	ND		1.0	0.21	ug/L			10/13/15 19:34	1
Methylene Chloride	ND		1.0	0.13	ug/L			10/13/15 19:34	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			10/13/15 19:34	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			10/13/15 19:34	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			10/13/15 19:34	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			10/13/15 19:34	1
Bromochloromethane	ND		1.0	0.18	ug/L			10/13/15 19:34	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			10/13/15 19:34	1
Chloroform	ND		1.0	0.17	ug/L			10/13/15 19:34	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			10/13/15 19:34	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			10/13/15 19:34	1
Benzene	ND		1.0	0.11	ug/L			10/13/15 19:34	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/13/15 19:34	1
Trichloroethene	ND		1.0	0.14	ug/L			10/13/15 19:34	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			10/13/15 19:34	1
Bromodichloromethane	ND		1.0	0.13	ug/L			10/13/15 19:34	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			10/13/15 19:34	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			10/13/15 19:34	1
Toluene	ND		1.0	0.15	ug/L			10/13/15 19:34	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			10/13/15 19:34	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			10/13/15 19:34	1
Tetrachloroethene	ND		1.0	0.15	ug/L			10/13/15 19:34	1
2-Hexanone	ND	^c	5.0	0.16	ug/L			10/13/15 19:34	1
Dibromochloromethane	ND		1.0	0.14	ug/L			10/13/15 19:34	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			10/13/15 19:34	1
Chlorobenzene	ND		1.0	0.14	ug/L			10/13/15 19:34	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			10/13/15 19:34	1
Ethylbenzene	ND		1.0	0.23	ug/L			10/13/15 19:34	1
Xylenes, Total	ND		3.0	0.49	ug/L			10/13/15 19:34	1
Styrene	ND		1.0	0.097	ug/L			10/13/15 19:34	1
Bromoform	ND	^c	1.0	0.19	ug/L			10/13/15 19:34	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			10/13/15 19:34	1
Acrylonitrile	ND		20	0.55	ug/L			10/13/15 19:34	1
1,4-Dioxane	ND		200	34	ug/L			10/13/15 19:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	78		64 - 135		10/13/15 19:34	1
Toluene-d8 (Surr)	106		71 - 118		10/13/15 19:34	1
4-Bromofluorobenzene (Surr)	94		70 - 118		10/13/15 19:34	1
Dibromofluoromethane (Surr)	86		70 - 128		10/13/15 19:34	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

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

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

**Date Collected: 10/02/15 09:45**

**Date Received: 10/03/15 09:00**

**Lab Sample ID: 180-48399-3**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			10/15/15 23:37	1
Vinyl chloride	ND	^c	1.0	0.23	ug/L			10/15/15 23:37	1
Bromomethane	ND	^c	1.0	0.31	ug/L			10/15/15 23:37	1
Chloroethane	ND	^c	1.0	0.21	ug/L			10/15/15 23:37	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			10/15/15 23:37	1
Acetone	ND	^c	5.0	2.5	ug/L			10/15/15 23:37	1
Carbon disulfide	ND		1.0	0.21	ug/L			10/15/15 23:37	1
Methylene Chloride	ND		1.0	0.13	ug/L			10/15/15 23:37	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			10/15/15 23:37	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			10/15/15 23:37	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			10/15/15 23:37	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			10/15/15 23:37	1
Bromochloromethane	ND		1.0	0.18	ug/L			10/15/15 23:37	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			10/15/15 23:37	1
<b>Chloroform</b>	<b>0.26</b>	<b>J</b>	1.0	0.17	ug/L			10/15/15 23:37	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			10/15/15 23:37	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			10/15/15 23:37	1
Benzene	ND		1.0	0.11	ug/L			10/15/15 23:37	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/15/15 23:37	1
<b>Trichloroethene</b>	<b>9.3</b>		1.0	0.14	ug/L			10/15/15 23:37	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			10/15/15 23:37	1
Bromodichloromethane	ND		1.0	0.13	ug/L			10/15/15 23:37	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			10/15/15 23:37	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			10/15/15 23:37	1
Toluene	ND		1.0	0.15	ug/L			10/15/15 23:37	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			10/15/15 23:37	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			10/15/15 23:37	1
<b>Tetrachloroethene</b>	<b>350</b>	<b>E</b>	1.0	0.15	ug/L			10/15/15 23:37	1
2-Hexanone	ND		5.0	0.16	ug/L			10/15/15 23:37	1
Dibromochloromethane	ND		1.0	0.14	ug/L			10/15/15 23:37	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			10/15/15 23:37	1
Chlorobenzene	ND		1.0	0.14	ug/L			10/15/15 23:37	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			10/15/15 23:37	1
Ethylbenzene	ND		1.0	0.23	ug/L			10/15/15 23:37	1
Xylenes, Total	ND		3.0	0.49	ug/L			10/15/15 23:37	1
Styrene	ND		1.0	0.097	ug/L			10/15/15 23:37	1
Bromoform	ND		1.0	0.19	ug/L			10/15/15 23:37	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			10/15/15 23:37	1
Acrylonitrile	ND		20	0.55	ug/L			10/15/15 23:37	1
1,4-Dioxane	ND	^c	200	34	ug/L			10/15/15 23:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		64 - 135		10/15/15 23:37	1
Toluene-d8 (Surr)	102		71 - 118		10/15/15 23:37	1
4-Bromofluorobenzene (Surr)	93		70 - 118		10/15/15 23:37	1
Dibromofluoromethane (Surr)	96		70 - 128		10/15/15 23:37	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

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

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

**Date Collected: 10/02/15 12:30**

**Date Received: 10/03/15 09:00**

**Lab Sample ID: 180-48399-4**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			10/13/15 20:22	1
Vinyl chloride	ND		1.0	0.23	ug/L			10/13/15 20:22	1
Bromomethane	ND	^c	1.0	0.31	ug/L			10/13/15 20:22	1
Chloroethane	ND	^c	1.0	0.21	ug/L			10/13/15 20:22	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			10/13/15 20:22	1
Acetone	ND		5.0	2.5	ug/L			10/13/15 20:22	1
Carbon disulfide	ND		1.0	0.21	ug/L			10/13/15 20:22	1
Methylene Chloride	ND		1.0	0.13	ug/L			10/13/15 20:22	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			10/13/15 20:22	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			10/13/15 20:22	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			10/13/15 20:22	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			10/13/15 20:22	1
Bromochloromethane	ND		1.0	0.18	ug/L			10/13/15 20:22	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			10/13/15 20:22	1
<b>Chloroform</b>	<b>0.20</b>	<b>J</b>	1.0	0.17	ug/L			10/13/15 20:22	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			10/13/15 20:22	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			10/13/15 20:22	1
Benzene	ND		1.0	0.11	ug/L			10/13/15 20:22	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/13/15 20:22	1
<b>Trichloroethene</b>	<b>2.7</b>		1.0	0.14	ug/L			10/13/15 20:22	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			10/13/15 20:22	1
Bromodichloromethane	ND		1.0	0.13	ug/L			10/13/15 20:22	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			10/13/15 20:22	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			10/13/15 20:22	1
Toluene	ND		1.0	0.15	ug/L			10/13/15 20:22	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			10/13/15 20:22	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			10/13/15 20:22	1
<b>Tetrachloroethene</b>	<b>44</b>		1.0	0.15	ug/L			10/13/15 20:22	1
2-Hexanone	ND	^c	5.0	0.16	ug/L			10/13/15 20:22	1
Dibromochloromethane	ND		1.0	0.14	ug/L			10/13/15 20:22	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			10/13/15 20:22	1
Chlorobenzene	ND		1.0	0.14	ug/L			10/13/15 20:22	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			10/13/15 20:22	1
Ethylbenzene	ND		1.0	0.23	ug/L			10/13/15 20:22	1
Xylenes, Total	ND		3.0	0.49	ug/L			10/13/15 20:22	1
Styrene	ND		1.0	0.097	ug/L			10/13/15 20:22	1
Bromoform	ND	^c	1.0	0.19	ug/L			10/13/15 20:22	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			10/13/15 20:22	1
Acrylonitrile	ND		20	0.55	ug/L			10/13/15 20:22	1
1,4-Dioxane	ND		200	34	ug/L			10/13/15 20:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		64 - 135		10/13/15 20:22	1
Toluene-d8 (Surr)	107		71 - 118		10/13/15 20:22	1
4-Bromofluorobenzene (Surr)	93		70 - 118		10/13/15 20:22	1
Dibromofluoromethane (Surr)	87		70 - 128		10/13/15 20:22	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

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

**Client Sample ID: HD-MW-166-0/1-0**

**Date Collected: 10/02/15 11:55**

**Date Received: 10/03/15 09:00**

**Lab Sample ID: 180-48399-5**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			10/13/15 21:11	1
Vinyl chloride	ND		1.0	0.23	ug/L			10/13/15 21:11	1
Bromomethane	ND	^c	1.0	0.31	ug/L			10/13/15 21:11	1
Chloroethane	ND	^c	1.0	0.21	ug/L			10/13/15 21:11	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			10/13/15 21:11	1
Acetone	ND		5.0	2.5	ug/L			10/13/15 21:11	1
Carbon disulfide	ND		1.0	0.21	ug/L			10/13/15 21:11	1
Methylene Chloride	ND		1.0	0.13	ug/L			10/13/15 21:11	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			10/13/15 21:11	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			10/13/15 21:11	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			10/13/15 21:11	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			10/13/15 21:11	1
Bromochloromethane	ND		1.0	0.18	ug/L			10/13/15 21:11	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			10/13/15 21:11	1
<b>Chloroform</b>	<b>0.86</b>	<b>J</b>	1.0	0.17	ug/L			10/13/15 21:11	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			10/13/15 21:11	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			10/13/15 21:11	1
Benzene	ND		1.0	0.11	ug/L			10/13/15 21:11	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/13/15 21:11	1
<b>Trichloroethene</b>	<b>1.2</b>		1.0	0.14	ug/L			10/13/15 21:11	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			10/13/15 21:11	1
Bromodichloromethane	ND		1.0	0.13	ug/L			10/13/15 21:11	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			10/13/15 21:11	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			10/13/15 21:11	1
Toluene	ND		1.0	0.15	ug/L			10/13/15 21:11	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			10/13/15 21:11	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			10/13/15 21:11	1
<b>Tetrachloroethene</b>	<b>1.0</b>		1.0	0.15	ug/L			10/13/15 21:11	1
2-Hexanone	ND	^c	5.0	0.16	ug/L			10/13/15 21:11	1
Dibromochloromethane	ND		1.0	0.14	ug/L			10/13/15 21:11	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			10/13/15 21:11	1
Chlorobenzene	ND		1.0	0.14	ug/L			10/13/15 21:11	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			10/13/15 21:11	1
Ethylbenzene	ND		1.0	0.23	ug/L			10/13/15 21:11	1
Xylenes, Total	ND		3.0	0.49	ug/L			10/13/15 21:11	1
Styrene	ND		1.0	0.097	ug/L			10/13/15 21:11	1
Bromoform	ND	^c	1.0	0.19	ug/L			10/13/15 21:11	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			10/13/15 21:11	1
Acrylonitrile	ND		20	0.55	ug/L			10/13/15 21:11	1
1,4-Dioxane	ND		200	34	ug/L			10/13/15 21:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77		64 - 135		10/13/15 21:11	1
Toluene-d8 (Surr)	108		71 - 118		10/13/15 21:11	1
4-Bromofluorobenzene (Surr)	94		70 - 118		10/13/15 21:11	1
Dibromofluoromethane (Surr)	86		70 - 128		10/13/15 21:11	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

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

**Client Sample ID: HD-MW-167-0/1-0**

**Date Collected: 10/02/15 11:30**

**Date Received: 10/03/15 09:00**

**Lab Sample ID: 180-48399-6**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			10/13/15 21:36	1
Vinyl chloride	ND		1.0	0.23	ug/L			10/13/15 21:36	1
Bromomethane	ND	^c	1.0	0.31	ug/L			10/13/15 21:36	1
Chloroethane	ND	^c	1.0	0.21	ug/L			10/13/15 21:36	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			10/13/15 21:36	1
Acetone	ND		5.0	2.5	ug/L			10/13/15 21:36	1
Carbon disulfide	ND		1.0	0.21	ug/L			10/13/15 21:36	1
Methylene Chloride	ND		1.0	0.13	ug/L			10/13/15 21:36	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			10/13/15 21:36	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			10/13/15 21:36	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			10/13/15 21:36	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			10/13/15 21:36	1
Bromochloromethane	ND		1.0	0.18	ug/L			10/13/15 21:36	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			10/13/15 21:36	1
<b>Chloroform</b>	<b>0.31</b>	<b>J</b>	1.0	0.17	ug/L			10/13/15 21:36	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			10/13/15 21:36	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			10/13/15 21:36	1
Benzene	ND		1.0	0.11	ug/L			10/13/15 21:36	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/13/15 21:36	1
<b>Trichloroethene</b>	<b>1.8</b>		1.0	0.14	ug/L			10/13/15 21:36	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			10/13/15 21:36	1
Bromodichloromethane	ND		1.0	0.13	ug/L			10/13/15 21:36	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			10/13/15 21:36	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			10/13/15 21:36	1
Toluene	ND		1.0	0.15	ug/L			10/13/15 21:36	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			10/13/15 21:36	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			10/13/15 21:36	1
<b>Tetrachloroethene</b>	<b>7.4</b>		1.0	0.15	ug/L			10/13/15 21:36	1
2-Hexanone	ND	^c	5.0	0.16	ug/L			10/13/15 21:36	1
Dibromochloromethane	ND		1.0	0.14	ug/L			10/13/15 21:36	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			10/13/15 21:36	1
Chlorobenzene	ND		1.0	0.14	ug/L			10/13/15 21:36	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			10/13/15 21:36	1
Ethylbenzene	ND		1.0	0.23	ug/L			10/13/15 21:36	1
Xylenes, Total	ND		3.0	0.49	ug/L			10/13/15 21:36	1
Styrene	ND		1.0	0.097	ug/L			10/13/15 21:36	1
Bromoform	ND	^c	1.0	0.19	ug/L			10/13/15 21:36	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			10/13/15 21:36	1
Acrylonitrile	ND		20	0.55	ug/L			10/13/15 21:36	1
1,4-Dioxane	ND		200	34	ug/L			10/13/15 21:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	80		64 - 135		10/13/15 21:36	1
Toluene-d8 (Surr)	109		71 - 118		10/13/15 21:36	1
4-Bromofluorobenzene (Surr)	95		70 - 118		10/13/15 21:36	1
Dibromofluoromethane (Surr)	90		70 - 128		10/13/15 21:36	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

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

**Client Sample ID: HD-MW-168-0/1-0**

**Date Collected: 10/02/15 11:20**

**Date Received: 10/03/15 09:00**

**Lab Sample ID: 180-48399-7**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			10/13/15 22:00	1
Vinyl chloride	ND		1.0	0.23	ug/L			10/13/15 22:00	1
Bromomethane	ND	^c	1.0	0.31	ug/L			10/13/15 22:00	1
Chloroethane	ND	^c	1.0	0.21	ug/L			10/13/15 22:00	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			10/13/15 22:00	1
Acetone	ND		5.0	2.5	ug/L			10/13/15 22:00	1
Carbon disulfide	ND		1.0	0.21	ug/L			10/13/15 22:00	1
Methylene Chloride	ND		1.0	0.13	ug/L			10/13/15 22:00	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			10/13/15 22:00	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			10/13/15 22:00	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			10/13/15 22:00	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			10/13/15 22:00	1
Bromochloromethane	ND		1.0	0.18	ug/L			10/13/15 22:00	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			10/13/15 22:00	1
Chloroform	ND		1.0	0.17	ug/L			10/13/15 22:00	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			10/13/15 22:00	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			10/13/15 22:00	1
Benzene	ND		1.0	0.11	ug/L			10/13/15 22:00	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/13/15 22:00	1
Trichloroethene	ND		1.0	0.14	ug/L			10/13/15 22:00	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			10/13/15 22:00	1
Bromodichloromethane	ND		1.0	0.13	ug/L			10/13/15 22:00	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			10/13/15 22:00	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			10/13/15 22:00	1
Toluene	ND		1.0	0.15	ug/L			10/13/15 22:00	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			10/13/15 22:00	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			10/13/15 22:00	1
Tetrachloroethene	ND		1.0	0.15	ug/L			10/13/15 22:00	1
2-Hexanone	ND	^c	5.0	0.16	ug/L			10/13/15 22:00	1
Dibromochloromethane	ND		1.0	0.14	ug/L			10/13/15 22:00	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			10/13/15 22:00	1
Chlorobenzene	ND		1.0	0.14	ug/L			10/13/15 22:00	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			10/13/15 22:00	1
Ethylbenzene	ND		1.0	0.23	ug/L			10/13/15 22:00	1
Xylenes, Total	ND		3.0	0.49	ug/L			10/13/15 22:00	1
Styrene	ND		1.0	0.097	ug/L			10/13/15 22:00	1
Bromoform	ND	^c	1.0	0.19	ug/L			10/13/15 22:00	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			10/13/15 22:00	1
Acrylonitrile	ND		20	0.55	ug/L			10/13/15 22:00	1
1,4-Dioxane	ND		200	34	ug/L			10/13/15 22:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	81		64 - 135		10/13/15 22:00	1
Toluene-d8 (Surr)	108		71 - 118		10/13/15 22:00	1
4-Bromofluorobenzene (Surr)	95		70 - 118		10/13/15 22:00	1
Dibromofluoromethane (Surr)	89		70 - 128		10/13/15 22:00	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

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

**Client Sample ID: HD-MW-103S-0/1-0**

**Date Collected: 10/02/15 12:02**

**Date Received: 10/03/15 09:00**

**Lab Sample ID: 180-48399-8**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			10/15/15 22:25	1
Vinyl chloride	ND	^c	1.0	0.23	ug/L			10/15/15 22:25	1
Bromomethane	ND	^c	1.0	0.31	ug/L			10/15/15 22:25	1
Chloroethane	ND	^c	1.0	0.21	ug/L			10/15/15 22:25	1
<b>1,1-Dichloroethene</b>	<b>1.3</b>		1.0	0.30	ug/L			10/15/15 22:25	1
Acetone	ND	^c	5.0	2.5	ug/L			10/15/15 22:25	1
Carbon disulfide	ND		1.0	0.21	ug/L			10/15/15 22:25	1
Methylene Chloride	ND		1.0	0.13	ug/L			10/15/15 22:25	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			10/15/15 22:25	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			10/15/15 22:25	1
<b>1,1-Dichloroethane</b>	<b>0.16</b>	<b>J</b>	1.0	0.12	ug/L			10/15/15 22:25	1
<b>cis-1,2-Dichloroethene</b>	<b>5.4</b>		1.0	0.24	ug/L			10/15/15 22:25	1
Bromochloromethane	ND		1.0	0.18	ug/L			10/15/15 22:25	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			10/15/15 22:25	1
<b>Chloroform</b>	<b>0.48</b>	<b>J</b>	1.0	0.17	ug/L			10/15/15 22:25	1
<b>1,1,1-Trichloroethane</b>	<b>1.1</b>		1.0	0.29	ug/L			10/15/15 22:25	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			10/15/15 22:25	1
Benzene	ND		1.0	0.11	ug/L			10/15/15 22:25	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/15/15 22:25	1
<b>Trichloroethene</b>	<b>100</b>	<b>E</b>	1.0	0.14	ug/L			10/15/15 22:25	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			10/15/15 22:25	1
Bromodichloromethane	ND		1.0	0.13	ug/L			10/15/15 22:25	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			10/15/15 22:25	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			10/15/15 22:25	1
Toluene	ND		1.0	0.15	ug/L			10/15/15 22:25	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			10/15/15 22:25	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			10/15/15 22:25	1
<b>Tetrachloroethene</b>	<b>28</b>		1.0	0.15	ug/L			10/15/15 22:25	1
2-Hexanone	ND		5.0	0.16	ug/L			10/15/15 22:25	1
Dibromochloromethane	ND		1.0	0.14	ug/L			10/15/15 22:25	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			10/15/15 22:25	1
Chlorobenzene	ND		1.0	0.14	ug/L			10/15/15 22:25	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			10/15/15 22:25	1
Ethylbenzene	ND		1.0	0.23	ug/L			10/15/15 22:25	1
Xylenes, Total	ND		3.0	0.49	ug/L			10/15/15 22:25	1
Styrene	ND		1.0	0.097	ug/L			10/15/15 22:25	1
Bromoform	ND		1.0	0.19	ug/L			10/15/15 22:25	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			10/15/15 22:25	1
Acrylonitrile	ND		20	0.55	ug/L			10/15/15 22:25	1
1,4-Dioxane	ND	^c	200	34	ug/L			10/15/15 22:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		64 - 135		10/15/15 22:25	1
Toluene-d8 (Surr)	105		71 - 118		10/15/15 22:25	1
4-Bromofluorobenzene (Surr)	91		70 - 118		10/15/15 22:25	1
Dibromofluoromethane (Surr)	98		70 - 128		10/15/15 22:25	1



# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

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

**Client Sample ID: HD-MW-103D-0/1-0**

**Date Collected: 10/02/15 09:52**

**Date Received: 10/03/15 09:00**

**Lab Sample ID: 180-48399-9**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			10/14/15 17:38	1
Vinyl chloride	ND		1.0	0.23	ug/L			10/14/15 17:38	1
Bromomethane	ND	^c	1.0	0.31	ug/L			10/14/15 17:38	1
Chloroethane	ND		1.0	0.21	ug/L			10/14/15 17:38	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			10/14/15 17:38	1
Acetone	ND		5.0	2.5	ug/L			10/14/15 17:38	1
Carbon disulfide	ND		1.0	0.21	ug/L			10/14/15 17:38	1
Methylene Chloride	ND		1.0	0.13	ug/L			10/14/15 17:38	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			10/14/15 17:38	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			10/14/15 17:38	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			10/14/15 17:38	1
<b>cis-1,2-Dichloroethene</b>	<b>2.0</b>		1.0	0.24	ug/L			10/14/15 17:38	1
Bromochloromethane	ND		1.0	0.18	ug/L			10/14/15 17:38	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			10/14/15 17:38	1
<b>Chloroform</b>	<b>0.44</b>	<b>J</b>	1.0	0.17	ug/L			10/14/15 17:38	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			10/14/15 17:38	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			10/14/15 17:38	1
Benzene	ND		1.0	0.11	ug/L			10/14/15 17:38	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/14/15 17:38	1
<b>Trichloroethene</b>	<b>18</b>		1.0	0.14	ug/L			10/14/15 17:38	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			10/14/15 17:38	1
Bromodichloromethane	ND		1.0	0.13	ug/L			10/14/15 17:38	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			10/14/15 17:38	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			10/14/15 17:38	1
Toluene	ND		1.0	0.15	ug/L			10/14/15 17:38	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			10/14/15 17:38	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			10/14/15 17:38	1
<b>Tetrachloroethene</b>	<b>9.6</b>		1.0	0.15	ug/L			10/14/15 17:38	1
2-Hexanone	ND		5.0	0.16	ug/L			10/14/15 17:38	1
Dibromochloromethane	ND		1.0	0.14	ug/L			10/14/15 17:38	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			10/14/15 17:38	1
Chlorobenzene	ND		1.0	0.14	ug/L			10/14/15 17:38	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			10/14/15 17:38	1
Ethylbenzene	ND		1.0	0.23	ug/L			10/14/15 17:38	1
Xylenes, Total	ND		3.0	0.49	ug/L			10/14/15 17:38	1
Styrene	ND		1.0	0.097	ug/L			10/14/15 17:38	1
Bromoform	ND		1.0	0.19	ug/L			10/14/15 17:38	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			10/14/15 17:38	1
Acrylonitrile	ND		20	0.55	ug/L			10/14/15 17:38	1
1,4-Dioxane	ND		200	34	ug/L			10/14/15 17:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	76		64 - 135		10/14/15 17:38	1
Toluene-d8 (Surr)	107		71 - 118		10/14/15 17:38	1
4-Bromofluorobenzene (Surr)	96		70 - 118		10/14/15 17:38	1
Dibromofluoromethane (Surr)	83		70 - 128		10/14/15 17:38	1



# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

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

**Client Sample ID: HD-MW-102S-0/1-0**

**Date Collected: 10/02/15 14:50**

**Date Received: 10/03/15 09:00**

**Lab Sample ID: 180-48399-10**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			10/13/15 23:37	1
Vinyl chloride	ND		1.0	0.23	ug/L			10/13/15 23:37	1
Bromomethane	ND	^c	1.0	0.31	ug/L			10/13/15 23:37	1
Chloroethane	ND	^c	1.0	0.21	ug/L			10/13/15 23:37	1
<b>1,1-Dichloroethene</b>	<b>5.7</b>		1.0	0.30	ug/L			10/13/15 23:37	1
Acetone	ND		5.0	2.5	ug/L			10/13/15 23:37	1
Carbon disulfide	ND		1.0	0.21	ug/L			10/13/15 23:37	1
Methylene Chloride	ND		1.0	0.13	ug/L			10/13/15 23:37	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			10/13/15 23:37	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			10/13/15 23:37	1
<b>1,1-Dichloroethane</b>	<b>0.62</b>	<b>J</b>	1.0	0.12	ug/L			10/13/15 23:37	1
<b>cis-1,2-Dichloroethene</b>	<b>3.7</b>		1.0	0.24	ug/L			10/13/15 23:37	1
Bromochloromethane	ND		1.0	0.18	ug/L			10/13/15 23:37	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			10/13/15 23:37	1
Chloroform	ND		1.0	0.17	ug/L			10/13/15 23:37	1
<b>1,1,1-Trichloroethane</b>	<b>3.8</b>		1.0	0.29	ug/L			10/13/15 23:37	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			10/13/15 23:37	1
Benzene	ND		1.0	0.11	ug/L			10/13/15 23:37	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/13/15 23:37	1
<b>Trichloroethene</b>	<b>27</b>		1.0	0.14	ug/L			10/13/15 23:37	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			10/13/15 23:37	1
Bromodichloromethane	ND		1.0	0.13	ug/L			10/13/15 23:37	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			10/13/15 23:37	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			10/13/15 23:37	1
Toluene	ND		1.0	0.15	ug/L			10/13/15 23:37	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			10/13/15 23:37	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			10/13/15 23:37	1
<b>Tetrachloroethene</b>	<b>12</b>		1.0	0.15	ug/L			10/13/15 23:37	1
2-Hexanone	ND	^c	5.0	0.16	ug/L			10/13/15 23:37	1
Dibromochloromethane	ND		1.0	0.14	ug/L			10/13/15 23:37	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			10/13/15 23:37	1
Chlorobenzene	ND		1.0	0.14	ug/L			10/13/15 23:37	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			10/13/15 23:37	1
Ethylbenzene	ND		1.0	0.23	ug/L			10/13/15 23:37	1
Xylenes, Total	ND		3.0	0.49	ug/L			10/13/15 23:37	1
Styrene	ND		1.0	0.097	ug/L			10/13/15 23:37	1
Bromoform	ND	^c	1.0	0.19	ug/L			10/13/15 23:37	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			10/13/15 23:37	1
Acrylonitrile	ND		20	0.55	ug/L			10/13/15 23:37	1
1,4-Dioxane	ND		200	34	ug/L			10/13/15 23:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	78		64 - 135		10/13/15 23:37	1
Toluene-d8 (Surr)	109		71 - 118		10/13/15 23:37	1
4-Bromofluorobenzene (Surr)	99		70 - 118		10/13/15 23:37	1
Dibromofluoromethane (Surr)	92		70 - 128		10/13/15 23:37	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

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

**Client Sample ID: HD-MW-102D-0/1-0**

**Date Collected: 10/02/15 14:42**

**Date Received: 10/03/15 09:00**

**Lab Sample ID: 180-48399-11**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			10/15/15 22:49	1
Vinyl chloride	ND	^c	1.0	0.23	ug/L			10/15/15 22:49	1
Bromomethane	ND	^c	1.0	0.31	ug/L			10/15/15 22:49	1
Chloroethane	ND	^c	1.0	0.21	ug/L			10/15/15 22:49	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			10/15/15 22:49	1
Acetone	ND	^c	5.0	2.5	ug/L			10/15/15 22:49	1
Carbon disulfide	ND		1.0	0.21	ug/L			10/15/15 22:49	1
Methylene Chloride	ND		1.0	0.13	ug/L			10/15/15 22:49	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			10/15/15 22:49	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			10/15/15 22:49	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			10/15/15 22:49	1
<b>cis-1,2-Dichloroethene</b>	<b>10</b>		1.0	0.24	ug/L			10/15/15 22:49	1
Bromochloromethane	ND		1.0	0.18	ug/L			10/15/15 22:49	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			10/15/15 22:49	1
<b>Chloroform</b>	<b>0.45</b>	<b>J</b>	1.0	0.17	ug/L			10/15/15 22:49	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			10/15/15 22:49	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			10/15/15 22:49	1
Benzene	ND		1.0	0.11	ug/L			10/15/15 22:49	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/15/15 22:49	1
<b>Trichloroethene</b>	<b>150</b>	<b>E</b>	1.0	0.14	ug/L			10/15/15 22:49	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			10/15/15 22:49	1
Bromodichloromethane	ND		1.0	0.13	ug/L			10/15/15 22:49	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			10/15/15 22:49	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			10/15/15 22:49	1
Toluene	ND		1.0	0.15	ug/L			10/15/15 22:49	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			10/15/15 22:49	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			10/15/15 22:49	1
<b>Tetrachloroethene</b>	<b>11</b>		1.0	0.15	ug/L			10/15/15 22:49	1
2-Hexanone	ND		5.0	0.16	ug/L			10/15/15 22:49	1
Dibromochloromethane	ND		1.0	0.14	ug/L			10/15/15 22:49	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			10/15/15 22:49	1
Chlorobenzene	ND		1.0	0.14	ug/L			10/15/15 22:49	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			10/15/15 22:49	1
Ethylbenzene	ND		1.0	0.23	ug/L			10/15/15 22:49	1
Xylenes, Total	ND		3.0	0.49	ug/L			10/15/15 22:49	1
Styrene	ND		1.0	0.097	ug/L			10/15/15 22:49	1
Bromoform	ND		1.0	0.19	ug/L			10/15/15 22:49	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			10/15/15 22:49	1
Acrylonitrile	ND		20	0.55	ug/L			10/15/15 22:49	1
1,4-Dioxane	ND	^c	200	34	ug/L			10/15/15 22:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		64 - 135		10/15/15 22:49	1
Toluene-d8 (Surr)	105		71 - 118		10/15/15 22:49	1
4-Bromofluorobenzene (Surr)	92		70 - 118		10/15/15 22:49	1
Dibromofluoromethane (Surr)	97		70 - 128		10/15/15 22:49	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

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

**Client Sample ID: HD-QC4-0/1-3**

**Date Collected: 10/02/15 13:30**

**Date Received: 10/03/15 09:00**

**Lab Sample ID: 180-48399-12**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			10/13/15 23:41	1
Vinyl chloride	ND		1.0	0.23	ug/L			10/13/15 23:41	1
Bromomethane	ND		1.0	0.31	ug/L			10/13/15 23:41	1
Chloroethane	ND	^c	1.0	0.21	ug/L			10/13/15 23:41	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			10/13/15 23:41	1
<b>Acetone</b>	<b>5.3</b>	<b>^c</b>	5.0	2.5	ug/L			10/13/15 23:41	1
Carbon disulfide	ND		1.0	0.21	ug/L			10/13/15 23:41	1
Methylene Chloride	ND		1.0	0.13	ug/L			10/13/15 23:41	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			10/13/15 23:41	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			10/13/15 23:41	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			10/13/15 23:41	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			10/13/15 23:41	1
Bromochloromethane	ND		1.0	0.18	ug/L			10/13/15 23:41	1
<b>2-Butanone (MEK)</b>	<b>1.9</b>	<b>J ^c</b>	5.0	0.55	ug/L			10/13/15 23:41	1
Chloroform	ND		1.0	0.17	ug/L			10/13/15 23:41	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			10/13/15 23:41	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			10/13/15 23:41	1
Benzene	ND		1.0	0.11	ug/L			10/13/15 23:41	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/13/15 23:41	1
Trichloroethene	ND		1.0	0.14	ug/L			10/13/15 23:41	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			10/13/15 23:41	1
Bromodichloromethane	ND		1.0	0.13	ug/L			10/13/15 23:41	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			10/13/15 23:41	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			10/13/15 23:41	1
Toluene	ND		1.0	0.15	ug/L			10/13/15 23:41	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			10/13/15 23:41	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			10/13/15 23:41	1
Tetrachloroethene	ND		1.0	0.15	ug/L			10/13/15 23:41	1
2-Hexanone	ND	^c	5.0	0.16	ug/L			10/13/15 23:41	1
Dibromochloromethane	ND		1.0	0.14	ug/L			10/13/15 23:41	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			10/13/15 23:41	1
Chlorobenzene	ND		1.0	0.14	ug/L			10/13/15 23:41	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			10/13/15 23:41	1
Ethylbenzene	ND		1.0	0.23	ug/L			10/13/15 23:41	1
Xylenes, Total	ND		3.0	0.49	ug/L			10/13/15 23:41	1
Styrene	ND		1.0	0.097	ug/L			10/13/15 23:41	1
Bromoform	ND		1.0	0.19	ug/L			10/13/15 23:41	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			10/13/15 23:41	1
Acrylonitrile	ND	^c	20	0.55	ug/L			10/13/15 23:41	1
1,4-Dioxane	ND	^c	200	34	ug/L			10/13/15 23:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		64 - 135		10/13/15 23:41	1
Toluene-d8 (Surr)	96		71 - 118		10/13/15 23:41	1
4-Bromofluorobenzene (Surr)	80		70 - 118		10/13/15 23:41	1
Dibromofluoromethane (Surr)	102		70 - 128		10/13/15 23:41	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

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

**Client Sample ID: HD-QC4-0/1-4**

**Date Collected: 10/02/15 13:35**

**Date Received: 10/03/15 09:00**

**Lab Sample ID: 180-48399-13**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			10/14/15 18:26	1
Vinyl chloride	ND		1.0	0.23	ug/L			10/14/15 18:26	1
Bromomethane	ND	^c	1.0	0.31	ug/L			10/14/15 18:26	1
Chloroethane	ND		1.0	0.21	ug/L			10/14/15 18:26	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			10/14/15 18:26	1
<b>Acetone</b>	<b>2.5</b>	<b>J</b>	5.0	2.5	ug/L			10/14/15 18:26	1
Carbon disulfide	ND		1.0	0.21	ug/L			10/14/15 18:26	1
Methylene Chloride	ND		1.0	0.13	ug/L			10/14/15 18:26	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			10/14/15 18:26	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			10/14/15 18:26	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			10/14/15 18:26	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			10/14/15 18:26	1
Bromochloromethane	ND		1.0	0.18	ug/L			10/14/15 18:26	1
<b>2-Butanone (MEK)</b>	<b>1.4</b>	<b>J</b>	5.0	0.55	ug/L			10/14/15 18:26	1
Chloroform	ND		1.0	0.17	ug/L			10/14/15 18:26	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			10/14/15 18:26	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			10/14/15 18:26	1
Benzene	ND		1.0	0.11	ug/L			10/14/15 18:26	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/14/15 18:26	1
Trichloroethene	ND		1.0	0.14	ug/L			10/14/15 18:26	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			10/14/15 18:26	1
Bromodichloromethane	ND		1.0	0.13	ug/L			10/14/15 18:26	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			10/14/15 18:26	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			10/14/15 18:26	1
Toluene	ND		1.0	0.15	ug/L			10/14/15 18:26	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			10/14/15 18:26	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			10/14/15 18:26	1
Tetrachloroethene	ND		1.0	0.15	ug/L			10/14/15 18:26	1
2-Hexanone	ND		5.0	0.16	ug/L			10/14/15 18:26	1
Dibromochloromethane	ND		1.0	0.14	ug/L			10/14/15 18:26	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			10/14/15 18:26	1
Chlorobenzene	ND		1.0	0.14	ug/L			10/14/15 18:26	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			10/14/15 18:26	1
Ethylbenzene	ND		1.0	0.23	ug/L			10/14/15 18:26	1
Xylenes, Total	ND		3.0	0.49	ug/L			10/14/15 18:26	1
Styrene	ND		1.0	0.097	ug/L			10/14/15 18:26	1
Bromoform	ND		1.0	0.19	ug/L			10/14/15 18:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			10/14/15 18:26	1
Acrylonitrile	ND		20	0.55	ug/L			10/14/15 18:26	1
1,4-Dioxane	ND		200	34	ug/L			10/14/15 18:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77		64 - 135		10/14/15 18:26	1
Toluene-d8 (Surr)	105		71 - 118		10/14/15 18:26	1
4-Bromofluorobenzene (Surr)	93		70 - 118		10/14/15 18:26	1
Dibromofluoromethane (Surr)	85		70 - 128		10/14/15 18:26	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

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

**Client Sample ID: HD-QC14-0/1-2**

**Date Collected: 10/02/15 12:00**

**Date Received: 10/03/15 09:00**

**Lab Sample ID: 180-48399-14**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			10/13/15 23:13	1
Vinyl chloride	ND		1.0	0.23	ug/L			10/13/15 23:13	1
Bromomethane	ND	^c	1.0	0.31	ug/L			10/13/15 23:13	1
Chloroethane	ND	^c	1.0	0.21	ug/L			10/13/15 23:13	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			10/13/15 23:13	1
Acetone	ND		5.0	2.5	ug/L			10/13/15 23:13	1
Carbon disulfide	ND		1.0	0.21	ug/L			10/13/15 23:13	1
Methylene Chloride	ND		1.0	0.13	ug/L			10/13/15 23:13	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			10/13/15 23:13	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			10/13/15 23:13	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			10/13/15 23:13	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			10/13/15 23:13	1
Bromochloromethane	ND		1.0	0.18	ug/L			10/13/15 23:13	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			10/13/15 23:13	1
Chloroform	ND		1.0	0.17	ug/L			10/13/15 23:13	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			10/13/15 23:13	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			10/13/15 23:13	1
Benzene	ND		1.0	0.11	ug/L			10/13/15 23:13	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/13/15 23:13	1
Trichloroethene	ND		1.0	0.14	ug/L			10/13/15 23:13	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			10/13/15 23:13	1
Bromodichloromethane	ND		1.0	0.13	ug/L			10/13/15 23:13	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			10/13/15 23:13	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			10/13/15 23:13	1
Toluene	ND		1.0	0.15	ug/L			10/13/15 23:13	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			10/13/15 23:13	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			10/13/15 23:13	1
Tetrachloroethene	ND		1.0	0.15	ug/L			10/13/15 23:13	1
2-Hexanone	ND	^c	5.0	0.16	ug/L			10/13/15 23:13	1
Dibromochloromethane	ND		1.0	0.14	ug/L			10/13/15 23:13	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			10/13/15 23:13	1
Chlorobenzene	ND		1.0	0.14	ug/L			10/13/15 23:13	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			10/13/15 23:13	1
Ethylbenzene	ND		1.0	0.23	ug/L			10/13/15 23:13	1
Xylenes, Total	ND		3.0	0.49	ug/L			10/13/15 23:13	1
Styrene	ND		1.0	0.097	ug/L			10/13/15 23:13	1
Bromoform	ND	^c	1.0	0.19	ug/L			10/13/15 23:13	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			10/13/15 23:13	1
Acrylonitrile	ND		20	0.55	ug/L			10/13/15 23:13	1
1,4-Dioxane	ND		200	34	ug/L			10/13/15 23:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	80		64 - 135		10/13/15 23:13	1
Toluene-d8 (Surr)	106		71 - 118		10/13/15 23:13	1
4-Bromofluorobenzene (Surr)	92		70 - 118		10/13/15 23:13	1
Dibromofluoromethane (Surr)	94		70 - 128		10/13/15 23:13	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

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

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

**Date Collected: 10/02/15 09:45**

**Date Received: 10/03/15 09:00**

**Lab Sample ID: 180-48399-3**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		10	2.8	ug/L			10/13/15 19:58	10
Vinyl chloride	ND		10	2.3	ug/L			10/13/15 19:58	10
Bromomethane	ND	^c	10	3.1	ug/L			10/13/15 19:58	10
Chloroethane	ND	^c	10	2.1	ug/L			10/13/15 19:58	10
1,1-Dichloroethene	ND		10	3.0	ug/L			10/13/15 19:58	10
Acetone	ND		50	25	ug/L			10/13/15 19:58	10
Carbon disulfide	ND		10	2.1	ug/L			10/13/15 19:58	10
Methylene Chloride	ND		10	1.3	ug/L			10/13/15 19:58	10
trans-1,2-Dichloroethene	ND		10	1.7	ug/L			10/13/15 19:58	10
Methyl tert-butyl ether	ND		10	1.8	ug/L			10/13/15 19:58	10
1,1-Dichloroethane	ND		10	1.2	ug/L			10/13/15 19:58	10
cis-1,2-Dichloroethene	ND		10	2.4	ug/L			10/13/15 19:58	10
Bromochloromethane	ND		10	1.8	ug/L			10/13/15 19:58	10
2-Butanone (MEK)	ND		50	5.5	ug/L			10/13/15 19:58	10
Chloroform	ND		10	1.7	ug/L			10/13/15 19:58	10
1,1,1-Trichloroethane	ND		10	2.9	ug/L			10/13/15 19:58	10
Carbon tetrachloride	ND		10	1.4	ug/L			10/13/15 19:58	10
Benzene	ND		10	1.1	ug/L			10/13/15 19:58	10
1,2-Dichloroethane	ND		10	2.1	ug/L			10/13/15 19:58	10
<b>Trichloroethene</b>	<b>9.2</b>	<b>J</b>	10	1.4	ug/L			10/13/15 19:58	10
1,2-Dichloropropane	ND		10	0.95	ug/L			10/13/15 19:58	10
Bromodichloromethane	ND		10	1.3	ug/L			10/13/15 19:58	10
cis-1,3-Dichloropropene	ND		10	1.9	ug/L			10/13/15 19:58	10
4-Methyl-2-pentanone (MIBK)	ND		50	5.3	ug/L			10/13/15 19:58	10
Toluene	ND		10	1.5	ug/L			10/13/15 19:58	10
trans-1,3-Dichloropropene	ND		10	1.5	ug/L			10/13/15 19:58	10
1,1,2-Trichloroethane	ND		10	2.0	ug/L			10/13/15 19:58	10
<b>Tetrachloroethene</b>	<b>300</b>		10	1.5	ug/L			10/13/15 19:58	10
2-Hexanone	ND	^c	50	1.6	ug/L			10/13/15 19:58	10
Dibromochloromethane	ND		10	1.4	ug/L			10/13/15 19:58	10
1,2-Dibromoethane (EDB)	ND		10	1.8	ug/L			10/13/15 19:58	10
Chlorobenzene	ND		10	1.4	ug/L			10/13/15 19:58	10
1,1,1,2-Tetrachloroethane	ND		10	2.8	ug/L			10/13/15 19:58	10
Ethylbenzene	ND		10	2.3	ug/L			10/13/15 19:58	10
Xylenes, Total	ND		30	4.9	ug/L			10/13/15 19:58	10
Styrene	ND		10	0.97	ug/L			10/13/15 19:58	10
Bromoform	ND	^c	10	1.9	ug/L			10/13/15 19:58	10
1,1,2,2-Tetrachloroethane	ND		10	2.0	ug/L			10/13/15 19:58	10
Acrylonitrile	ND		200	5.5	ug/L			10/13/15 19:58	10
1,4-Dioxane	ND		2000	340	ug/L			10/13/15 19:58	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		64 - 135		10/13/15 19:58	10
Toluene-d8 (Surr)	106		71 - 118		10/13/15 19:58	10
4-Bromofluorobenzene (Surr)	96		70 - 118		10/13/15 19:58	10
Dibromofluoromethane (Surr)	87		70 - 128		10/13/15 19:58	10

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

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

**Client Sample ID: HD-MW-103S-0/1-0**

**Date Collected: 10/02/15 12:02**

**Date Received: 10/03/15 09:00**

**Lab Sample ID: 180-48399-8**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		5.0	1.4	ug/L			10/14/15 17:14	5
Vinyl chloride	ND		5.0	1.1	ug/L			10/14/15 17:14	5
Bromomethane	ND	^c	5.0	1.6	ug/L			10/14/15 17:14	5
Chloroethane	ND		5.0	1.1	ug/L			10/14/15 17:14	5
1,1-Dichloroethene	ND		5.0	1.5	ug/L			10/14/15 17:14	5
Acetone	ND		25	13	ug/L			10/14/15 17:14	5
Carbon disulfide	ND		5.0	1.1	ug/L			10/14/15 17:14	5
Methylene Chloride	ND		5.0	0.63	ug/L			10/14/15 17:14	5
trans-1,2-Dichloroethene	ND		5.0	0.85	ug/L			10/14/15 17:14	5
Methyl tert-butyl ether	ND		5.0	0.92	ug/L			10/14/15 17:14	5
1,1-Dichloroethane	ND		5.0	0.58	ug/L			10/14/15 17:14	5
<b>cis-1,2-Dichloroethene</b>	<b>4.7</b>	<b>J</b>	5.0	1.2	ug/L			10/14/15 17:14	5
Bromochloromethane	ND		5.0	0.90	ug/L			10/14/15 17:14	5
2-Butanone (MEK)	ND		25	2.7	ug/L			10/14/15 17:14	5
Chloroform	ND		5.0	0.85	ug/L			10/14/15 17:14	5
1,1,1-Trichloroethane	ND		5.0	1.4	ug/L			10/14/15 17:14	5
Carbon tetrachloride	ND		5.0	0.68	ug/L			10/14/15 17:14	5
Benzene	ND		5.0	0.53	ug/L			10/14/15 17:14	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			10/14/15 17:14	5
<b>Trichloroethene</b>	<b>94</b>		5.0	0.72	ug/L			10/14/15 17:14	5
1,2-Dichloropropane	ND		5.0	0.47	ug/L			10/14/15 17:14	5
Bromodichloromethane	ND		5.0	0.65	ug/L			10/14/15 17:14	5
cis-1,3-Dichloropropene	ND		5.0	0.93	ug/L			10/14/15 17:14	5
4-Methyl-2-pentanone (MIBK)	ND		25	2.6	ug/L			10/14/15 17:14	5
Toluene	ND		5.0	0.75	ug/L			10/14/15 17:14	5
trans-1,3-Dichloropropene	ND		5.0	0.74	ug/L			10/14/15 17:14	5
1,1,2-Trichloroethane	ND		5.0	1.0	ug/L			10/14/15 17:14	5
<b>Tetrachloroethene</b>	<b>22</b>		5.0	0.74	ug/L			10/14/15 17:14	5
2-Hexanone	ND		25	0.80	ug/L			10/14/15 17:14	5
Dibromochloromethane	ND		5.0	0.68	ug/L			10/14/15 17:14	5
1,2-Dibromoethane (EDB)	ND		5.0	0.90	ug/L			10/14/15 17:14	5
Chlorobenzene	ND		5.0	0.68	ug/L			10/14/15 17:14	5
1,1,1,2-Tetrachloroethane	ND		5.0	1.4	ug/L			10/14/15 17:14	5
Ethylbenzene	ND		5.0	1.1	ug/L			10/14/15 17:14	5
Xylenes, Total	ND		15	2.4	ug/L			10/14/15 17:14	5
Styrene	ND		5.0	0.48	ug/L			10/14/15 17:14	5
Bromoform	ND		5.0	0.96	ug/L			10/14/15 17:14	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.0	ug/L			10/14/15 17:14	5
Acrylonitrile	ND		100	2.7	ug/L			10/14/15 17:14	5
1,4-Dioxane	ND		1000	170	ug/L			10/14/15 17:14	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	76		64 - 135		10/14/15 17:14	5
Toluene-d8 (Surr)	104		71 - 118		10/14/15 17:14	5
4-Bromofluorobenzene (Surr)	95		70 - 118		10/14/15 17:14	5
Dibromofluoromethane (Surr)	87		70 - 128		10/14/15 17:14	5



# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

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

**Client Sample ID: HD-MW-102D-0/1-0**

**Date Collected: 10/02/15 14:42**

**Date Received: 10/03/15 09:00**

**Lab Sample ID: 180-48399-11**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		10	2.8	ug/L			10/14/15 18:02	10
Vinyl chloride	ND		10	2.3	ug/L			10/14/15 18:02	10
Bromomethane	ND	^c	10	3.1	ug/L			10/14/15 18:02	10
Chloroethane	ND		10	2.1	ug/L			10/14/15 18:02	10
1,1-Dichloroethene	ND		10	3.0	ug/L			10/14/15 18:02	10
Acetone	ND		50	25	ug/L			10/14/15 18:02	10
Carbon disulfide	ND		10	2.1	ug/L			10/14/15 18:02	10
Methylene Chloride	ND		10	1.3	ug/L			10/14/15 18:02	10
trans-1,2-Dichloroethene	ND		10	1.7	ug/L			10/14/15 18:02	10
Methyl tert-butyl ether	ND		10	1.8	ug/L			10/14/15 18:02	10
1,1-Dichloroethane	ND		10	1.2	ug/L			10/14/15 18:02	10
<b>cis-1,2-Dichloroethene</b>	<b>7.4</b>	<b>J</b>	10	2.4	ug/L			10/14/15 18:02	10
Bromochloromethane	ND		10	1.8	ug/L			10/14/15 18:02	10
2-Butanone (MEK)	ND		50	5.5	ug/L			10/14/15 18:02	10
Chloroform	ND		10	1.7	ug/L			10/14/15 18:02	10
1,1,1-Trichloroethane	ND		10	2.9	ug/L			10/14/15 18:02	10
Carbon tetrachloride	ND		10	1.4	ug/L			10/14/15 18:02	10
Benzene	ND		10	1.1	ug/L			10/14/15 18:02	10
1,2-Dichloroethane	ND		10	2.1	ug/L			10/14/15 18:02	10
<b>Trichloroethene</b>	<b>120</b>		10	1.4	ug/L			10/14/15 18:02	10
1,2-Dichloropropane	ND		10	0.95	ug/L			10/14/15 18:02	10
Bromodichloromethane	ND		10	1.3	ug/L			10/14/15 18:02	10
cis-1,3-Dichloropropene	ND		10	1.9	ug/L			10/14/15 18:02	10
4-Methyl-2-pentanone (MIBK)	ND		50	5.3	ug/L			10/14/15 18:02	10
Toluene	ND		10	1.5	ug/L			10/14/15 18:02	10
trans-1,3-Dichloropropene	ND		10	1.5	ug/L			10/14/15 18:02	10
1,1,2-Trichloroethane	ND		10	2.0	ug/L			10/14/15 18:02	10
<b>Tetrachloroethene</b>	<b>7.4</b>	<b>J</b>	10	1.5	ug/L			10/14/15 18:02	10
2-Hexanone	ND		50	1.6	ug/L			10/14/15 18:02	10
Dibromochloromethane	ND		10	1.4	ug/L			10/14/15 18:02	10
1,2-Dibromoethane (EDB)	ND		10	1.8	ug/L			10/14/15 18:02	10
Chlorobenzene	ND		10	1.4	ug/L			10/14/15 18:02	10
1,1,1,2-Tetrachloroethane	ND		10	2.8	ug/L			10/14/15 18:02	10
Ethylbenzene	ND		10	2.3	ug/L			10/14/15 18:02	10
Xylenes, Total	ND		30	4.9	ug/L			10/14/15 18:02	10
Styrene	ND		10	0.97	ug/L			10/14/15 18:02	10
Bromoform	ND		10	1.9	ug/L			10/14/15 18:02	10
1,1,2,2-Tetrachloroethane	ND		10	2.0	ug/L			10/14/15 18:02	10
Acrylonitrile	ND		200	5.5	ug/L			10/14/15 18:02	10
1,4-Dioxane	ND		2000	340	ug/L			10/14/15 18:02	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	78		64 - 135		10/14/15 18:02	10
Toluene-d8 (Surr)	108		71 - 118		10/14/15 18:02	10
4-Bromofluorobenzene (Surr)	96		70 - 118		10/14/15 18:02	10
Dibromofluoromethane (Surr)	85		70 - 128		10/14/15 18:02	10



## Default Detection Limits

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

### 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: 180-48399-1

## 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)
180-48399-1	HD-TATE (S-6)-0/1-0	79	109	98	87
180-48399-2	HD-SOFTAIL LIFT STATION-0/	78	106	94	86
180-48399-3 - DL	HD-MW-161-0/1-0	79	106	96	87
180-48399-3	HD-MW-161-0/1-0	106	102	93	96
180-48399-4	HD-MW-163-0/1-0	82	107	93	87
180-48399-5	HD-MW-166-0/1-0	77	108	94	86
180-48399-6	HD-MW-167-0/1-0	80	109	95	90
180-48399-7	HD-MW-168-0/1-0	81	108	95	89
180-48399-8 - DL	HD-MW-103S-0/1-0	76	104	95	87
180-48399-8	HD-MW-103S-0/1-0	105	105	91	98
180-48399-9	HD-MW-103D-0/1-0	76	107	96	83
180-48399-10	HD-MW-102S-0/1-0	78	109	99	92
180-48399-11 - DL	HD-MW-102D-0/1-0	78	108	96	85
180-48399-11	HD-MW-102D-0/1-0	104	105	92	97
180-48399-12	HD-QC4-0/1-3	110	96	80	102
180-48399-13	HD-QC4-0/1-4	77	105	93	85
180-48399-14	HD-QC14-0/1-2	80	106	92	94
LCS 180-156816/10	Lab Control Sample	103	108	104	98
LCS 180-156820/9	Lab Control Sample	84	101	95	93
LCS 180-156975/11	Lab Control Sample	80	103	101	89
LCS 180-157127/10	Lab Control Sample	99	112	104	87
MB 180-156816/7	Method Blank	100	100	93	95
MB 180-156820/6	Method Blank	78	106	95	87
MB 180-156975/5	Method Blank	82	105	93	88
MB 180-157127/6	Method Blank	101	103	95	93

### 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: 180-48399-1

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

**Lab Sample ID: MB 180-156816/7**  
**Matrix: Water**  
**Analysis Batch: 156816**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			10/13/15 14:19	1
Vinyl chloride	ND		1.0	0.23	ug/L			10/13/15 14:19	1
Bromomethane	ND		1.0	0.31	ug/L			10/13/15 14:19	1
Chloroethane	ND		1.0	0.21	ug/L			10/13/15 14:19	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			10/13/15 14:19	1
Acetone	ND		5.0	2.5	ug/L			10/13/15 14:19	1
Carbon disulfide	ND		1.0	0.21	ug/L			10/13/15 14:19	1
Methylene Chloride	ND		1.0	0.13	ug/L			10/13/15 14:19	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			10/13/15 14:19	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			10/13/15 14:19	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			10/13/15 14:19	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			10/13/15 14:19	1
Bromochloromethane	ND		1.0	0.18	ug/L			10/13/15 14:19	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			10/13/15 14:19	1
Chloroform	ND		1.0	0.17	ug/L			10/13/15 14:19	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			10/13/15 14:19	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			10/13/15 14:19	1
Benzene	ND		1.0	0.11	ug/L			10/13/15 14:19	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/13/15 14:19	1
Trichloroethene	ND		1.0	0.14	ug/L			10/13/15 14:19	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			10/13/15 14:19	1
Bromodichloromethane	ND		1.0	0.13	ug/L			10/13/15 14:19	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			10/13/15 14:19	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			10/13/15 14:19	1
Toluene	ND		1.0	0.15	ug/L			10/13/15 14:19	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			10/13/15 14:19	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			10/13/15 14:19	1
Tetrachloroethene	ND		1.0	0.15	ug/L			10/13/15 14:19	1
2-Hexanone	ND		5.0	0.16	ug/L			10/13/15 14:19	1
Dibromochloromethane	ND		1.0	0.14	ug/L			10/13/15 14:19	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			10/13/15 14:19	1
Chlorobenzene	ND		1.0	0.14	ug/L			10/13/15 14:19	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			10/13/15 14:19	1
Ethylbenzene	ND		1.0	0.23	ug/L			10/13/15 14:19	1
Xylenes, Total	ND		3.0	0.49	ug/L			10/13/15 14:19	1
Styrene	ND		1.0	0.097	ug/L			10/13/15 14:19	1
Bromoform	ND		1.0	0.19	ug/L			10/13/15 14:19	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			10/13/15 14:19	1
Acrylonitrile	ND		20	0.55	ug/L			10/13/15 14:19	1
1,4-Dioxane	ND		200	34	ug/L			10/13/15 14:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		64 - 135		10/13/15 14:19	1
Toluene-d8 (Surr)	100		71 - 118		10/13/15 14:19	1
4-Bromofluorobenzene (Surr)	93		70 - 118		10/13/15 14:19	1
Dibromofluoromethane (Surr)	95		70 - 128		10/13/15 14:19	1

# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

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

**Lab Sample ID: LCS 180-156816/10**

**Matrix: Water**

**Analysis Batch: 156816**

**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	12.4		ug/L		124	50 - 139
Vinyl chloride	10.0	9.23		ug/L		92	53 - 138
Bromomethane	10.0	8.45		ug/L		84	33 - 150
Chloroethane	10.0	7.72		ug/L		77	36 - 142
1,1-Dichloroethene	10.0	9.82		ug/L		98	65 - 136
Acetone	20.0	28.1		ug/L		141	22 - 150
Carbon disulfide	10.0	11.0		ug/L		110	54 - 132
Methylene Chloride	10.0	9.94		ug/L		99	63 - 129
trans-1,2-Dichloroethene	10.0	9.47		ug/L		95	73 - 126
Methyl tert-butyl ether	10.0	10.6		ug/L		106	64 - 123
1,1-Dichloroethane	10.0	10.5		ug/L		105	73 - 126
cis-1,2-Dichloroethene	10.0	9.32		ug/L		93	70 - 120
Bromochloromethane	10.0	9.55		ug/L		95	70 - 127
2-Butanone (MEK)	20.0	25.7		ug/L		129	39 - 138
Chloroform	10.0	9.62		ug/L		96	72 - 127
1,1,1-Trichloroethane	10.0	9.44		ug/L		94	63 - 133
Carbon tetrachloride	10.0	9.61		ug/L		96	55 - 150
Benzene	10.0	10.4		ug/L		104	80 - 120
1,2-Dichloroethane	10.0	10.6		ug/L		106	68 - 132
Trichloroethene	10.0	9.74		ug/L		97	73 - 120
1,2-Dichloropropane	10.0	11.2		ug/L		112	76 - 124
Bromodichloromethane	10.0	10.1		ug/L		101	66 - 130
cis-1,3-Dichloropropene	10.0	9.60		ug/L		96	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	22.5		ug/L		112	45 - 145
Toluene	10.0	10.7		ug/L		107	80 - 123
trans-1,3-Dichloropropene	10.0	9.97		ug/L		100	65 - 125
1,1,2-Trichloroethane	10.0	10.5		ug/L		105	77 - 127
Tetrachloroethene	10.0	10.5		ug/L		105	70 - 135
2-Hexanone	20.0	23.4		ug/L		117	25 - 132
Dibromochloromethane	10.0	10.3		ug/L		103	60 - 140
1,2-Dibromoethane (EDB)	10.0	11.3		ug/L		113	74 - 123
Chlorobenzene	10.0	10.4		ug/L		104	80 - 120
1,1,1,2-Tetrachloroethane	10.0	10.2		ug/L		102	63 - 140
Ethylbenzene	10.0	11.0		ug/L		110	72 - 126
Xylenes, Total	20.0	22.1		ug/L		111	76 - 128
Styrene	10.0	11.5		ug/L		115	71 - 127
Bromoform	10.0	11.1		ug/L		111	46 - 150
1,1,2,2-Tetrachloroethane	10.0	11.3		ug/L		113	62 - 125
Acrylonitrile	100	137		ug/L		137	30 - 140
1,4-Dioxane	200	278		ug/L		139	10 - 160

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		64 - 135
Toluene-d8 (Surr)	108		71 - 118
4-Bromofluorobenzene (Surr)	104		70 - 118
Dibromofluoromethane (Surr)	98		70 - 128

# QC Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

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

**Lab Sample ID: MB 180-156820/6**  
**Matrix: Water**  
**Analysis Batch: 156820**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			10/13/15 14:17	1
Vinyl chloride	ND		1.0	0.23	ug/L			10/13/15 14:17	1
Bromomethane	ND		1.0	0.31	ug/L			10/13/15 14:17	1
Chloroethane	ND		1.0	0.21	ug/L			10/13/15 14:17	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			10/13/15 14:17	1
Acetone	ND		5.0	2.5	ug/L			10/13/15 14:17	1
Carbon disulfide	ND		1.0	0.21	ug/L			10/13/15 14:17	1
Methylene Chloride	ND		1.0	0.13	ug/L			10/13/15 14:17	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			10/13/15 14:17	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			10/13/15 14:17	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			10/13/15 14:17	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			10/13/15 14:17	1
Bromochloromethane	ND		1.0	0.18	ug/L			10/13/15 14:17	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			10/13/15 14:17	1
Chloroform	ND		1.0	0.17	ug/L			10/13/15 14:17	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			10/13/15 14:17	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			10/13/15 14:17	1
Benzene	ND		1.0	0.11	ug/L			10/13/15 14:17	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/13/15 14:17	1
Trichloroethene	ND		1.0	0.14	ug/L			10/13/15 14:17	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			10/13/15 14:17	1
Bromodichloromethane	ND		1.0	0.13	ug/L			10/13/15 14:17	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			10/13/15 14:17	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			10/13/15 14:17	1
Toluene	ND		1.0	0.15	ug/L			10/13/15 14:17	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			10/13/15 14:17	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			10/13/15 14:17	1
Tetrachloroethene	ND		1.0	0.15	ug/L			10/13/15 14:17	1
2-Hexanone	ND		5.0	0.16	ug/L			10/13/15 14:17	1
Dibromochloromethane	ND		1.0	0.14	ug/L			10/13/15 14:17	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			10/13/15 14:17	1
Chlorobenzene	ND		1.0	0.14	ug/L			10/13/15 14:17	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			10/13/15 14:17	1
Ethylbenzene	ND		1.0	0.23	ug/L			10/13/15 14:17	1
Xylenes, Total	ND		3.0	0.49	ug/L			10/13/15 14:17	1
Styrene	ND		1.0	0.097	ug/L			10/13/15 14:17	1
Bromoform	ND		1.0	0.19	ug/L			10/13/15 14:17	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			10/13/15 14:17	1
Acrylonitrile	ND		20	0.55	ug/L			10/13/15 14:17	1
1,4-Dioxane	ND		200	34	ug/L			10/13/15 14:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	78		64 - 135		10/13/15 14:17	1
Toluene-d8 (Surr)	106		71 - 118		10/13/15 14:17	1
4-Bromofluorobenzene (Surr)	95		70 - 118		10/13/15 14:17	1
Dibromofluoromethane (Surr)	87		70 - 128		10/13/15 14:17	1

TestAmerica Pittsburgh

# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

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

**Lab Sample ID: LCS 180-156820/9**

**Matrix: Water**

**Analysis Batch: 156820**

**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	10.7		ug/L		107	50 - 139
Vinyl chloride	10.0	8.95		ug/L		90	53 - 138
Bromomethane	10.0	6.45		ug/L		64	33 - 150
Chloroethane	10.0	7.32		ug/L		73	36 - 142
1,1-Dichloroethene	10.0	9.20		ug/L		92	65 - 136
Acetone	20.0	18.1		ug/L		90	22 - 150
Carbon disulfide	10.0	9.02		ug/L		90	54 - 132
Methylene Chloride	10.0	8.96		ug/L		90	63 - 129
trans-1,2-Dichloroethene	10.0	9.60		ug/L		96	73 - 126
Methyl tert-butyl ether	10.0	8.54		ug/L		85	64 - 123
1,1-Dichloroethane	10.0	9.46		ug/L		95	73 - 126
cis-1,2-Dichloroethene	10.0	9.69		ug/L		97	70 - 120
Bromochloromethane	10.0	9.76		ug/L		98	70 - 127
2-Butanone (MEK)	20.0	21.4		ug/L		107	39 - 138
Chloroform	10.0	9.33		ug/L		93	72 - 127
1,1,1-Trichloroethane	10.0	8.64		ug/L		86	63 - 133
Carbon tetrachloride	10.0	9.44		ug/L		94	55 - 150
Benzene	10.0	10.3		ug/L		103	80 - 120
1,2-Dichloroethane	10.0	8.25		ug/L		83	68 - 132
Trichloroethene	10.0	10.7		ug/L		107	73 - 120
1,2-Dichloropropane	10.0	11.2		ug/L		112	76 - 124
Bromodichloromethane	10.0	9.41		ug/L		94	66 - 130
cis-1,3-Dichloropropene	10.0	10.1		ug/L		101	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	21.6		ug/L		108	45 - 145
Toluene	10.0	10.1		ug/L		101	80 - 123
trans-1,3-Dichloropropene	10.0	8.95		ug/L		89	65 - 125
1,1,2-Trichloroethane	10.0	9.84		ug/L		98	77 - 127
Tetrachloroethene	10.0	9.83		ug/L		98	70 - 135
2-Hexanone	20.0	24.9		ug/L		124	25 - 132
Dibromochloromethane	10.0	11.0		ug/L		110	60 - 140
1,2-Dibromoethane (EDB)	10.0	10.2		ug/L		102	74 - 123
Chlorobenzene	10.0	10.2		ug/L		102	80 - 120
1,1,1,2-Tetrachloroethane	10.0	11.2		ug/L		112	63 - 140
Ethylbenzene	10.0	9.89		ug/L		99	72 - 126
Xylenes, Total	20.0	19.9		ug/L		99	76 - 128
Styrene	10.0	10.8		ug/L		108	71 - 127
Bromoform	10.0	11.8		ug/L		118	46 - 150
1,1,2,2-Tetrachloroethane	10.0	9.51		ug/L		95	62 - 125
Acrylonitrile	100	113		ug/L		113	30 - 140
1,4-Dioxane	200	186	J	ug/L		93	10 - 160

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	84		64 - 135
Toluene-d8 (Surr)	101		71 - 118
4-Bromofluorobenzene (Surr)	95		70 - 118
Dibromofluoromethane (Surr)	93		70 - 128

# QC Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

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

**Lab Sample ID: MB 180-156975/5**

**Matrix: Water**

**Analysis Batch: 156975**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			10/14/15 13:44	1
Vinyl chloride	ND		1.0	0.23	ug/L			10/14/15 13:44	1
Bromomethane	ND		1.0	0.31	ug/L			10/14/15 13:44	1
Chloroethane	ND		1.0	0.21	ug/L			10/14/15 13:44	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			10/14/15 13:44	1
Acetone	ND		5.0	2.5	ug/L			10/14/15 13:44	1
Carbon disulfide	ND		1.0	0.21	ug/L			10/14/15 13:44	1
Methylene Chloride	ND		1.0	0.13	ug/L			10/14/15 13:44	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			10/14/15 13:44	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			10/14/15 13:44	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			10/14/15 13:44	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			10/14/15 13:44	1
Bromochloromethane	ND		1.0	0.18	ug/L			10/14/15 13:44	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			10/14/15 13:44	1
Chloroform	ND		1.0	0.17	ug/L			10/14/15 13:44	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			10/14/15 13:44	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			10/14/15 13:44	1
Benzene	ND		1.0	0.11	ug/L			10/14/15 13:44	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/14/15 13:44	1
Trichloroethene	ND		1.0	0.14	ug/L			10/14/15 13:44	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			10/14/15 13:44	1
Bromodichloromethane	ND		1.0	0.13	ug/L			10/14/15 13:44	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			10/14/15 13:44	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			10/14/15 13:44	1
Toluene	ND		1.0	0.15	ug/L			10/14/15 13:44	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			10/14/15 13:44	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			10/14/15 13:44	1
Tetrachloroethene	ND		1.0	0.15	ug/L			10/14/15 13:44	1
2-Hexanone	ND		5.0	0.16	ug/L			10/14/15 13:44	1
Dibromochloromethane	ND		1.0	0.14	ug/L			10/14/15 13:44	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			10/14/15 13:44	1
Chlorobenzene	ND		1.0	0.14	ug/L			10/14/15 13:44	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			10/14/15 13:44	1
Ethylbenzene	ND		1.0	0.23	ug/L			10/14/15 13:44	1
Xylenes, Total	ND		3.0	0.49	ug/L			10/14/15 13:44	1
Styrene	ND		1.0	0.097	ug/L			10/14/15 13:44	1
Bromoform	ND		1.0	0.19	ug/L			10/14/15 13:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			10/14/15 13:44	1
Acrylonitrile	ND		20	0.55	ug/L			10/14/15 13:44	1
1,4-Dioxane	ND		200	34	ug/L			10/14/15 13:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		64 - 135		10/14/15 13:44	1
Toluene-d8 (Surr)	105		71 - 118		10/14/15 13:44	1
4-Bromofluorobenzene (Surr)	93		70 - 118		10/14/15 13:44	1
Dibromofluoromethane (Surr)	88		70 - 128		10/14/15 13:44	1

TestAmerica Pittsburgh

# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

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

**Lab Sample ID: LCS 180-156975/11**

**Matrix: Water**

**Analysis Batch: 156975**

**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	10.9		ug/L		109	50 - 139
Vinyl chloride	10.0	8.99		ug/L		90	53 - 138
Bromomethane	10.0	5.55		ug/L		55	33 - 150
Chloroethane	10.0	8.14		ug/L		81	36 - 142
1,1-Dichloroethene	10.0	9.15		ug/L		92	65 - 136
Acetone	20.0	19.8		ug/L		99	22 - 150
Carbon disulfide	10.0	8.42		ug/L		84	54 - 132
Methylene Chloride	10.0	8.80		ug/L		88	63 - 129
trans-1,2-Dichloroethene	10.0	9.19		ug/L		92	73 - 126
Methyl tert-butyl ether	10.0	8.63		ug/L		86	64 - 123
1,1-Dichloroethane	10.0	9.88		ug/L		99	73 - 126
cis-1,2-Dichloroethene	10.0	9.19		ug/L		92	70 - 120
Bromochloromethane	10.0	9.78		ug/L		98	70 - 127
2-Butanone (MEK)	20.0	23.3		ug/L		116	39 - 138
Chloroform	10.0	8.90		ug/L		89	72 - 127
1,1,1-Trichloroethane	10.0	8.31		ug/L		83	63 - 133
Carbon tetrachloride	10.0	8.11		ug/L		81	55 - 150
Benzene	10.0	10.1		ug/L		101	80 - 120
1,2-Dichloroethane	10.0	7.91		ug/L		79	68 - 132
Trichloroethene	10.0	10.2		ug/L		102	73 - 120
1,2-Dichloropropane	10.0	10.7		ug/L		107	76 - 124
Bromodichloromethane	10.0	8.32		ug/L		83	66 - 130
cis-1,3-Dichloropropene	10.0	10.1		ug/L		101	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	21.4		ug/L		107	45 - 145
Toluene	10.0	10.2		ug/L		102	80 - 123
trans-1,3-Dichloropropene	10.0	8.97		ug/L		90	65 - 125
1,1,2-Trichloroethane	10.0	9.93		ug/L		99	77 - 127
Tetrachloroethene	10.0	9.83		ug/L		98	70 - 135
2-Hexanone	20.0	24.0		ug/L		120	25 - 132
Dibromochloromethane	10.0	9.23		ug/L		92	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.59		ug/L		96	74 - 123
Chlorobenzene	10.0	10.5		ug/L		105	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.45		ug/L		94	63 - 140
Ethylbenzene	10.0	10.0		ug/L		100	72 - 126
Xylenes, Total	20.0	19.9		ug/L		100	76 - 128
Styrene	10.0	10.8		ug/L		108	71 - 127
Bromoform	10.0	8.73		ug/L		87	46 - 150
1,1,2,2-Tetrachloroethane	10.0	9.50		ug/L		95	62 - 125
Acrylonitrile	100	114		ug/L		114	30 - 140
1,4-Dioxane	200	214		ug/L		107	10 - 160

Surrogate	LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	80		64 - 135
Toluene-d8 (Surr)	103		71 - 118
4-Bromofluorobenzene (Surr)	101		70 - 118
Dibromofluoromethane (Surr)	89		70 - 128



# QC Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

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

**Lab Sample ID: MB 180-157127/6**  
**Matrix: Water**  
**Analysis Batch: 157127**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			10/15/15 14:08	1
Vinyl chloride	ND		1.0	0.23	ug/L			10/15/15 14:08	1
Bromomethane	ND		1.0	0.31	ug/L			10/15/15 14:08	1
Chloroethane	ND		1.0	0.21	ug/L			10/15/15 14:08	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			10/15/15 14:08	1
Acetone	ND		5.0	2.5	ug/L			10/15/15 14:08	1
Carbon disulfide	ND		1.0	0.21	ug/L			10/15/15 14:08	1
Methylene Chloride	ND		1.0	0.13	ug/L			10/15/15 14:08	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			10/15/15 14:08	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			10/15/15 14:08	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			10/15/15 14:08	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			10/15/15 14:08	1
Bromochloromethane	ND		1.0	0.18	ug/L			10/15/15 14:08	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			10/15/15 14:08	1
Chloroform	ND		1.0	0.17	ug/L			10/15/15 14:08	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			10/15/15 14:08	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			10/15/15 14:08	1
Benzene	ND		1.0	0.11	ug/L			10/15/15 14:08	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/15/15 14:08	1
Trichloroethene	ND		1.0	0.14	ug/L			10/15/15 14:08	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			10/15/15 14:08	1
Bromodichloromethane	ND		1.0	0.13	ug/L			10/15/15 14:08	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			10/15/15 14:08	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			10/15/15 14:08	1
Toluene	ND		1.0	0.15	ug/L			10/15/15 14:08	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			10/15/15 14:08	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			10/15/15 14:08	1
Tetrachloroethene	ND		1.0	0.15	ug/L			10/15/15 14:08	1
2-Hexanone	ND		5.0	0.16	ug/L			10/15/15 14:08	1
Dibromochloromethane	ND		1.0	0.14	ug/L			10/15/15 14:08	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			10/15/15 14:08	1
Chlorobenzene	ND		1.0	0.14	ug/L			10/15/15 14:08	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			10/15/15 14:08	1
Ethylbenzene	ND		1.0	0.23	ug/L			10/15/15 14:08	1
Xylenes, Total	ND		3.0	0.49	ug/L			10/15/15 14:08	1
Styrene	ND		1.0	0.097	ug/L			10/15/15 14:08	1
Bromoform	ND		1.0	0.19	ug/L			10/15/15 14:08	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			10/15/15 14:08	1
Acrylonitrile	ND		20	0.55	ug/L			10/15/15 14:08	1
1,4-Dioxane	ND		200	34	ug/L			10/15/15 14:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		64 - 135		10/15/15 14:08	1
Toluene-d8 (Surr)	103		71 - 118		10/15/15 14:08	1
4-Bromofluorobenzene (Surr)	95		70 - 118		10/15/15 14:08	1
Dibromofluoromethane (Surr)	93		70 - 128		10/15/15 14:08	1

TestAmerica Pittsburgh

# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

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

**Lab Sample ID: LCS 180-157127/10**

**Matrix: Water**

**Analysis Batch: 157127**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	9.71		ug/L		97	50 - 139
Vinyl chloride	10.0	8.06		ug/L		81	53 - 138
Bromomethane	10.0	8.03		ug/L		80	33 - 150
Chloroethane	10.0	7.31		ug/L		73	36 - 142
1,1-Dichloroethene	10.0	9.39		ug/L		94	65 - 136
Acetone	20.0	19.9		ug/L		99	22 - 150
Carbon disulfide	10.0	10.0		ug/L		100	54 - 132
Methylene Chloride	10.0	9.92		ug/L		99	63 - 129
trans-1,2-Dichloroethene	10.0	9.68		ug/L		97	73 - 126
Methyl tert-butyl ether	10.0	9.53		ug/L		95	64 - 123
1,1-Dichloroethane	10.0	9.61		ug/L		96	73 - 126
cis-1,2-Dichloroethene	10.0	9.55		ug/L		96	70 - 120
Bromochloromethane	10.0	8.75		ug/L		88	70 - 127
2-Butanone (MEK)	20.0	19.4		ug/L		97	39 - 138
Chloroform	10.0	9.41		ug/L		94	72 - 127
1,1,1-Trichloroethane	10.0	9.64		ug/L		96	63 - 133
Carbon tetrachloride	10.0	9.66		ug/L		97	55 - 150
Benzene	10.0	10.2		ug/L		102	80 - 120
1,2-Dichloroethane	10.0	9.87		ug/L		99	68 - 132
Trichloroethene	10.0	9.16		ug/L		92	73 - 120
1,2-Dichloropropane	10.0	9.92		ug/L		99	76 - 124
Bromodichloromethane	10.0	9.80		ug/L		98	66 - 130
cis-1,3-Dichloropropene	10.0	8.94		ug/L		89	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	18.6		ug/L		93	45 - 145
Toluene	10.0	11.0		ug/L		110	80 - 123
trans-1,3-Dichloropropene	10.0	9.97		ug/L		100	65 - 125
1,1,2-Trichloroethane	10.0	10.7		ug/L		107	77 - 127
Tetrachloroethene	10.0	10.8		ug/L		108	70 - 135
2-Hexanone	20.0	18.1		ug/L		90	25 - 132
Dibromochloromethane	10.0	9.40		ug/L		94	60 - 140
1,2-Dibromoethane (EDB)	10.0	10.2		ug/L		102	74 - 123
Chlorobenzene	10.0	10.3		ug/L		103	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.76		ug/L		98	63 - 140
Ethylbenzene	10.0	10.7		ug/L		107	72 - 126
Xylenes, Total	20.0	21.4		ug/L		107	76 - 128
Styrene	10.0	11.4		ug/L		114	71 - 127
Bromoform	10.0	10.7		ug/L		107	46 - 150
1,1,2,2-Tetrachloroethane	10.0	11.7		ug/L		117	62 - 125
Acrylonitrile	100	112		ug/L		112	30 - 140
1,4-Dioxane	200	287		ug/L		144	10 - 160

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		64 - 135
Toluene-d8 (Surr)	112		71 - 118
4-Bromofluorobenzene (Surr)	104		70 - 118
Dibromofluoromethane (Surr)	87		70 - 128

# QC Association Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

## GC/MS VOA

### Analysis Batch: 156816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-48399-12	HD-QC4-0/1-3	Total/NA	Water	8260C	
LCS 180-156816/10	Lab Control Sample	Total/NA	Water	8260C	
MB 180-156816/7	Method Blank	Total/NA	Water	8260C	

### Analysis Batch: 156820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-48399-1	HD-TATE (S-6)-0/1-0	Total/NA	Water	8260C	
180-48399-2	HD-SOFTAIL LIFT STATION-0/1-0	Total/NA	Water	8260C	
180-48399-3 - DL	HD-MW-161-0/1-0	Total/NA	Water	8260C	
180-48399-4	HD-MW-163-0/1-0	Total/NA	Water	8260C	
180-48399-5	HD-MW-166-0/1-0	Total/NA	Water	8260C	
180-48399-6	HD-MW-167-0/1-0	Total/NA	Water	8260C	
180-48399-7	HD-MW-168-0/1-0	Total/NA	Water	8260C	
180-48399-10	HD-MW-102S-0/1-0	Total/NA	Water	8260C	
180-48399-14	HD-QC14-0/1-2	Total/NA	Water	8260C	
LCS 180-156820/9	Lab Control Sample	Total/NA	Water	8260C	
MB 180-156820/6	Method Blank	Total/NA	Water	8260C	

### Analysis Batch: 156975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-48399-8 - DL	HD-MW-103S-0/1-0	Total/NA	Water	8260C	
180-48399-9	HD-MW-103D-0/1-0	Total/NA	Water	8260C	
180-48399-11 - DL	HD-MW-102D-0/1-0	Total/NA	Water	8260C	
180-48399-13	HD-QC4-0/1-4	Total/NA	Water	8260C	
LCS 180-156975/11	Lab Control Sample	Total/NA	Water	8260C	
MB 180-156975/5	Method Blank	Total/NA	Water	8260C	

### Analysis Batch: 157127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-48399-3	HD-MW-161-0/1-0	Total/NA	Water	8260C	
180-48399-8	HD-MW-103S-0/1-0	Total/NA	Water	8260C	
180-48399-11	HD-MW-102D-0/1-0	Total/NA	Water	8260C	
LCS 180-157127/10	Lab Control Sample	Total/NA	Water	8260C	
MB 180-157127/6	Method Blank	Total/NA	Water	8260C	

# Lab Chronicle

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

**Client Sample ID: HD-TATE (S-6)-0/1-0**

**Lab Sample ID: 180-48399-1**

Date Collected: 10/02/15 11:10

Matrix: Water

Date Received: 10/03/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	156820	10/13/15 19:10	DLF	TAL PIT
Instrument ID: CHHP6										

**Client Sample ID: HD-SOFTAIL LIFT STATION-0/1-0**

**Lab Sample ID: 180-48399-2**

Date Collected: 10/02/15 13:30

Matrix: Water

Date Received: 10/03/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	156820	10/13/15 19:34	DLF	TAL PIT
Instrument ID: CHHP6										

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

**Lab Sample ID: 180-48399-3**

Date Collected: 10/02/15 09:45

Matrix: Water

Date Received: 10/03/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	157127	10/15/15 23:37	DLF	TAL PIT
Instrument ID: CHHP5										
Total/NA	Analysis	8260C	DL	10	5 mL	5 mL	156820	10/13/15 19:58	DLF	TAL PIT
Instrument ID: CHHP6										

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

**Lab Sample ID: 180-48399-4**

Date Collected: 10/02/15 12:30

Matrix: Water

Date Received: 10/03/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	156820	10/13/15 20:22	DLF	TAL PIT
Instrument ID: CHHP6										

**Client Sample ID: HD-MW-166-0/1-0**

**Lab Sample ID: 180-48399-5**

Date Collected: 10/02/15 11:55

Matrix: Water

Date Received: 10/03/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	156820	10/13/15 21:11	DLF	TAL PIT
Instrument ID: CHHP6										

# Lab Chronicle

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

**Client Sample ID: HD-MW-167-0/1-0**

**Date Collected: 10/02/15 11:30**

**Date Received: 10/03/15 09:00**

**Lab Sample ID: 180-48399-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	156820	10/13/15 21:36	DLF	TAL PIT
Instrument ID: CHHP6										

**Client Sample ID: HD-MW-168-0/1-0**

**Date Collected: 10/02/15 11:20**

**Date Received: 10/03/15 09:00**

**Lab Sample ID: 180-48399-7**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	156820	10/13/15 22:00	DLF	TAL PIT
Instrument ID: CHHP6										

**Client Sample ID: HD-MW-103S-0/1-0**

**Date Collected: 10/02/15 12:02**

**Date Received: 10/03/15 09:00**

**Lab Sample ID: 180-48399-8**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	157127	10/15/15 22:25	DLF	TAL PIT
Instrument ID: CHHP5										
Total/NA	Analysis	8260C	DL	5	5 mL	5 mL	156975	10/14/15 17:14	DLF	TAL PIT
Instrument ID: CHHP6										

**Client Sample ID: HD-MW-103D-0/1-0**

**Date Collected: 10/02/15 09:52**

**Date Received: 10/03/15 09:00**

**Lab Sample ID: 180-48399-9**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	156975	10/14/15 17:38	DLF	TAL PIT
Instrument ID: CHHP6										

**Client Sample ID: HD-MW-102S-0/1-0**

**Date Collected: 10/02/15 14:50**

**Date Received: 10/03/15 09:00**

**Lab Sample ID: 180-48399-10**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	156820	10/13/15 23:37	DLF	TAL PIT
Instrument ID: CHHP6										

# Lab Chronicle

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

**Client Sample ID: HD-MW-102D-0/1-0**

**Lab Sample ID: 180-48399-11**

**Date Collected: 10/02/15 14:42**

**Matrix: Water**

**Date Received: 10/03/15 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	157127	10/15/15 22:49	DLF	TAL PIT
Instrument ID: CHHP5										
Total/NA	Analysis	8260C	DL	10	5 mL	5 mL	156975	10/14/15 18:02	DLF	TAL PIT
Instrument ID: CHHP6										

**Client Sample ID: HD-QC4-0/1-3**

**Lab Sample ID: 180-48399-12**

**Date Collected: 10/02/15 13:30**

**Matrix: Water**

**Date Received: 10/03/15 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	156816	10/13/15 23:41	DLF	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-QC4-0/1-4**

**Lab Sample ID: 180-48399-13**

**Date Collected: 10/02/15 13:35**

**Matrix: Water**

**Date Received: 10/03/15 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	156975	10/14/15 18:26	DLF	TAL PIT
Instrument ID: CHHP6										

**Client Sample ID: HD-QC14-0/1-2**

**Lab Sample ID: 180-48399-14**

**Date Collected: 10/02/15 12:00**

**Matrix: Water**

**Date Received: 10/03/15 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	156820	10/13/15 23:13	DLF	TAL PIT
Instrument ID: CHHP6										

**Laboratory References:**

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

**Analyst References:**

Lab: TAL PIT

Batch Type: Analysis

DLF = Donald Ferguson

# Certification Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

## 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	04-30-16

# Method Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-48399-1

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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: 180-48399-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-48399-1	HD-TATE (S-6)-0/1-0	Water	10/02/15 11:10	10/03/15 09:00
180-48399-2	HD-SOFTAIL LIFT STATION-0/1-0	Water	10/02/15 13:30	10/03/15 09:00
180-48399-3	HD-MW-161-0/1-0	Water	10/02/15 09:45	10/03/15 09:00
180-48399-4	HD-MW-163-0/1-0	Water	10/02/15 12:30	10/03/15 09:00
180-48399-5	HD-MW-166-0/1-0	Water	10/02/15 11:55	10/03/15 09:00
180-48399-6	HD-MW-167-0/1-0	Water	10/02/15 11:30	10/03/15 09:00
180-48399-7	HD-MW-168-0/1-0	Water	10/02/15 11:20	10/03/15 09:00
180-48399-8	HD-MW-103S-0/1-0	Water	10/02/15 12:02	10/03/15 09:00
180-48399-9	HD-MW-103D-0/1-0	Water	10/02/15 09:52	10/03/15 09:00
180-48399-10	HD-MW-102S-0/1-0	Water	10/02/15 14:50	10/03/15 09:00
180-48399-11	HD-MW-102D-0/1-0	Water	10/02/15 14:42	10/03/15 09:00
180-48399-12	HD-QC4-0/1-3	Water	10/02/15 13:30	10/03/15 09:00
180-48399-13	HD-QC4-0/1-4	Water	10/02/15 13:35	10/03/15 09:00
180-48399-14	HD-QC14-0/1-2	Water	10/02/15 12:00	10/03/15 09:00

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1

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

Instrument ID: CHHP5 Analysis Batch Number: 151868Lab Sample ID: IC 180-151868/6 Client Sample ID: \_\_\_\_\_Date Analyzed: 08/26/15 15:04 Lab File ID: 50826006.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	2.65	Incomplete Integration	fergusond	08/27/15 10:07
Acetone	3.45	Peak Tail	fergusond	08/27/15 10:07

Lab Sample ID: IC 180-151868/12 Client Sample ID: \_\_\_\_\_Date Analyzed: 08/26/15 17:04 Lab File ID: 50826012.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Incomplete Integration	fergusond	08/27/15 10:34

Lab Sample ID: IC 180-151868/14 Client Sample ID: \_\_\_\_\_Date Analyzed: 08/26/15 17:52 Lab File ID: 50826014.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	2.70	Incomplete Integration	fergusond	08/27/15 10:43

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1

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

Instrument ID: CHHP5 Analysis Batch Number: 156816

Lab Sample ID: CCVIS 180-156816/6 Client Sample ID: \_\_\_\_\_

Date Analyzed: 10/13/15 13:30 Lab File ID: 51013006.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.04	Incomplete Integration	fergusond	10/13/15 14:13

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1

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

Instrument ID: CHHP5 Analysis Batch Number: 157127Lab Sample ID: CCVIS 180-157127/2 Client Sample ID: \_\_\_\_\_Date Analyzed: 10/15/15 12:56 Lab File ID: 51015002.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	2.70	Incomplete Integration	fergusond	10/15/15 13:45
1,4-Dioxane	8.03	Incomplete Integration	fergusond	10/15/15 13:45

Lab Sample ID: 180-48399-8 Client Sample ID: HD-MW-103S-0/1-0Date Analyzed: 10/15/15 22:25 Lab File ID: 51015026.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethane	5.21	Missed Peak	fergusond	10/16/15 08:31

Lab Sample ID: 180-48399-11 Client Sample ID: HD-MW-102D-0/1-0Date Analyzed: 10/15/15 22:49 Lab File ID: 51015027.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.76	Incomplete Integration	fergusond	10/16/15 08:32

Lab Sample ID: 180-48399-3 Client Sample ID: HD-MW-161-0/1-0Date Analyzed: 10/15/15 23:37 Lab File ID: 51015029.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.38	Incomplete Integration	fergusond	10/16/15 08:34

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1

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

Instrument ID: CHHP6 Analysis Batch Number: 149469Lab Sample ID: IC 180-149469/4 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/31/15 14:00 Lab File ID: 60731004.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.23	Incomplete Integration	fergusond	08/03/15 10:46
1,4-Dioxane	8.03	Incomplete Integration	fergusond	08/03/15 10:46

Lab Sample ID: ICIS 180-149469/5 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/31/15 14:24 Lab File ID: 60731005.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Peak Tail	fergusond	08/03/15 10:47

Lab Sample ID: IC 180-149469/7 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/31/15 15:13 Lab File ID: 60731007.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Peak Tail	fergusond	08/03/15 10:27

Lab Sample ID: IC 180-149469/8 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/31/15 15:37 Lab File ID: 60731008.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Peak Tail	fergusond	08/03/15 10:13

Lab Sample ID: IC 180-149469/9 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/31/15 16:01 Lab File ID: 60731009.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Peak Tail	fergusond	08/03/15 10:06

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1

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

Instrument ID: CHHP6 Analysis Batch Number: 149469Lab Sample ID: IC 180-149469/10 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/31/15 16:25 Lab File ID: 60731010.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Peak Tail	fergusond	08/03/15 10:08

Lab Sample ID: IC 180-149469/14 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/31/15 18:02 Lab File ID: 60731014.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	2.68	Poor chromatography	fergusond	08/03/15 11:05
Acetone	3.42	Poor chromatography	fergusond	08/03/15 11:05
Acrylonitrile	4.51	Poor chromatography	fergusond	08/03/15 11:05
1,1,1-Trichloroethane	6.55	Poor chromatography	fergusond	08/03/15 11:05
Isobutyl alcohol	6.90	Poor chromatography	fergusond	08/03/15 11:05

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1

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

Instrument ID: CHHP6 Analysis Batch Number: 156820

Lab Sample ID: CCVIS 180-156820/5 Client Sample ID: \_\_\_\_\_

Date Analyzed: 10/13/15 13:22 Lab File ID: 61013005.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.24	Incomplete Integration	fergusond	10/13/15 13:50
Chloroethane	2.39	Incomplete Integration	fergusond	10/13/15 13:50

Lab Sample ID: LCS 180-156820/9 Client Sample ID: \_\_\_\_\_

Date Analyzed: 10/13/15 15:48 Lab File ID: 61013009.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.24	Incomplete Integration	fergusond	10/13/15 16:14

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1

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

Instrument ID: CHHP6 Analysis Batch Number: 156975Lab Sample ID: CCVIS 180-156975/2 Client Sample ID: \_\_\_\_\_Date Analyzed: 10/14/15 12:26 Lab File ID: 61014002.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.24	Incomplete Integration	fergusond	10/14/15 12:52
Trichlorofluoromethane	2.68	Incomplete Integration	fergusond	10/14/15 12:52

Lab Sample ID: MB 180-156975/5 Client Sample ID: \_\_\_\_\_Date Analyzed: 10/14/15 13:44 Lab File ID: 61014005.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Toluene	9.02	Incomplete Integration	fergusond	10/14/15 14:24

Lab Sample ID: 180-48399-9 Client Sample ID: HD-MW-103D-0/1-0Date Analyzed: 10/14/15 17:38 Lab File ID: 61014014.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl tert-butyl ether	4.58	Incomplete Integration	fergusond	10/15/15 08:37

Lab Sample ID: 180-48399-13 Client Sample ID: HD-QC4-0/1-4Date Analyzed: 10/14/15 18:26 Lab File ID: 61014016.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.45	Incomplete Integration	fergusond	10/15/15 08:40



REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
<b>VOA8260INT_00039</b>	08/02/15	07/02/15	Methanol, Lot 85233	10 mL	VOA8260INTRES_00067	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_00067	02/01/18		Restek, Lot A093504		(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
<b>VOA8260INT_00040</b>	09/03/15	08/03/15	Methanol, Lot 85233	10 mL	VOA8260INTRES_00088	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_00088	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
<b>VOA8260INT_00043</b>	10/24/15	09/24/15	Methanol, Lot 99494	10 mL	VOA8260INTRES_00104	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_00104	05/31/20		Restek, Lot A0110961		(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
<b>VOA8260SURR_00039</b>	08/02/15	07/02/15	Methanol, Lot 85233	100 mL	VOA8260SURRES_00066	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_00066	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
<b>VOA8260SURR_00040</b>	09/03/15	08/03/15	Methanol, Lot 85233	100 mL	VOA8260SURRES_00067	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_00067	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
<b>VOA8260SURR_00043</b>	10/24/15	09/24/15	Methanol, Lot 99494	100 mL	VOA8260SURRES_00081	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_00081	01/31/19		Restek, Lot A0101000		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VOA8260VOA2ND_00147	10/19/15	10/12/15	Methanol, Lot 99494	10 mL	VOA8260GAS2ND_00116	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOA2ND_00145	1 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							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_00116	04/30/18		Restek, Lot A0111273			(Purchased Reagent)	Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOA2ND_00145	10/25/15	09/25/15	Methanol, Lot 99494	10 mL	VOA8260MEGA2_00037	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethene	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Ethylbenzene	250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylene Chloride	250 ug/mL
							Styrene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							Trichloroethene	250 ug/mL
							Xylenes, Total	500 ug/mL
..VOA8260MEGA2_00037	01/31/17		Restek, Lot A0108163			(Purchased Reagent)	1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration		
					Reagent ID	Volume Added				
							Dibromochloromethane	2500 ug/mL		
							Ethylbenzene	2500 ug/mL		
							Methyl tert-butyl ether	2500 ug/mL		
							Methylene Chloride	2500 ug/mL		
							Styrene	2500 ug/mL		
							Tetrachloroethene	2500 ug/mL		
							Toluene	2500 ug/mL		
							trans-1,2-Dichloroethene	2500 ug/mL		
							trans-1,3-Dichloropropene	2500 ug/mL		
							Trichloroethene	2500 ug/mL		
							Xylenes, Total	5000 ug/mL		
VOA8260VOAPRI_00134	08/03/15	07/27/15	Methanol, Lot 85233	10 mL	VOA8260GAS1ST_00110	0.1 mL	Bromomethane	25 ug/mL		
							Butadiene	25 ug/mL		
							Chloroethane	25 ug/mL		
							Chloromethane	25 ug/mL		
							Dichlorodifluoromethane	25 ug/mL		
							Dichlorofluoromethane	25 ug/mL		
							Trichlorofluoromethane	25 ug/mL		
							Vinyl chloride	25 ug/mL		
							VOA8260VOAPRI_00129	1 mL	2-Butanone (MEK)	25 ug/mL
									2-Hexanone	25 ug/mL
					4-Methyl-2-pentanone (MIBK)	25 ug/mL				
					Acetone	25 ug/mL				
					1,1,1,2-Tetrachloroethane	25 ug/mL				
					1,1,1-Trichloroethane	25 ug/mL				
					1,1,2,2-Tetrachloroethane	25 ug/mL				
					1,1,2-Trichloro-1,2,2-trifluoroethane	25 ug/mL				
					1,1,2-Trichloroethane	25 ug/mL				
					1,1-Dichloroethane	25 ug/mL				
					1,1-Dichloroethene	25 ug/mL				
					1,1-Dichloropropene	25 ug/mL				
					1,2,3-Trichlorobenzene	25 ug/mL				
					1,2,3-Trichloropropane	25 ug/mL				
					1,2,4-Trichlorobenzene	25 ug/mL				
					1,2,4-Trimethylbenzene	25 ug/mL				
					1,2-Dibromo-3-Chloropropane	25 ug/mL				
					1,2-Dibromoethane (EDB)	25 ug/mL				
					1,2-Dichlorobenzene	25 ug/mL				
					1,2-Dichloroethane	25 ug/mL				
					1,2-Dichloropropane	25 ug/mL				
					1,3,5-Trimethylbenzene	25 ug/mL				
					1,3-Dichlorobenzene	25 ug/mL				
					1,3-Dichloropropane	25 ug/mL				
1,4-Dichlorobenzene	25 ug/mL									
1,4-Dioxane	500 ug/mL									
2,2-Dichloropropane	25 ug/mL									
2-Chlorotoluene	25 ug/mL									

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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							
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_00110	04/30/18		Restek, Lot A011070			(Purchased Reagent)	Bromomethane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00129	08/07/15	07/07/15	Methanol, Lot 85233	10 mL	VOA8260KET1ST_00047	0.2 mL	2-Butanone (MEK)	250 ug/mL
							2-Hexanone	250 ug/mL
							4-Methyl-2-pentanone (MIBK)	250 ug/mL
							Acetone	250 ug/mL
					VOA8260MEGA1_00030	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloro-1,2,2-trifluor oethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL
							1,1-Dichloropropene	250 ug/mL
							1,2,3-Trichlorobenzene	250 ug/mL
							1,2,3-Trichloropropane	250 ug/mL
							1,2,4-Trichlorobenzene	250 ug/mL
							1,2,4-Trimethylbenzene	250 ug/mL
							1,2-Dibromo-3-Chloropropane	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichlorobenzene	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,3,5-Trimethylbenzene	250 ug/mL
							1,3-Dichlorobenzene	250 ug/mL
							1,3-Dichloropropane	250 ug/mL
							1,4-Dichlorobenzene	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							2,2-Dichloropropane	250 ug/mL
							2-Chlorotoluene	250 ug/mL
							2-Methyl-2-propanol	2500 ug/mL
							3-Chloro-1-propene	250 ug/mL
							4-Chlorotoluene	250 ug/mL
							4-Isopropyltoluene	250 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromobenzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Cyclohexane	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Dibromomethane	250 ug/mL
							Ethyl ether	250 ug/mL
							Ethyl methacrylate	250 ug/mL
							Ethylbenzene	250 ug/mL
							Hexachlorobutadiene	250 ug/mL
							Hexane	250 ug/mL
							Iodomethane	250 ug/mL
							Isobutyl alcohol	6250 ug/mL
							Isopropylbenzene	250 ug/mL
							m-Xylene & p-Xylene	250 ug/mL
							Methyl acetate	1250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylcyclohexane	250 ug/mL
							Methylene Chloride	250 ug/mL
							n-Butylbenzene	250 ug/mL
							n-Heptane	250 ug/mL
							N-Propylbenzene	250 ug/mL
							Naphthalene	250 ug/mL
							o-Xylene	250 ug/mL
							sec-Butylbenzene	250 ug/mL
							Styrene	250 ug/mL
							tert-Butylbenzene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Tetrahydrofuran	500 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							trans-1,4-Dichloro-2-butene	250 ug/mL
							Trichloroethene	250 ug/mL
..VOA8260KET1ST_00047	04/30/18		Restek, Lot A0110400			(Purchased Reagent)	2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VOA8260MEGA1_00030	02/28/16		Restek, Lot A0108166			(Purchased Reagent)	1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	12500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL



REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration		
					Reagent ID	Volume Added				
							n-Butylbenzene	2500 ug/mL		
							n-Heptane	2500 ug/mL		
							N-Propylbenzene	2500 ug/mL		
							Naphthalene	2500 ug/mL		
							o-Xylene	2500 ug/mL		
							sec-Butylbenzene	2500 ug/mL		
							Styrene	2500 ug/mL		
							tert-Butylbenzene	2500 ug/mL		
							Tetrachloroethene	2500 ug/mL		
							Tetrahydrofuran	5000 ug/mL		
							Toluene	2500 ug/mL		
							trans-1,2-Dichloroethene	2500 ug/mL		
							trans-1,3-Dichloropropene	2500 ug/mL		
							trans-1,4-Dichloro-2-butene	2500 ug/mL		
							Trichloroethene	2500 ug/mL		
VOA8260VOAPRI_00139	09/01/15	08/25/15	Methanol, Lot 85233	10 mL	VOA8260GAS1ST_00113	0.1 mL	Bromomethane	25 ug/mL		
							Butadiene	25 ug/mL		
							Chloroethane	25 ug/mL		
							Chloromethane	25 ug/mL		
							Dichlorodifluoromethane	25 ug/mL		
							Dichlorofluoromethane	25 ug/mL		
							Trichlorofluoromethane	25 ug/mL		
							Vinyl chloride	25 ug/mL		
							1 mL	VOA8260VOAPRI_00136	2-Butanone (MEK)	25 ug/mL
									2-Hexanone	25 ug/mL
									4-Methyl-2-pentanone (MIBK)	25 ug/mL
									Acetone	25 ug/mL
									1,1,1,2-Tetrachloroethane	25 ug/mL
				1,1,1-Trichloroethane	25 ug/mL					
				1,1,2,2-Tetrachloroethane	25 ug/mL					
				1,1,2-Trichloro-1,2,2-trifluoroethane	25 ug/mL					
				1,1,2-Trichloroethane	25 ug/mL					
				1,1-Dichloroethane	25 ug/mL					
				1,1-Dichloroethene	25 ug/mL					
				1,1-Dichloropropene	25 ug/mL					
				1,2,3-Trichlorobenzene	25 ug/mL					
				1,2,3-Trichloropropane	25 ug/mL					
				1,2,4-Trichlorobenzene	25 ug/mL					
				1,2,4-Trimethylbenzene	25 ug/mL					
				1,2-Dibromo-3-Chloropropane	25 ug/mL					
				1,2-Dibromoethane (EDB)	25 ug/mL					
1,2-Dichlorobenzene	25 ug/mL									
1,2-Dichloroethane	25 ug/mL									
1,2-Dichloropropane	25 ug/mL									
1,3,5-Trimethylbenzene	25 ug/mL									
1,3-Dichlorobenzene	25 ug/mL									
1,3-Dichloropropane	25 ug/mL									

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							trans-1,3-Dichloropropene	25 ug/mL
							trans-1,4-Dichloro-2-butene	25 ug/mL
							Trichloroethene	25 ug/mL
.VOA8260GAS1ST_00113	04/30/18		Restek, Lot A0110070		(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_00136	09/06/15	08/06/15	Methanol, Lot 85233	10 mL	VOA8260KET1ST_00048	0.2 mL	2-Butanone (MEK)	250 ug/mL
							2-Hexanone	250 ug/mL
							4-Methyl-2-pentanone (MIBK)	250 ug/mL
							Acetone	250 ug/mL
					VOA8260MEGA1_00032	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL
							1,1-Dichloropropene	250 ug/mL
							1,2,3-Trichlorobenzene	250 ug/mL
							1,2,3-Trichloropropane	250 ug/mL
							1,2,4-Trichlorobenzene	250 ug/mL
							1,2,4-Trimethylbenzene	250 ug/mL
							1,2-Dibromo-3-Chloropropane	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichlorobenzene	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,3,5-Trimethylbenzene	250 ug/mL
							1,3-Dichlorobenzene	250 ug/mL
							1,3-Dichloropropane	250 ug/mL
							1,4-Dichlorobenzene	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							2,2-Dichloropropane	250 ug/mL
							2-Chlorotoluene	250 ug/mL
							2-Methyl-2-propanol	2500 ug/mL
							3-Chloro-1-propene	250 ug/mL
							4-Chlorotoluene	250 ug/mL
							4-Isopropyltoluene	250 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromobenzene	250 ug/mL
							Bromochloromethane	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Cyclohexane	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Dibromomethane	250 ug/mL
							Ethyl ether	250 ug/mL
							Ethyl methacrylate	250 ug/mL
							Ethylbenzene	250 ug/mL
							Hexachlorobutadiene	250 ug/mL
							Hexane	250 ug/mL
							Iodomethane	250 ug/mL
							Isobutyl alcohol	6250 ug/mL
							Isopropylbenzene	250 ug/mL
							m-Xylene & p-Xylene	250 ug/mL
							Methyl acetate	1250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylcyclohexane	250 ug/mL
							Methylene Chloride	250 ug/mL
							n-Butylbenzene	250 ug/mL
							n-Heptane	250 ug/mL
							N-Propylbenzene	250 ug/mL
							Naphthalene	250 ug/mL
							o-Xylene	250 ug/mL
							sec-Butylbenzene	250 ug/mL
							Styrene	250 ug/mL
							tert-Butylbenzene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Tetrahydrofuran	500 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							trans-1,4-Dichloro-2-butene	250 ug/mL
							Trichloroethene	250 ug/mL
..VOA8260KET1ST_00048	04/30/18		Restek, Lot A0110400			(Purchased Reagent)	2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VOA8260MEGA1_00032	02/28/16		Restek, Lot A0108166			(Purchased Reagent)	1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration					
					Reagent ID	Volume Added							
							Methyl acetate	12500 ug/mL					
							Methyl tert-butyl ether	2500 ug/mL					
							Methylcyclohexane	2500 ug/mL					
							Methylene Chloride	2500 ug/mL					
							n-Butylbenzene	2500 ug/mL					
							n-Heptane	2500 ug/mL					
							N-Propylbenzene	2500 ug/mL					
							Naphthalene	2500 ug/mL					
							o-Xylene	2500 ug/mL					
							sec-Butylbenzene	2500 ug/mL					
							Styrene	2500 ug/mL					
							tert-Butylbenzene	2500 ug/mL					
							Tetrachloroethene	2500 ug/mL					
							Tetrahydrofuran	5000 ug/mL					
							Toluene	2500 ug/mL					
							trans-1,2-Dichloroethene	2500 ug/mL					
							trans-1,3-Dichloropropene	2500 ug/mL					
							trans-1,4-Dichloro-2-butene	2500 ug/mL					
							Trichloroethene	2500 ug/mL					
VOA8260VOAPRI_00148	10/19/15	10/12/15	Methanol, Lot 99494	10 mL	VOA8260GAS1ST_00119	0.1 mL	Bromomethane	25 ug/mL					
							Chloroethane	25 ug/mL					
							Chloromethane	25 ug/mL					
												Vinyl chloride	25 ug/mL
										VOA8260VOAPRI_00146	1 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
									1,1,1-Trichloroethane			25 ug/mL	
									1,1,2,2-Tetrachloroethane			25 ug/mL	
									1,1,2-Trichloroethane			25 ug/mL	
									1,1-Dichloroethane			25 ug/mL	
									1,1-Dichloroethene			25 ug/mL	
									1,2-Dibromoethane (EDB)			25 ug/mL	
									1,2-Dichloroethane			25 ug/mL	
									1,2-Dichloropropane			25 ug/mL	
									1,4-Dioxane			500 ug/mL	
									Acrylonitrile			250 ug/mL	
									Benzene			25 ug/mL	
									Bromochloromethane			25 ug/mL	
									Bromodichloromethane			25 ug/mL	
									Bromoform			25 ug/mL	
									Carbon disulfide			25 ug/mL	
									Carbon tetrachloride			25 ug/mL	
									Chlorobenzene			25 ug/mL	
									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								

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00119	04/30/18		Restek, Lot A0110070			(Purchased Reagent)	Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00146	10/25/15	09/25/15	Methanol, Lot 99494	10 mL	VOA8260MEGA1_00034	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Ethylbenzene	250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylene Chloride	250 ug/mL
							Styrene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							Trichloroethene	250 ug/mL
							Xylenes, Total	500 ug/mL
..VOA8260MEGA1_00034	02/28/16		Restek, Lot A0108166			(Purchased Reagent)	1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
<b>VOAACROLEINPR_00006</b>	09/11/15	08/11/15	Methanol, Lot 85233	100 mL	VOAACRORES_00077	0.125 mL	Acrolein	25 ug/mL
.VOAACRORES_00077	09/30/15		Restek, Lot A0111006		(Purchased Reagent)		Acrolein	20000 ug/mL
<b>VOAVAPRI_00006</b>	08/31/15	08/25/15	Methanol, Lot 85233	50 mL	VOA8260VARES_00054	0.25 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00054	08/31/15		Restek, Lot A0109190		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
<b>voaWAcro2nd_R_00006</b>	08/07/15	07/07/15	Methanol, Lot 85233	100 mL	VOAACRRES2ND_00065	0.125 mL	Acrolein	25 ug/mL
.VOAACRRES2ND_00065	09/30/15		Restek, Lot A0111005		(Purchased Reagent)		Acrolein	20000 ug/mL
<b>voaWEE1stRest_00001</b>	09/21/15	08/21/15	Methanol, Lot 85233	25 mL	VOARESEE1ST_00021	0.125 mL	1,2-dichloro-4-(trifluoromethyl)benzene	25 ug/mL
							2,3,6-Trichlorotoluene	25 ug/mL
							2,3- & 3,4- Dichlorotoluene	50 ug/mL
							2,4,5-Trichlorotoluene	25 ug/mL
							2,4- & 2,5- & 2,6-Dichlorotoluene	75 ug/mL
							2,4-Dichloro-1-(triflouromethyl)-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



REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.VOARESEE1ST_00021	09/30/16		Restek, Lot A0109701			(Purchased Reagent)	4-Chlorobenzotrifluoride	25 ug/mL
							1,2-dichloro-4-(trifluoromethyl)benzene	5000 ug/mL
							2,3,6-Trichlorotoluene	5000 ug/mL
							2,3- & 3,4- Dichlorotoluene	10000 ug/mL
							2,4,5-Trichlorotoluene	5000 ug/mL
							2,4- & 2,5- & 2,6-Dichlorotoluene	15000 ug/mL
							2,4-Dichloro-1-(trifluoromethyl)-benzene	5000 ug/mL
							2,5-Dichlorobenzotrifluoride	5000 ug/mL
							2-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorobenzotrifluoride	5000 ug/mL
voaWeemix1Res_00001	08/20/15	07/20/15	Methanol, Lot 85233	25 mL	VOARESEE1ST_00025	0.125 mL	1,2-dichloro-4-(trifluoromethyl)benzene	25 ug/mL
							2,3,6-Trichlorotoluene	25 ug/mL
							2,3- & 3,4- Dichlorotoluene	50 ug/mL
							2,4,5-Trichlorotoluene	25 ug/mL
							2,4- & 2,5- & 2,6-Dichlorotoluene	75 ug/mL
							2,4-Dichloro-1-(trifluoromethyl)-benzene	25 ug/mL
							2,5-Dichlorobenzotrifluoride	25 ug/mL
							2-Chlorobenzotrifluoride	25 ug/mL
							3-Chlorobenzotrifluoride	25 ug/mL
							3-Chlorotoluene	25 ug/mL
4-Chlorobenzotrifluoride	25 ug/mL							
.VOARESEE1ST_00025	09/30/16		Restek, Lot A0109701			(Purchased Reagent)	1,2-dichloro-4-(trifluoromethyl)benzene	5000 ug/mL
							2,3,6-Trichlorotoluene	5000 ug/mL
							2,3- & 3,4- Dichlorotoluene	10000 ug/mL
							2,4,5-Trichlorotoluene	5000 ug/mL
							2,4- & 2,5- & 2,6-Dichlorotoluene	15000 ug/mL
							2,4-Dichloro-1-(trifluoromethyl)-benzene	5000 ug/mL
							2,5-Dichlorobenzotrifluoride	5000 ug/mL
							2-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorotoluene	5000 ug/mL
4-Chlorobenzotrifluoride	5000 ug/mL							
voaWket1 Rest_00001	09/11/15	08/11/15	Methanol, Lot 85233	50 mL	VOA8260KET1ST_00049	0.1 mL	2-Hexanone	25 ug/mL
.VOA8260KET1ST_00049	04/30/18		Restek, Lot A0110400			(Purchased Reagent)	Acetone	25 ug/mL
							2-Hexanone	12500 ug/mL
.VOA8260KET1ST_00049							Acetone	12500 ug/mL
							2-Hexanone	12500 ug/mL
voaWket1Reste_00001	08/02/15	07/02/15	Methanol, Lot 85233	50 mL	VOA8260KET1ST_00046	0.1 mL	2-Butanone (MEK)	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET1ST_00046	04/30/18		Restek, Lot A0110400		(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
voaWKet1stRes_00001	10/14/15	09/14/15	Methanol, Lot 99494	50 mL	VOA8260KET1ST_00051	0.1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET1ST_00051	04/30/18		Restek, Lot A0110400		(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
voaWKetmix2nd_00002	10/22/15	09/22/15	Methanol, Lot 99494	50 mL	VOA8260KET2ND_00054	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_00054	05/31/18		Restek, Lot A0110970		(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
voaVVA1st Res 00003	08/23/15	07/23/15	Methanol, Lot 85233	25 mL	VOA8260VARES 00055	0.125 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00055	08/31/15		Restek, Lot A0109190		(Purchased Reagent)		Vinyl acetate	5000 ug/mL

Reagent

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**VOA8260GAS1ST\_00110**



# 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. :** 569722 **Lot No.:** A0110070

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

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

**Expiration Date :** April 30, 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)	2,499.9 µg/mL	+/-	17.9502	µg/mL Gravimetric
	CAS # 75-71-8 (Lot Q167-08)		+/-	30.0934	µg/mL Unstressed
	Purity 99%		+/-	34.1055	µg/mL Stressed
2	Chloromethane (methyl chloride)	2,500.1 µg/mL	+/-	17.2963	µg/mL Gravimetric
	CAS # 74-87-3 (Lot SHBC8470V)		+/-	29.7101	µg/mL Unstressed
	Purity 99%		+/-	33.7686	µg/mL Stressed
3	Vinyl chloride	2,500.2 µg/mL	+/-	16.5642	µg/mL Gravimetric
	CAS # 75-01-4 (Lot 17542)		+/-	29.2906	µg/mL Unstressed
	Purity 99%		+/-	33.4004	µg/mL Stressed
4	1,3-Butadiene	2,500.0 µg/mL	+/-	17.0072	µg/mL Gravimetric
	CAS # 106-99-0 (Lot SHBF3387V)		+/-	29.5416	µg/mL Unstressed
	Purity 99%		+/-	33.6200	µg/mL Stressed
5	Bromomethane (methyl bromide)	2,499.8 µg/mL	+/-	18.9451	µg/mL Gravimetric
	CAS # 74-83-9 (Lot 101604)		+/-	30.6969	µg/mL Unstressed
	Purity 99%		+/-	34.6391	µg/mL Stressed
6	Chloroethane (ethyl chloride)	2,500.3 µg/mL	+/-	17.6395	µg/mL Gravimetric
	CAS # 75-00-3 (Lot SHBD1717V)		+/-	29.9122	µg/mL Unstressed
	Purity 99%		+/-	33.9470	µg/mL Stressed
7	Dichlorofluoromethane (CFC-21)	2,500.2 µg/mL	+/-	16.7318	µg/mL Gravimetric
	CAS # 75-43-4 (Lot Q9B-58)		+/-	29.3854	µg/mL Unstressed
	Purity 99%		+/-	33.4835	µg/mL Stressed

8	Trichlorofluoromethane (CFC-11)	2,500.3 µg/mL	+/- 16.5866	µg/mL	Gravimetric
	CAS # 75-69-4 (Lot SHBD5121V)		+/- 29.3037	µg/mL	Unstressed
	Purity 99%		+/- 33.4120	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)

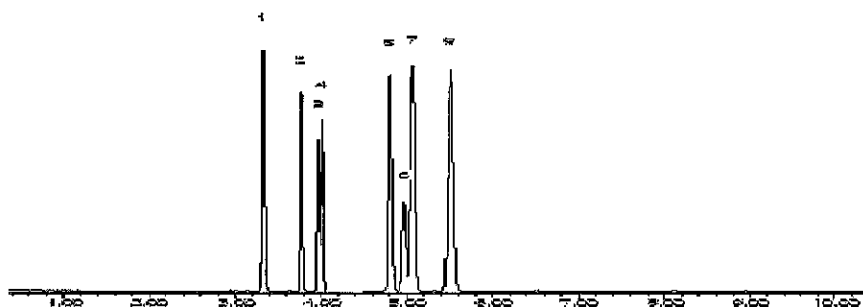
**Carrier Gas:**  
helium-constant flow 2.0 mL/min.

**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.

*[Signature]*  
F. Joseph Tallon - Mix Technician

**Date Mixed:** 02-Apr-2015      **Balance:** B251644995

*[Signature]*  
Tyler Brown - QA Analyst

**Date Passed:** 08-Apr-2015

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

Reagent

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**VOA8260GAS1ST\_00113**



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Bellefonte, PA 16823-8812  
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## Certificate of Analysis



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

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

**Catalog No. :** 569722 **Lot No.:** A0110070

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

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

**Expiration Date :** April 30, 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)	2,499.9 µg/mL	+/-	17.9502	µg/mL	Gravimetric
	CAS # 75-71-8 (Lot Q167-08)		+/-	30.0934	µg/mL	Unstressed
	Purity 99%		+/-	34.1055	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,500.1 µg/mL	+/-	17.2963	µg/mL	Gravimetric
	CAS # 74-87-3 (Lot SHBC8470V)		+/-	29.7101	µg/mL	Unstressed
	Purity 99%		+/-	33.7686	µg/mL	Stressed
3	Vinyl chloride	2,500.2 µg/mL	+/-	16.5642	µg/mL	Gravimetric
	CAS # 75-01-4 (Lot 17542)		+/-	29.2906	µg/mL	Unstressed
	Purity 99%		+/-	33.4004	µg/mL	Stressed
4	1,3-Butadiene	2,500.0 µg/mL	+/-	17.0072	µg/mL	Gravimetric
	CAS # 106-99-0 (Lot SHBF3387V)		+/-	29.5416	µg/mL	Unstressed
	Purity 99%		+/-	33.6200	µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,499.8 µg/mL	+/-	18.9451	µg/mL	Gravimetric
	CAS # 74-83-9 (Lot 101604)		+/-	30.6969	µg/mL	Unstressed
	Purity 99%		+/-	34.6391	µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,500.3 µg/mL	+/-	17.6395	µg/mL	Gravimetric
	CAS # 75-00-3 (Lot SHBD1717V)		+/-	29.9122	µg/mL	Unstressed
	Purity 99%		+/-	33.9470	µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,500.2 µg/mL	+/-	16.7318	µg/mL	Gravimetric
	CAS # 75-43-4 (Lot Q9B-58)		+/-	29.3854	µg/mL	Unstressed
	Purity 99%		+/-	33.4835	µg/mL	Stressed

8	Trichlorofluoromethane (CFC-11)	2,500.3 µg/mL	+/- 16.5866	µg/mL	Gravimetric
	CAS # 75-69-4 (Lot SHBD5121V)		+/- 29.3037	µg/mL	Unstressed
	Purity 99%		+/- 33.4120	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)

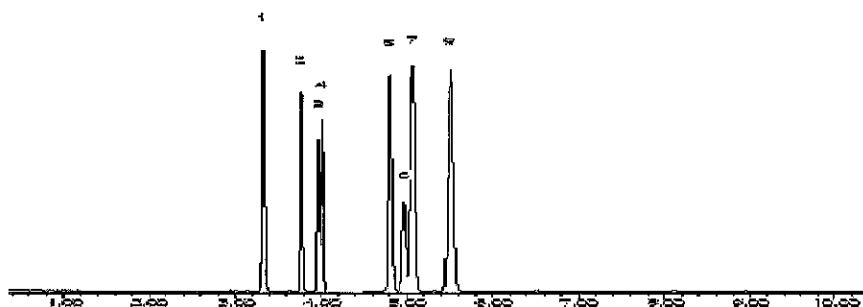
**Carrier Gas:**  
helium-constant flow 2.0 mL/min.

**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.

*[Signature]*  
F. Joseph Tallon - Mix Technician

**Date Mixed:** 02-Apr-2015      **Balance:** B251644995

*[Signature]*  
Tyler Brown - QA Analyst

**Date Passed:** 08-Apr-2015

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



Reagent

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**VOA8260GAS1ST\_00119**



# CERTIFIED REFERENCE MATERIAL

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 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. :** 569722 **Lot No.:** A0110070  
**Description :** 8260 List 1 / Std #3 Gases (2015)  
8260 List 1 / Std #3 Gases (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** April 30, 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)	2,499.9 µg/mL	+/-	17.9502	µg/mL	Gravimetric
	CAS # 75-71-8 (Lot Q167-08)		+/-	30.0934	µg/mL	Unstressed
	Purity 99%		+/-	34.1055	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,500.1 µg/mL	+/-	17.2963	µg/mL	Gravimetric
	CAS # 74-87-3 (Lot SHBC8470V)		+/-	29.7101	µg/mL	Unstressed
	Purity 99%		+/-	33.7686	µg/mL	Stressed
3	Vinyl chloride	2,500.2 µg/mL	+/-	16.5642	µg/mL	Gravimetric
	CAS # 75-01-4 (Lot 17542)		+/-	29.2906	µg/mL	Unstressed
	Purity 99%		+/-	33.4004	µg/mL	Stressed
4	1,3-Butadiene	2,500.0 µg/mL	+/-	17.0072	µg/mL	Gravimetric
	CAS # 106-99-0 (Lot SHBF3387V)		+/-	29.5416	µg/mL	Unstressed
	Purity 99%		+/-	33.6200	µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,499.8 µg/mL	+/-	18.9451	µg/mL	Gravimetric
	CAS # 74-83-9 (Lot 101604)		+/-	30.6969	µg/mL	Unstressed
	Purity 99%		+/-	34.6391	µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,500.3 µg/mL	+/-	17.6395	µg/mL	Gravimetric
	CAS # 75-00-3 (Lot SHBD1717V)		+/-	29.9122	µg/mL	Unstressed
	Purity 99%		+/-	33.9470	µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,500.2 µg/mL	+/-	16.7318	µg/mL	Gravimetric
	CAS # 75-43-4 (Lot Q9B-58)		+/-	29.3854	µg/mL	Unstressed
	Purity 99%		+/-	33.4835	µg/mL	Stressed

8	Trichlorofluoromethane (CFC-11)	2,500.3 µg/mL	+/- 16.5866	µg/mL	Gravimetric
	CAS # 75-69-4 (Lot SHBD5121V)		+/- 29.3037	µg/mL	Unstressed
	Purity 99%		+/- 33.4120	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)

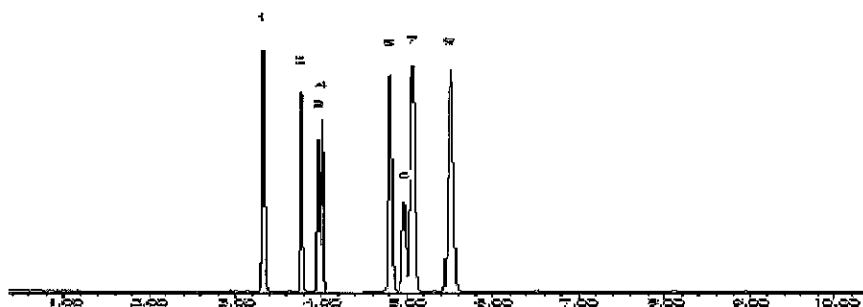
**Carrier Gas:**  
helium-constant flow 2.0 mL/min.

**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.

*[Signature]*  
F. Joseph Tallon - Mix Technician

**Date Mixed:** 02-Apr-2015      **Balance:** B251644995

*[Signature]*  
Tyler Brown - QA Analyst

**Date Passed:** 08-Apr-2015

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

Reagent

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**VOA8260GAS2ND\_00116**



# 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.:** A0111273  
**Description :** 8260 List 1 / Std #3 Gases (2015)  
8260 List 1 / Std #3 Gases (2015) 2,500 ug/ml, P&T Methanol, 1  
ml/ampul  
**Container Size :** 2 mL                              **Pkg Amt:** > 1 mL  
**Expiration Date :** May 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)	2,497.6 µg/mL	+/-	24.0984	µg/mL	Gravimetric
	CAS # 75-71-8.SEC (Lot 21773)		+/-	34.1039	µg/mL	Unstressed
	Purity 99%		+/-	37.6853	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,503.8 µg/mL	+/-	21.5368	µg/mL	Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/-	32.3897	µg/mL	Unstressed
	Purity 99%		+/-	36.1592	µg/mL	Stressed
3	Vinyl chloride	2,492.0 µg/mL	+/-	23.1023	µg/mL	Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/-	33.3685	µg/mL	Unstressed
	Purity 99%		+/-	37.0056	µg/mL	Stressed
4	1,3-Butadiene	2,488.6 µg/mL	+/-	19.2643	µg/mL	Gravimetric
	CAS # 106-99-0.SEC (Lot 18349)		+/-	30.8102	µg/mL	Unstressed
	Purity 99%		+/-	34.7063	µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,491.9 µg/mL	+/-	20.7776	µg/mL	Gravimetric
	CAS # 74-83-9.SEC (Lot Q119-46)		+/-	31.8022	µg/mL	Unstressed
	Purity 99%		+/-	35.5993	µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,516.0 µg/mL	+/-	19.4764	µg/mL	Gravimetric
	CAS # 75-00-3.SEC (Lot 00004202)		+/-	31.1495	µg/mL	Unstressed
	Purity 99%		+/-	35.0885	µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,503.3 µg/mL	+/-	18.8823	µg/mL	Gravimetric
	CAS # 75-43-4.SEC (Lot SHBC0858V)		+/-	30.6846	µg/mL	Unstressed
	Purity 99%		+/-	34.6386	µg/mL	Stressed

Reagent

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**VOA8260INTRES\_00067**



Reagent

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**VOA8260INTRES\_00088**





# CERTIFIED REFERENCE MATERIAL

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 Bellefonte, PA 16823-8812  
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 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. :** 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	+/- 106.1005 µg/mL	+/- 106.5713 µg/mL	Gravimetric Unstressed Stressed
2	Fluorobenzene CAS # 462-06-6 Purity 99% (Lot 1380033)	250.8 µg/mL	+/- 1.4795 µg/mL	+/- 5.3247 µg/mL	+/- 5.3483 µg/mL	Gravimetric Unstressed Stressed
3	1,4-Dioxane-d8 CAS # 17647-74-4 Purity 99% (Lot 11C-596)	5,009.6 µg/mL	+/- 29.1262 µg/mL	+/- 106.2405 µg/mL	+/- 106.7119 µg/mL	Gravimetric Unstressed Stressed
4	Chlorobenzene-d5 CAS # 3114-55-4 Purity 99% (Lot PR-22736)	250.8 µg/mL	+/- 1.4795 µg/mL	+/- 5.3247 µg/mL	+/- 5.3483 µg/mL	Gravimetric Unstressed Stressed
5	1,4-Dichlorobenzene-d4 CAS # 3855-82-1 Purity 99% (Lot PR-18488)	250.8 µg/mL	+/- 1.4795 µg/mL	+/- 5.3247 µg/mL	+/- 5.3483 µg/mL	Gravimetric Unstressed Stressed

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

Reagent

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**VOA8260INTRES\_00104**



# CERTIFIED REFERENCE MATERIAL

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Bellefonte, PA 16823-8812  
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## Certificate of Analysis



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

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

**Catalog No. :** 568718 **Lot No.:** A0110961

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

**Container Size :** 5 mL **Pkg Amt:** > 5 mL

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

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	tert-Butyl-d9-alcohol CAS # 25725-11-5 Purity 99% (Lot I201P13)	5,001.6 µg/mL	+/- 29.0797	µg/mL	Gravimetric
			+/- 106.0709	µg/mL	Unstressed
			+/- 106.5415	µg/mL	Stressed
2	2-Butanone-d5 CAS # 24313-50-6 Purity 99% (Lot M276P20)	1,250.0 µg/mL	+/- 7.2844	µg/mL	Gravimetric
			+/- 26.5138	µg/mL	Unstressed
			+/- 26.6314	µg/mL	Stressed
3	Fluorobenzene CAS # 462-06-6 Purity 99% (Lot 1380033)	250.4 µg/mL	+/- 1.4771	µg/mL	Gravimetric
			+/- 5.3162	µg/mL	Unstressed
			+/- 5.3397	µg/mL	Stressed
4	1,4-Dioxane-d8 CAS # 17647-74-4 Purity 99% (Lot 1-19073)	5,000.4 µg/mL	+/- 29.0728	µg/mL	Gravimetric
			+/- 106.0454	µg/mL	Unstressed
			+/- 106.5159	µg/mL	Stressed
5	Chlorobenzene-d5 CAS # 3114-55-4 Purity 99% (Lot PR-23926)	250.6 µg/mL	+/- 1.4783	µg/mL	Gravimetric
			+/- 5.3205	µg/mL	Unstressed
			+/- 5.3440	µg/mL	Stressed
6	1,4-Dichlorobenzene-d4 CAS # 3855-82-1 Purity 99% (Lot PR-18488)	250.6 µg/mL	+/- 1.4783	µg/mL	Gravimetric
			+/- 5.3205	µg/mL	Unstressed
			+/- 5.3440	µg/mL	Stressed

Reagent

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**VOA8260KET1ST\_00046**

# 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. :** 569721 **Lot No.:** A0110400  
**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 :** April 30, 2018 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone	12,506.8 µg/mL	+/-	73.2301	µg/mL	Gravimetric
	CAS # 67-64-1 (Lot 07196AK)		+/-	665.6407	µg/mL	Unstressed
	Purity 99%		+/-	666.3747	µg/mL	Stressed
2	2-Butanone (MEK)	12,504.8 µg/mL	+/-	73.2184	µg/mL	Gravimetric
	CAS # 78-93-3 (Lot BCBH7802V)		+/-	665.5343	µg/mL	Unstressed
	Purity 99%		+/-	666.2681	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,509.2 µg/mL	+/-	73.2441	µg/mL	Gravimetric
	CAS # 108-10-1 (Lot SHBF5332V)		+/-	665.7684	µg/mL	Unstressed
	Purity 99%		+/-	666.5025	µg/mL	Stressed
4	2-Hexanone	12,501.6 µg/mL	+/-	73.1996	µg/mL	Gravimetric
	CAS # 591-78-6 (Lot MKBN7380V)		+/-	665.3640	µg/mL	Unstressed
	Purity 99%		+/-	666.0976	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\_00047**

# RESTEK® CERTIFIED REFERENCE MATERIAL

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## Certificate of Analysis



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

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**Catalog No. :** 569721 **Lot No.:** A0110400  
**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 :** April 30, 2018 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone	12,506.8 µg/mL	+/-	73.2301	µg/mL	Gravimetric
	CAS # 67-64-1 (Lot 07196AK)		+/-	665.6407	µg/mL	Unstressed
	Purity 99%		+/-	666.3747	µg/mL	Stressed
2	2-Butanone (MEK)	12,504.8 µg/mL	+/-	73.2184	µg/mL	Gravimetric
	CAS # 78-93-3 (Lot BCBH7802V)		+/-	665.5343	µg/mL	Unstressed
	Purity 99%		+/-	666.2681	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,509.2 µg/mL	+/-	73.2441	µg/mL	Gravimetric
	CAS # 108-10-1 (Lot SHBF5332V)		+/-	665.7684	µg/mL	Unstressed
	Purity 99%		+/-	666.5025	µg/mL	Stressed
4	2-Hexanone	12,501.6 µg/mL	+/-	73.1996	µg/mL	Gravimetric
	CAS # 591-78-6 (Lot MKBN7380V)		+/-	665.3640	µg/mL	Unstressed
	Purity 99%		+/-	666.0976	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\_00048**



# RESTEK® CERTIFIED REFERENCE MATERIAL

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

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**Catalog No. :** 569721 **Lot No.:** A0110400  
**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 :** April 30, 2018 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone	12,506.8 µg/mL	+/-	73.2301	µg/mL	Gravimetric
	CAS # 67-64-1 (Lot 07196AK)		+/-	665.6407	µg/mL	Unstressed
	Purity 99%		+/-	666.3747	µg/mL	Stressed
2	2-Butanone (MEK)	12,504.8 µg/mL	+/-	73.2184	µg/mL	Gravimetric
	CAS # 78-93-3 (Lot BCBH7802V)		+/-	665.5343	µg/mL	Unstressed
	Purity 99%		+/-	666.2681	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,509.2 µg/mL	+/-	73.2441	µg/mL	Gravimetric
	CAS # 108-10-1 (Lot SHBF5332V)		+/-	665.7684	µg/mL	Unstressed
	Purity 99%		+/-	666.5025	µg/mL	Stressed
4	2-Hexanone	12,501.6 µg/mL	+/-	73.1996	µg/mL	Gravimetric
	CAS # 591-78-6 (Lot MKBN7380V)		+/-	665.3640	µg/mL	Unstressed
	Purity 99%		+/-	666.0976	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\_00049**

# RESTEK® CERTIFIED REFERENCE MATERIAL

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

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**Catalog No. :** 569721 **Lot No.:** A0110400  
**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 :** April 30, 2018 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone	12,506.8 µg/mL	+/-	73.2301	µg/mL	Gravimetric
	CAS # 67-64-1 (Lot 07196AK)		+/-	665.6407	µg/mL	Unstressed
	Purity 99%		+/-	666.3747	µg/mL	Stressed
2	2-Butanone (MEK)	12,504.8 µg/mL	+/-	73.2184	µg/mL	Gravimetric
	CAS # 78-93-3 (Lot BCBH7802V)		+/-	665.5343	µg/mL	Unstressed
	Purity 99%		+/-	666.2681	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,509.2 µg/mL	+/-	73.2441	µg/mL	Gravimetric
	CAS # 108-10-1 (Lot SHBF5332V)		+/-	665.7684	µg/mL	Unstressed
	Purity 99%		+/-	666.5025	µg/mL	Stressed
4	2-Hexanone	12,501.6 µg/mL	+/-	73.1996	µg/mL	Gravimetric
	CAS # 591-78-6 (Lot MKBN7380V)		+/-	665.3640	µg/mL	Unstressed
	Purity 99%		+/-	666.0976	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\_00051**

# RESTEK® CERTIFIED REFERENCE MATERIAL

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

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**Catalog No. :** 569721 **Lot No.:** A0110400  
**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 :** April 30, 2018 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone	12,506.8 µg/mL	+/-	73.2301	µg/mL	Gravimetric
	CAS # 67-64-1 (Lot 07196AK)		+/-	665.6407	µg/mL	Unstressed
	Purity 99%		+/-	666.3747	µg/mL	Stressed
2	2-Butanone (MEK)	12,504.8 µg/mL	+/-	73.2184	µg/mL	Gravimetric
	CAS # 78-93-3 (Lot BCBH7802V)		+/-	665.5343	µg/mL	Unstressed
	Purity 99%		+/-	666.2681	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,509.2 µg/mL	+/-	73.2441	µg/mL	Gravimetric
	CAS # 108-10-1 (Lot SHBF5332V)		+/-	665.7684	µg/mL	Unstressed
	Purity 99%		+/-	666.5025	µg/mL	Stressed
4	2-Hexanone	12,501.6 µg/mL	+/-	73.1996	µg/mL	Gravimetric
	CAS # 591-78-6 (Lot MKBN7380V)		+/-	665.3640	µg/mL	Unstressed
	Purity 99%		+/-	666.0976	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\_00054**



# CERTIFIED REFERENCE MATERIAL

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

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**Catalog No. :** 569721.sec                      **Lot No.:** A0110970  
**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 :** May 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	12,528.0 µg/mL	+/-	73.3542	µg/mL	Gravimetric
	CAS # 67-64-1.SEC (Lot P14A572)		+/-	666.7690	µg/mL	Unstressed
	Purity 99%		+/-	667.5042	µg/mL	Stressed
2	2-Butanone (MEK)	12,530.0 µg/mL	+/-	73.3659	µg/mL	Gravimetric
	CAS # 78-93-3.SEC (Lot RA58J)		+/-	666.8755	µg/mL	Unstressed
	Purity 99%		+/-	667.6108	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,585.0 µg/mL	+/-	73.6879	µg/mL	Gravimetric
	CAS # 108-10-1.SEC (Lot E29T040)		+/-	669.8027	µg/mL	Unstressed
	Purity 99%		+/-	670.5412	µg/mL	Stressed
4	2-Hexanone	12,516.0 µg/mL	+/-	73.2839	µg/mL	Gravimetric
	CAS # 591-78-6.SEC (Lot ZSVCD-FF)		+/-	666.1304	µg/mL	Unstressed
	Purity 99%		+/-	666.8648	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\_00030**





# CERTIFIED REFERENCE MATERIAL

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

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

**Catalog No. :** 569720 **Lot No.:** A0108166  
**Description :** 8260 List 1 / Std #1 MegaMix (2015)  
8260 List 1 / Std #1 MegaMix (2015) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** January 31, 2017 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Diethyl ether (ethyl ether)	2,521.3 µg/mL	+/-	14.6588	µg/mL	Gravimetric
	CAS # 60-29-7 (Lot SHBF3466V)		+/-	134.1754	µg/mL	Unstressed
	Purity 99%		+/-	134.3233	µg/mL	Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113)	2,522.5 µg/mL	+/-	14.6660	µg/mL	Gravimetric
	CAS # 76-13-1 (Lot 00001135)		+/-	134.2419	µg/mL	Unstressed
	Purity 99%		+/-	134.3899	µg/mL	Stressed
3	1,1-Dichloroethane	2,499.5 µg/mL	+/-	14.5323	µg/mL	Gravimetric
	CAS # 75-34-3 (Lot Q179-33)		+/-	133.0173	µg/mL	Unstressed
	Purity 98%		+/-	133.1640	µg/mL	Stressed
4	tert-Butanol (TBA)	25,002.4 µg/mL	+/-	145.3584	µg/mL	Gravimetric
	CAS # 75-65-0 (Lot SHBC6893V)		+/-	1,330.5704	µg/mL	Unstressed
	Purity 99%		+/-	1,332.0378	µg/mL	Stressed
5	Iodomethane (methyl iodide)	2,510.0 µg/mL	+/-	14.5934	µg/mL	Gravimetric
	CAS # 74-88-4 (Lot SHBC7288V)		+/-	133.5767	µg/mL	Unstressed
	Purity 99%		+/-	133.7240	µg/mL	Stressed
6	Methyl acetate	12,505.4 µg/mL	+/-	72.7037	µg/mL	Gravimetric
	CAS # 79-20-9 (Lot SHBD7134V)		+/-	665.5101	µg/mL	Unstressed
	Purity 98%		+/-	666.2440	µg/mL	Stressed
7	Allyl chloride (3-chloropropene)	2,500.0 µg/mL	+/-	19.2743	µg/mL	Gravimetric
	CAS # 107-05-1 (Lot MKBG5777V)		+/-	133.6453	µg/mL	Unstressed
	Purity 99%		+/-	133.7914	µg/mL	Stressed

8	Methylene chloride (dichloromethane)		2,511.3	µg/mL	+/-	14.6006	µg/mL	Gravimetric
	<b>CAS #</b> 75-09-2	(Lot SHBD4974V)			+/-	133.6432	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.7906	µg/mL	Stressed
9	Carbon disulfide		2,511.7	µg/mL	+/-	14.6035	µg/mL	Gravimetric
	<b>CAS #</b> 75-15-0	(Lot C30Y997)			+/-	133.6693	µg/mL	Unstressed
	<b>Purity</b> 98%				+/-	133.8167	µg/mL	Stressed
10	Acrylonitrile		25,017.1	µg/mL	+/-	145.4441	µg/mL	Gravimetric
	<b>CAS #</b> 107-13-1	(Lot 10172706)			+/-	1,331.3554	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	1,332.8236	µg/mL	Stressed
11	cis-1,2-Dichloroethene		2,503.9	µg/mL	+/-	14.5577	µg/mL	Gravimetric
	<b>CAS #</b> 156-59-2	(Lot MKBG8424V)			+/-	133.2507	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.3977	µg/mL	Stressed
12	n-Hexane (C6)		2,511.9	µg/mL	+/-	14.6043	µg/mL	Gravimetric
	<b>CAS #</b> 110-54-3	(Lot SHBF0293V)			+/-	133.6764	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.8239	µg/mL	Stressed
13	1,1-dichloroethene		2,521.3	µg/mL	+/-	14.6588	µg/mL	Gravimetric
	<b>CAS #</b> 75-35-4	(Lot SHBD6170V)			+/-	134.1754	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	134.3233	µg/mL	Stressed
14	2,2-Dichloropropane		2,500.0	µg/mL	+/-	14.5351	µg/mL	Gravimetric
	<b>CAS #</b> 594-20-7	(Lot BCBH9246V)			+/-	133.0434	µg/mL	Unstressed
	<b>Purity</b> 98%				+/-	133.1901	µg/mL	Stressed
15	trans-1,2-Dichloroethene		2,505.0	µg/mL	+/-	14.5643	µg/mL	Gravimetric
	<b>CAS #</b> 156-60-5	(Lot MKBH9850V)			+/-	133.3106	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.4576	µg/mL	Stressed
16	Isobutanol (2-Methyl-1-propanol)		62,553.8	µg/mL	+/-	363.6739	µg/mL	Gravimetric
	<b>CAS #</b> 78-83-1	(Lot SHBF2852V)			+/-	3,328.9705	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	3,332.6417	µg/mL	Stressed
17	Methyl-tert-butyl ether ( MTBE )		2,504.6	µg/mL	+/-	14.5621	µg/mL	Gravimetric
	<b>CAS #</b> 1634-04-4	(Lot SHBF1193V)			+/-	133.2906	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.4376	µg/mL	Stressed
18	Bromochloromethane		2,505.1	µg/mL	+/-	14.5650	µg/mL	Gravimetric
	<b>CAS #</b> 74-97-5	(Lot 00004559)			+/-	133.3172	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.4642	µg/mL	Stressed
19	Tetrahydrofuran		5,000.7	µg/mL	+/-	29.0746	µg/mL	Gravimetric
	<b>CAS #</b> 109-99-9	(Lot SHBF2660V)			+/-	266.1270	µg/mL	Unstressed
	<b>Purity</b> 97%				+/-	266.4204	µg/mL	Stressed
20	1,1,1-trichloroethane		2,508.1	µg/mL	+/-	14.5825	µg/mL	Gravimetric
	<b>CAS #</b> 71-55-6	(Lot B14Z1114)			+/-	133.4769	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.6241	µg/mL	Stressed
21	Cyclohexane		2,504.0	µg/mL	+/-	14.5585	µg/mL	Gravimetric
	<b>CAS #</b> 110-82-7	(Lot SHBD7873V)			+/-	133.2574	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.4043	µg/mL	Stressed
22	1,1-Dichloropropene		2,502.4	µg/mL	+/-	14.5493	µg/mL	Gravimetric
	<b>CAS #</b> 563-58-6	(Lot PR09161302)			+/-	133.1738	µg/mL	Unstressed
	<b>Purity</b> 98%				+/-	133.3207	µg/mL	Stressed
23	carbon tetrachloride		2,505.3	µg/mL	+/-	14.5657	µg/mL	Gravimetric
	<b>CAS #</b> 56-23-5	(Lot SHBC1410V)			+/-	133.3239	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.4709	µg/mL	Stressed

24	n-Heptane (C7) CAS # 142-82-5 Purity 99%	(Lot SHBF2321V)	2,501.4 µg/mL	+/- 14.5432 +/- 133.1177 +/- 133.2645	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	1,2-Dichloroethane CAS # 107-06-2 Purity 99%	(Lot SHBC6595V)	2,501.6 µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	Benzene CAS # 71-43-2 Purity 99%	(Lot SHBD4617V)	2,509.1 µg/mL	+/- 14.5883 +/- 133.5301 +/- 133.6774	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Trichloroethene CAS # 79-01-6 Purity 99%	(Lot SHBF0943V)	2,504.8 µg/mL	+/- 14.5628 +/- 133.2973 +/- 133.4443	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Methylcyclohexane CAS # 108-87-2 Purity 99%	(Lot 50996APV)	2,502.5 µg/mL	+/- 14.5498 +/- 133.1775 +/- 133.3244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	1,2-Dichloropropane CAS # 78-87-5 Purity 99%	(Lot 01113D0V)	2,502.4 µg/mL	+/- 14.5490 +/- 133.1709 +/- 133.3177	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	bromodichloromethane CAS # 75-27-4 Purity 98%	(Lot MKBL1617V)	2,507.9 µg/mL	+/- 14.5814 +/- 133.4672 +/- 133.6144	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane CAS # 123-91-1 Purity 99%	(Lot SHBF2002V)	50,001.4 µg/mL	+/- 290.6971 +/- 2,660.9612 +/- 2,663.8957	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane CAS # 74-95-3 Purity 99%	(Lot 10169264)	2,508.1 µg/mL	+/- 14.5825 +/- 133.4769 +/- 133.6241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene CAS # 10061-01-5 Purity 99%	(Lot 20936)	2,507.0 µg/mL	+/- 14.5759 +/- 133.4170 +/- 133.5641	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene CAS # 108-88-3 Purity 99%	(Lot SHBF2730V)	2,502.4 µg/mL	+/- 14.5490 +/- 133.1709 +/- 133.3177	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate CAS # 97-63-2 Purity 99%	(Lot 69796APV)	2,500.9 µg/mL	+/- 14.5403 +/- 133.0911 +/- 133.2378	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene CAS # 10061-02-6 Purity 99%	(Lot C363110)	2,502.1 µg/mL	+/- 14.5476 +/- 133.1576 +/- 133.3044	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane CAS # 79-00-5 Purity 99%	(Lot FGB01)	2,507.5 µg/mL	+/- 14.5788 +/- 133.4436 +/- 133.5908	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane CAS # 142-28-9 Purity 99%	(Lot BCBG2162V)	2,505.3 µg/mL	+/- 14.5657 +/- 133.3239 +/- 133.4709	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene CAS # 127-18-4 Purity 99%	(Lot SHBD2073V)	2,506.5 µg/mL	+/- 14.5730 +/- 133.3904 +/- 133.5375	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	dibromochloromethane		2,503.2	µg/mL	+/-	14.5536	µg/mL	Gravimetric
	CAS # 124-48-1	(Lot MKBP0459V)			+/-	133.2129	µg/mL	Unstressed
	Purity 98%				+/-	133.3598	µg/mL	Stressed
41	1,2-Dibromoethane (EDB)		2,504.3	µg/mL	+/-	14.5599	µg/mL	Gravimetric
	CAS # 106-93-4	(Lot BCBH3877V)			+/-	133.2707	µg/mL	Unstressed
	Purity 99%				+/-	133.4176	µg/mL	Stressed
42	Chlorobenzene		2,510.8	µg/mL	+/-	14.5977	µg/mL	Gravimetric
	CAS # 108-90-7	(Lot SHBD3200V)			+/-	133.6166	µg/mL	Unstressed
	Purity 99%				+/-	133.7639	µg/mL	Stressed
43	1,1,2,2-Tetrachloroethane		2,502.9	µg/mL	+/-	14.5519	µg/mL	Gravimetric
	CAS # 79-34-5	(Lot CFA4D)			+/-	133.1975	µg/mL	Unstressed
	Purity 99%				+/-	133.3444	µg/mL	Stressed
44	Ethylbenzene		2,509.6	µg/mL	+/-	14.5912	µg/mL	Gravimetric
	CAS # 100-41-4	(Lot SHBC9001V)			+/-	133.5567	µg/mL	Unstressed
	Purity 99%				+/-	133.7040	µg/mL	Stressed
45	m-Xylene		1,252.6	µg/mL	+/-	7.2829	µg/mL	Gravimetric
	CAS # 108-38-3	(Lot SHBF1720V)			+/-	66.6619	µg/mL	Unstressed
	Purity 99%				+/-	66.7355	µg/mL	Stressed
46	o-Xylene		2,503.7	µg/mL	+/-	14.5565	µg/mL	Gravimetric
	CAS # 95-47-6	(Lot SHBC8668V)			+/-	133.2390	µg/mL	Unstressed
	Purity 98%				+/-	133.3859	µg/mL	Stressed
47	p-Xylene		1,253.3	µg/mL	+/-	7.2865	µg/mL	Gravimetric
	CAS # 106-42-3	(Lot SHBF3427V)			+/-	66.6952	µg/mL	Unstressed
	Purity 99%				+/-	66.7688	µg/mL	Stressed
48	Styrene		2,503.5	µg/mL	+/-	14.5556	µg/mL	Gravimetric
	CAS # 100-42-5	(Lot 10182421)			+/-	133.2307	µg/mL	Unstressed
	Purity 99%				+/-	133.3777	µg/mL	Stressed
49	Isopropylbenzene (cumene)		2,502.5	µg/mL	+/-	14.5498	µg/mL	Gravimetric
	CAS # 98-82-8	(Lot 10169400)			+/-	133.1775	µg/mL	Unstressed
	Purity 99%				+/-	133.3244	µg/mL	Stressed
50	bromoform		2,507.8	µg/mL	+/-	14.5803	µg/mL	Gravimetric
	CAS # 75-25-2	(Lot SHBC3410V)			+/-	133.4569	µg/mL	Unstressed
	Purity 99%				+/-	133.6041	µg/mL	Stressed
51	1,1,1,2-Tetrachloroethane		2,510.3	µg/mL	+/-	14.5948	µg/mL	Gravimetric
	CAS # 630-20-6	(Lot MKBS3769V)			+/-	133.5900	µg/mL	Unstressed
	Purity 99%				+/-	133.7373	µg/mL	Stressed
52	chloroform		2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
	CAS # 67-66-3	(Lot SHBB7498V)			+/-	133.1110	µg/mL	Unstressed
	Purity 99%				+/-	133.2578	µg/mL	Stressed
53	1,2,3-Trichloropropane		2,502.5	µg/mL	+/-	14.5498	µg/mL	Gravimetric
	CAS # 96-18-4	(Lot 1428739V)			+/-	133.1775	µg/mL	Unstressed
	Purity 99%				+/-	133.3244	µg/mL	Stressed
54	trans-1,4-dichloro-2-butene		2,499.5	µg/mL	+/-	14.5322	µg/mL	Gravimetric
	CAS # 110-57-6	(Lot MKBP5371V)			+/-	133.0168	µg/mL	Unstressed
	Purity 96%				+/-	133.1635	µg/mL	Stressed
55	n-Propylbenzene		2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
	CAS # 103-65-1	(Lot MKBQ8049V)			+/-	133.0578	µg/mL	Unstressed
	Purity 99%				+/-	133.2045	µg/mL	Stressed

56	Bromobenzene CAS # 108-86-1 Purity 99%	(Lot MKBD4032V)	2,501.1 µg/mL	+/- 14.5418 +/- 133.1044 +/- 133.2511	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	1,2,4-Trimethylbenzene CAS # 95-63-6 Purity 98%	(Lot MKBJ1732V)	2,501.6 µg/mL	+/- 14.5444 +/- 133.1282 +/- 133.2750	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	2-Chlorotoluene CAS # 95-49-8 Purity 99%	(Lot MKBH8892V)	2,500.3 µg/mL	+/- 14.5367 +/- 133.0578 +/- 133.2045	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4-Chlorotoluene CAS # 106-43-4 Purity 99%	(Lot MKBB7205V)	2,506.4 µg/mL	+/- 14.5723 +/- 133.3837 +/- 133.5308	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	tert-Butylbenzene CAS # 98-06-6 Purity 99%	(Lot S52237V)	2,500.1 µg/mL	+/- 14.5359 +/- 133.0511 +/- 133.1979	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	1,3,5-Trimethylbenzene CAS # 108-67-8 Purity 99%	(Lot BCBJ3305V)	2,503.1 µg/mL	+/- 14.5534 +/- 133.2108 +/- 133.3577	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	sec-Butylbenzene CAS # 135-98-8 Purity 99%	(Lot MKBK3151V)	2,504.0 µg/mL	+/- 14.5585 +/- 133.2574 +/- 133.4043	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	p-Isopropyltoluene (p-Cymene) CAS # 99-87-6 Purity 99%	(Lot MKBK4439V)	2,501.1 µg/mL	+/- 14.5418 +/- 133.1044 +/- 133.2511	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	1,3-Dichlorobenzene CAS # 541-73-1 Purity 99%	(Lot BCBC1891V)	2,506.1 µg/mL	+/- 14.5708 +/- 133.3704 +/- 133.5175	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	1,4-Dichlorobenzene CAS # 106-46-7 Purity 99%	(Lot MKBL3891V)	2,507.0 µg/mL	+/- 14.5759 +/- 133.4170 +/- 133.5641	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	n-Butylbenzene CAS # 104-51-8 Purity 99%	(Lot 09418JIV)	2,502.6 µg/mL	+/- 14.5505 +/- 133.1842 +/- 133.3311	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	1,2-Dichlorobenzene CAS # 95-50-1 Purity 99%	(Lot 68996CMV)	2,501.6 µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane CAS # 96-12-8 Purity 99%	(Lot FBL01)	2,505.9 µg/mL	+/- 14.5694 +/- 133.3571 +/- 133.5042	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 99%	(Lot 26896BM)	2,501.5 µg/mL	+/- 14.5439 +/- 133.1243 +/- 133.2711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene CAS # 87-68-3 Purity 98%	(Lot K22W009)	2,501.6 µg/mL	+/- 14.5444 +/- 133.1282 +/- 133.2750	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene CAS # 91-20-3 Purity 99%	(Lot MKBH4351V)	2,502.6 µg/mL	+/- 14.5505 +/- 133.1842 +/- 133.3311	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	1,2,3-Trichlorobenzene		2,503.4 µg/mL	+/-	14.5548	µg/mL	Gravimetric
	CAS # 87-61-6	(Lot 12912PFV)		+/-	133.2241	µg/mL	Unstressed
	Purity 99%			+/-	133.3710	µg/mL	Stressed

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

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

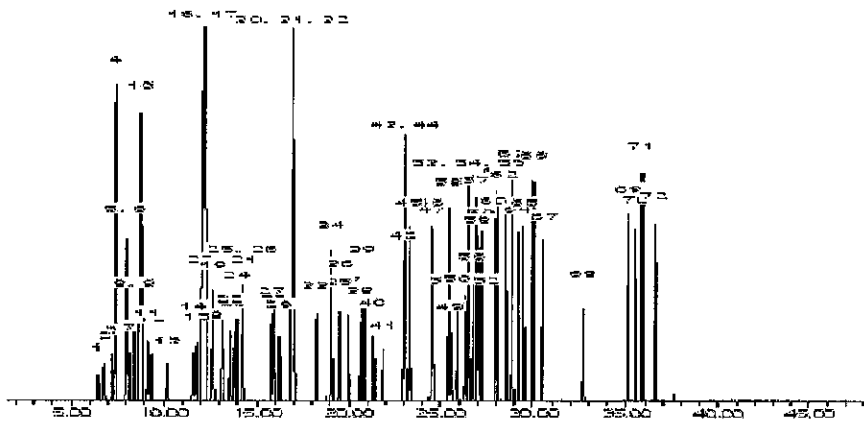
**Carrier Gas:**  
helium-constant pressure 30 psi

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

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

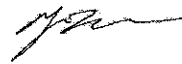
**Det. Type:**  
MSD



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

  
Kendra Swope - Mix Technician

**Date Mixed:** 07-Jan-2015      **Balance:** 1125113331

  
Tyler Brown - QA Analyst

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

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

Reagent

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**VOA8260MEGA1\_00032**



# 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. :** 569720 **Lot No.:** A0108166  
**Description :** 8260 List 1 / Std #1 MegaMix (2015)  
8260 List 1 / Std #1 MegaMix (2015) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** January 31, 2017 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Diethyl ether (ethyl ether)	2,521.3 µg/mL	+/-	14.6588	µg/mL	Gravimetric
	CAS # 60-29-7 (Lot SHBF3466V)		+/-	134.1754	µg/mL	Unstressed
	Purity 99%		+/-	134.3233	µg/mL	Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113)	2,522.5 µg/mL	+/-	14.6660	µg/mL	Gravimetric
	CAS # 76-13-1 (Lot 00001135)		+/-	134.2419	µg/mL	Unstressed
	Purity 99%		+/-	134.3899	µg/mL	Stressed
3	1,1-Dichloroethane	2,499.5 µg/mL	+/-	14.5323	µg/mL	Gravimetric
	CAS # 75-34-3 (Lot Q179-33)		+/-	133.0173	µg/mL	Unstressed
	Purity 98%		+/-	133.1640	µg/mL	Stressed
4	tert-Butanol (TBA)	25,002.4 µg/mL	+/-	145.3584	µg/mL	Gravimetric
	CAS # 75-65-0 (Lot SHBC6893V)		+/-	1,330.5704	µg/mL	Unstressed
	Purity 99%		+/-	1,332.0378	µg/mL	Stressed
5	Iodomethane (methyl iodide)	2,510.0 µg/mL	+/-	14.5934	µg/mL	Gravimetric
	CAS # 74-88-4 (Lot SHBC7288V)		+/-	133.5767	µg/mL	Unstressed
	Purity 99%		+/-	133.7240	µg/mL	Stressed
6	Methyl acetate	12,505.4 µg/mL	+/-	72.7037	µg/mL	Gravimetric
	CAS # 79-20-9 (Lot SHBD7134V)		+/-	665.5101	µg/mL	Unstressed
	Purity 98%		+/-	666.2440	µg/mL	Stressed
7	Allyl chloride (3-chloropropene)	2,500.0 µg/mL	+/-	19.2743	µg/mL	Gravimetric
	CAS # 107-05-1 (Lot MKBG5777V)		+/-	133.6453	µg/mL	Unstressed
	Purity 99%		+/-	133.7914	µg/mL	Stressed



8	Methylene chloride (dichloromethane)		2,511.3	µg/mL	+/-	14.6006	µg/mL	Gravimetric
	<b>CAS #</b> 75-09-2	(Lot SHBD4974V)			+/-	133.6432	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.7906	µg/mL	Stressed
9	Carbon disulfide		2,511.7	µg/mL	+/-	14.6035	µg/mL	Gravimetric
	<b>CAS #</b> 75-15-0	(Lot C30Y997)			+/-	133.6693	µg/mL	Unstressed
	<b>Purity</b> 98%				+/-	133.8167	µg/mL	Stressed
10	Acrylonitrile		25,017.1	µg/mL	+/-	145.4441	µg/mL	Gravimetric
	<b>CAS #</b> 107-13-1	(Lot 10172706)			+/-	1,331.3554	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	1,332.8236	µg/mL	Stressed
11	cis-1,2-Dichloroethene		2,503.9	µg/mL	+/-	14.5577	µg/mL	Gravimetric
	<b>CAS #</b> 156-59-2	(Lot MKBG8424V)			+/-	133.2507	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.3977	µg/mL	Stressed
12	n-Hexane (C6)		2,511.9	µg/mL	+/-	14.6043	µg/mL	Gravimetric
	<b>CAS #</b> 110-54-3	(Lot SHBF0293V)			+/-	133.6764	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.8239	µg/mL	Stressed
13	1,1-dichloroethene		2,521.3	µg/mL	+/-	14.6588	µg/mL	Gravimetric
	<b>CAS #</b> 75-35-4	(Lot SHBD6170V)			+/-	134.1754	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	134.3233	µg/mL	Stressed
14	2,2-Dichloropropane		2,500.0	µg/mL	+/-	14.5351	µg/mL	Gravimetric
	<b>CAS #</b> 594-20-7	(Lot BCBH9246V)			+/-	133.0434	µg/mL	Unstressed
	<b>Purity</b> 98%				+/-	133.1901	µg/mL	Stressed
15	trans-1,2-Dichloroethene		2,505.0	µg/mL	+/-	14.5643	µg/mL	Gravimetric
	<b>CAS #</b> 156-60-5	(Lot MKBH9850V)			+/-	133.3106	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.4576	µg/mL	Stressed
16	Isobutanol (2-Methyl-1-propanol)		62,553.8	µg/mL	+/-	363.6739	µg/mL	Gravimetric
	<b>CAS #</b> 78-83-1	(Lot SHBF2852V)			+/-	3,328.9705	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	3,332.6417	µg/mL	Stressed
17	Methyl-tert-butyl ether ( MTBE )		2,504.6	µg/mL	+/-	14.5621	µg/mL	Gravimetric
	<b>CAS #</b> 1634-04-4	(Lot SHBF1193V)			+/-	133.2906	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.4376	µg/mL	Stressed
18	Bromochloromethane		2,505.1	µg/mL	+/-	14.5650	µg/mL	Gravimetric
	<b>CAS #</b> 74-97-5	(Lot 00004559)			+/-	133.3172	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.4642	µg/mL	Stressed
19	Tetrahydrofuran		5,000.7	µg/mL	+/-	29.0746	µg/mL	Gravimetric
	<b>CAS #</b> 109-99-9	(Lot SHBF2660V)			+/-	266.1270	µg/mL	Unstressed
	<b>Purity</b> 97%				+/-	266.4204	µg/mL	Stressed
20	1,1,1-trichloroethane		2,508.1	µg/mL	+/-	14.5825	µg/mL	Gravimetric
	<b>CAS #</b> 71-55-6	(Lot B14Z1114)			+/-	133.4769	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.6241	µg/mL	Stressed
21	Cyclohexane		2,504.0	µg/mL	+/-	14.5585	µg/mL	Gravimetric
	<b>CAS #</b> 110-82-7	(Lot SHBD7873V)			+/-	133.2574	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.4043	µg/mL	Stressed
22	1,1-Dichloropropene		2,502.4	µg/mL	+/-	14.5493	µg/mL	Gravimetric
	<b>CAS #</b> 563-58-6	(Lot PR09161302)			+/-	133.1738	µg/mL	Unstressed
	<b>Purity</b> 98%				+/-	133.3207	µg/mL	Stressed
23	carbon tetrachloride		2,505.3	µg/mL	+/-	14.5657	µg/mL	Gravimetric
	<b>CAS #</b> 56-23-5	(Lot SHBC1410V)			+/-	133.3239	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.4709	µg/mL	Stressed

24	n-Heptane (C7) CAS # 142-82-5 Purity 99%	(Lot SHBF2321V)	2,501.4 µg/mL	+/- 14.5432 +/- 133.1177 +/- 133.2645	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	1,2-Dichloroethane CAS # 107-06-2 Purity 99%	(Lot SHBC6595V)	2,501.6 µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	Benzene CAS # 71-43-2 Purity 99%	(Lot SHBD4617V)	2,509.1 µg/mL	+/- 14.5883 +/- 133.5301 +/- 133.6774	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Trichloroethene CAS # 79-01-6 Purity 99%	(Lot SHBF0943V)	2,504.8 µg/mL	+/- 14.5628 +/- 133.2973 +/- 133.4443	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Methylcyclohexane CAS # 108-87-2 Purity 99%	(Lot 50996APV)	2,502.5 µg/mL	+/- 14.5498 +/- 133.1775 +/- 133.3244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	1,2-Dichloropropane CAS # 78-87-5 Purity 99%	(Lot 01113D0V)	2,502.4 µg/mL	+/- 14.5490 +/- 133.1709 +/- 133.3177	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	bromodichloromethane CAS # 75-27-4 Purity 98%	(Lot MKBL1617V)	2,507.9 µg/mL	+/- 14.5814 +/- 133.4672 +/- 133.6144	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane CAS # 123-91-1 Purity 99%	(Lot SHBF2002V)	50,001.4 µg/mL	+/- 290.6971 +/- 2,660.9612 +/- 2,663.8957	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane CAS # 74-95-3 Purity 99%	(Lot 10169264)	2,508.1 µg/mL	+/- 14.5825 +/- 133.4769 +/- 133.6241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene CAS # 10061-01-5 Purity 99%	(Lot 20936)	2,507.0 µg/mL	+/- 14.5759 +/- 133.4170 +/- 133.5641	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene CAS # 108-88-3 Purity 99%	(Lot SHBF2730V)	2,502.4 µg/mL	+/- 14.5490 +/- 133.1709 +/- 133.3177	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate CAS # 97-63-2 Purity 99%	(Lot 69796APV)	2,500.9 µg/mL	+/- 14.5403 +/- 133.0911 +/- 133.2378	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene CAS # 10061-02-6 Purity 99%	(Lot C363110)	2,502.1 µg/mL	+/- 14.5476 +/- 133.1576 +/- 133.3044	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane CAS # 79-00-5 Purity 99%	(Lot FGB01)	2,507.5 µg/mL	+/- 14.5788 +/- 133.4436 +/- 133.5908	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane CAS # 142-28-9 Purity 99%	(Lot BCBG2162V)	2,505.3 µg/mL	+/- 14.5657 +/- 133.3239 +/- 133.4709	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene CAS # 127-18-4 Purity 99%	(Lot SHBD2073V)	2,506.5 µg/mL	+/- 14.5730 +/- 133.3904 +/- 133.5375	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	dibromochloromethane CAS # 124-48-1 Purity 98%	(Lot MKBP0459V)	2,503.2 µg/mL	+/- 14.5536 +/- 133.2129 +/- 133.3598	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	1,2-Dibromoethane (EDB) CAS # 106-93-4 Purity 99%	(Lot BCBH3877V)	2,504.3 µg/mL	+/- 14.5599 +/- 133.2707 +/- 133.4176	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	Chlorobenzene CAS # 108-90-7 Purity 99%	(Lot SHBD3200V)	2,510.8 µg/mL	+/- 14.5977 +/- 133.6166 +/- 133.7639	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	1,1,2,2-Tetrachloroethane CAS # 79-34-5 Purity 99%	(Lot CFA4D)	2,502.9 µg/mL	+/- 14.5519 +/- 133.1975 +/- 133.3444	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	Ethylbenzene CAS # 100-41-4 Purity 99%	(Lot SHBC9001V)	2,509.6 µg/mL	+/- 14.5912 +/- 133.5567 +/- 133.7040	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	m-Xylene CAS # 108-38-3 Purity 99%	(Lot SHBF1720V)	1,252.6 µg/mL	+/- 7.2829 +/- 66.6619 +/- 66.7355	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	o-Xylene CAS # 95-47-6 Purity 98%	(Lot SHBC8668V)	2,503.7 µg/mL	+/- 14.5565 +/- 133.2390 +/- 133.3859	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	p-Xylene CAS # 106-42-3 Purity 99%	(Lot SHBF3427V)	1,253.3 µg/mL	+/- 7.2865 +/- 66.6952 +/- 66.7688	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	Styrene CAS # 100-42-5 Purity 99%	(Lot 10182421)	2,503.5 µg/mL	+/- 14.5556 +/- 133.2307 +/- 133.3777	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	Isopropylbenzene (cumene) CAS # 98-82-8 Purity 99%	(Lot 10169400)	2,502.5 µg/mL	+/- 14.5498 +/- 133.1775 +/- 133.3244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	bromoform CAS # 75-25-2 Purity 99%	(Lot SHBC3410V)	2,507.8 µg/mL	+/- 14.5803 +/- 133.4569 +/- 133.6041	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	1,1,1,2-Tetrachloroethane CAS # 630-20-6 Purity 99%	(Lot MKBS3769V)	2,510.3 µg/mL	+/- 14.5948 +/- 133.5900 +/- 133.7373	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	chloroform CAS # 67-66-3 Purity 99%	(Lot SHBB7498V)	2,501.3 µg/mL	+/- 14.5425 +/- 133.1110 +/- 133.2578	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	1,2,3-Trichloropropane CAS # 96-18-4 Purity 99%	(Lot 1428739V)	2,502.5 µg/mL	+/- 14.5498 +/- 133.1775 +/- 133.3244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	trans-1,4-dichloro-2-butene CAS # 110-57-6 Purity 96%	(Lot MKBP5371V)	2,499.5 µg/mL	+/- 14.5322 +/- 133.0168 +/- 133.1635	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	n-Propylbenzene CAS # 103-65-1 Purity 99%	(Lot MKBQ8049V)	2,500.3 µg/mL	+/- 14.5367 +/- 133.0578 +/- 133.2045	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Bromobenzene CAS # 108-86-1 Purity 99%	(Lot MKBD4032V)	2,501.1 µg/mL	+/- 14.5418 +/- 133.1044 +/- 133.2511	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	1,2,4-Trimethylbenzene CAS # 95-63-6 Purity 98%	(Lot MKBJ1732V)	2,501.6 µg/mL	+/- 14.5444 +/- 133.1282 +/- 133.2750	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	2-Chlorotoluene CAS # 95-49-8 Purity 99%	(Lot MKBH8892V)	2,500.3 µg/mL	+/- 14.5367 +/- 133.0578 +/- 133.2045	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4-Chlorotoluene CAS # 106-43-4 Purity 99%	(Lot MKBB7205V)	2,506.4 µg/mL	+/- 14.5723 +/- 133.3837 +/- 133.5308	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	tert-Butylbenzene CAS # 98-06-6 Purity 99%	(Lot S52237V)	2,500.1 µg/mL	+/- 14.5359 +/- 133.0511 +/- 133.1979	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	1,3,5-Trimethylbenzene CAS # 108-67-8 Purity 99%	(Lot BCBJ3305V)	2,503.1 µg/mL	+/- 14.5534 +/- 133.2108 +/- 133.3577	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	sec-Butylbenzene CAS # 135-98-8 Purity 99%	(Lot MKBK3151V)	2,504.0 µg/mL	+/- 14.5585 +/- 133.2574 +/- 133.4043	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	p-Isopropyltoluene (p-Cymene) CAS # 99-87-6 Purity 99%	(Lot MKBK4439V)	2,501.1 µg/mL	+/- 14.5418 +/- 133.1044 +/- 133.2511	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	1,3-Dichlorobenzene CAS # 541-73-1 Purity 99%	(Lot BCBC1891V)	2,506.1 µg/mL	+/- 14.5708 +/- 133.3704 +/- 133.5175	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	1,4-Dichlorobenzene CAS # 106-46-7 Purity 99%	(Lot MKBL3891V)	2,507.0 µg/mL	+/- 14.5759 +/- 133.4170 +/- 133.5641	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	n-Butylbenzene CAS # 104-51-8 Purity 99%	(Lot 09418JIV)	2,502.6 µg/mL	+/- 14.5505 +/- 133.1842 +/- 133.3311	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	1,2-Dichlorobenzene CAS # 95-50-1 Purity 99%	(Lot 68996CMV)	2,501.6 µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane CAS # 96-12-8 Purity 99%	(Lot FBL01)	2,505.9 µg/mL	+/- 14.5694 +/- 133.3571 +/- 133.5042	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 99%	(Lot 26896BM)	2,501.5 µg/mL	+/- 14.5439 +/- 133.1243 +/- 133.2711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene CAS # 87-68-3 Purity 98%	(Lot K22W009)	2,501.6 µg/mL	+/- 14.5444 +/- 133.1282 +/- 133.2750	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene CAS # 91-20-3 Purity 99%	(Lot MKBH4351V)	2,502.6 µg/mL	+/- 14.5505 +/- 133.1842 +/- 133.3311	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	1,2,3-Trichlorobenzene		2,503.4 µg/mL	+/-	14.5548	µg/mL	Gravimetric
	CAS # 87-61-6	(Lot 12912PFV)		+/-	133.2241	µg/mL	Unstressed
	Purity 99%			+/-	133.3710	µg/mL	Stressed

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

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

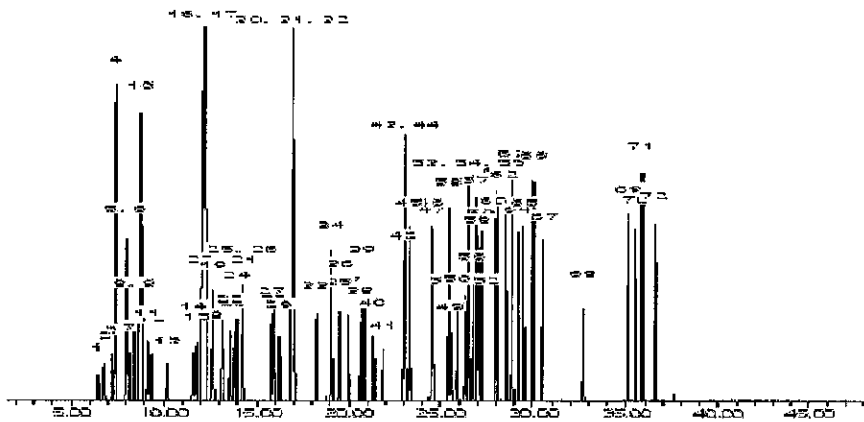
**Carrier Gas:**  
helium-constant pressure 30 psi

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

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

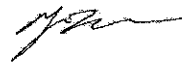
**Det. Type:**  
MSD



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

  
Kendra Swope - Mix Technician

**Date Mixed:** 07-Jan-2015      **Balance:** 1125113331

  
Tyler Brown - QA Analyst

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

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

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**VOA8260MEGA1\_00034**



# 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. :** 569720 **Lot No.:** A0108166  
**Description :** 8260 List 1 / Std #1 MegaMix (2015)  
8260 List 1 / Std #1 MegaMix (2015) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** January 31, 2017 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Diethyl ether (ethyl ether)	2,521.3 µg/mL	+/-	14.6588	µg/mL	Gravimetric
	CAS # 60-29-7 (Lot SHBF3466V)		+/-	134.1754	µg/mL	Unstressed
	Purity 99%		+/-	134.3233	µg/mL	Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113)	2,522.5 µg/mL	+/-	14.6660	µg/mL	Gravimetric
	CAS # 76-13-1 (Lot 00001135)		+/-	134.2419	µg/mL	Unstressed
	Purity 99%		+/-	134.3899	µg/mL	Stressed
3	1,1-Dichloroethane	2,499.5 µg/mL	+/-	14.5323	µg/mL	Gravimetric
	CAS # 75-34-3 (Lot Q179-33)		+/-	133.0173	µg/mL	Unstressed
	Purity 98%		+/-	133.1640	µg/mL	Stressed
4	tert-Butanol (TBA)	25,002.4 µg/mL	+/-	145.3584	µg/mL	Gravimetric
	CAS # 75-65-0 (Lot SHBC6893V)		+/-	1,330.5704	µg/mL	Unstressed
	Purity 99%		+/-	1,332.0378	µg/mL	Stressed
5	Iodomethane (methyl iodide)	2,510.0 µg/mL	+/-	14.5934	µg/mL	Gravimetric
	CAS # 74-88-4 (Lot SHBC7288V)		+/-	133.5767	µg/mL	Unstressed
	Purity 99%		+/-	133.7240	µg/mL	Stressed
6	Methyl acetate	12,505.4 µg/mL	+/-	72.7037	µg/mL	Gravimetric
	CAS # 79-20-9 (Lot SHBD7134V)		+/-	665.5101	µg/mL	Unstressed
	Purity 98%		+/-	666.2440	µg/mL	Stressed
7	Allyl chloride (3-chloropropene)	2,500.0 µg/mL	+/-	19.2743	µg/mL	Gravimetric
	CAS # 107-05-1 (Lot MKBG5777V)		+/-	133.6453	µg/mL	Unstressed
	Purity 99%		+/-	133.7914	µg/mL	Stressed

8	Methylene chloride (dichloromethane)		2,511.3	µg/mL	+/-	14.6006	µg/mL	Gravimetric
	<b>CAS #</b> 75-09-2	(Lot SHBD4974V)			+/-	133.6432	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.7906	µg/mL	Stressed
9	Carbon disulfide		2,511.7	µg/mL	+/-	14.6035	µg/mL	Gravimetric
	<b>CAS #</b> 75-15-0	(Lot C30Y997)			+/-	133.6693	µg/mL	Unstressed
	<b>Purity</b> 98%				+/-	133.8167	µg/mL	Stressed
10	Acrylonitrile		25,017.1	µg/mL	+/-	145.4441	µg/mL	Gravimetric
	<b>CAS #</b> 107-13-1	(Lot 10172706)			+/-	1,331.3554	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	1,332.8236	µg/mL	Stressed
11	cis-1,2-Dichloroethene		2,503.9	µg/mL	+/-	14.5577	µg/mL	Gravimetric
	<b>CAS #</b> 156-59-2	(Lot MKBG8424V)			+/-	133.2507	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.3977	µg/mL	Stressed
12	n-Hexane (C6)		2,511.9	µg/mL	+/-	14.6043	µg/mL	Gravimetric
	<b>CAS #</b> 110-54-3	(Lot SHBF0293V)			+/-	133.6764	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.8239	µg/mL	Stressed
13	1,1-dichloroethene		2,521.3	µg/mL	+/-	14.6588	µg/mL	Gravimetric
	<b>CAS #</b> 75-35-4	(Lot SHBD6170V)			+/-	134.1754	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	134.3233	µg/mL	Stressed
14	2,2-Dichloropropane		2,500.0	µg/mL	+/-	14.5351	µg/mL	Gravimetric
	<b>CAS #</b> 594-20-7	(Lot BCBH9246V)			+/-	133.0434	µg/mL	Unstressed
	<b>Purity</b> 98%				+/-	133.1901	µg/mL	Stressed
15	trans-1,2-Dichloroethene		2,505.0	µg/mL	+/-	14.5643	µg/mL	Gravimetric
	<b>CAS #</b> 156-60-5	(Lot MKBH9850V)			+/-	133.3106	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.4576	µg/mL	Stressed
16	Isobutanol (2-Methyl-1-propanol)		62,553.8	µg/mL	+/-	363.6739	µg/mL	Gravimetric
	<b>CAS #</b> 78-83-1	(Lot SHBF2852V)			+/-	3,328.9705	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	3,332.6417	µg/mL	Stressed
17	Methyl-tert-butyl ether ( MTBE )		2,504.6	µg/mL	+/-	14.5621	µg/mL	Gravimetric
	<b>CAS #</b> 1634-04-4	(Lot SHBF1193V)			+/-	133.2906	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.4376	µg/mL	Stressed
18	Bromochloromethane		2,505.1	µg/mL	+/-	14.5650	µg/mL	Gravimetric
	<b>CAS #</b> 74-97-5	(Lot 00004559)			+/-	133.3172	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.4642	µg/mL	Stressed
19	Tetrahydrofuran		5,000.7	µg/mL	+/-	29.0746	µg/mL	Gravimetric
	<b>CAS #</b> 109-99-9	(Lot SHBF2660V)			+/-	266.1270	µg/mL	Unstressed
	<b>Purity</b> 97%				+/-	266.4204	µg/mL	Stressed
20	1,1,1-trichloroethane		2,508.1	µg/mL	+/-	14.5825	µg/mL	Gravimetric
	<b>CAS #</b> 71-55-6	(Lot B14Z1114)			+/-	133.4769	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.6241	µg/mL	Stressed
21	Cyclohexane		2,504.0	µg/mL	+/-	14.5585	µg/mL	Gravimetric
	<b>CAS #</b> 110-82-7	(Lot SHBD7873V)			+/-	133.2574	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.4043	µg/mL	Stressed
22	1,1-Dichloropropene		2,502.4	µg/mL	+/-	14.5493	µg/mL	Gravimetric
	<b>CAS #</b> 563-58-6	(Lot PR09161302)			+/-	133.1738	µg/mL	Unstressed
	<b>Purity</b> 98%				+/-	133.3207	µg/mL	Stressed
23	carbon tetrachloride		2,505.3	µg/mL	+/-	14.5657	µg/mL	Gravimetric
	<b>CAS #</b> 56-23-5	(Lot SHBC1410V)			+/-	133.3239	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.4709	µg/mL	Stressed



24	n-Heptane (C7) CAS # 142-82-5 Purity 99%	(Lot SHBF2321V)	2,501.4 µg/mL	+/- 14.5432 +/- 133.1177 +/- 133.2645	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	1,2-Dichloroethane CAS # 107-06-2 Purity 99%	(Lot SHBC6595V)	2,501.6 µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	Benzene CAS # 71-43-2 Purity 99%	(Lot SHBD4617V)	2,509.1 µg/mL	+/- 14.5883 +/- 133.5301 +/- 133.6774	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Trichloroethene CAS # 79-01-6 Purity 99%	(Lot SHBF0943V)	2,504.8 µg/mL	+/- 14.5628 +/- 133.2973 +/- 133.4443	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Methylcyclohexane CAS # 108-87-2 Purity 99%	(Lot 50996APV)	2,502.5 µg/mL	+/- 14.5498 +/- 133.1775 +/- 133.3244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	1,2-Dichloropropane CAS # 78-87-5 Purity 99%	(Lot 01113D0V)	2,502.4 µg/mL	+/- 14.5490 +/- 133.1709 +/- 133.3177	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	bromodichloromethane CAS # 75-27-4 Purity 98%	(Lot MKBL1617V)	2,507.9 µg/mL	+/- 14.5814 +/- 133.4672 +/- 133.6144	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane CAS # 123-91-1 Purity 99%	(Lot SHBF2002V)	50,001.4 µg/mL	+/- 290.6971 +/- 2,660.9612 +/- 2,663.8957	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane CAS # 74-95-3 Purity 99%	(Lot 10169264)	2,508.1 µg/mL	+/- 14.5825 +/- 133.4769 +/- 133.6241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene CAS # 10061-01-5 Purity 99%	(Lot 20936)	2,507.0 µg/mL	+/- 14.5759 +/- 133.4170 +/- 133.5641	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene CAS # 108-88-3 Purity 99%	(Lot SHBF2730V)	2,502.4 µg/mL	+/- 14.5490 +/- 133.1709 +/- 133.3177	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate CAS # 97-63-2 Purity 99%	(Lot 69796APV)	2,500.9 µg/mL	+/- 14.5403 +/- 133.0911 +/- 133.2378	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene CAS # 10061-02-6 Purity 99%	(Lot C363110)	2,502.1 µg/mL	+/- 14.5476 +/- 133.1576 +/- 133.3044	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane CAS # 79-00-5 Purity 99%	(Lot FGB01)	2,507.5 µg/mL	+/- 14.5788 +/- 133.4436 +/- 133.5908	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane CAS # 142-28-9 Purity 99%	(Lot BCBG2162V)	2,505.3 µg/mL	+/- 14.5657 +/- 133.3239 +/- 133.4709	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene CAS # 127-18-4 Purity 99%	(Lot SHBD2073V)	2,506.5 µg/mL	+/- 14.5730 +/- 133.3904 +/- 133.5375	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	dibromochloromethane		2,503.2	µg/mL	+/-	14.5536	µg/mL	Gravimetric
	CAS # 124-48-1	(Lot MKBP0459V)			+/-	133.2129	µg/mL	Unstressed
	Purity 98%				+/-	133.3598	µg/mL	Stressed
41	1,2-Dibromoethane (EDB)		2,504.3	µg/mL	+/-	14.5599	µg/mL	Gravimetric
	CAS # 106-93-4	(Lot BCBH3877V)			+/-	133.2707	µg/mL	Unstressed
	Purity 99%				+/-	133.4176	µg/mL	Stressed
42	Chlorobenzene		2,510.8	µg/mL	+/-	14.5977	µg/mL	Gravimetric
	CAS # 108-90-7	(Lot SHBD3200V)			+/-	133.6166	µg/mL	Unstressed
	Purity 99%				+/-	133.7639	µg/mL	Stressed
43	1,1,2,2-Tetrachloroethane		2,502.9	µg/mL	+/-	14.5519	µg/mL	Gravimetric
	CAS # 79-34-5	(Lot CFA4D)			+/-	133.1975	µg/mL	Unstressed
	Purity 99%				+/-	133.3444	µg/mL	Stressed
44	Ethylbenzene		2,509.6	µg/mL	+/-	14.5912	µg/mL	Gravimetric
	CAS # 100-41-4	(Lot SHBC9001V)			+/-	133.5567	µg/mL	Unstressed
	Purity 99%				+/-	133.7040	µg/mL	Stressed
45	m-Xylene		1,252.6	µg/mL	+/-	7.2829	µg/mL	Gravimetric
	CAS # 108-38-3	(Lot SHBF1720V)			+/-	66.6619	µg/mL	Unstressed
	Purity 99%				+/-	66.7355	µg/mL	Stressed
46	o-Xylene		2,503.7	µg/mL	+/-	14.5565	µg/mL	Gravimetric
	CAS # 95-47-6	(Lot SHBC8668V)			+/-	133.2390	µg/mL	Unstressed
	Purity 98%				+/-	133.3859	µg/mL	Stressed
47	p-Xylene		1,253.3	µg/mL	+/-	7.2865	µg/mL	Gravimetric
	CAS # 106-42-3	(Lot SHBF3427V)			+/-	66.6952	µg/mL	Unstressed
	Purity 99%				+/-	66.7688	µg/mL	Stressed
48	Styrene		2,503.5	µg/mL	+/-	14.5556	µg/mL	Gravimetric
	CAS # 100-42-5	(Lot 10182421)			+/-	133.2307	µg/mL	Unstressed
	Purity 99%				+/-	133.3777	µg/mL	Stressed
49	Isopropylbenzene (cumene)		2,502.5	µg/mL	+/-	14.5498	µg/mL	Gravimetric
	CAS # 98-82-8	(Lot 10169400)			+/-	133.1775	µg/mL	Unstressed
	Purity 99%				+/-	133.3244	µg/mL	Stressed
50	bromoform		2,507.8	µg/mL	+/-	14.5803	µg/mL	Gravimetric
	CAS # 75-25-2	(Lot SHBC3410V)			+/-	133.4569	µg/mL	Unstressed
	Purity 99%				+/-	133.6041	µg/mL	Stressed
51	1,1,1,2-Tetrachloroethane		2,510.3	µg/mL	+/-	14.5948	µg/mL	Gravimetric
	CAS # 630-20-6	(Lot MKBS3769V)			+/-	133.5900	µg/mL	Unstressed
	Purity 99%				+/-	133.7373	µg/mL	Stressed
52	chloroform		2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
	CAS # 67-66-3	(Lot SHBB7498V)			+/-	133.1110	µg/mL	Unstressed
	Purity 99%				+/-	133.2578	µg/mL	Stressed
53	1,2,3-Trichloropropane		2,502.5	µg/mL	+/-	14.5498	µg/mL	Gravimetric
	CAS # 96-18-4	(Lot 1428739V)			+/-	133.1775	µg/mL	Unstressed
	Purity 99%				+/-	133.3244	µg/mL	Stressed
54	trans-1,4-dichloro-2-butene		2,499.5	µg/mL	+/-	14.5322	µg/mL	Gravimetric
	CAS # 110-57-6	(Lot MKBP5371V)			+/-	133.0168	µg/mL	Unstressed
	Purity 96%				+/-	133.1635	µg/mL	Stressed
55	n-Propylbenzene		2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
	CAS # 103-65-1	(Lot MKBQ8049V)			+/-	133.0578	µg/mL	Unstressed
	Purity 99%				+/-	133.2045	µg/mL	Stressed

56	Bromobenzene CAS # 108-86-1 Purity 99%	(Lot MKBD4032V)	2,501.1 µg/mL	+/- 14.5418 +/- 133.1044 +/- 133.2511	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	1,2,4-Trimethylbenzene CAS # 95-63-6 Purity 98%	(Lot MKBJ1732V)	2,501.6 µg/mL	+/- 14.5444 +/- 133.1282 +/- 133.2750	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	2-Chlorotoluene CAS # 95-49-8 Purity 99%	(Lot MKBH8892V)	2,500.3 µg/mL	+/- 14.5367 +/- 133.0578 +/- 133.2045	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4-Chlorotoluene CAS # 106-43-4 Purity 99%	(Lot MKBB7205V)	2,506.4 µg/mL	+/- 14.5723 +/- 133.3837 +/- 133.5308	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	tert-Butylbenzene CAS # 98-06-6 Purity 99%	(Lot S52237V)	2,500.1 µg/mL	+/- 14.5359 +/- 133.0511 +/- 133.1979	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	1,3,5-Trimethylbenzene CAS # 108-67-8 Purity 99%	(Lot BCBJ3305V)	2,503.1 µg/mL	+/- 14.5534 +/- 133.2108 +/- 133.3577	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	sec-Butylbenzene CAS # 135-98-8 Purity 99%	(Lot MKBK3151V)	2,504.0 µg/mL	+/- 14.5585 +/- 133.2574 +/- 133.4043	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	p-Isopropyltoluene (p-Cymene) CAS # 99-87-6 Purity 99%	(Lot MKBK4439V)	2,501.1 µg/mL	+/- 14.5418 +/- 133.1044 +/- 133.2511	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	1,3-Dichlorobenzene CAS # 541-73-1 Purity 99%	(Lot BCBC1891V)	2,506.1 µg/mL	+/- 14.5708 +/- 133.3704 +/- 133.5175	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	1,4-Dichlorobenzene CAS # 106-46-7 Purity 99%	(Lot MKBL3891V)	2,507.0 µg/mL	+/- 14.5759 +/- 133.4170 +/- 133.5641	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	n-Butylbenzene CAS # 104-51-8 Purity 99%	(Lot 09418JIV)	2,502.6 µg/mL	+/- 14.5505 +/- 133.1842 +/- 133.3311	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	1,2-Dichlorobenzene CAS # 95-50-1 Purity 99%	(Lot 68996CMV)	2,501.6 µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane CAS # 96-12-8 Purity 99%	(Lot FBL01)	2,505.9 µg/mL	+/- 14.5694 +/- 133.3571 +/- 133.5042	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 99%	(Lot 26896BM)	2,501.5 µg/mL	+/- 14.5439 +/- 133.1243 +/- 133.2711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene CAS # 87-68-3 Purity 98%	(Lot K22W009)	2,501.6 µg/mL	+/- 14.5444 +/- 133.1282 +/- 133.2750	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene CAS # 91-20-3 Purity 99%	(Lot MKBH4351V)	2,502.6 µg/mL	+/- 14.5505 +/- 133.1842 +/- 133.3311	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	1,2,3-Trichlorobenzene		2,503.4 µg/mL	+/-	14.5548	µg/mL	Gravimetric
	CAS # 87-61-6	(Lot 12912PFV)		+/-	133.2241	µg/mL	Unstressed
	Purity 99%			+/-	133.3710	µg/mL	Stressed

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

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

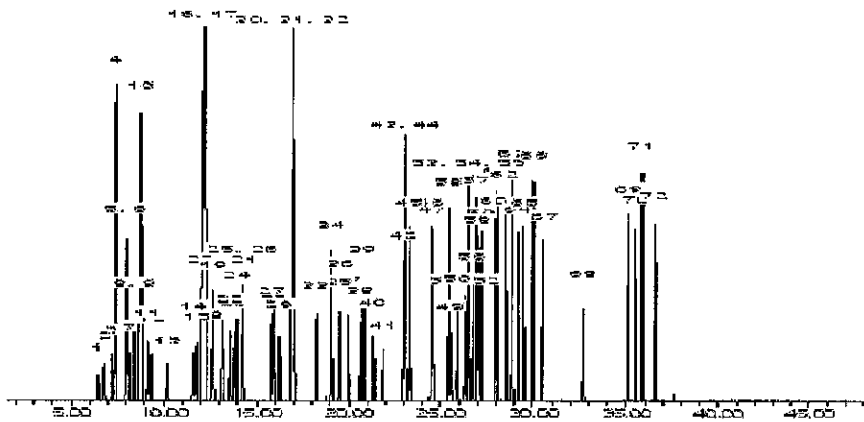
**Carrier Gas:**  
helium-constant pressure 30 psi

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

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

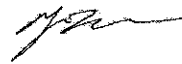
**Det. Type:**  
MSD



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

  
Kendra Swope - Mix Technician

**Date Mixed:** 07-Jan-2015      **Balance:** 1125113331

  
Tyler Brown - QA Analyst

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

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

Reagent

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**VOA8260MEGA2\_00037**

# RESTEK® 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. :** 569720.sec **Lot No.:** A0108163  
**Description :** 8260 List 1 / Std #1 MegaMix (2015)  
8260 List 1 / Std #1 MegaMix (2015) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** January 31, 2017 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)		
1	Diethyl ether (ethyl ether) CAS # 60-29-7.SEC (Lot F23X068) Purity 99%	2,501.1 µg/mL	+/-	14.5418	µg/mL Gravimetric
			+/-	133.1044	µg/mL Unstressed
			+/-	133.2511	µg/mL Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) CAS # 76-13-1.SEC (Lot 18342) Purity 99%	2,501.1 µg/mL	+/-	14.5418	µg/mL Gravimetric
			+/-	133.1044	µg/mL Unstressed
			+/-	133.2511	µg/mL Stressed
3	1,1-Dichloroethene CAS # 75-35-4.SEC (Lot 903000) Purity 99%	2,502.8 µg/mL	+/-	14.5512	µg/mL Gravimetric
			+/-	133.1908	µg/mL Unstressed
			+/-	133.3377	µg/mL Stressed
4	tert-Butanol (TBA) CAS # 75-65-0.SEC (Lot XYXDO) Purity 98%	25,000.5 µg/mL	+/-	145.3477	µg/mL Gravimetric
			+/-	1,330.4725	µg/mL Unstressed
			+/-	1,331.9397	µg/mL Stressed
5	Iodomethane (methyl iodide) CAS # 74-88-4.SEC (Lot A13Y016) Purity 97%	2,500.5 µg/mL	+/-	14.5383	µg/mL Gravimetric
			+/-	133.0732	µg/mL Unstressed
			+/-	133.2199	µg/mL Stressed
6	Methyl acetate CAS # 79-20-9.SEC (Lot YDQVD) Purity 99%	12,500.6 µg/mL	+/-	72.6759	µg/mL Gravimetric
			+/-	665.2553	µg/mL Unstressed
			+/-	665.9889	µg/mL Stressed
7	Allyl chloride (3-chloropropene) CAS # 107-05-1.SEC (Lot 5MNOA-DQ) Purity 99%	2,501.3 µg/mL	+/-	14.5425	µg/mL Gravimetric
			+/-	133.1110	µg/mL Unstressed
			+/-	133.2578	µg/mL Stressed

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

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



40	Dibromochloromethane		2,501.8	µg/mL	+/-	14.5454	µg/mL	Gravimetric
	<b>CAS #</b> 124-48-1.SEC	(Lot I13W021)			+/-	133.1377	µg/mL	Unstressed
	<b>Purity</b> 97%				+/-	133.2845	µg/mL	Stressed
41	1,2-Dibromoethane (EDB)		2,502.1	µg/mL	+/-	14.5472	µg/mL	Gravimetric
	<b>CAS #</b> 106-93-4.SEC	(Lot 1368400)			+/-	133.1542	µg/mL	Unstressed
	<b>Purity</b> 98%				+/-	133.3011	µg/mL	Stressed
42	Chlorobenzene		2,501.6	µg/mL	+/-	14.5447	µg/mL	Gravimetric
	<b>CAS #</b> 108-90-7.SEC	(Lot H161936)			+/-	133.1310	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.2778	µg/mL	Stressed
43	1,1,1,2-Tetrachloroethane		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	<b>CAS #</b> 630-20-6.SEC	(Lot GC01-QSHR)			+/-	133.0844	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.2312	µg/mL	Stressed
44	Ethylbenzene		2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
	<b>CAS #</b> 100-41-4.SEC	(Lot PI4SE-GR)			+/-	133.0578	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.2045	µg/mL	Stressed
45	m-Xylene		1,250.4	µg/mL	+/-	7.2698	µg/mL	Gravimetric
	<b>CAS #</b> 108-38-3.SEC	(Lot OUKMG-GB)			+/-	66.5422	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	66.6156	µg/mL	Stressed
46	o-Xylene		2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
	<b>CAS #</b> 95-47-6.SEC	(Lot FGL01-KTPK)			+/-	133.1110	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.2578	µg/mL	Stressed
47	p-Xylene		1,251.6	µg/mL	+/-	7.2771	µg/mL	Gravimetric
	<b>CAS #</b> 106-42-3.SEC	(Lot GM01)			+/-	66.6087	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	66.6822	µg/mL	Stressed
48	Styrene		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	<b>CAS #</b> 100-42-5.SEC	(Lot OFIOL-IA)			+/-	133.0911	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.2378	µg/mL	Stressed
49	Isopropylbenzene (cumene)		2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
	<b>CAS #</b> 98-82-8.SEC	(Lot 2PHXG-IH)			+/-	133.1110	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.2578	µg/mL	Stressed
50	Bromoform		2,501.5	µg/mL	+/-	14.5439	µg/mL	Gravimetric
	<b>CAS #</b> 75-25-2.SEC	(Lot 1039300)			+/-	133.1243	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.2711	µg/mL	Stressed
51	1,1,2,2-Tetrachloroethane		2,502.9	µg/mL	+/-	14.5519	µg/mL	Gravimetric
	<b>CAS #</b> 79-34-5.SEC	(Lot CFA4D-AQ)			+/-	133.1975	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.3444	µg/mL	Stressed
52	Chloroform		2,501.6	µg/mL	+/-	14.5447	µg/mL	Gravimetric
	<b>CAS #</b> 67-66-3.SEC	(Lot 1297547)			+/-	133.1310	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.2778	µg/mL	Stressed
53	1,2,3-Trichloropropane		2,501.9	µg/mL	+/-	14.5465	µg/mL	Gravimetric
	<b>CAS #</b> 96-18-4.SEC	(Lot OGI01)			+/-	133.1477	µg/mL	Unstressed
	<b>Purity</b> 98%				+/-	133.2946	µg/mL	Stressed
54	trans-1,4-Dichloro-2-butene		2,502.7	µg/mL	+/-	14.5510	µg/mL	Gravimetric
	<b>CAS #</b> 110-57-6.SEC	(Lot 100700-2)			+/-	133.1893	µg/mL	Unstressed
	<b>Purity</b> 97%				+/-	133.3362	µg/mL	Stressed
55	n-Propylbenzene		2,500.0	µg/mL	+/-	14.5352	µg/mL	Gravimetric
	<b>CAS #</b> 103-65-1.SEC	(Lot T2HFC-IT)			+/-	133.0445	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.1912	µg/mL	Stressed

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

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

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

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

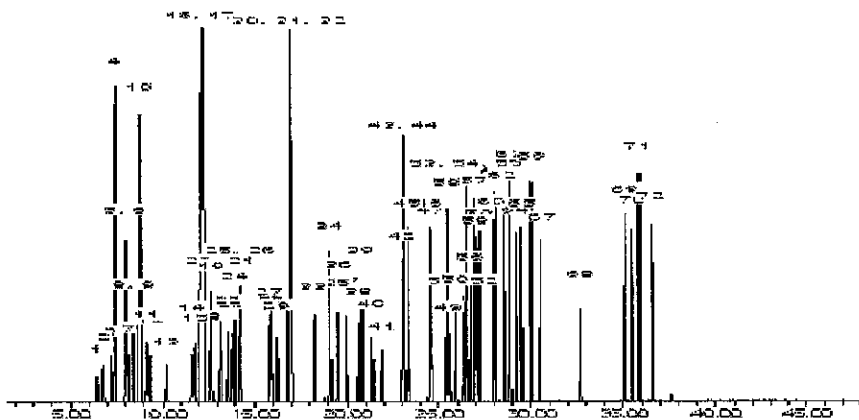
**Carrier Gas:**  
helium-constant pressure 30 psi

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

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

**Det. Type:**  
MSD



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

*Michael Mage*

Date Mixed: 07-Jan-2015 Balance: 1127510105

*Tyler Brown*

Tyler Brown - QA Analyst

Date Passed: 14-Jan-2015

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

Reagent

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**VOA8260SURRES\_00066**



Reagent

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**VOA8260SURRES\_00067**



# 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. :** 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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**VOA8260SURRES\_00081**



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## Certificate of Analysis



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

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

**Catalog No. :** 567650 **Lot No.:** A0101000  
**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	2,509.6 µg/mL	+/-	14.5910	µg/mL	Gravimetric
	CAS # 1868-53-7 (Lot 022012)		+/-	28.2993	µg/mL	Unstressed
	Purity 99%		+/-	32.5644	µg/mL	Stressed
2	1,2-Dichloroethane-d4	2,508.2 µg/mL	+/-	14.5829	µg/mL	Gravimetric
	CAS # 17060-07-0 (Lot 12K-027)		+/-	28.2836	µg/mL	Unstressed
	Purity 99%		+/-	32.5462	µg/mL	Stressed
3	Toluene-d8	2,508.8 µg/mL	+/-	14.5864	µg/mL	Gravimetric
	CAS # 2037-26-5 (Lot 13I-050)		+/-	28.2903	µg/mL	Unstressed
	Purity 99%		+/-	32.5540	µg/mL	Stressed
4	1-Bromo-4-fluorobenzene (BFB)	2,509.8 µg/mL	+/-	14.5922	µg/mL	Gravimetric
	CAS # 460-00-4 (Lot 01127COV)		+/-	28.3016	µg/mL	Unstressed
	Purity 99%		+/-	32.5670	µg/mL	Stressed

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

Reagent

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**VOA8260VARES\_00054**



# CERTIFIED REFERENCE MATERIAL

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

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

**Catalog No. :** 569724 **Lot No.:** A0109190

**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 :** August 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%	5,023.0 µg/mL (Lot STBC8935V)	+/- 29.4778	µg/mL	Gravimetric
			+/- 267.3430	µg/mL	Unstressed
			+/- 267.6378	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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**VOA8260VARES\_00055**



# CERTIFIED REFERENCE MATERIAL

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

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

**Catalog No. :** 569724 **Lot No.:** A0109190

**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 :** August 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%	5,023.0 µg/mL	+/- 29.4778	µg/mL	Gravimetric
	(Lot STBC8935V)		+/- 267.3430	µg/mL	Unstressed
			+/- 267.6378	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\_00077**



CERTIFIED REFERENCE MATERIAL

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# Certificate of Analysis



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

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

Catalog No. : 568720 Lot No.: A0111006

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

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : September 30, 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 150115JLM)	19,748.0 µg/mL	+/-	115.8923	µg/mL	Gravimetric
			+/-	633.2311	µg/mL	Unstressed
			+/-	736.0474	µg/mL	Stressed

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

Reagent

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**VOAACRRES2ND\_00065**





# CERTIFIED REFERENCE MATERIAL

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## Certificate of Analysis



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

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

Catalog No. : 568720.sec Lot No.: A0111005

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

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : September 30, 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)			
I	Acrolein	19,749.2 µg/mL	+/-	115.6359	µg/mL	Gravimetric
	CAS # 107-02-8.SEC (Lot 3593700)		+/-	633.2214	µg/mL	Unstressed
	Purity 97%		+/-	736.0506	µg/mL	Stressed

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

Reagent

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**VOARESEE1ST\_00021**



# CERTIFIED REFERENCE MATERIAL



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

## Certificate of Analysis



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

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

Catalog No. : 568363-FL Lot No.: A0109701

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 : September 30, 2016 Storage: 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
			µg/mL	µg/mL	Gravimetric	
1	3-Chlorobenzotrifluoride	5,000.0 µg/mL	---	+/- 29.3428	µg/mL	Gravimetric
	CAS # 98-15-7 (Lot 21324DO)		+/- 56.5231	µg/mL	Unstressed	
	Purity 99%		+/- 65.0021	µg/mL	Stressed	
2	4-Chlorobenzotrifluoride	5,003.0 µg/mL	+/- 29.3604	µg/mL	Gravimetric	
	CAS # 98-56-6 (Lot 08507BO)		+/- 56.5570	µg/mL	Unstressed	
	Purity 99%		+/- 65.0411	µg/mL	Stressed	
3	2-Chlorobenzotrifluoride	5,009.0 µg/mL	+/- 29.3956	µg/mL	Gravimetric	
	CAS # 88-16-4 (Lot I0316DQ)		+/- 56.6248	µg/mL	Unstressed	
	Purity 99%		+/- 65.1191	µg/mL	Stressed	
4	3-Chlorotoluene	5,012.0 µg/mL	+/- 29.4132	µg/mL	Gravimetric	
	CAS # 108-41-8 (Lot 13528LX)		+/- 56.6587	µg/mL	Unstressed	
	Purity 99%		+/- 65.1581	µg/mL	Stressed	
5	2,4-Dichlorobenzotrifluoride	5,013.0 µg/mL	+/- 29.4191	µg/mL	Gravimetric	
	CAS # 320-60-5 (Lot MKBL3552V)		+/- 56.6701	µg/mL	Unstressed	
	Purity 99%		+/- 65.1711	µg/mL	Stressed	
6	3,4-Dichlorobenzotrifluoride	5,018.0 µg/mL	+/- 29.4484	µg/mL	Gravimetric	
	CAS # 328-84-7 (Lot 11105EJV)		+/- 56.7266	µg/mL	Unstressed	
	Purity 99%		+/- 65.2361	µg/mL	Stressed	
7	2,5-Dichlorobenzotrifluoride	5,015.0 µg/mL	+/- 29.4308	µg/mL	Gravimetric	
	CAS # 320-50-3 (Lot 04415DSV)		+/- 56.6927	µg/mL	Unstressed	
	Purity 99%		+/- 65.1971	µg/mL	Stressed	

8	2,4-Dichlorotoluene CAS # 95-73-8 Purity 99%	(Lot 07715JS)	5,021.0	µg/mL	+/- 29.4660 +/- 56.7605 +/- 65.2751	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	2,5-Dichlorotoluene CAS # 19398-61-9 Purity 99%	(Lot 1381346V)	5,005.0	µg/mL	+/- 29.3721 +/- 56.5796 +/- 65.0671	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	2,6-Dichlorotoluene CAS # 118-69-4 Purity 99%	(Lot 16921JS)	5,014.0	µg/mL	+/- 29.4250 +/- 56.6814 +/- 65.1841	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	3,4-Dichlorotoluene CAS # 95-75-0 Purity 99%	(Lot 09419AS)	5,011.0	µg/mL	+/- 29.4074 +/- 56.6474 +/- 65.1451	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	2,3-Dichlorotoluene CAS # 32768-54-0 Purity 99%	(Lot 00317)	5,016.0	µg/mL	+/- 29.4367 +/- 56.7040 +/- 65.2101	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	2,4,5-Trichlorotoluene CAS # 6639-30-1 Purity 99%	(Lot 2490300)	5,000.0	µg/mL	+/- 29.3428 +/- 56.5231 +/- 65.0021	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	2,3,6-Trichlorotoluene CAS # 2077-46-5 Purity 99%	(Lot NT050444)	5,005.0	µg/mL	+/- 29.3721 +/- 56.5796 +/- 65.0671	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

Reagent

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**VOARESEE1ST\_00025**

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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. : 568363-FL Lot No.: A0109701  
 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 : September 30, 2016 Storage: 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
			µg/mL	µg/mL	µg/mL	
1	3-Chlorobenzotrifluoride	5,000.0 µg/mL	---	+/- 29.3428	µg/mL	Gravimetric
	CAS # 98-15-7 (Lot 21324DO)		+/- 56.5231	µg/mL	Unstressed	
	Purity 99%		+/- 65.0021	µg/mL	Stressed	
2	4-Chlorobenzotrifluoride	5,003.0 µg/mL	+/- 29.3604	µg/mL	Gravimetric	
	CAS # 98-56-6 (Lot 08507BO)		+/- 56.5570	µg/mL	Unstressed	
	Purity 99%		+/- 65.0411	µg/mL	Stressed	
3	2-Chlorobenzotrifluoride	5,009.0 µg/mL	+/- 29.3956	µg/mL	Gravimetric	
	CAS # 88-16-4 (Lot I0316DQ)		+/- 56.6248	µg/mL	Unstressed	
	Purity 99%		+/- 65.1191	µg/mL	Stressed	
4	3-Chlorotoluene	5,012.0 µg/mL	+/- 29.4132	µg/mL	Gravimetric	
	CAS # 108-41-8 (Lot 13528LX)		+/- 56.6587	µg/mL	Unstressed	
	Purity 99%		+/- 65.1581	µg/mL	Stressed	
5	2,4-Dichlorobenzotrifluoride	5,013.0 µg/mL	+/- 29.4191	µg/mL	Gravimetric	
	CAS # 320-60-5 (Lot MKBL3552V)		+/- 56.6701	µg/mL	Unstressed	
	Purity 99%		+/- 65.1711	µg/mL	Stressed	
6	3,4-Dichlorobenzotrifluoride	5,018.0 µg/mL	+/- 29.4484	µg/mL	Gravimetric	
	CAS # 328-84-7 (Lot 11105EJV)		+/- 56.7266	µg/mL	Unstressed	
	Purity 99%		+/- 65.2361	µg/mL	Stressed	
7	2,5-Dichlorobenzotrifluoride	5,015.0 µg/mL	+/- 29.4308	µg/mL	Gravimetric	
	CAS # 320-50-3 (Lot 04415DSV)		+/- 56.6927	µg/mL	Unstressed	
	Purity 99%		+/- 65.1971	µg/mL	Stressed	

8	2,4-Dichlorotoluene CAS # 95-73-8 Purity 99%	(Lot 07715JS)	5,021.0 µg/mL	+/- 29.4660 +/- 56.7605 +/- 65.2751	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	2,5-Dichlorotoluene CAS # 19398-61-9 Purity 99%	(Lot 1381346V)	5,005.0 µg/mL	+/- 29.3721 +/- 56.5796 +/- 65.0671	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	2,6-Dichlorotoluene CAS # 118-69-4 Purity 99%	(Lot 16921JS)	5,014.0 µg/mL	+/- 29.4250 +/- 56.6814 +/- 65.1841	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	3,4-Dichlorotoluene CAS # 95-75-0 Purity 99%	(Lot 09419AS)	5,011.0 µg/mL	+/- 29.4074 +/- 56.6474 +/- 65.1451	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	2,3-Dichlorotoluene CAS # 32768-54-0 Purity 99%	(Lot 00317)	5,016.0 µg/mL	+/- 29.4367 +/- 56.7040 +/- 65.2101	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	2,4,5-Trichlorotoluene CAS # 6639-30-1 Purity 99%	(Lot 2490300)	5,000.0 µg/mL	+/- 29.3428 +/- 56.5231 +/- 65.0021	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	2,3,6-Trichlorotoluene CAS # 2077-46-5 Purity 99%	(Lot NT050444)	5,005.0 µg/mL	+/- 29.3721 +/- 56.5796 +/- 65.0671	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.: 180-48399-1

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-TATE (S-6) -0/1-0	180-48399-1	87	79	109	98
HD-SOFTAIL LIFT STATION-0/1-0	180-48399-2	86	78	106	94
HD-MW-161-0/1-0	180-48399-3	96	106	102	93
HD-MW-161-0/1-0 DL	180-48399-3 DL	87	79	106	96
HD-MW-163-0/1-0	180-48399-4	87	82	107	93
HD-MW-166-0/1-0	180-48399-5	86	77	108	94
HD-MW-167-0/1-0	180-48399-6	90	80	109	95
HD-MW-168-0/1-0	180-48399-7	89	81	108	95
HD-MW-103S-0/1-0	180-48399-8	98	105	105	91
HD-MW-103S-0/1-0 DL	180-48399-8 DL	87	76	104	95
HD-MW-103D-0/1-0	180-48399-9	83	76	107	96
HD-MW-102S-0/1-0	180-48399-10	92	78	109	99
HD-MW-102D-0/1-0	180-48399-11	97	104	105	92
HD-MW-102D-0/1-0 DL	180-48399-11 DL	85	78	108	96
HD-QC4-0/1-3	180-48399-12	102	110	96	80
HD-QC4-0/1-4	180-48399-13	85	77	105	93
HD-QC14-0/1-2	180-48399-14	94	80	106	92
	MB 180-156816/7	95	100	100	93
	MB 180-156820/6	87	78	106	95
	MB 180-156975/5	88	82	105	93
	MB 180-157127/6	93	101	103	95
	LCS 180-156816/10	98	103	108	104
	LCS 180-156820/9	93	84	101	95
	LCS 180-156975/11	89	80	103	101
	LCS 180-157127/10	87	99	112	104

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.: 180-48399-1

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

Matrix: Water Level: Low

Lab File ID: 51013010.D

Lab ID: LCS 180-156816/10

Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	12.4	124	50-139	
Vinyl chloride	10.0	9.23	92	53-138	
Bromomethane	10.0	8.45	84	33-150	
Chloroethane	10.0	7.72	77	36-142	
1,1-Dichloroethene	10.0	9.82	98	65-136	
Acetone	20.0	28.1	141	22-150	
Carbon disulfide	10.0	11.0	110	54-132	
Methylene Chloride	10.0	9.94	99	63-129	
trans-1,2-Dichloroethene	10.0	9.47	95	73-126	
Methyl tert-butyl ether	10.0	10.6	106	64-123	
1,1-Dichloroethane	10.0	10.5	105	73-126	
cis-1,2-Dichloroethene	10.0	9.32	93	70-120	
Bromochloromethane	10.0	9.55	95	70-127	
2-Butanone (MEK)	20.0	25.7	129	39-138	
Chloroform	10.0	9.62	96	72-127	
1,1,1-Trichloroethane	10.0	9.44	94	63-133	
Carbon tetrachloride	10.0	9.61	96	55-150	
Benzene	10.0	10.4	104	80-120	
1,2-Dichloroethane	10.0	10.6	106	68-132	
Trichloroethene	10.0	9.74	97	73-120	
1,2-Dichloropropane	10.0	11.2	112	76-124	
Bromodichloromethane	10.0	10.1	101	66-130	
cis-1,3-Dichloropropene	10.0	9.60	96	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	22.5	112	45-145	
Toluene	10.0	10.7	107	80-123	
trans-1,3-Dichloropropene	10.0	9.97	100	65-125	
1,1,2-Trichloroethane	10.0	10.5	105	77-127	
Tetrachloroethene	10.0	10.5	105	70-135	
2-Hexanone	20.0	23.4	117	25-132	
Dibromochloromethane	10.0	10.3	103	60-140	
1,2-Dibromoethane (EDB)	10.0	11.3	113	74-123	
Chlorobenzene	10.0	10.4	104	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.2	102	63-140	
Ethylbenzene	10.0	11.0	110	72-126	
Xylenes, Total	20.0	22.1	111	76-128	
Styrene	10.0	11.5	115	71-127	
Bromoform	10.0	11.1	111	46-150	
1,1,2,2-Tetrachloroethane	10.0	11.3	113	62-125	
Acrylonitrile	100	137	137	30-140	
1,4-Dioxane	200	278	139	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.: 180-48399-1

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

Matrix: Water Level: Low

Lab File ID: 61013009.D

Lab ID: LCS 180-156820/9

Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	10.7	107	50-139	
Vinyl chloride	10.0	8.95	90	53-138	
Bromomethane	10.0	6.45	64	33-150	
Chloroethane	10.0	7.32	73	36-142	
1,1-Dichloroethene	10.0	9.20	92	65-136	
Acetone	20.0	18.1	90	22-150	
Carbon disulfide	10.0	9.02	90	54-132	
Methylene Chloride	10.0	8.96	90	63-129	
trans-1,2-Dichloroethene	10.0	9.60	96	73-126	
Methyl tert-butyl ether	10.0	8.54	85	64-123	
1,1-Dichloroethane	10.0	9.46	95	73-126	
cis-1,2-Dichloroethene	10.0	9.69	97	70-120	
Bromochloromethane	10.0	9.76	98	70-127	
2-Butanone (MEK)	20.0	21.4	107	39-138	
Chloroform	10.0	9.33	93	72-127	
1,1,1-Trichloroethane	10.0	8.64	86	63-133	
Carbon tetrachloride	10.0	9.44	94	55-150	
Benzene	10.0	10.3	103	80-120	
1,2-Dichloroethane	10.0	8.25	83	68-132	
Trichloroethene	10.0	10.7	107	73-120	
1,2-Dichloropropane	10.0	11.2	112	76-124	
Bromodichloromethane	10.0	9.41	94	66-130	
cis-1,3-Dichloropropene	10.0	10.1	101	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	21.6	108	45-145	
Toluene	10.0	10.1	101	80-123	
trans-1,3-Dichloropropene	10.0	8.95	89	65-125	
1,1,2-Trichloroethane	10.0	9.84	98	77-127	
Tetrachloroethene	10.0	9.83	98	70-135	
2-Hexanone	20.0	24.9	124	25-132	
Dibromochloromethane	10.0	11.0	110	60-140	
1,2-Dibromoethane (EDB)	10.0	10.2	102	74-123	
Chlorobenzene	10.0	10.2	102	80-120	
1,1,1,2-Tetrachloroethane	10.0	11.2	112	63-140	
Ethylbenzene	10.0	9.89	99	72-126	
Xylenes, Total	20.0	19.9	99	76-128	
Styrene	10.0	10.8	108	71-127	
Bromoform	10.0	11.8	118	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.51	95	62-125	
Acrylonitrile	100	113	113	30-140	
1,4-Dioxane	200	186 J	93	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.: 180-48399-1

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

Matrix: Water Level: Low

Lab File ID: 61014011.D

Lab ID: LCS 180-156975/11

Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	10.9	109	50-139	
Vinyl chloride	10.0	8.99	90	53-138	
Bromomethane	10.0	5.55	55	33-150	
Chloroethane	10.0	8.14	81	36-142	
1,1-Dichloroethene	10.0	9.15	92	65-136	
Acetone	20.0	19.8	99	22-150	
Carbon disulfide	10.0	8.42	84	54-132	
Methylene Chloride	10.0	8.80	88	63-129	
trans-1,2-Dichloroethene	10.0	9.19	92	73-126	
Methyl tert-butyl ether	10.0	8.63	86	64-123	
1,1-Dichloroethane	10.0	9.88	99	73-126	
cis-1,2-Dichloroethene	10.0	9.19	92	70-120	
Bromochloromethane	10.0	9.78	98	70-127	
2-Butanone (MEK)	20.0	23.3	116	39-138	
Chloroform	10.0	8.90	89	72-127	
1,1,1-Trichloroethane	10.0	8.31	83	63-133	
Carbon tetrachloride	10.0	8.11	81	55-150	
Benzene	10.0	10.1	101	80-120	
1,2-Dichloroethane	10.0	7.91	79	68-132	
Trichloroethene	10.0	10.2	102	73-120	
1,2-Dichloropropane	10.0	10.7	107	76-124	
Bromodichloromethane	10.0	8.32	83	66-130	
cis-1,3-Dichloropropene	10.0	10.1	101	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	21.4	107	45-145	
Toluene	10.0	10.2	102	80-123	
trans-1,3-Dichloropropene	10.0	8.97	90	65-125	
1,1,2-Trichloroethane	10.0	9.93	99	77-127	
Tetrachloroethene	10.0	9.83	98	70-135	
2-Hexanone	20.0	24.0	120	25-132	
Dibromochloromethane	10.0	9.23	92	60-140	
1,2-Dibromoethane (EDB)	10.0	9.59	96	74-123	
Chlorobenzene	10.0	10.5	105	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.45	94	63-140	
Ethylbenzene	10.0	10.0	100	72-126	
Xylenes, Total	20.0	19.9	100	76-128	
Styrene	10.0	10.8	108	71-127	
Bromoform	10.0	8.73	87	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.50	95	62-125	
Acrylonitrile	100	114	114	30-140	
1,4-Dioxane	200	214	107	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.: 180-48399-1

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

Matrix: Water Level: Low

Lab File ID: 51015010.D

Lab ID: LCS 180-157127/10

Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	9.71	97	50-139	
Vinyl chloride	10.0	8.06	81	53-138	
Bromomethane	10.0	8.03	80	33-150	
Chloroethane	10.0	7.31	73	36-142	
1,1-Dichloroethene	10.0	9.39	94	65-136	
Acetone	20.0	19.9	99	22-150	
Carbon disulfide	10.0	10.0	100	54-132	
Methylene Chloride	10.0	9.92	99	63-129	
trans-1,2-Dichloroethene	10.0	9.68	97	73-126	
Methyl tert-butyl ether	10.0	9.53	95	64-123	
1,1-Dichloroethane	10.0	9.61	96	73-126	
cis-1,2-Dichloroethene	10.0	9.55	96	70-120	
Bromochloromethane	10.0	8.75	88	70-127	
2-Butanone (MEK)	20.0	19.4	97	39-138	
Chloroform	10.0	9.41	94	72-127	
1,1,1-Trichloroethane	10.0	9.64	96	63-133	
Carbon tetrachloride	10.0	9.66	97	55-150	
Benzene	10.0	10.2	102	80-120	
1,2-Dichloroethane	10.0	9.87	99	68-132	
Trichloroethene	10.0	9.16	92	73-120	
1,2-Dichloropropane	10.0	9.92	99	76-124	
Bromodichloromethane	10.0	9.80	98	66-130	
cis-1,3-Dichloropropene	10.0	8.94	89	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	18.6	93	45-145	
Toluene	10.0	11.0	110	80-123	
trans-1,3-Dichloropropene	10.0	9.97	100	65-125	
1,1,2-Trichloroethane	10.0	10.7	107	77-127	
Tetrachloroethene	10.0	10.8	108	70-135	
2-Hexanone	20.0	18.1	90	25-132	
Dibromochloromethane	10.0	9.40	94	60-140	
1,2-Dibromoethane (EDB)	10.0	10.2	102	74-123	
Chlorobenzene	10.0	10.3	103	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.76	98	63-140	
Ethylbenzene	10.0	10.7	107	72-126	
Xylenes, Total	20.0	21.4	107	76-128	
Styrene	10.0	11.4	114	71-127	
Bromoform	10.0	10.7	107	46-150	
1,1,2,2-Tetrachloroethane	10.0	11.7	117	62-125	
Acrylonitrile	100	112	112	30-140	
1,4-Dioxane	200	287	144	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.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 61013006.D Lab Sample ID: MB 180-156820/6  
 Matrix: Water Heated Purge: (Y/N) N  
 Instrument ID: CHHP6 Date Analyzed: 10/13/2015 14:17  
 GC Column: DB-624 ID: 0.18 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 180-156820/9	61013009.D	10/13/2015 15:48
HD-TATE (S-6)-0/1-0	180-48399-1	61013017.D	10/13/2015 19:10
HD-SOFTAIL LIFT STATION-0/1-0	180-48399-2	61013018.D	10/13/2015 19:34
HD-MW-161-0/1-0 DL	180-48399-3 DL	61013019.D	10/13/2015 19:58
HD-MW-163-0/1-0	180-48399-4	61013020.D	10/13/2015 20:22
HD-MW-166-0/1-0	180-48399-5	61013022.D	10/13/2015 21:11
HD-MW-167-0/1-0	180-48399-6	61013023.D	10/13/2015 21:36
HD-MW-168-0/1-0	180-48399-7	61013024.D	10/13/2015 22:00
HD-QC14-0/1-2	180-48399-14	61013027.D	10/13/2015 23:13
HD-MW-102S-0/1-0	180-48399-10	61013028.D	10/13/2015 23:37

FORM IV  
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
SDG No.: \_\_\_\_\_  
Lab File ID: 51013007.D Lab Sample ID: MB 180-156816/7  
Matrix: Water Heated Purge: (Y/N) N  
Instrument ID: CHHP5 Date Analyzed: 10/13/2015 14:19  
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 180-156816/10	51013010.D	10/13/2015 16:03
HD-QC4-0/1-3	180-48399-12	51013029.D	10/13/2015 23:41

FORM IV  
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 61014005.D Lab Sample ID: MB 180-156975/5  
 Matrix: Water Heated Purge: (Y/N) N  
 Instrument ID: CHHP6 Date Analyzed: 10/14/2015 13:44  
 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 180-156975/11	61014011.D	10/14/2015 16:25
HD-MW-103S-0/1-0 DL	180-48399-8 DL	61014013.D	10/14/2015 17:14
HD-MW-103D-0/1-0	180-48399-9	61014014.D	10/14/2015 17:38
HD-MW-102D-0/1-0 DL	180-48399-11 DL	61014015.D	10/14/2015 18:02
HD-QC4-0/1-4	180-48399-13	61014016.D	10/14/2015 18:26



FORM IV  
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 51015006.D Lab Sample ID: MB 180-157127/6  
 Matrix: Water Heated Purge: (Y/N) N  
 Instrument ID: CHHP5 Date Analyzed: 10/15/2015 14:08  
 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 180-157127/10	51015010.D	10/15/2015 15:59
HD-MW-103S-0/1-0	180-48399-8	51015026.D	10/15/2015 22:25
HD-MW-102D-0/1-0	180-48399-11	51015027.D	10/15/2015 22:49
HD-MW-161-0/1-0	180-48399-3	51015029.D	10/15/2015 23:37

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 50826007.D BFB Injection Date: 08/26/2015  
 Instrument ID: CHHP5 BFB Injection Time: 14:01  
 Analysis Batch No.: 151868

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	23.5
75	30.0 - 60.0 % of mass 95	49.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.6
173	Less than 2.0 % of mass 174	0.4 (0.5)1
174	50.0 - 120.00 % of mass 95	77.9
175	5.0 - 9.0 % of mass 174	6.1 (7.9)1
176	95.0 - 101.0 % of mass 174	75.2 (96.6)1
177	5.0 - 9.0 % of mass 176	4.9 (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
	IC 180-151868/6	50826006.D	08/26/2015	15:04
	IC 180-151868/8	50826008.D	08/26/2015	15:28
	ICIS 180-151868/9	50826009.D	08/26/2015	15:52
	IC 180-151868/10	50826010.D	08/26/2015	16:16
	IC 180-151868/11	50826011.D	08/26/2015	16:40
	IC 180-151868/12	50826012.D	08/26/2015	17:04
	IC 180-151868/13	50826013.D	08/26/2015	17:28
	IC 180-151868/14	50826014.D	08/26/2015	17:52

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 51013005.D BFB Injection Date: 10/13/2015  
 Instrument ID: CHHP5 BFB Injection Time: 11:51  
 Analysis Batch No.: 156816

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	29.3
75	30.0 - 60.0 % of mass 95	49.4
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.3
173	Less than 2.0 % of mass 174	0.0 (0.0)1
174	50.0 - 120.00 % of mass 95	71.9
175	5.0 - 9.0 % of mass 174	5.4 (7.5)1
176	95.0 - 101.0 % of mass 174	69.6 (96.7)1
177	5.0 - 9.0 % of mass 176	4.9 (7.0)2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-156816/6	51013006.D	10/13/2015	13:30
	MB 180-156816/7	51013007.D	10/13/2015	14:19
	LCS 180-156816/10	51013010.D	10/13/2015	16:03
HD-QC4-0/1-3	180-48399-12	51013029.D	10/13/2015	23:41

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 51015004.D BFB Injection Date: 10/15/2015  
 Instrument ID: CHHP5 BFB Injection Time: 12:12  
 Analysis Batch No.: 157127

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	26.6
75	30.0 - 60.0 % of mass 95	49.0
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.9
173	Less than 2.0 % of mass 174	0.2 (0.3)1
174	50.0 - 120.00 % of mass 95	75.8
175	5.0 - 9.0 % of mass 174	6.6 (8.7)1
176	95.0 - 101.0 % of mass 174	75.0 (99.0)1
177	5.0 - 9.0 % of mass 176	5.2 (6.9)2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-157127/2	51015002.D	10/15/2015	12:56
	MB 180-157127/6	51015006.D	10/15/2015	14:08
	LCS 180-157127/10	51015010.D	10/15/2015	15:59
HD-MW-103S-0/1-0	180-48399-8	51015026.D	10/15/2015	22:25
HD-MW-102D-0/1-0	180-48399-11	51015027.D	10/15/2015	22:49
HD-MW-161-0/1-0	180-48399-3	51015029.D	10/15/2015	23:37

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 60731001.D BFB Injection Date: 07/31/2015  
 Instrument ID: CHHP6 BFB Injection Time: 12:10  
 Analysis Batch No.: 149469

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	21.4
75	30.0 - 60.0 % of mass 95	56.4
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.8
173	Less than 2.0 % of mass 174	0.2 (0.3)1
174	50.0 - 120.00 % of mass 95	62.3
175	5.0 - 9.0 % of mass 174	4.7 (7.5)1
176	95.0 - 101.0 % of mass 174	62.6 (100.6)1
177	5.0 - 9.0 % of mass 176	4.2 (6.7)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 180-149469/4	60731004.D	07/31/2015	14:00
	ICIS 180-149469/5	60731005.D	07/31/2015	14:24
	IC 180-149469/6	60731006.D	07/31/2015	14:49
	IC 180-149469/7	60731007.D	07/31/2015	15:13
	IC 180-149469/8	60731008.D	07/31/2015	15:37
	IC 180-149469/9	60731009.D	07/31/2015	16:01
	IC 180-149469/10	60731010.D	07/31/2015	16:25
	IC 180-149469/14	60731014.D	07/31/2015	18:02

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 61013001.D BFB Injection Date: 10/13/2015  
 Instrument ID: CHHP6 BFB Injection Time: 11:43  
 Analysis Batch No.: 156820

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	18.4
75	30.0 - 60.0 % of mass 95	47.6
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.0
173	Less than 2.0 % of mass 174	0.3 (0.4)1
174	50.0 - 120.00 % of mass 95	67.6
175	5.0 - 9.0 % of mass 174	5.8 (8.6)1
176	95.0 - 101.0 % of mass 174	66.0 (97.6)1
177	5.0 - 9.0 % of mass 176	5.1 (7.7)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 180-156820/3	61013003.D	10/13/2015	12:58
	CCVIS 180-156820/5	61013005.D	10/13/2015	13:22
	MB 180-156820/6	61013006.D	10/13/2015	14:17
	LCS 180-156820/9	61013009.D	10/13/2015	15:48
HD-TATE (S-6)-0/1-0	180-48399-1	61013017.D	10/13/2015	19:10
HD-SOFTAIL LIFT STATION-0/1-0	180-48399-2	61013018.D	10/13/2015	19:34
HD-MW-161-0/1-0 DL	180-48399-3 DL	61013019.D	10/13/2015	19:58
HD-MW-163-0/1-0	180-48399-4	61013020.D	10/13/2015	20:22
HD-MW-166-0/1-0	180-48399-5	61013022.D	10/13/2015	21:11
HD-MW-167-0/1-0	180-48399-6	61013023.D	10/13/2015	21:36
HD-MW-168-0/1-0	180-48399-7	61013024.D	10/13/2015	22:00
HD-QC14-0/1-2	180-48399-14	61013027.D	10/13/2015	23:13
HD-MW-102S-0/1-0	180-48399-10	61013028.D	10/13/2015	23:37

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 61014001.D BFB Injection Date: 10/14/2015  
 Instrument ID: CHHP6 BFB Injection Time: 11:42  
 Analysis Batch No.: 156975

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	19.5
75	30.0 - 60.0 % of mass 95	45.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.8
173	Less than 2.0 % of mass 174	0.6 (0.9)1
174	50.0 - 120.00 % of mass 95	67.9
175	5.0 - 9.0 % of mass 174	6.1 (9.0)1
176	95.0 - 101.0 % of mass 174	65.9 (97.1)1
177	5.0 - 9.0 % of mass 176	5.2 (7.9)2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-156975/2	61014002.D	10/14/2015	12:26
	CCV 180-156975/3	61014003.D	10/14/2015	12:51
	MB 180-156975/5	61014005.D	10/14/2015	13:44
	LCS 180-156975/11	61014011.D	10/14/2015	16:25
HD-MW-103S-0/1-0 DL	180-48399-8 DL	61014013.D	10/14/2015	17:14
HD-MW-103D-0/1-0	180-48399-9	61014014.D	10/14/2015	17:38
HD-MW-102D-0/1-0 DL	180-48399-11 DL	61014015.D	10/14/2015	18:02
HD-QC4-0/1-4	180-48399-13	61014016.D	10/14/2015	18:26

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-156816/6 Date Analyzed: 10/13/2015 13:30  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 51013006.D Heated Purge: (Y/N) N  
 Calibration ID: 25113

	TBA		FB		CBZ		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	183157	4.28	407870	7.29	92984	10.39	
UPPER LIMIT	366314	4.78	815740	7.79	185968	10.89	
LOWER LIMIT	91579	3.78	203935	6.79	46492	9.89	
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-156816/7	180801	4.27	398965	7.30	89248	10.39	
LCS 180-156816/10	188065	4.28	389453	7.29	92170	10.39	
180-48399-12	HD-QC4-0/1-3	155890	4.28	337584	7.29	80172	10.39

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.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-156816/6 Date Analyzed: 10/13/2015 13:30  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 51013006.D Heated Purge: (Y/N) N  
 Calibration ID: 25113

	DCB					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD	136578	12.73				
UPPER LIMIT	273156	13.23				
LOWER LIMIT	68289	12.23				
LAB SAMPLE ID	CLIENT SAMPLE ID					
MB 180-156816/7	122004	12.73				
LCS 180-156816/10	138523	12.73				
180-48399-12	HD-QC4-0/1-3	94953	12.73			

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.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-157127/2 Date Analyzed: 10/15/2015 12:56  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 51015002.D Heated Purge: (Y/N) N  
 Calibration ID: 25113

	TBA		FB		CBZ		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	155406	4.27	379251	7.29	82633	10.39	
UPPER LIMIT	310812	4.77	758502	7.79	165266	10.89	
LOWER LIMIT	77703	3.77	189626	6.79	41317	9.89	
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-157127/6	166634	4.27	345393	7.29	77841	10.39	
LCS 180-157127/10	156359	4.28	369647	7.29	81657	10.39	
180-48399-8	HD-MW-103S-0/1-0	150133	4.26	319536	7.29	73195	10.39
180-48399-11	HD-MW-102D-0/1-0	137835	4.27	305720	7.29	69970	10.38
180-48399-3	HD-MW-161-0/1-0	141591	4.27	314610	7.29	73572	10.39

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.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-157127/2 Date Analyzed: 10/15/2015 12:56  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 51015002.D Heated Purge: (Y/N) N  
 Calibration ID: 25113

	DCB		AREA #	RT #	AREA #	RT #
	AREA #	RT #				
12/24 HOUR STD	127710	12.74				
UPPER LIMIT	255420	13.24				
LOWER LIMIT	63855	12.24				
LAB SAMPLE ID	CLIENT SAMPLE ID					
MB 180-157127/6		106606	12.73			
LCS 180-157127/10		128850	12.73			
180-48399-8	HD-MW-103S-0/1-0	100010	12.73			
180-48399-11	HD-MW-102D-0/1-0	87169	12.73			
180-48399-3	HD-MW-161-0/1-0	97674	12.73			

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.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-156820/5 Date Analyzed: 10/13/2015 13:22  
 Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 61013005.D Heated Purge: (Y/N) N  
 Calibration ID: 25315

	TBA		FB		CBZ		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	171513	4.24	449437	7.29	102863	10.40	
UPPER LIMIT	343026	4.74	898874	7.79	205726	10.90	
LOWER LIMIT	85757	3.74	224719	6.79	51432	9.90	
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-156820/6		150481	4.23	514339	7.29	113048	10.40
LCS 180-156820/9		166050	4.25	452228	7.28	104138	10.40
180-48399-1	HD-TATE (S-6)-0/1-0	169727	4.23	536732	7.29	117668	10.40
180-48399-2	HD-SOFTAIL LIFT STATION-0/1-0	179179	4.22	537903	7.29	117865	10.40
180-48399-3 DL	HD-MW-161-0/1-0 DL	180776	4.22	523863	7.29	115099	10.40
180-48399-4	HD-MW-163-0/1-0	170915	4.23	513821	7.29	113676	10.40
180-48399-5	HD-MW-166-0/1-0	161601	4.24	523769	7.29	116436	10.40
180-48399-6	HD-MW-167-0/1-0	164044	4.24	511614	7.29	112182	10.40
180-48399-7	HD-MW-168-0/1-0	173537	4.22	506403	7.29	112053	10.40
180-48399-14	HD-QC14-0/1-2	159420	4.23	492003	7.29	106502	10.40
180-48399-10	HD-MW-102S-0/1-0	169479	4.23	498300	7.29	105440	10.40

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.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-156820/5 Date Analyzed: 10/13/2015 13:22  
 Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 61013005.D Heated Purge: (Y/N) N  
 Calibration ID: 25315

	DCB					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD	159724	12.75				
UPPER LIMIT	319448	13.25				
LOWER LIMIT	79862	12.25				
LAB SAMPLE ID	CLIENT SAMPLE ID					
MB 180-156820/6		173717	12.75			
LCS 180-156820/9		161610	12.75			
180-48399-1	HD-TATE (S-6)-0/1-0	179427	12.75			
180-48399-2	HD-SOFTAIL LIFT STATION-0/1-0	178262	12.75			
180-48399-3 DL	HD-MW-161-0/1-0 DL	175108	12.75			
180-48399-4	HD-MW-163-0/1-0	165216	12.75			
180-48399-5	HD-MW-166-0/1-0	171792	12.75			
180-48399-6	HD-MW-167-0/1-0	168497	12.75			
180-48399-7	HD-MW-168-0/1-0	168248	12.75			
180-48399-14	HD-QC14-0/1-2	162595	12.75			
180-48399-10	HD-MW-102S-0/1-0	163959	12.75			

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.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-156975/2 Date Analyzed: 10/14/2015 12:26  
 Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 61014002.D Heated Purge: (Y/N) N  
 Calibration ID: 25315

	TBA		FB		CBZ		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	145055	4.24	432546	7.28	103819	10.40	
UPPER LIMIT	290110	4.74	865092	7.78	207638	10.90	
LOWER LIMIT	72528	3.74	216273	6.78	51910	9.90	
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 180-156975/3		166815	4.23	438707	7.29	92614	10.40
MB 180-156975/5		156583	4.24	502591	7.29	110156	10.40
LCS 180-156975/11		189019	4.24	457732	7.28	103987	10.39
180-48399-8 DL	HD-MW-103S-0/1-0 DL	186626	4.23	530545	7.29	118943	10.39
180-48399-9	HD-MW-103D-0/1-0	172165	4.23	544831	7.29	118764	10.40
180-48399-11 DL	HD-MW-102D-0/1-0 DL	162329	4.24	530227	7.29	112527	10.40
180-48399-13	HD-QC4-0/1-4	170355	4.23	534354	7.29	118850	10.40

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.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-156975/2 Date Analyzed: 10/14/2015 12:26  
 Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 61014002.D Heated Purge: (Y/N) N  
 Calibration ID: 25315

	DCB		AREA #	RT #	AREA #	RT #	AREA #	RT #
	AREA #	RT #						
12/24 HOUR STD	151958	12.75						
UPPER LIMIT	303916	13.25						
LOWER LIMIT	75979	12.25						
LAB SAMPLE ID	CLIENT SAMPLE ID							
CCV 180-156975/3		144094	12.75					
MB 180-156975/5		165601	12.75					
LCS 180-156975/11		173330	12.75					
180-48399-8 DL	HD-MW-103S-0/1-0 DL	173926	12.75					
180-48399-9	HD-MW-103D-0/1-0	176177	12.75					
180-48399-11 DL	HD-MW-102D-0/1-0 DL	169731	12.75					
180-48399-13	HD-QC4-0/1-4	176642	12.75					

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.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-TATE (S-6)-0/1-0 Lab Sample ID: 180-48399-1  
 Matrix: Water Lab File ID: 61013017.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 11:10  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 19:10  
 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.: 156820 Units: ug/L

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



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-TATE (S-6)-0/1-0 Lab Sample ID: 180-48399-1  
 Matrix: Water Lab File ID: 61013017.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 11:10  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 19:10  
 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.: 156820 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	79		64-135
2037-26-5	Toluene-d8 (Surr)	109		71-118
460-00-4	4-Bromofluorobenzene (Surr)	98		70-118
1868-53-7	Dibromofluoromethane (Surr)	87		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013017.D  
 Lims ID: 180-48399-A-1 Lab Sample ID: 180-48399-1  
 Client ID: HD-TATE (S-6)-0/1-0  
 Sample Type: Client  
 Inject. Date: 13-Oct-2015 19:10:30 ALS Bottle#: 17 Worklist Smp#: 17  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-48399-A-1  
 Misc. Info.: 180-0008971-017  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Oct-2015 08:04:35 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK037

First Level Reviewer: fergusond

Date: 14-Oct-2015 08:04:35

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.229	4.242	-0.013	91	169727	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.290	-0.001	98	536732	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.399	-0.001	89	117668	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.747	-0.001	99	179427	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.559	6.554	0.005	93	107818	43.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.931	-0.001	69	157558	39.5	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.945	-0.007	93	503659	54.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.591	-0.007	84	201854	49.0	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.235				ND	
16 Chloroethane	64		2.387				ND	
22 1,1-Dichloroethene	96		3.342				ND	
24 Acetone	43		3.427				ND	
26 Carbon disulfide	76		3.634				ND	
31 Methylene Chloride	84		4.133				ND	
33 Acrylonitrile	53		4.504				ND	
34 trans-1,2-Dichloroethene	96		4.565				ND	
35 Methyl tert-butyl ether	73		4.577				ND	
37 1,1-Dichloroethane	63		5.203				ND	
43 cis-1,2-Dichloroethene	96		5.939				ND	
44 2-Butanone (MEK)	43		5.952				ND	
48 Chlorobromomethane	128		6.231				ND	
50 Chloroform	83	6.377	6.371	0.006	92	6243	1.13	
51 1,1,1-Trichloroethane	97		6.542				ND	
53 Carbon tetrachloride	117		6.718				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130		7.673				ND	
64 1,2-Dichloropropane	63		7.953				ND	
65 1,4-Dioxane	88		8.032				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.233				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
73 Toluene	91		9.012				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164		9.529				ND	
79 2-Hexanone	43		9.663				ND	
81 Chlorodibromomethane	129		9.827				ND	
82 Ethylene Dibromide	107		9.936				ND	
84 Chlorobenzene	112		10.429				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.660				ND	
89 o-Xylene	106		11.043				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.713				ND	
S 131 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00043

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00043

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013017.D

Injection Date: 13-Oct-2015 19:10:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-48399-A-1

Lab Sample ID: 180-48399-1

Worklist Smp#: 17

Client ID: HD-TATE (S-6)-0/1-0

Purge Vol: 5.000 mL

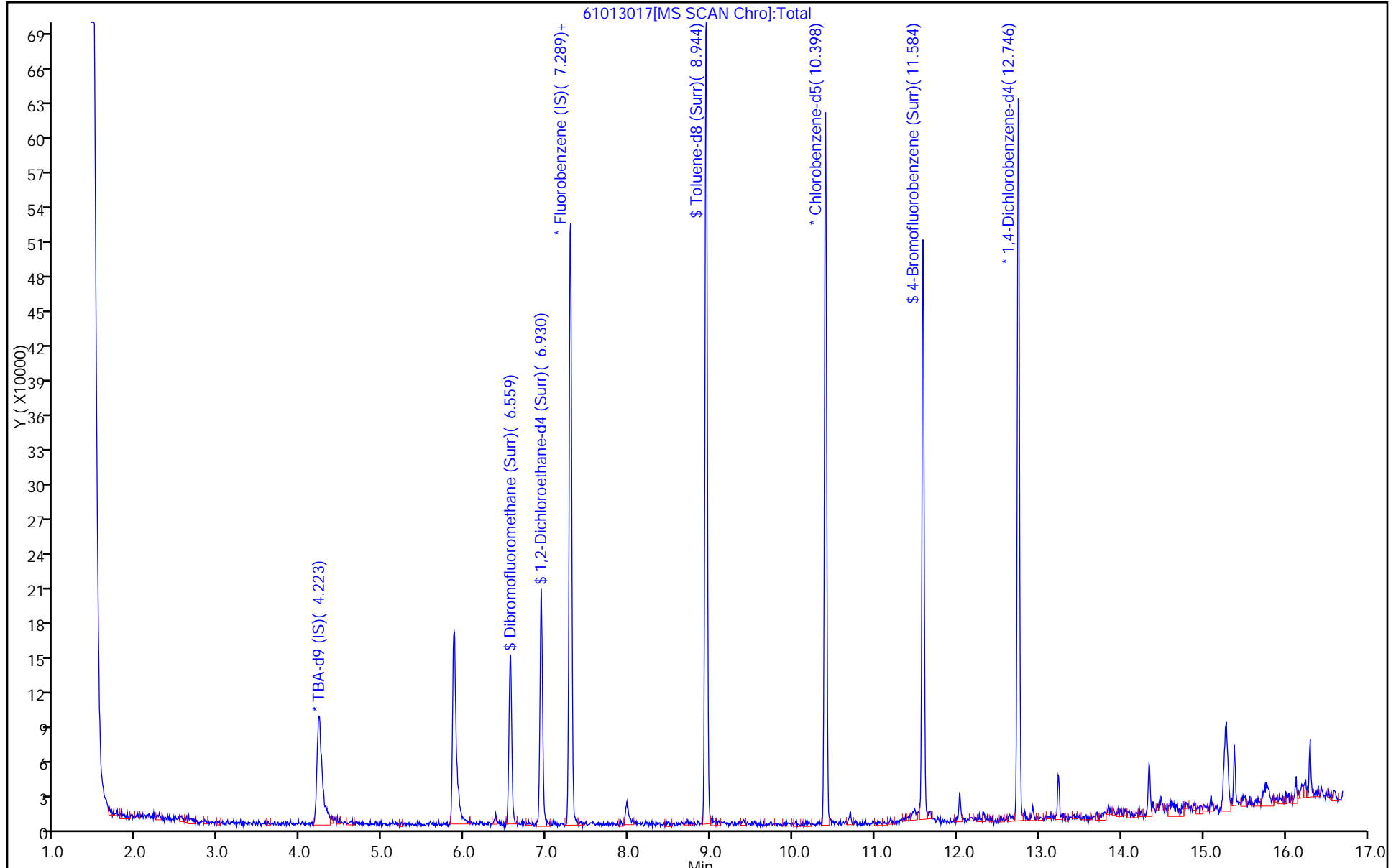
Dil. Factor: 1.0000

ALS Bottle#: 17

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013017.D

Injection Date: 13-Oct-2015 19:10:30

Instrument ID: CHHP6

Lims ID: 180-48399-A-1

Lab Sample ID: 180-48399-1

Client ID: HD-TATE (S-6)-0/1-0

Operator ID: 001562

ALS Bottle#: 17 Worklist Smp#: 17

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

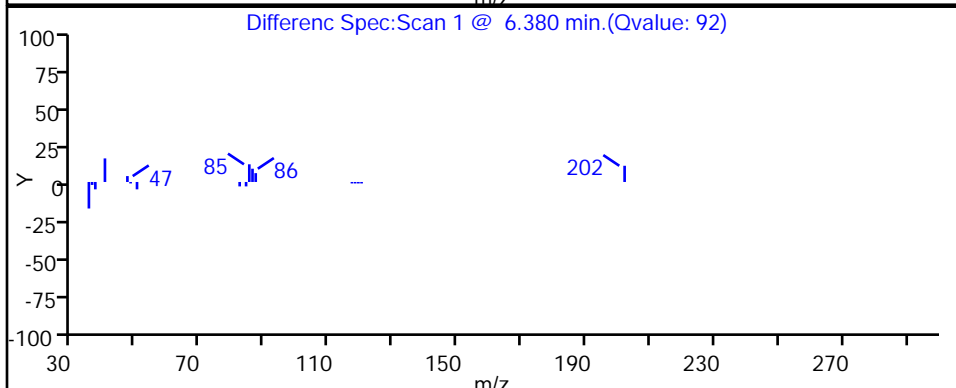
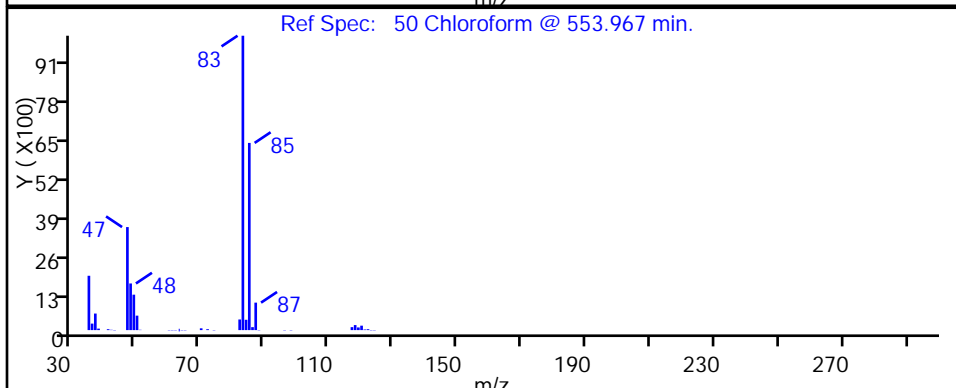
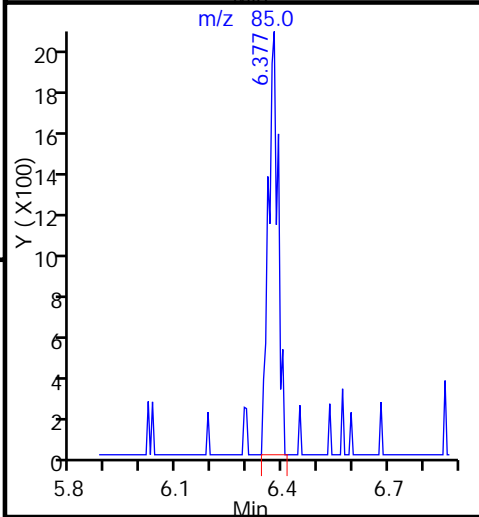
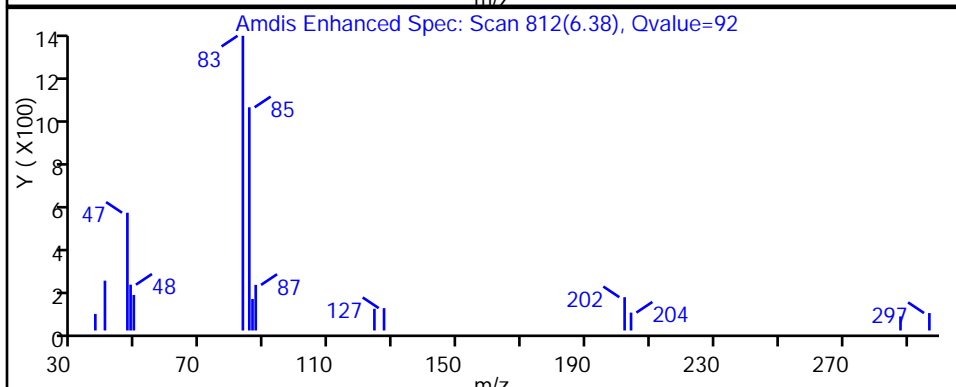
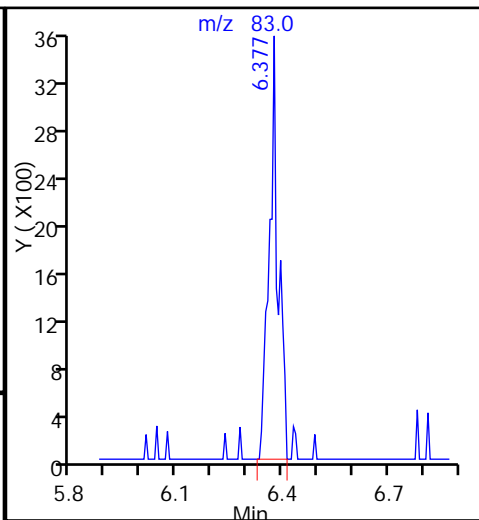
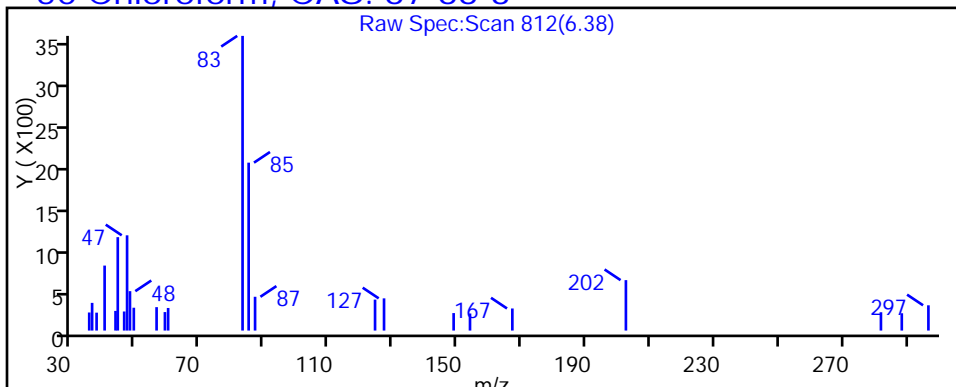
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

50 Chloroform, CAS: 67-66-3



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-SOFTAIL LIFT Lab Sample ID: 180-48399-2  
 Matrix: Water Lab File ID: 61013018.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 13:30  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 19:34  
 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.: 156820 Units: ug/L

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

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-SOFTAIL LIFT Lab Sample ID: 180-48399-2  
 Matrix: Water Lab File ID: 61013018.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 13:30  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 19:34  
 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.: 156820 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	78		64-135
2037-26-5	Toluene-d8 (Surr)	106		71-118
460-00-4	4-Bromofluorobenzene (Surr)	94		70-118
1868-53-7	Dibromofluoromethane (Surr)	86		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013018.D  
 Lims ID: 180-48399-A-2 Lab Sample ID: 180-48399-2  
 Client ID: HD-SOFTAIL LIFT STATION-0/1-0  
 Sample Type: Client  
 Inject. Date: 13-Oct-2015 19:34:30 ALS Bottle#: 18 Worklist Smp#: 18  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-48399-A-2  
 Misc. Info.: 180-0008971-018  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Oct-2015 08:05:21 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK037

First Level Reviewer: fergusond

Date: 14-Oct-2015 08:05:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.223	4.242	-0.019	93	179179	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	98	537903	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.399	-0.001	89	117865	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.747	-0.001	98	178262	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.560	6.554	0.006	94	106294	42.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.931	0.000	69	154951	38.8	
\$ 7 Toluene-d8 (Surr)	98	8.944	8.945	-0.001	92	493946	53.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.591	-0.007	84	195031	47.2	
12 Chloromethane	50	1.778	1.766	0.012	27	3330	1.04	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.235				ND	
16 Chloroethane	64		2.387				ND	
22 1,1-Dichloroethene	96		3.342				ND	
24 Acetone	43		3.427				ND	
26 Carbon disulfide	76		3.634				ND	
31 Methylene Chloride	84		4.133				ND	
33 Acrylonitrile	53		4.504				ND	
34 trans-1,2-Dichloroethene	96		4.565				ND	
35 Methyl tert-butyl ether	73		4.577				ND	
37 1,1-Dichloroethane	63		5.203				ND	
43 cis-1,2-Dichloroethene	96		5.939				ND	
44 2-Butanone (MEK)	43		5.952				ND	
48 Chlorobromomethane	128		6.231				ND	
50 Chloroform	83		6.371				ND	
51 1,1,1-Trichloroethane	97		6.542				ND	
53 Carbon tetrachloride	117		6.718				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130		7.673				ND	
64 1,2-Dichloropropane	63		7.953				ND	
65 1,4-Dioxane	88		8.032				ND	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.233				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
73 Toluene	91		9.012				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164		9.529				ND	
79 2-Hexanone	43		9.663				ND	
81 Chlorodibromomethane	129		9.827				ND	
82 Ethylene Dibromide	107		9.936				ND	
84 Chlorobenzene	112		10.429				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.660				ND	
89 o-Xylene	106		11.043				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.713				ND	
S 131 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00043

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00043

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013018.D

Injection Date: 13-Oct-2015 19:34:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-48399-A-2

Lab Sample ID: 180-48399-2

Worklist Smp#: 18

Client ID: HD-SOFTAIL LIFT STATION-0/1-0

Purge Vol: 5.000 mL

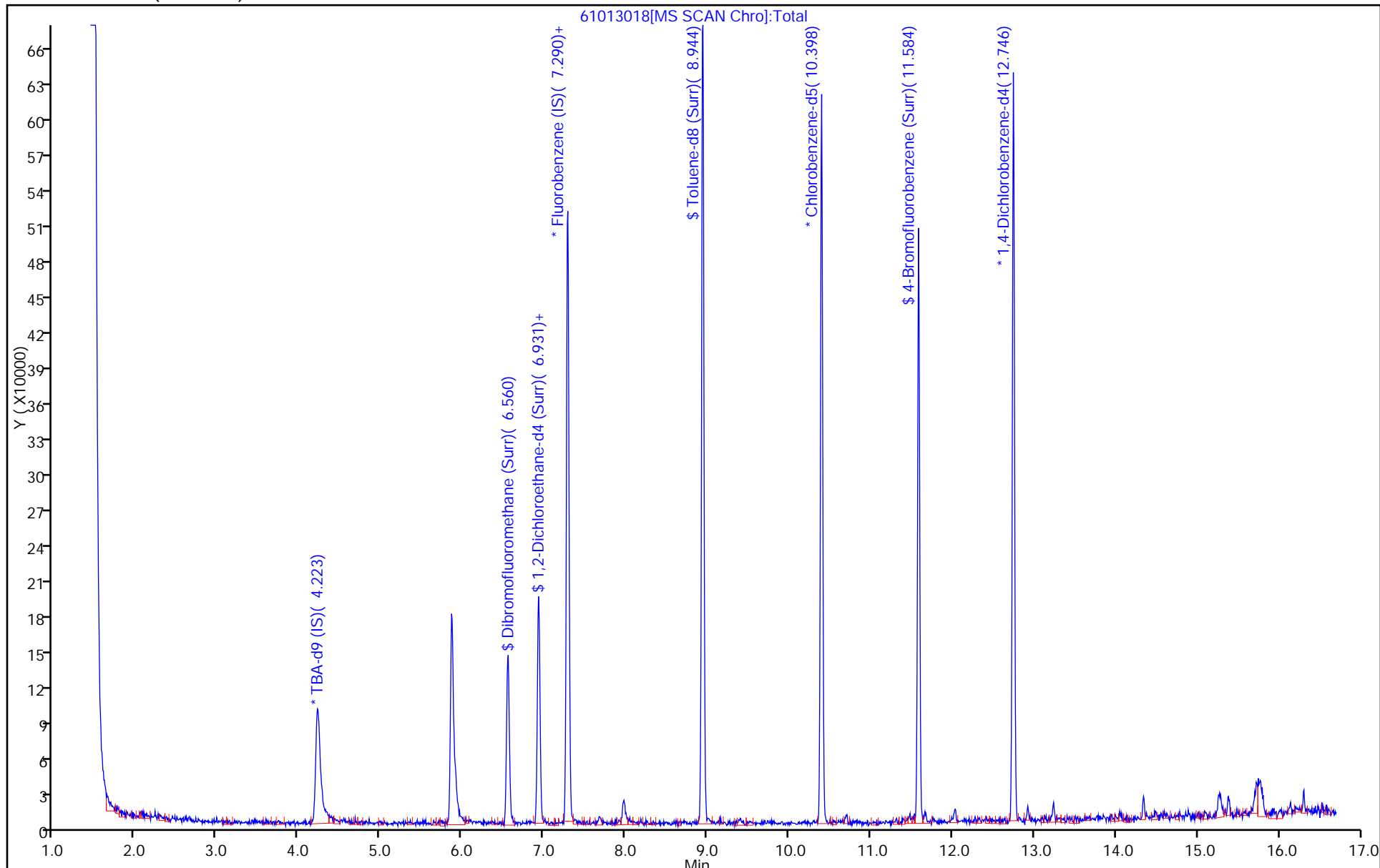
Dil. Factor: 1.0000

ALS Bottle#: 18

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-161-0/1-0 Lab Sample ID: 180-48399-3  
 Matrix: Water Lab File ID: 51015029.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 09:45  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/15/2015 23:37  
 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.: 157127 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND	^c	1.0	0.23
74-83-9	Bromomethane	ND	^c	1.0	0.31
75-00-3	Chloroethane	ND	^c	1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND	^c	5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	0.26	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	9.3		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	350	E	1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-161-0/1-0 Lab Sample ID: 180-48399-3  
 Matrix: Water Lab File ID: 51015029.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 09:45  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/15/2015 23:37  
 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.: 157127 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		64-135
2037-26-5	Toluene-d8 (Surr)	102		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	96		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015029.D  
 Lims ID: 180-48399-C-3 Lab Sample ID: 180-48399-3  
 Client ID: HD-MW-161-0/1-0  
 Sample Type: Client  
 Inject. Date: 15-Oct-2015 23:37:30 ALS Bottle#: 28 Worklist Smp#: 29  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-48399-C-3  
 Misc. Info.: 180-0009022-029  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 16-Oct-2015 08:34:48 Calib Date: 26-Aug-2015 17:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK003

First Level Reviewer: fergusond

Date: 16-Oct-2015 08:34:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.272	4.273	-0.001	0	141591	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.290	-0.001	98	314610	50.0	
* 3 Chlorobenzene-d5	119	10.392	10.386	0.006	91	73572	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.729	-0.001	97	97674	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.565	6.554	0.011	92	74524	48.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.931	0.005	0	112093	52.8	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.939	-0.001	95	288443	50.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.573	-0.001	86	99803	46.6	
12 Chloromethane	50		1.772				ND	
13 Vinyl chloride	62		1.912				ND	
15 Bromomethane	94		2.241				ND	
16 Chloroethane	64		2.399				ND	
22 1,1-Dichloroethene	96		3.330				ND	
24 Acetone	43		3.439				ND	
26 Carbon disulfide	76		3.640				ND	
31 Methylene Chloride	84		4.139				ND	
33 Acrylonitrile	53		4.522				ND	
34 trans-1,2-Dichloroethene	96		4.559				ND	
35 Methyl tert-butyl ether	73		4.577				ND	
37 1,1-Dichloroethane	63		5.197				ND	
45 cis-1,2-Dichloroethene	96		5.946				ND	
46 2-Butanone (MEK)	43		5.952				ND	
49 Chlorobromomethane	128		6.231				ND	
52 Chloroform	83	6.383	6.377	0.006	92	4228	1.31	M
53 1,1,1-Trichloroethane	97		6.536				ND	
56 Carbon tetrachloride	117		6.718				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.016				ND	
64 Trichloroethene	130	7.679	7.673	0.006	96	87912	46.3	
67 1,2-Dichloropropane	63		7.947				ND	
70 1,4-Dioxane	88		8.026				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.233				ND	
74 cis-1,3-Dichloropropene	75		8.671				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
76 Toluene	91		9.006				ND	
77 trans-1,3-Dichloropropene	75		9.255				ND	
79 1,1,2-Trichloroethane	97		9.444				ND	
80 Tetrachloroethene	164	9.522	9.517	0.005	90	2502065	1769.7	E
82 2-Hexanone	43		9.663				ND	
84 Chlorodibromomethane	129		9.815				ND	
85 Ethylene Dibromide	107		9.930				ND	
87 Chlorobenzene	112		10.417				ND	
89 1,1,1,2-Tetrachloroethane	131		10.514				ND	
90 Ethylbenzene	106		10.520				ND	
91 m-Xylene & p-Xylene	106		10.654				ND	
92 o-Xylene	106		11.031				ND	
93 Styrene	104		11.050				ND	
94 Bromoform	173		11.232				ND	
99 1,1,2,2-Tetrachloroethane	83		11.707				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\_00043

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00043

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015029.D

Injection Date: 15-Oct-2015 23:37:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-48399-C-3

Lab Sample ID: 180-48399-3

Worklist Smp#: 29

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

Purge Vol: 5.000 mL

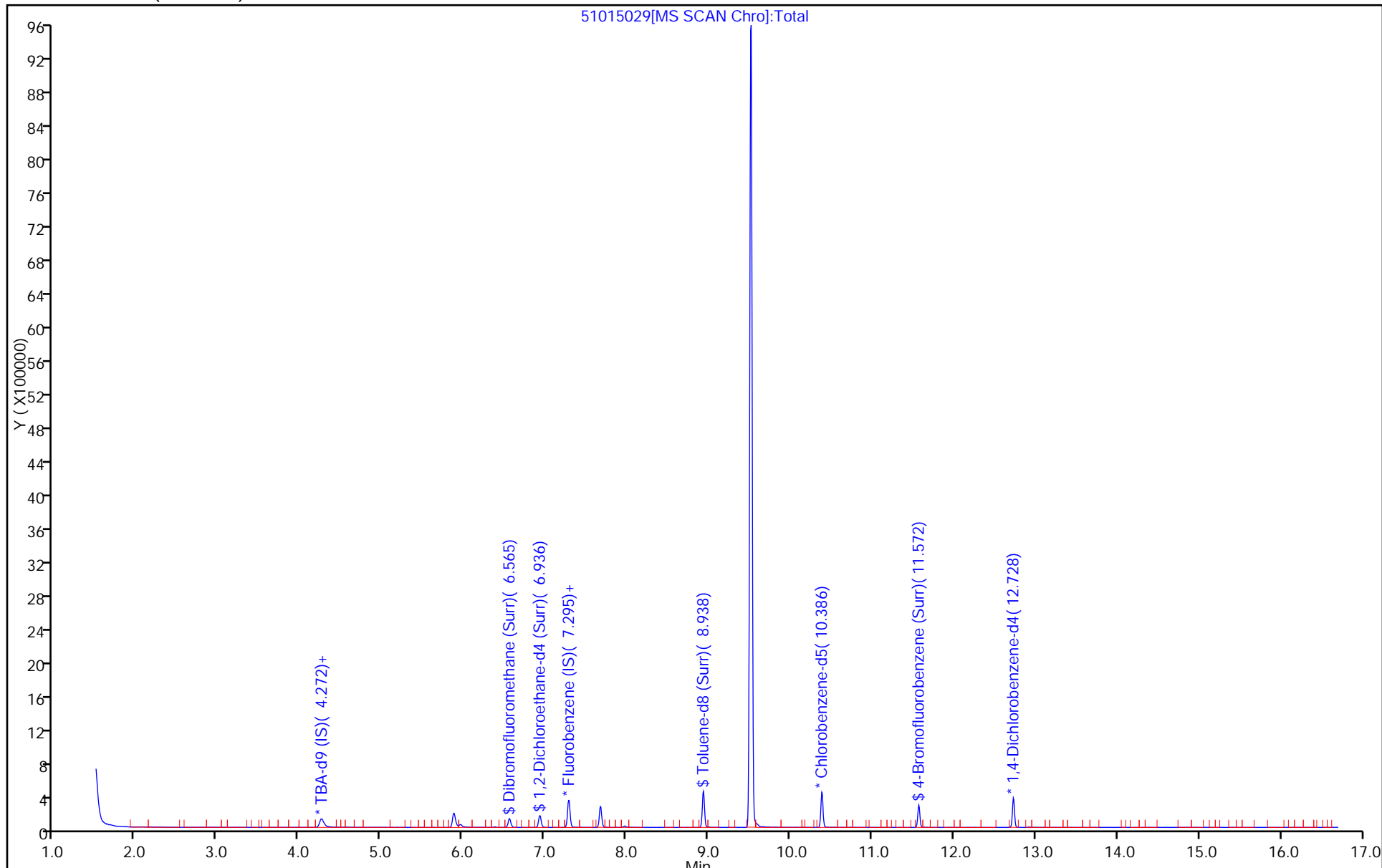
Dil. Factor: 1.0000

ALS Bottle#: 28

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015029.D

Injection Date: 15-Oct-2015 23:37:30

Instrument ID: CHHP5

Lims ID: 180-48399-C-3

Lab Sample ID: 180-48399-3

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

Operator ID: 001562

ALS Bottle#: 28 Worklist Smp#: 29

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

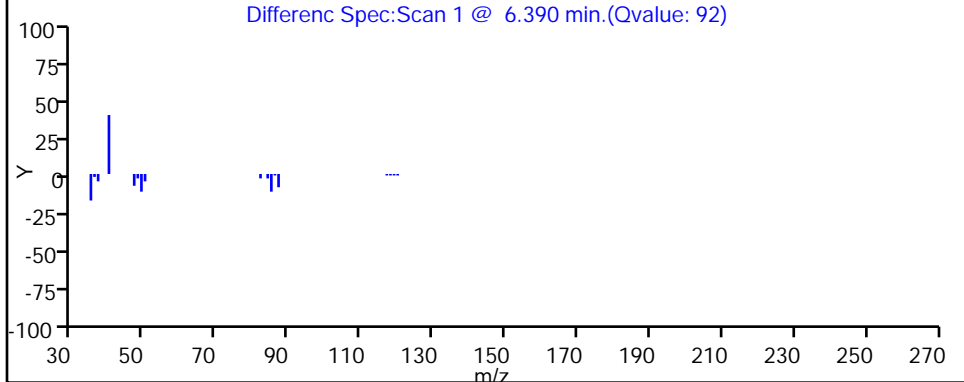
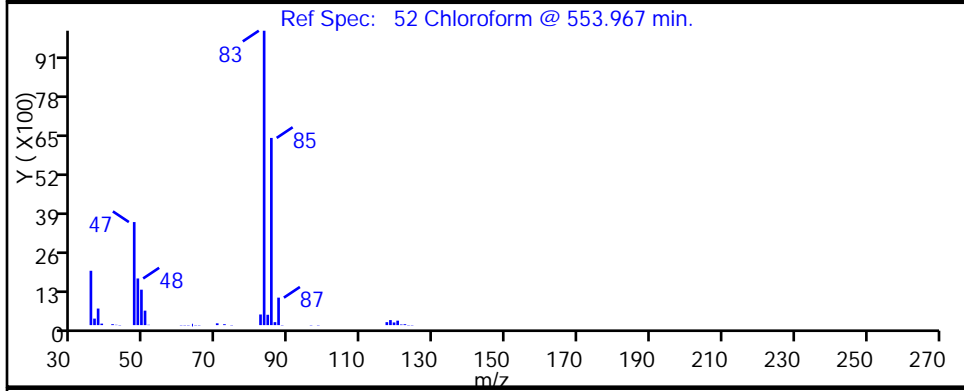
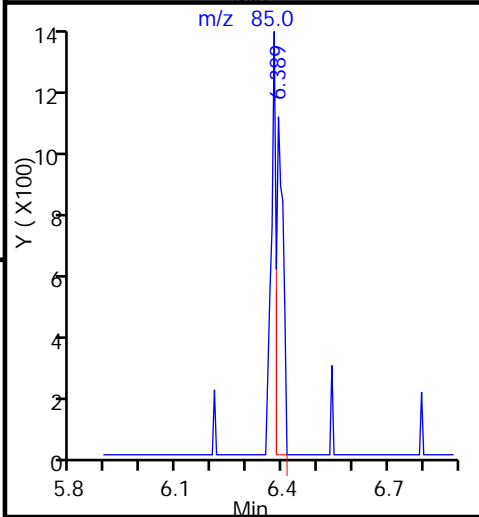
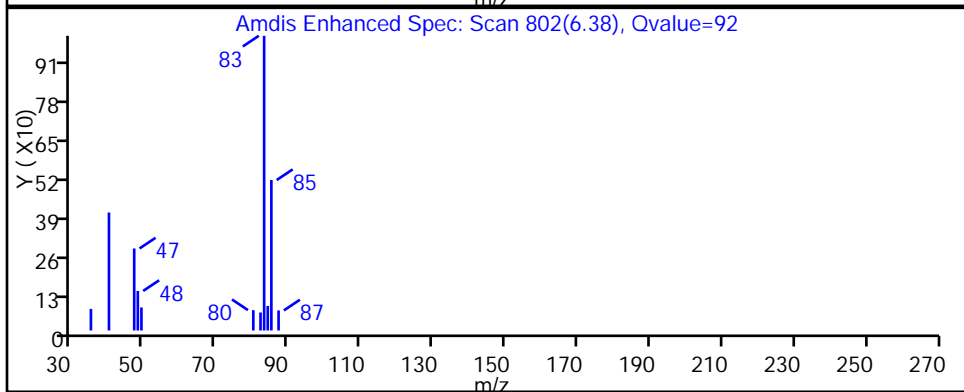
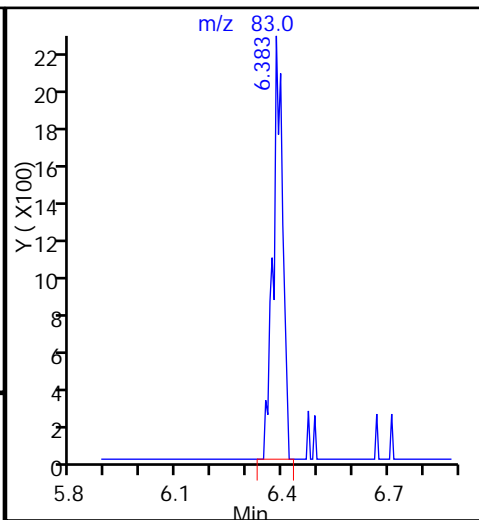
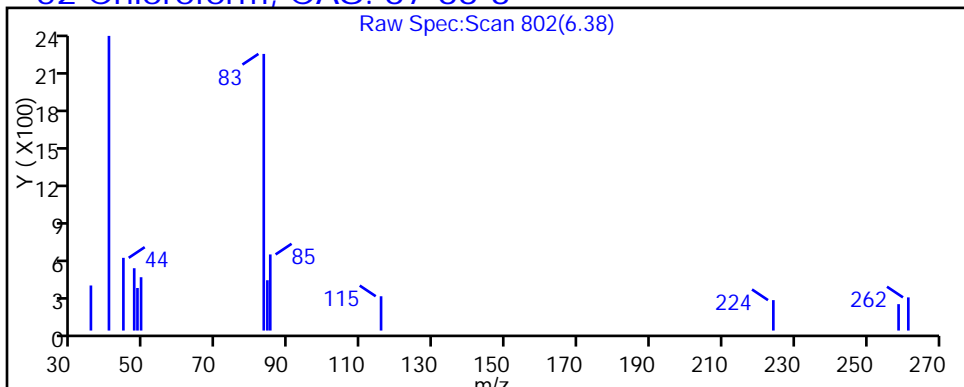
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

52 Chloroform, CAS: 67-66-3





TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015029.D

Injection Date: 15-Oct-2015 23:37:30

Instrument ID: CHHP5

Lims ID: 180-48399-C-3

Lab Sample ID: 180-48399-3

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

Operator ID: 001562

ALS Bottle#: 28

Worklist Smp#: 29

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

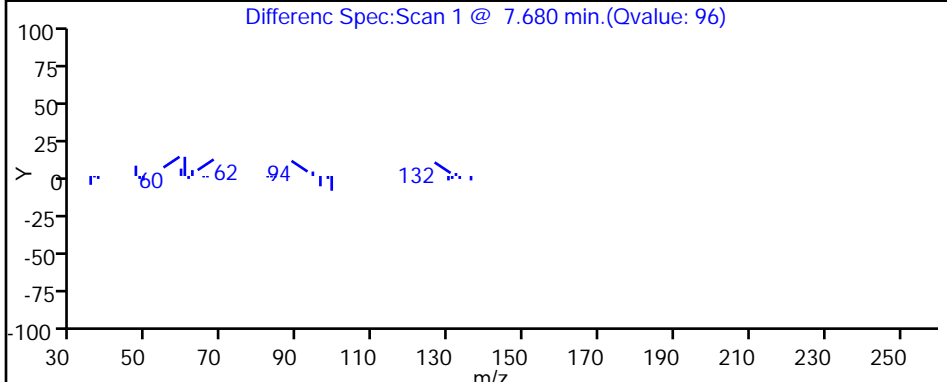
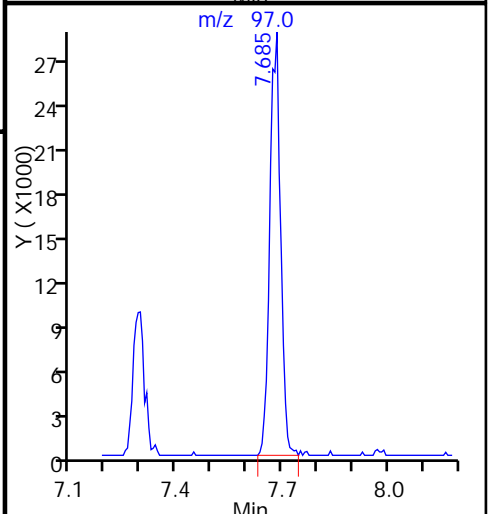
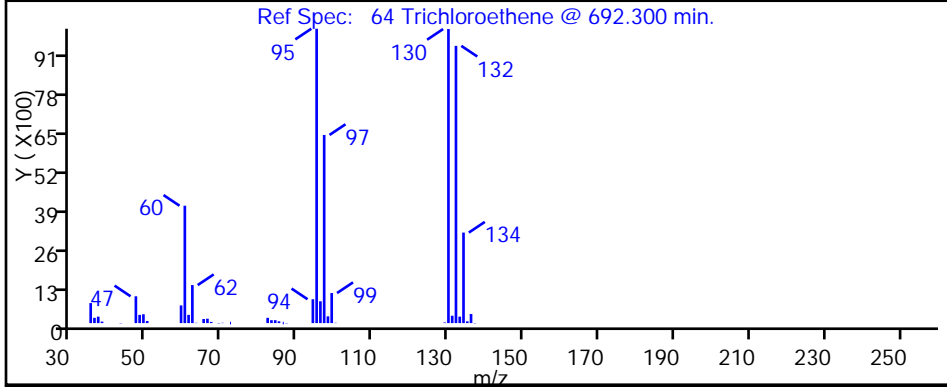
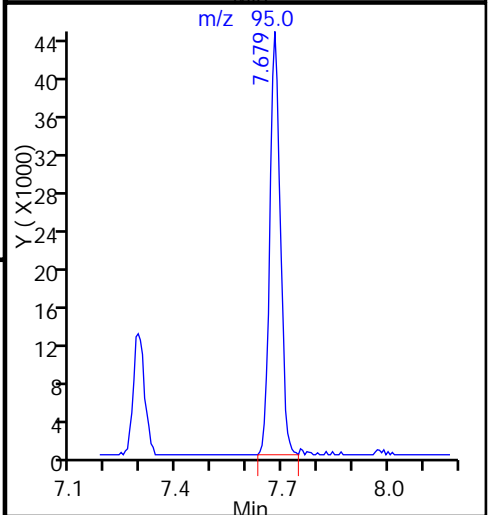
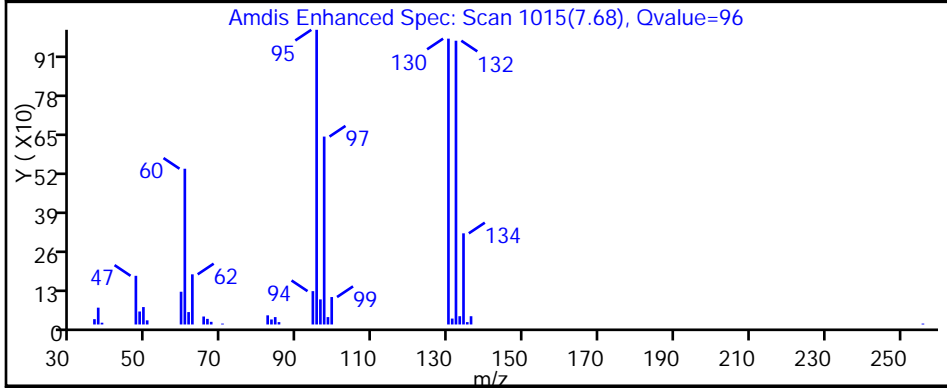
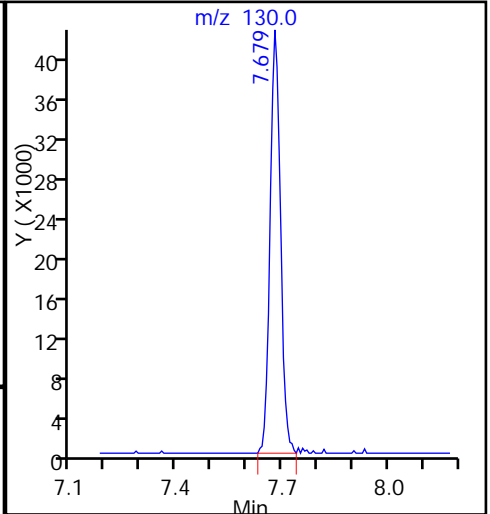
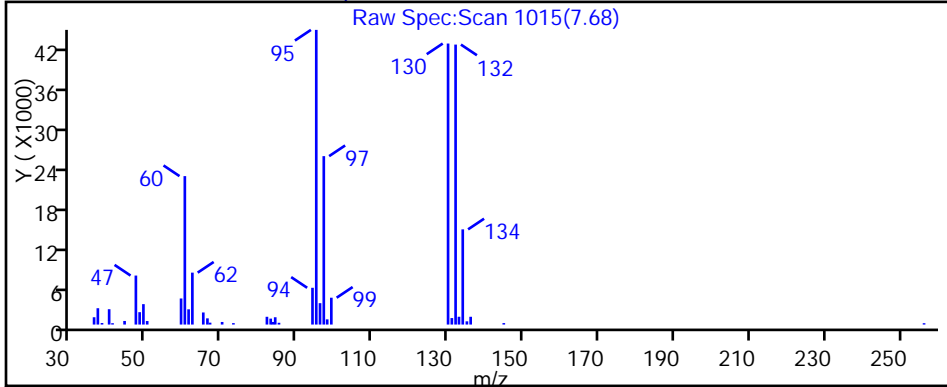
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015029.D

Injection Date: 15-Oct-2015 23:37:30

Instrument ID: CHHP5

Lims ID: 180-48399-C-3

Lab Sample ID: 180-48399-3

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

Operator ID: 001562

ALS Bottle#: 28

Worklist Smp#: 29

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

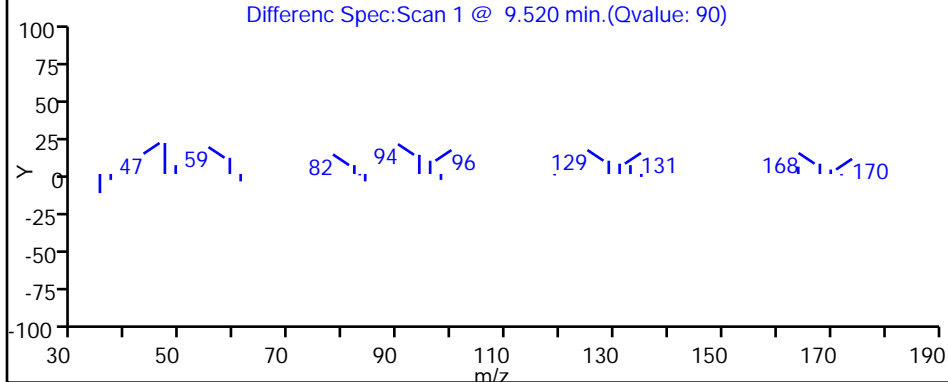
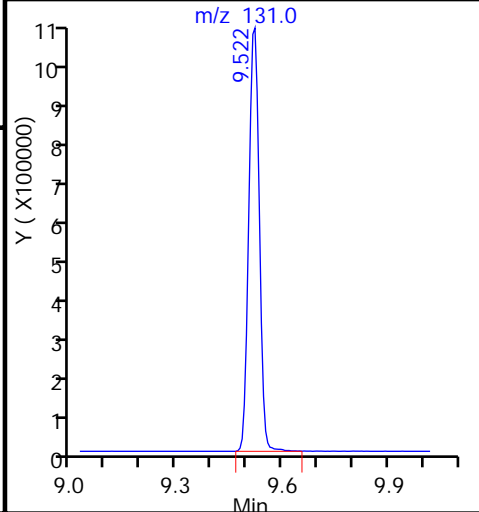
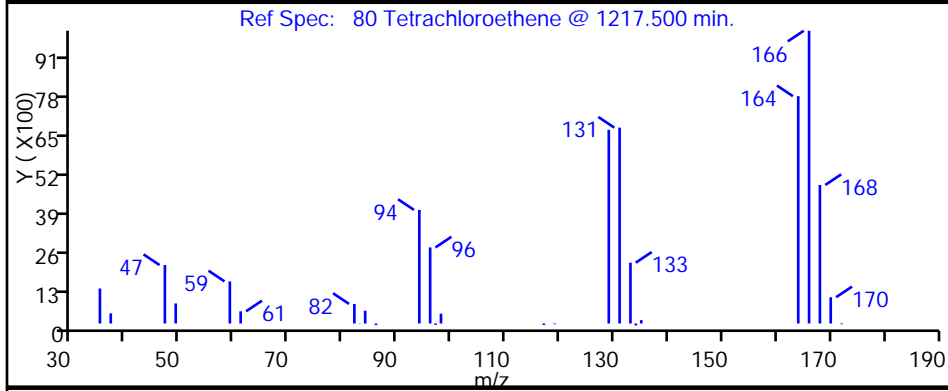
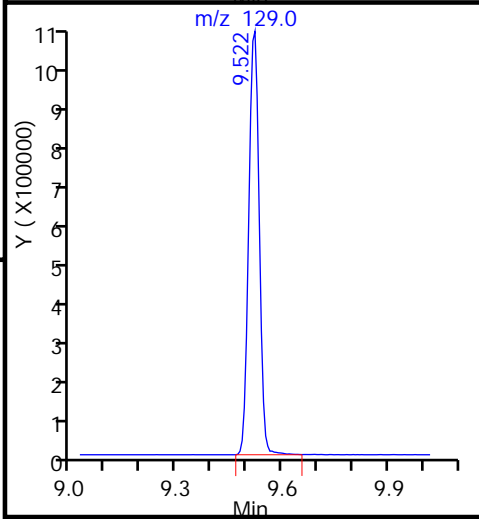
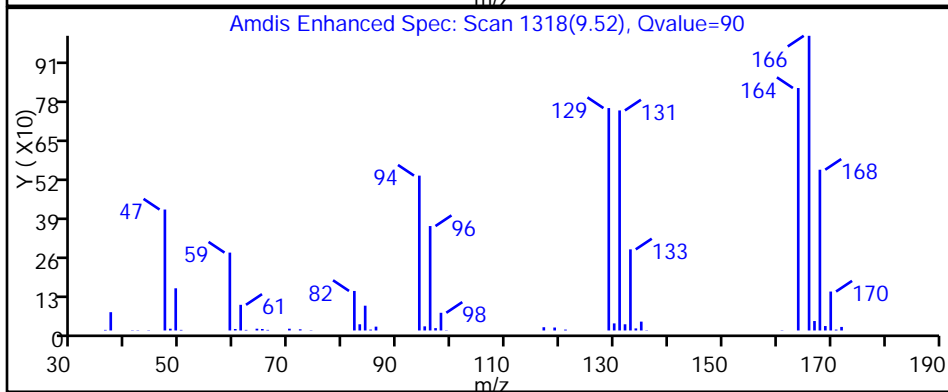
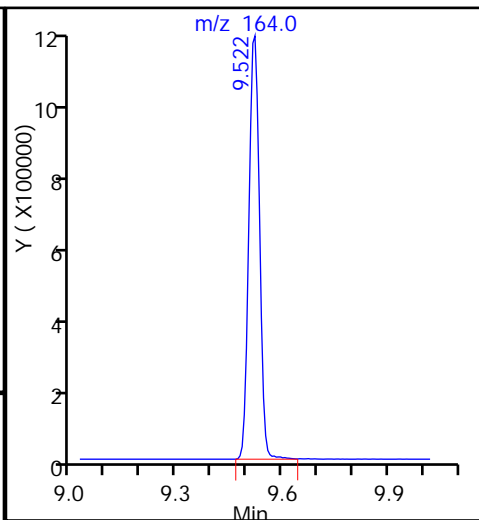
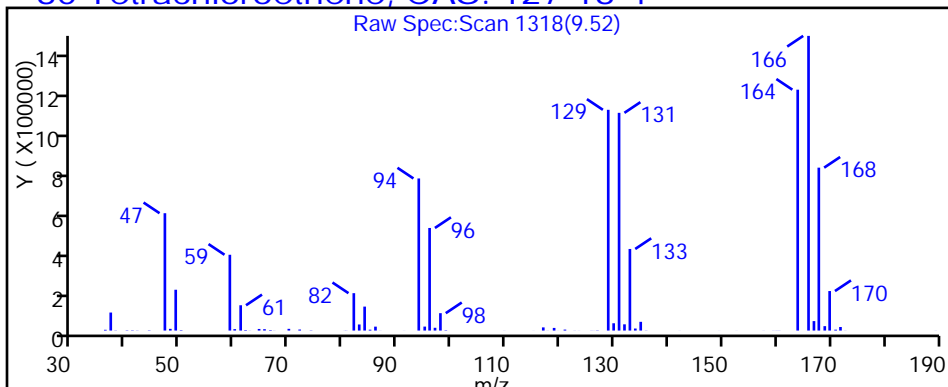
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



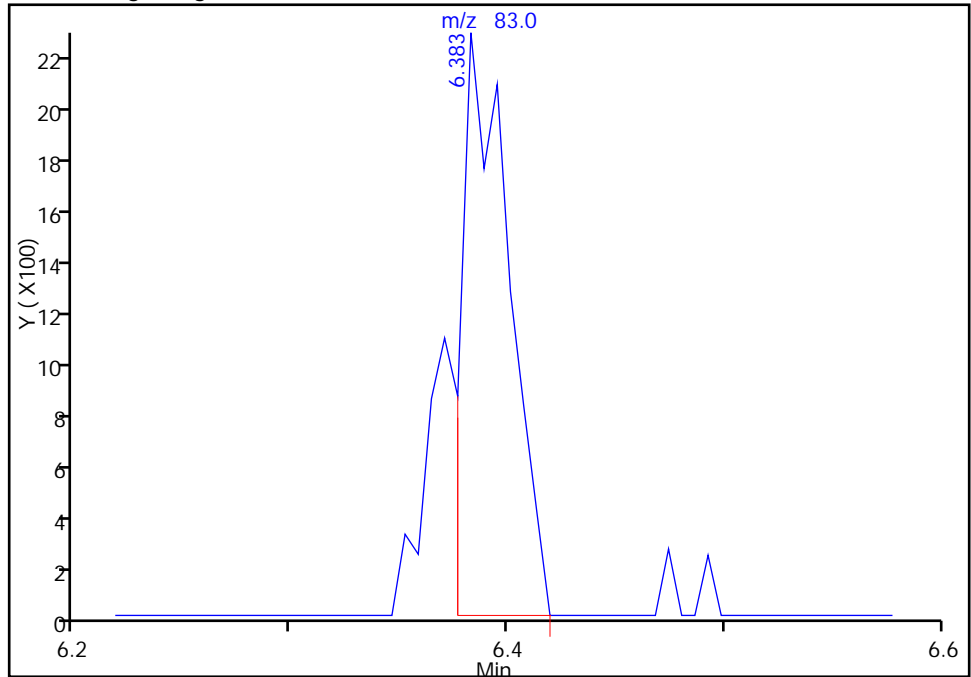
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015029.D  
Injection Date: 15-Oct-2015 23:37:30 Instrument ID: CHHP5  
Lims ID: 180-48399-C-3 Lab Sample ID: 180-48399-3  
Client ID: HD-MW-161-0/1-0  
Operator ID: 001562 ALS Bottle#: 28 Worklist Smp#: 29  
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

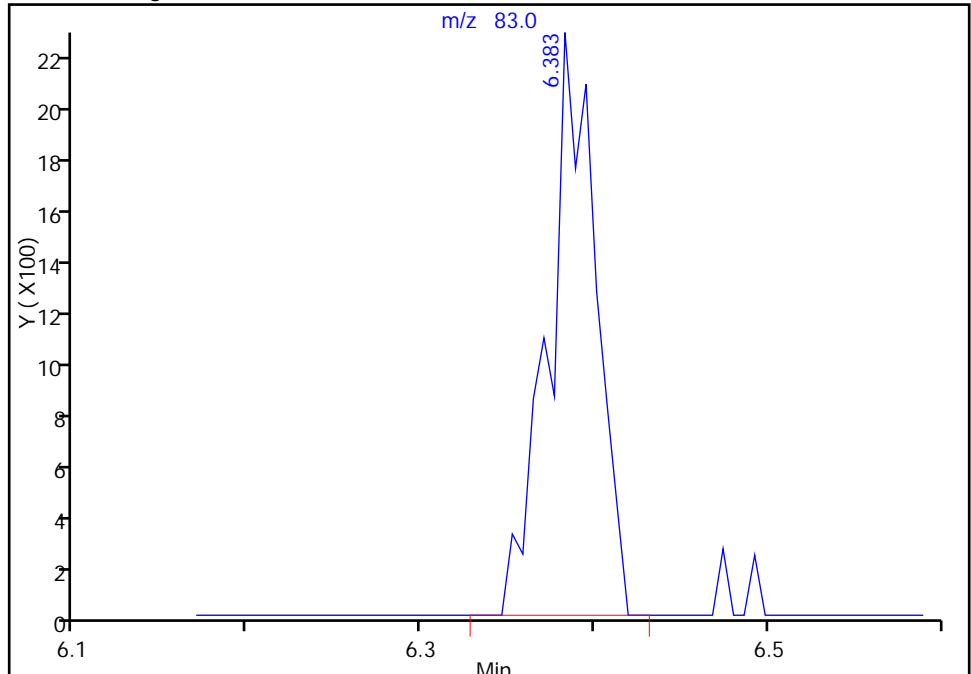
RT: 6.38  
Area: 3348  
Amount: 1.033940  
Amount Units: ng

Processing Integration Results



RT: 6.38  
Area: 4228  
Amount: 1.305705  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 16-Oct-2015 08:34:48  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-161-0/1-0 DL Lab Sample ID: 180-48399-3 DL  
 Matrix: Water Lab File ID: 61013019.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 09:45  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 19:58  
 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.: 156820 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		10	2.8
75-01-4	Vinyl chloride	ND		10	2.3
74-83-9	Bromomethane	ND	^c	10	3.1
75-00-3	Chloroethane	ND	^c	10	2.1
75-35-4	1,1-Dichloroethene	ND		10	3.0
67-64-1	Acetone	ND		50	25
75-15-0	Carbon disulfide	ND		10	2.1
75-09-2	Methylene Chloride	ND		10	1.3
156-60-5	trans-1,2-Dichloroethene	ND		10	1.7
1634-04-4	Methyl tert-butyl ether	ND		10	1.8
75-34-3	1,1-Dichloroethane	ND		10	1.2
156-59-2	cis-1,2-Dichloroethene	ND		10	2.4
74-97-5	Bromochloromethane	ND		10	1.8
78-93-3	2-Butanone (MEK)	ND		50	5.5
67-66-3	Chloroform	ND		10	1.7
71-55-6	1,1,1-Trichloroethane	ND		10	2.9
56-23-5	Carbon tetrachloride	ND		10	1.4
71-43-2	Benzene	ND		10	1.1
107-06-2	1,2-Dichloroethane	ND		10	2.1
79-01-6	Trichloroethene	9.2	J	10	1.4
78-87-5	1,2-Dichloropropane	ND		10	0.95
75-27-4	Bromodichloromethane	ND		10	1.3
10061-01-5	cis-1,3-Dichloropropene	ND		10	1.9
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	5.3
108-88-3	Toluene	ND		10	1.5
10061-02-6	trans-1,3-Dichloropropene	ND		10	1.5
79-00-5	1,1,2-Trichloroethane	ND		10	2.0
127-18-4	Tetrachloroethene	300		10	1.5
591-78-6	2-Hexanone	ND	^c	50	1.6
124-48-1	Dibromochloromethane	ND		10	1.4
106-93-4	1,2-Dibromoethane (EDB)	ND		10	1.8
108-90-7	Chlorobenzene	ND		10	1.4
630-20-6	1,1,1,2-Tetrachloroethane	ND		10	2.8
100-41-4	Ethylbenzene	ND		10	2.3
1330-20-7	Xylenes, Total	ND		30	4.9
100-42-5	Styrene	ND		10	0.97

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-161-0/1-0 DL Lab Sample ID: 180-48399-3 DL  
 Matrix: Water Lab File ID: 61013019.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 09:45  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 19:58  
 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.: 156820 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	79		64-135
2037-26-5	Toluene-d8 (Surr)	106		71-118
460-00-4	4-Bromofluorobenzene (Surr)	96		70-118
1868-53-7	Dibromofluoromethane (Surr)	87		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013019.D  
 Lims ID: 180-48399-A-3 Lab Sample ID: 180-48399-3  
 Client ID: HD-MW-161-0/1-0  
 Sample Type: Client  
 Inject. Date: 13-Oct-2015 19:58:30 ALS Bottle#: 19 Worklist Smp#: 19  
 Purge Vol: 5.000 mL Dil. Factor: 10.0000  
 Sample Info: 180-48399-A-3, 10x  
 Misc. Info.: 180-0008971-019  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Oct-2015 08:07:06 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK037

First Level Reviewer: fergusond

Date: 14-Oct-2015 08:07:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.223	4.242	-0.020	90	180776	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.290	-0.001	98	523863	50.0	
* 3 Chlorobenzene-d5	119	10.397	10.399	-0.002	89	115099	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.745	12.747	-0.002	98	175108	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.559	6.554	0.005	93	104558	43.3	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.931	-0.001	70	153858	39.5	
\$ 7 Toluene-d8 (Surr)	98	8.943	8.945	-0.002	94	483175	53.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.583	11.591	-0.008	82	193521	48.0	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.235				ND	
16 Chloroethane	64		2.387				ND	
22 1,1-Dichloroethene	96		3.342				ND	
24 Acetone	43		3.427				ND	
26 Carbon disulfide	76		3.634				ND	
31 Methylene Chloride	84		4.133				ND	
33 Acrylonitrile	53		4.504				ND	
34 trans-1,2-Dichloroethene	96		4.565				ND	
35 Methyl tert-butyl ether	73		4.577				ND	
37 1,1-Dichloroethane	63		5.203				ND	
43 cis-1,2-Dichloroethene	96		5.939				ND	
44 2-Butanone (MEK)	43		5.952				ND	
48 Chlorobromomethane	128		6.231				ND	
50 Chloroform	83		6.371				ND	
51 1,1,1-Trichloroethane	97		6.542				ND	
53 Carbon tetrachloride	117		6.718				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.672	7.673	-0.001	66	11729	4.61	
64 1,2-Dichloropropane	63		7.953				ND	
65 1,4-Dioxane	88		8.032				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.233				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
73 Toluene	91		9.012				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164	9.527	9.529	-0.002	97	301997	149.1	
79 2-Hexanone	43		9.663				ND	
81 Chlorodibromomethane	129		9.827				ND	
82 Ethylene Dibromide	107		9.936				ND	
84 Chlorobenzene	112		10.429				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.660				ND	
89 o-Xylene	106		11.043				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.713				ND	
S 131 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00043

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00043

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013019.D

Injection Date: 13-Oct-2015 19:58:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-48399-A-3

Lab Sample ID: 180-48399-3

Worklist Smp#: 19

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

Purge Vol: 5.000 mL

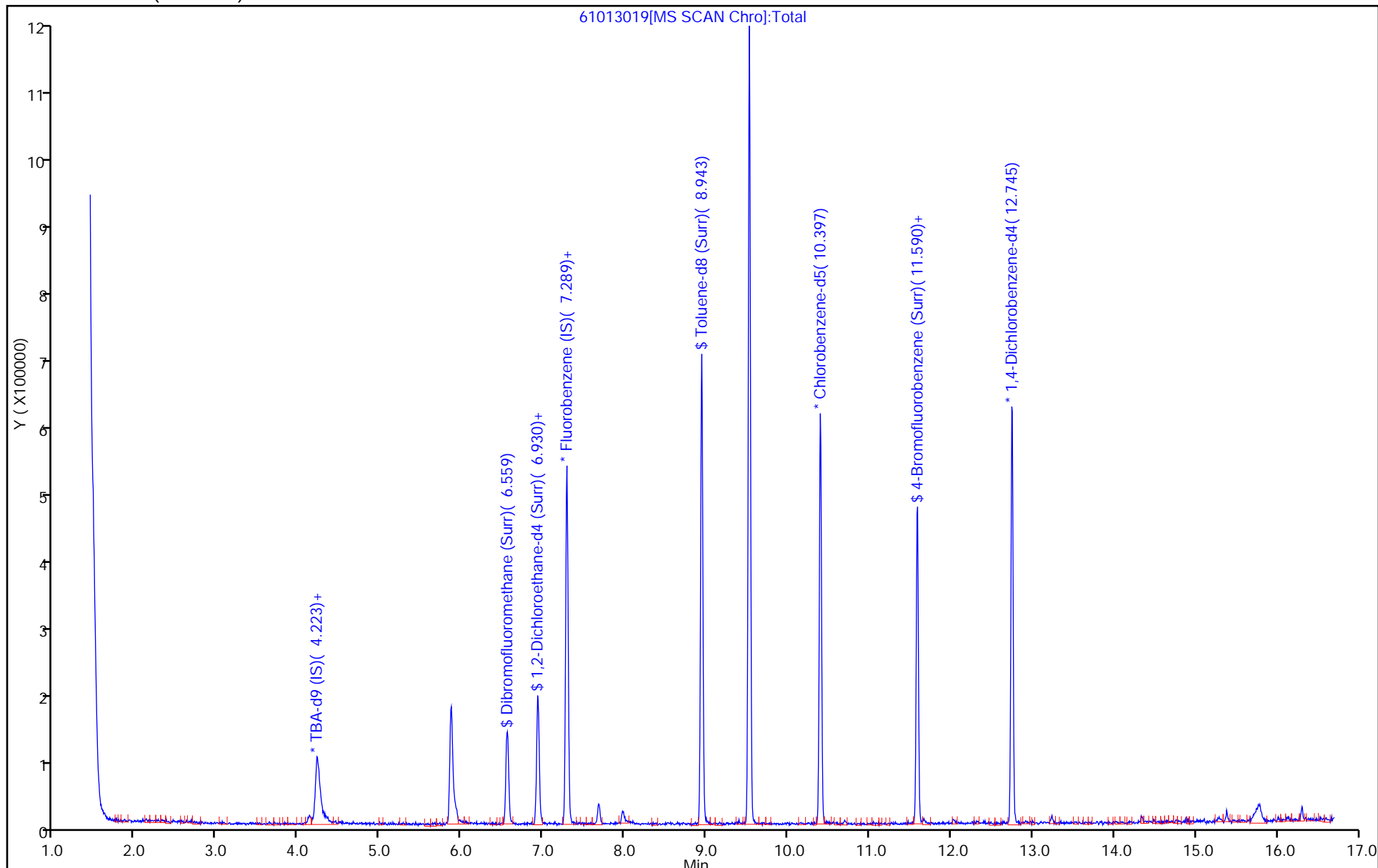
Dil. Factor: 10.0000

ALS Bottle#: 19

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013019.D

Injection Date: 13-Oct-2015 19:58:30

Instrument ID: CHHP6

Lims ID: 180-48399-A-3

Lab Sample ID: 180-48399-3

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

Operator ID: 001562

ALS Bottle#: 19 Worklist Smp#: 19

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

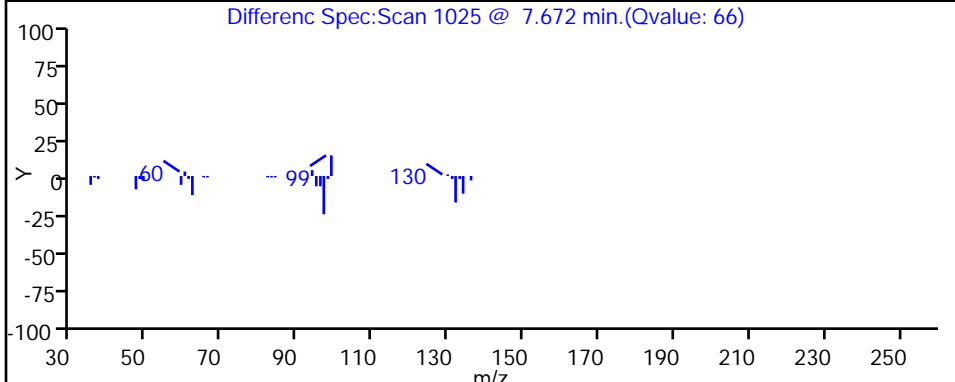
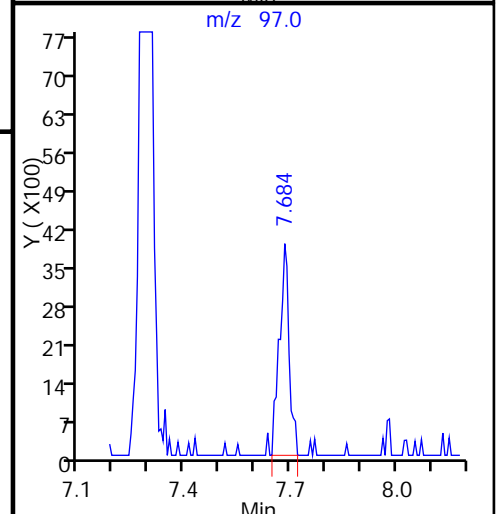
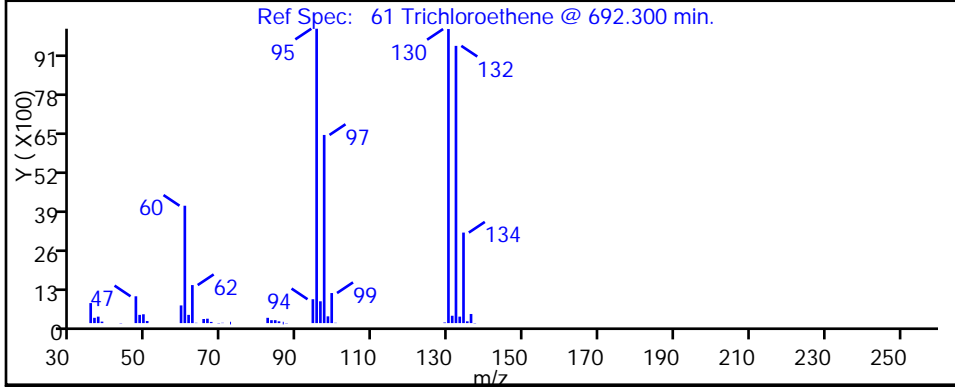
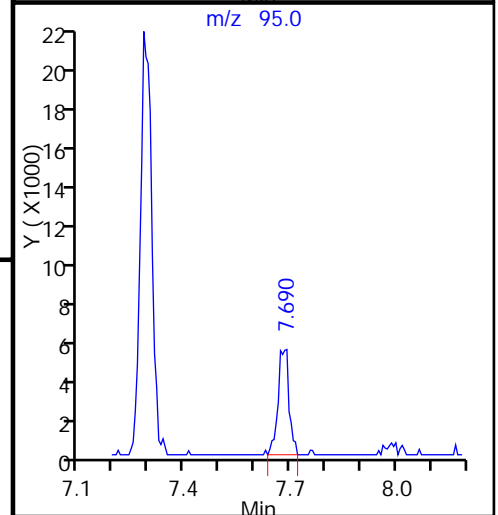
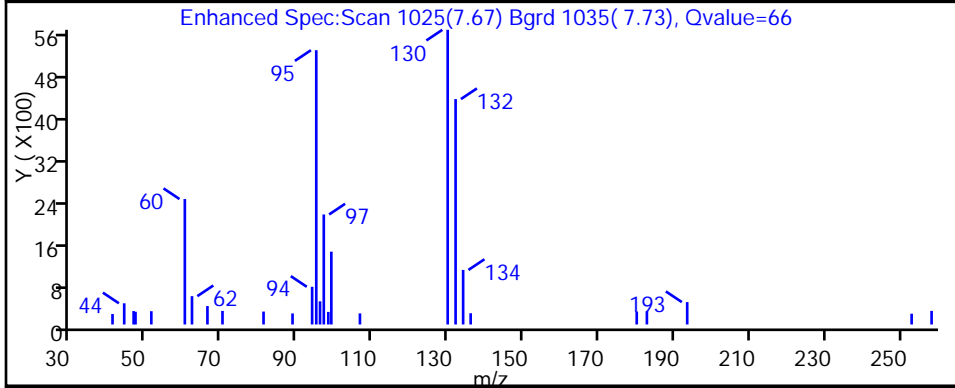
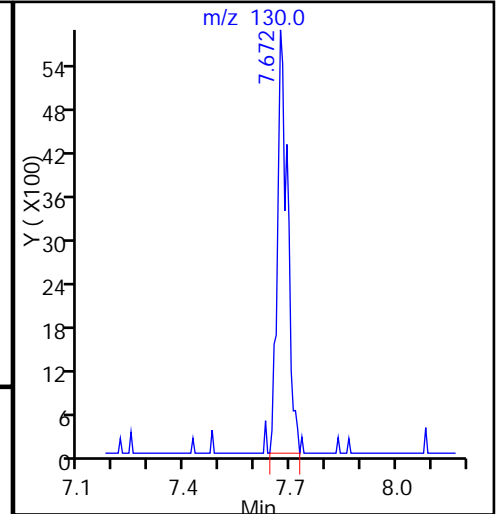
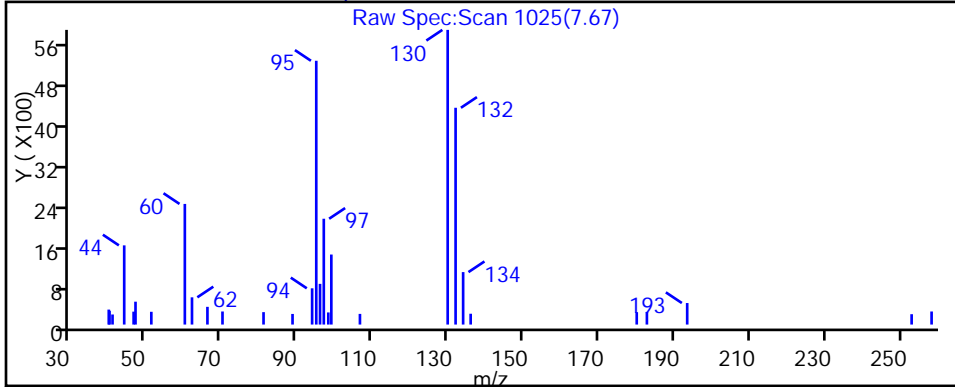
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

61 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013019.D

Injection Date: 13-Oct-2015 19:58:30

Instrument ID: CHHP6

Lims ID: 180-48399-A-3

Lab Sample ID: 180-48399-3

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

Operator ID: 001562

ALS Bottle#: 19 Worklist Smp#: 19

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

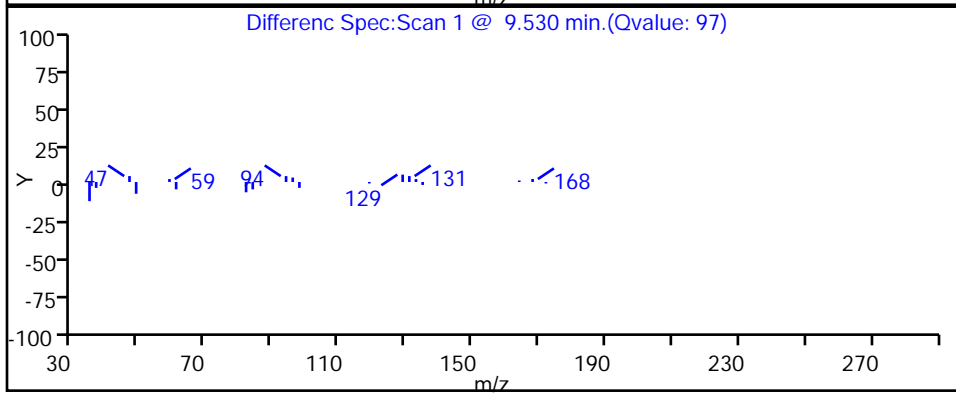
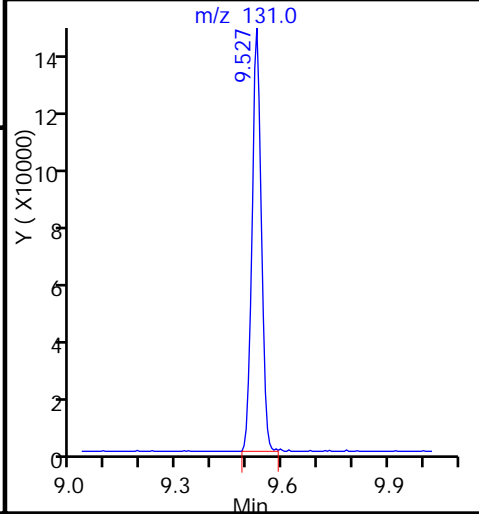
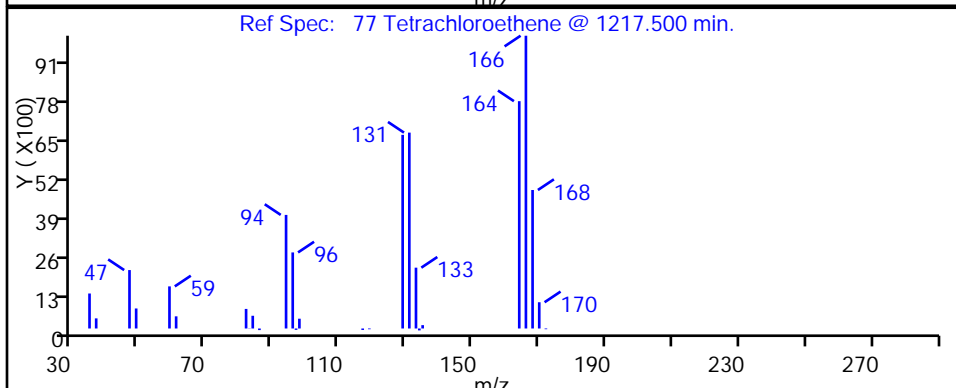
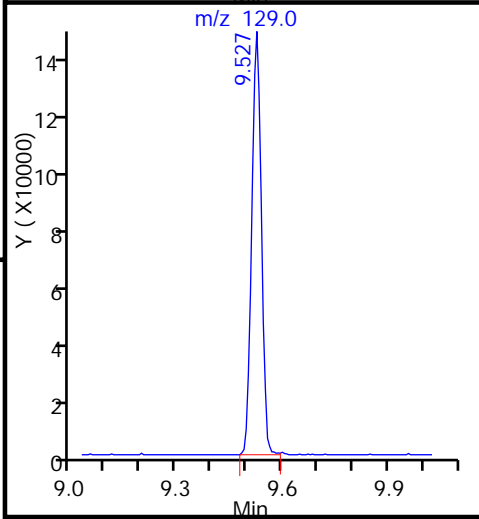
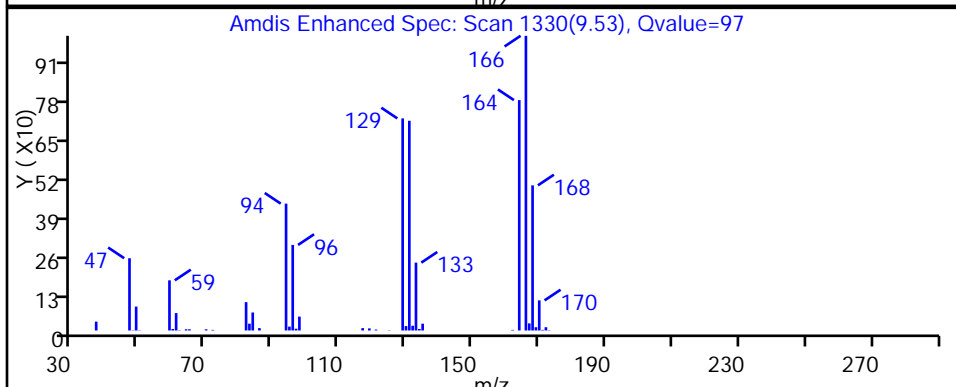
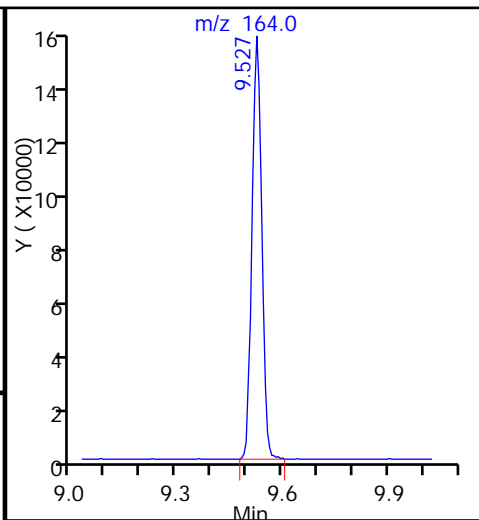
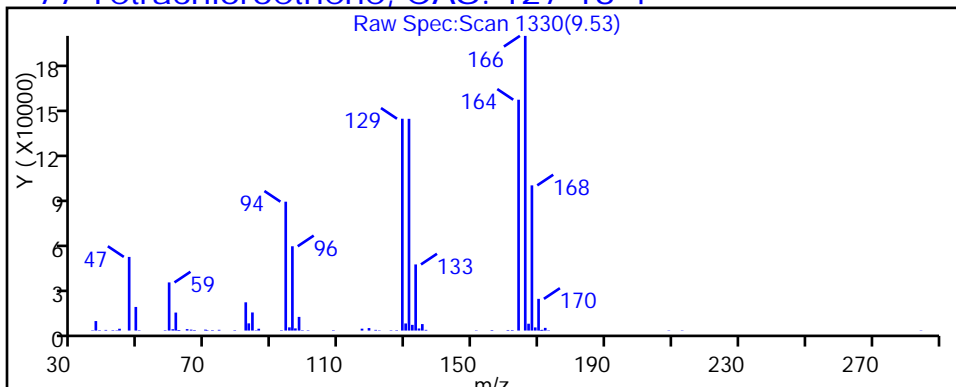
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

77 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-163-0/1-0 Lab Sample ID: 180-48399-4  
 Matrix: Water Lab File ID: 61013020.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 12:30  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 20:22  
 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.: 156820 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND	^c	1.0	0.31
75-00-3	Chloroethane	ND	^c	1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	0.20	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	2.7		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	44		1.0	0.15
591-78-6	2-Hexanone	ND	^c	5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-163-0/1-0 Lab Sample ID: 180-48399-4  
 Matrix: Water Lab File ID: 61013020.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 12:30  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 20:22  
 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.: 156820 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	82		64-135
2037-26-5	Toluene-d8 (Surr)	107		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	87		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013020.D  
 Lims ID: 180-48399-A-4 Lab Sample ID: 180-48399-4  
 Client ID: HD-MW-163-0/1-0  
 Sample Type: Client  
 Inject. Date: 13-Oct-2015 20:22:30 ALS Bottle#: 20 Worklist Smp#: 20  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-48399-A-4  
 Misc. Info.: 180-0008971-020  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Oct-2015 08:08:01 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK037

First Level Reviewer: fergusond

Date: 14-Oct-2015 08:08:01

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.226	4.242	-0.016	88	170915	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.290	0.002	98	513821	50.0	
* 3 Chlorobenzene-d5	119	10.401	10.399	0.002	89	113676	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.749	12.747	0.002	98	165216	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.556	6.554	0.002	92	103064	43.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.939	6.931	0.008	70	156260	40.9	
\$ 7 Toluene-d8 (Surr)	98	8.941	8.945	-0.005	93	479450	53.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.587	11.591	-0.004	84	185565	46.6	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.235				ND	
16 Chloroethane	64		2.387				ND	
22 1,1-Dichloroethene	96		3.342				ND	
24 Acetone	43		3.427				ND	
26 Carbon disulfide	76		3.634				ND	
31 Methylene Chloride	84		4.133				ND	
33 Acrylonitrile	53		4.504				ND	
34 trans-1,2-Dichloroethene	96		4.565				ND	
35 Methyl tert-butyl ether	73		4.577				ND	
37 1,1-Dichloroethane	63		5.203				ND	
43 cis-1,2-Dichloroethene	96		5.939				ND	
44 2-Butanone (MEK)	43		5.952				ND	
48 Chlorobromomethane	128		6.231				ND	
50 Chloroform	83	6.379	6.371	0.008	54	5299	1.00	
51 1,1,1-Trichloroethane	97		6.542				ND	
53 Carbon tetrachloride	117		6.718				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.681	7.673	0.008	96	34194	13.7	
64 1,2-Dichloropropane	63		7.953				ND	
65 1,4-Dioxane	88		8.032				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.233				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
73 Toluene	91		9.012				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164	9.525	9.529	-0.005	96	444240	222.0	
79 2-Hexanone	43		9.663				ND	
81 Chlorodibromomethane	129		9.827				ND	
82 Ethylene Dibromide	107		9.936				ND	
84 Chlorobenzene	112		10.429				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.660				ND	
89 o-Xylene	106		11.043				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.713				ND	
S 131 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00043

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00043

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013020.D

Injection Date: 13-Oct-2015 20:22:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-48399-A-4

Lab Sample ID: 180-48399-4

Worklist Smp#: 20

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

Purge Vol: 5.000 mL

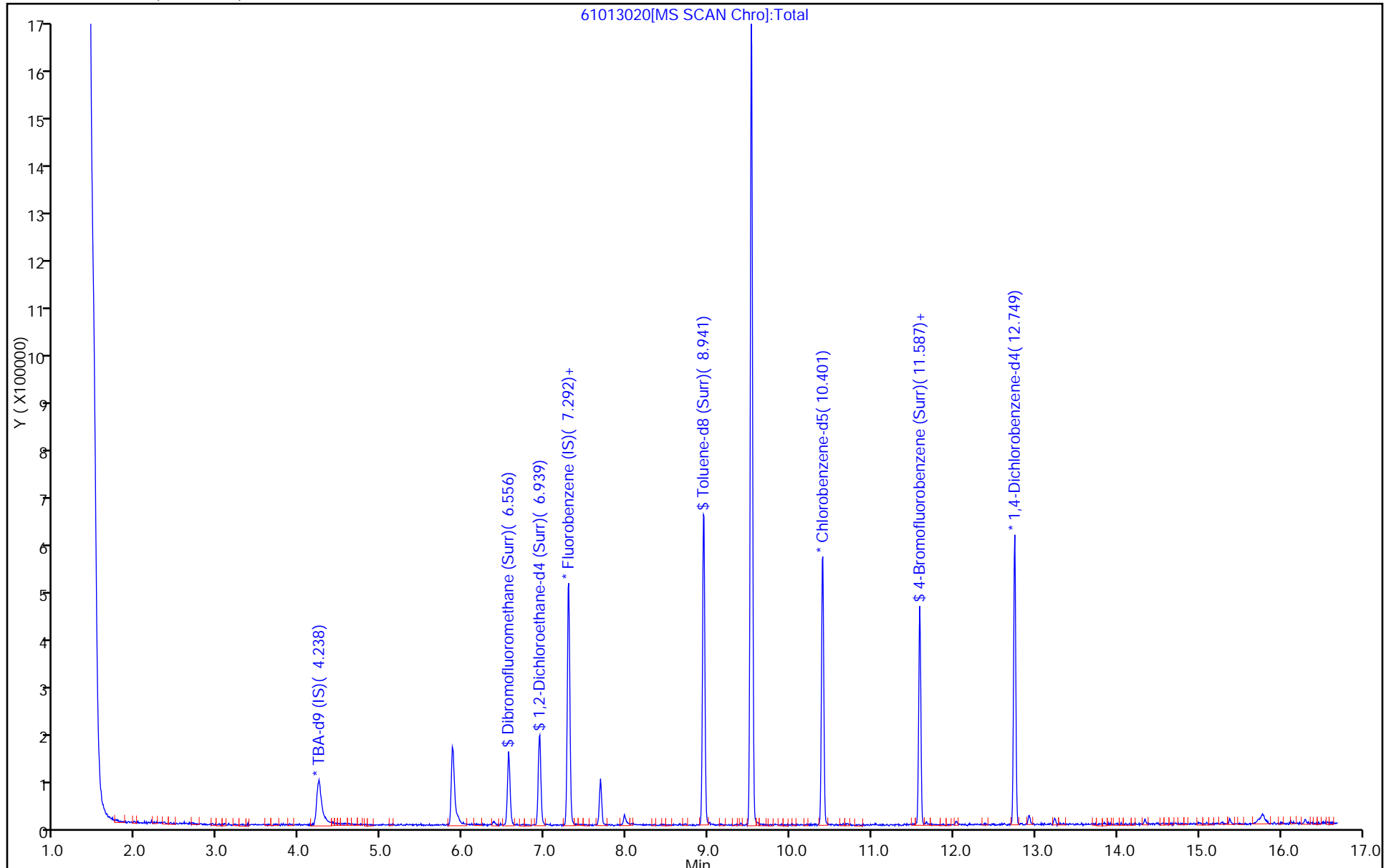
Dil. Factor: 1.0000

ALS Bottle#: 20

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013020.D

Injection Date: 13-Oct-2015 20:22:30

Instrument ID: CHHP6

Lims ID: 180-48399-A-4

Lab Sample ID: 180-48399-4

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

Operator ID: 001562

ALS Bottle#: 20 Worklist Smp#: 20

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

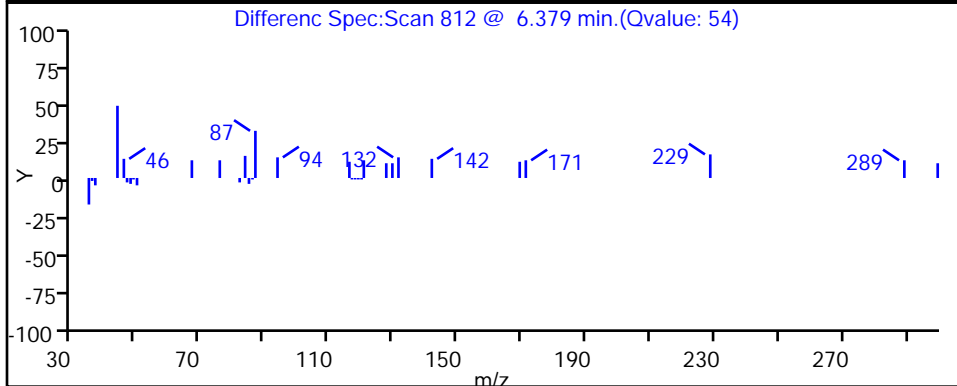
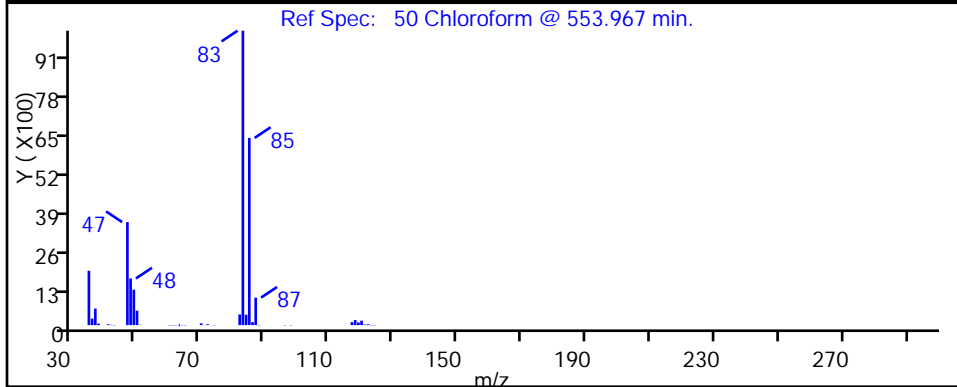
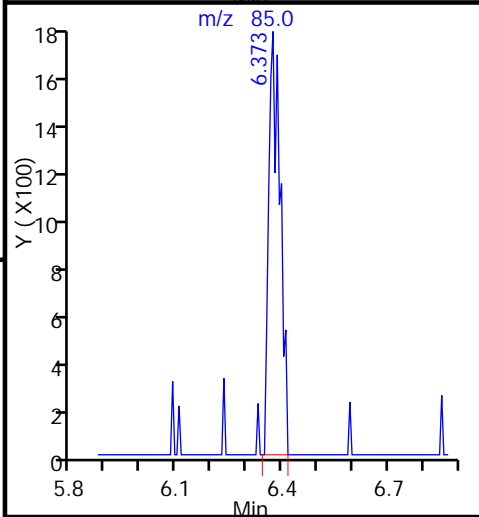
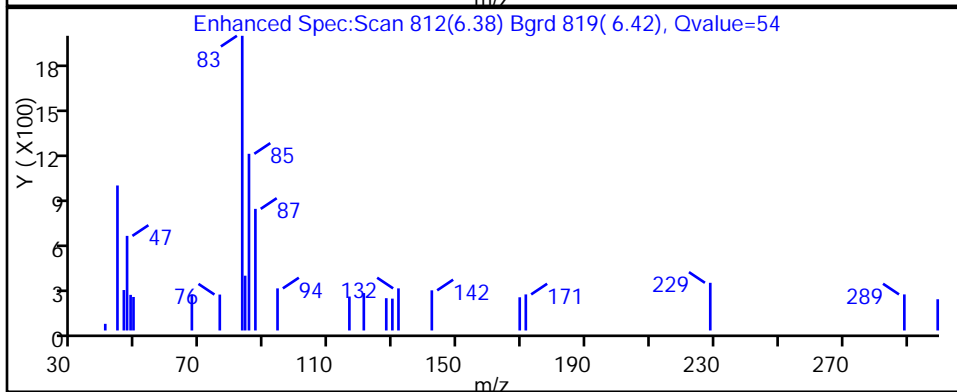
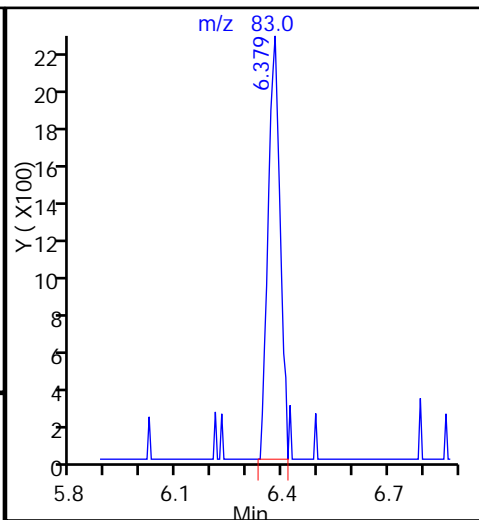
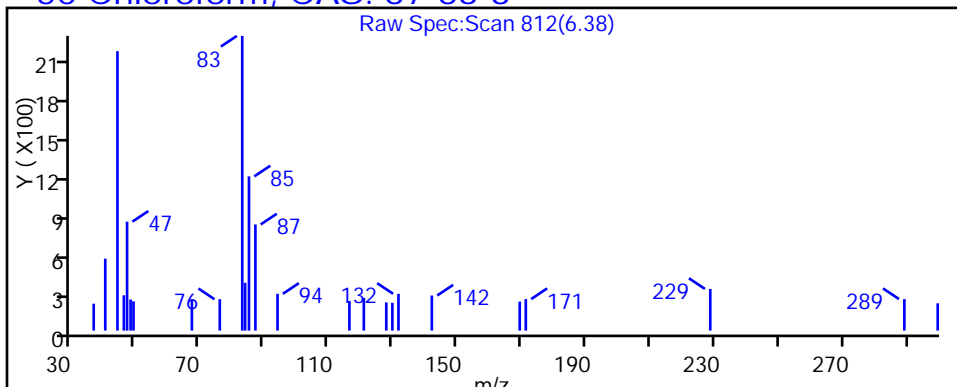
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

50 Chloroform, CAS: 67-66-3





TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013020.D

Injection Date: 13-Oct-2015 20:22:30

Instrument ID: CHHP6

Lims ID: 180-48399-A-4

Lab Sample ID: 180-48399-4

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

Operator ID: 001562

ALS Bottle#: 20

Worklist Smp#: 20

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

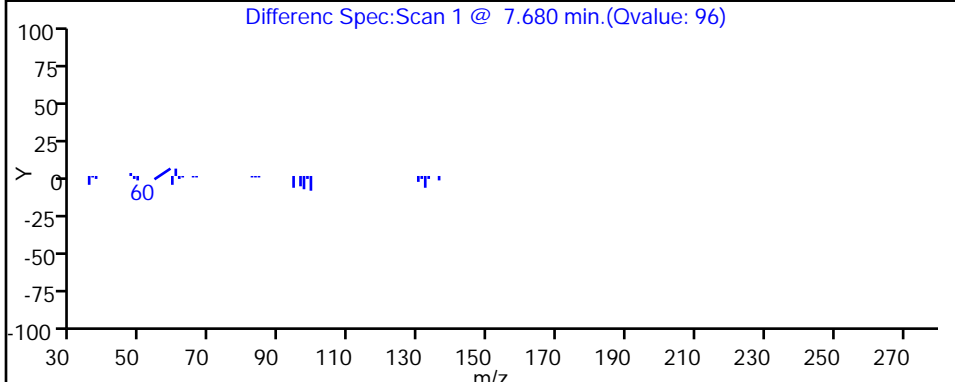
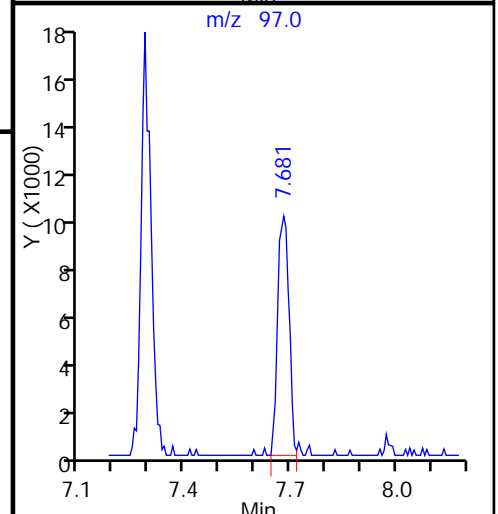
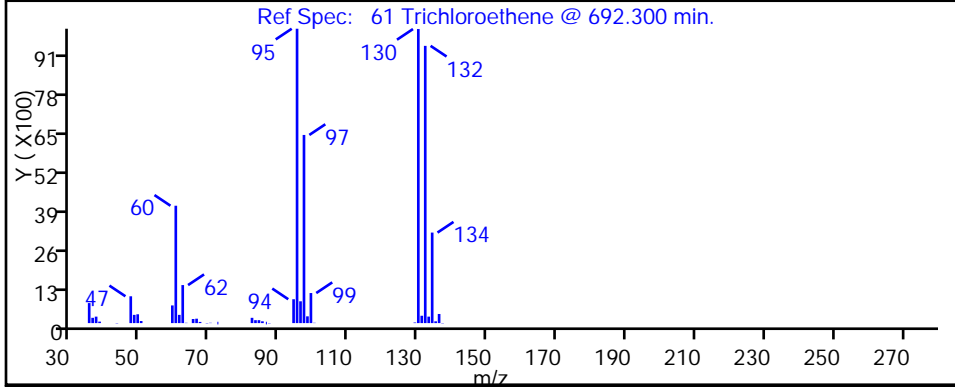
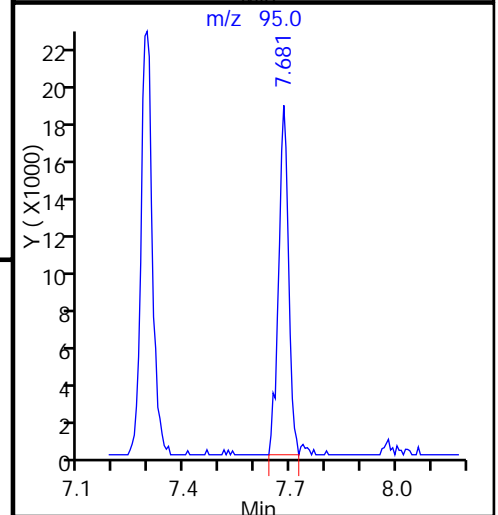
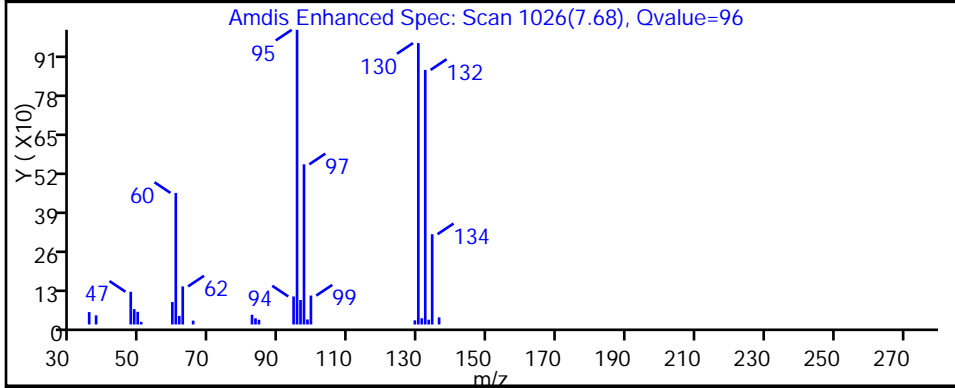
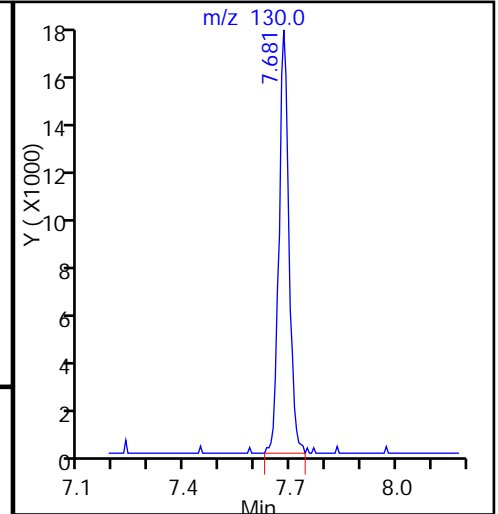
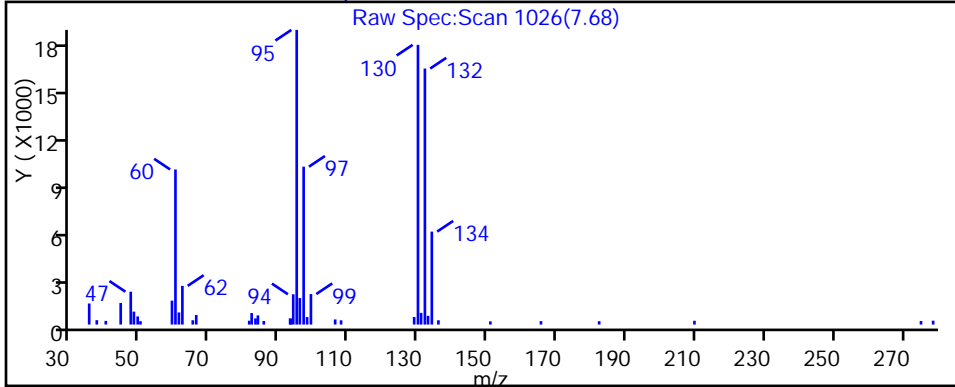
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

61 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013020.D

Injection Date: 13-Oct-2015 20:22:30

Instrument ID: CHHP6

Lims ID: 180-48399-A-4

Lab Sample ID: 180-48399-4

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

Operator ID: 001562

ALS Bottle#: 20

Worklist Smp#: 20

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

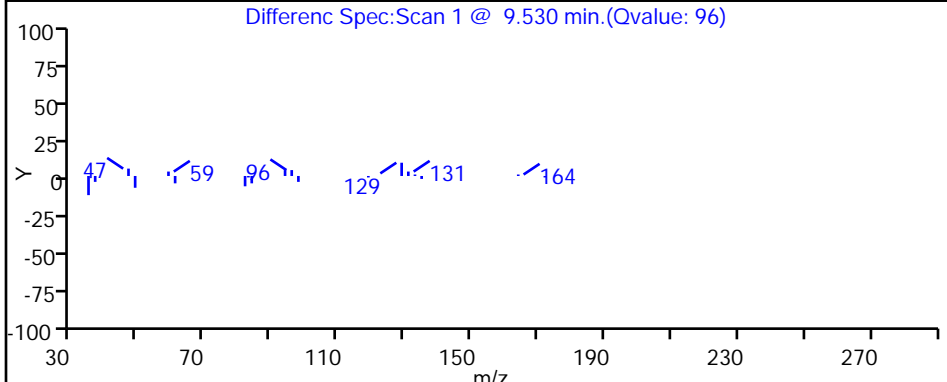
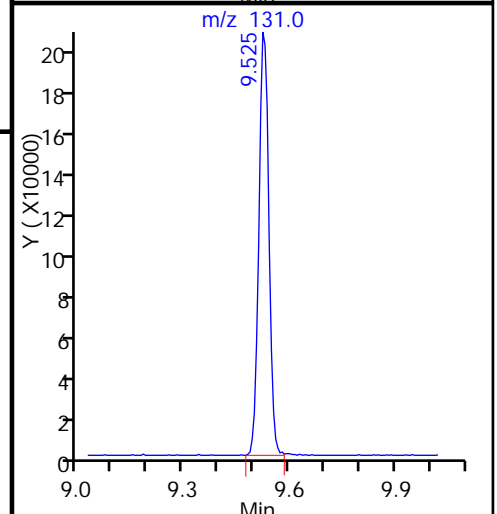
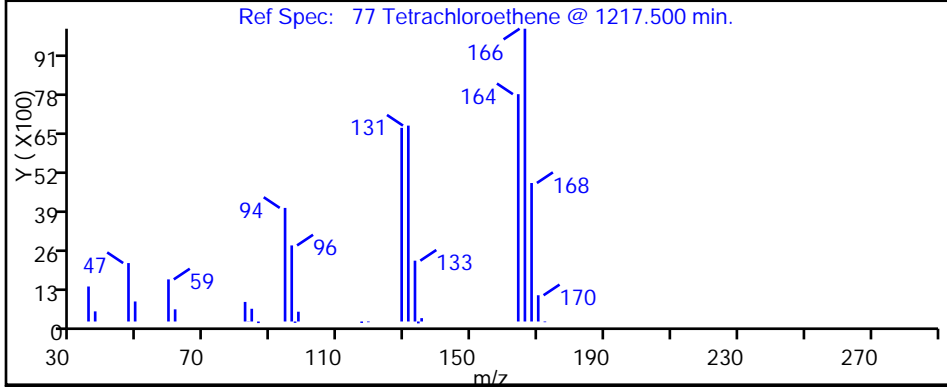
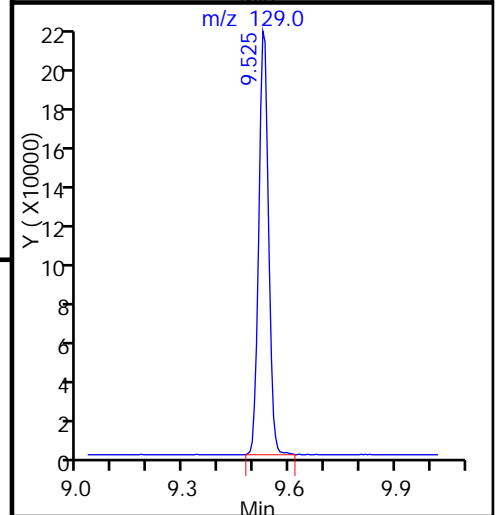
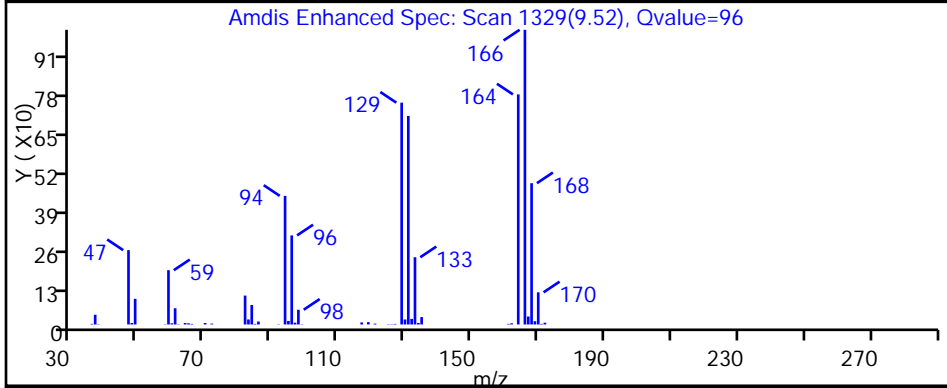
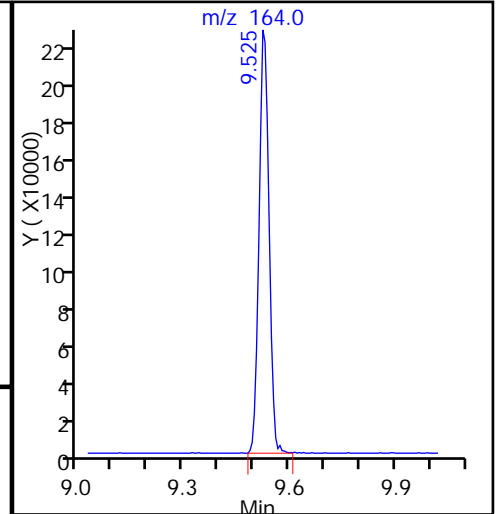
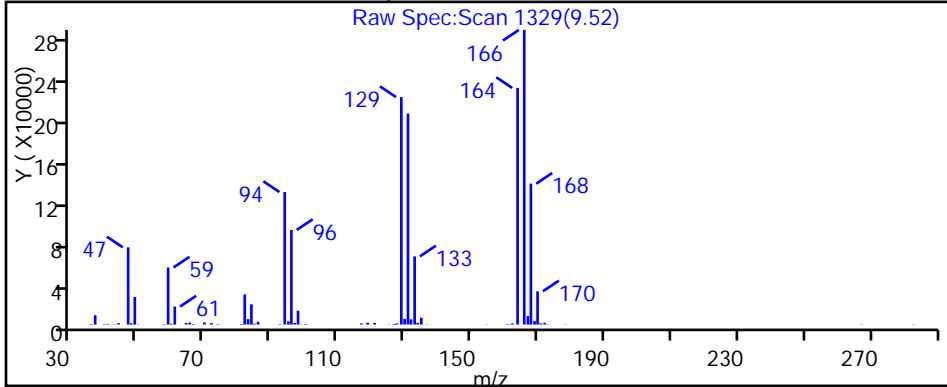
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

77 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-166-0/1-0 Lab Sample ID: 180-48399-5  
 Matrix: Water Lab File ID: 61013022.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 11:55  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 21:11  
 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.: 156820 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND	^c	1.0	0.31
75-00-3	Chloroethane	ND	^c	1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	0.86	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	1.2		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	1.0		1.0	0.15
591-78-6	2-Hexanone	ND	^c	5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-166-0/1-0 Lab Sample ID: 180-48399-5  
 Matrix: Water Lab File ID: 61013022.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 11:55  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 21:11  
 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.: 156820 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	77		64-135
2037-26-5	Toluene-d8 (Surr)	108		71-118
460-00-4	4-Bromofluorobenzene (Surr)	94		70-118
1868-53-7	Dibromofluoromethane (Surr)	86		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013022.D  
 Lims ID: 180-48399-A-5 Lab Sample ID: 180-48399-5  
 Client ID: HD-MW-166-0/1-0  
 Sample Type: Client  
 Inject. Date: 13-Oct-2015 21:11:30 ALS Bottle#: 22 Worklist Smp#: 22  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-48399-A-5  
 Misc. Info.: 180-0008971-022  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Oct-2015 08:10:25 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK037

First Level Reviewer: fergusond

Date: 14-Oct-2015 08:10:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.237	4.242	-0.005	91	161601	1000.0	
* 2 Fluorobenzene (IS)	96	7.285	7.290	-0.005	98	523769	50.0	
* 3 Chlorobenzene-d5	119	10.400	10.399	0.001	90	116436	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.748	12.747	0.001	98	171792	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.561	6.554	0.007	94	103378	42.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.932	6.931	0.001	68	150284	38.6	
\$ 7 Toluene-d8 (Surr)	98	8.946	8.945	0.001	94	497707	54.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.586	11.591	-0.005	83	191532	47.0	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.235				ND	
16 Chloroethane	64		2.387				ND	
22 1,1-Dichloroethene	96		3.342				ND	
24 Acetone	43		3.427				ND	
26 Carbon disulfide	76		3.634				ND	
31 Methylene Chloride	84		4.133				ND	
33 Acrylonitrile	53		4.504				ND	
34 trans-1,2-Dichloroethene	96		4.565				ND	
35 Methyl tert-butyl ether	73	4.578	4.577	0.001	20	1849	0.2028	
37 1,1-Dichloroethane	63		5.203				ND	
43 cis-1,2-Dichloroethene	96		5.939				ND	
44 2-Butanone (MEK)	43		5.952				ND	
48 Chlorobromomethane	128		6.231				ND	
50 Chloroform	83	6.372	6.371	0.001	92	23164	4.28	
51 1,1,1-Trichloroethane	97		6.542				ND	
53 Carbon tetrachloride	117		6.718				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.680	7.673	0.007	93	14700	5.77	
64 1,2-Dichloropropane	63		7.953				ND	
65 1,4-Dioxane	88		8.032				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.233				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
73 Toluene	91		9.012				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164	9.530	9.529	0.001	97	10233	4.99	
79 2-Hexanone	43		9.663				ND	
81 Chlorodibromomethane	129		9.827				ND	
82 Ethylene Dibromide	107		9.936				ND	
84 Chlorobenzene	112		10.429				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.660				ND	
89 o-Xylene	106		11.043				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.713				ND	
S 131 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00043

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00043

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013022.D

Injection Date: 13-Oct-2015 21:11:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-48399-A-5

Lab Sample ID: 180-48399-5

Worklist Smp#: 22

Client ID: HD-MW-166-0/1-0

Purge Vol: 5.000 mL

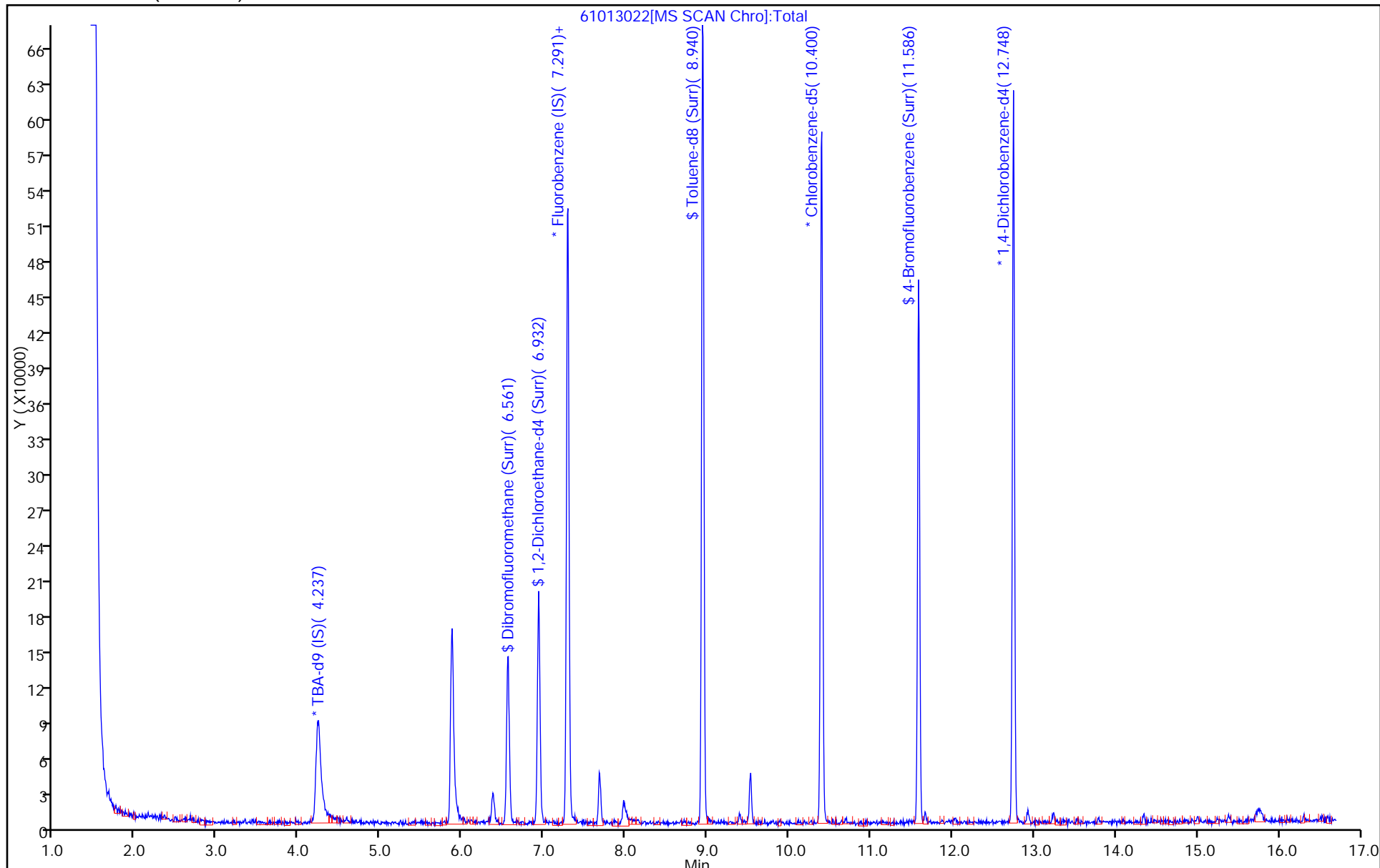
Dil. Factor: 1.0000

ALS Bottle#: 22

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013022.D

Injection Date: 13-Oct-2015 21:11:30

Instrument ID: CHHP6

Lims ID: 180-48399-A-5

Lab Sample ID: 180-48399-5

Client ID: HD-MW-166-0/1-0

Operator ID: 001562

ALS Bottle#: 22 Worklist Smp#: 22

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

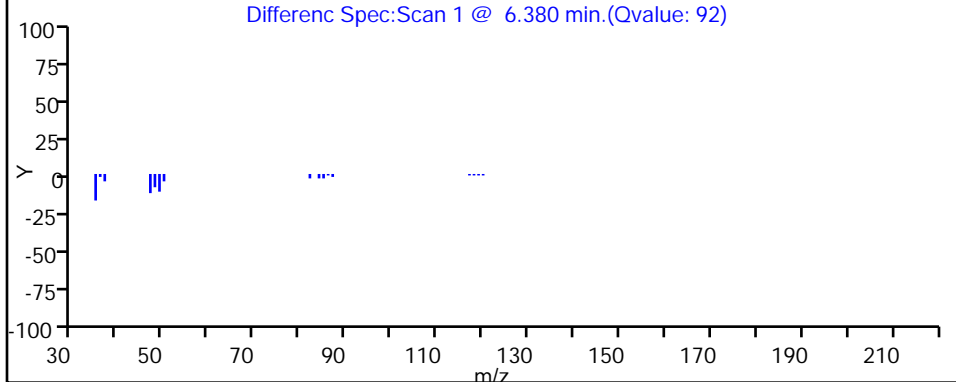
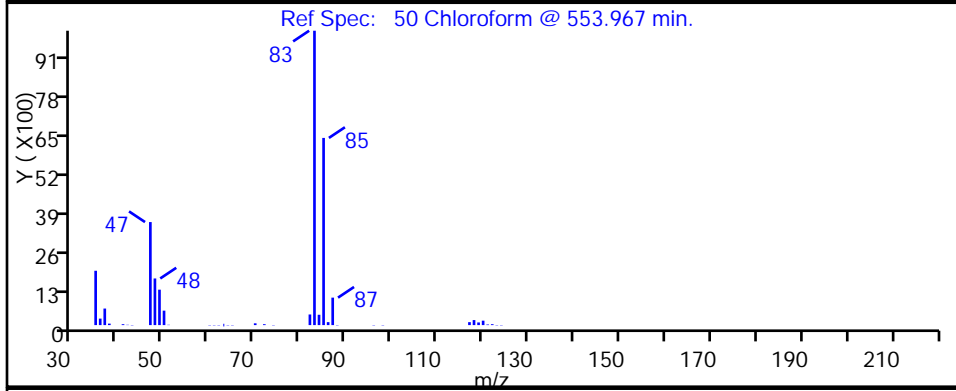
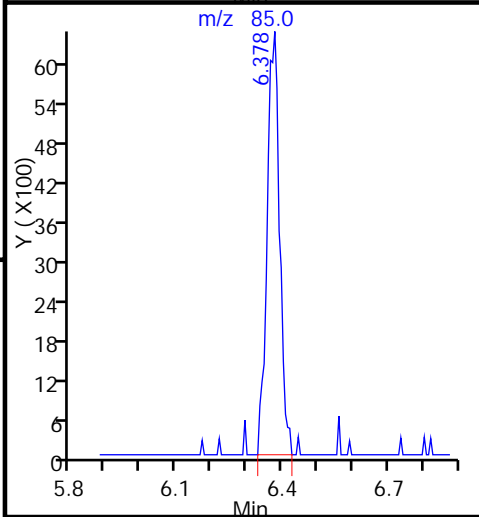
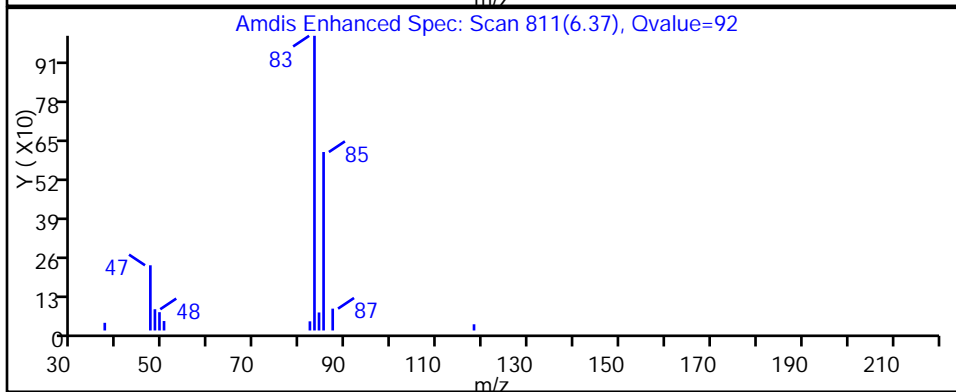
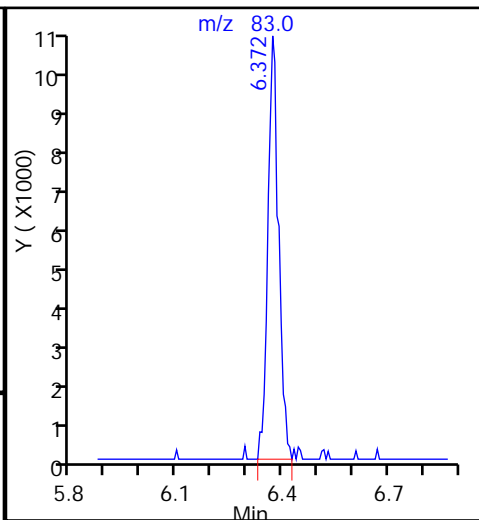
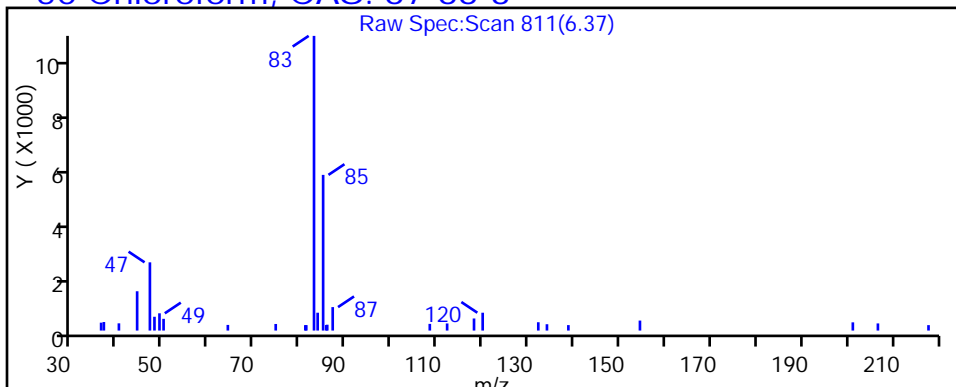
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

50 Chloroform, CAS: 67-66-3





TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013022.D

Injection Date: 13-Oct-2015 21:11:30

Instrument ID: CHHP6

Lims ID: 180-48399-A-5

Lab Sample ID: 180-48399-5

Client ID: HD-MW-166-0/1-0

Operator ID: 001562

ALS Bottle#: 22

Worklist Smp#: 22

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

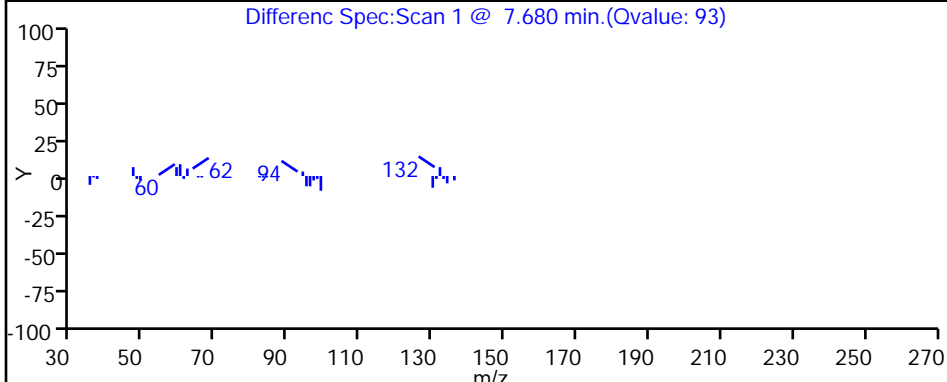
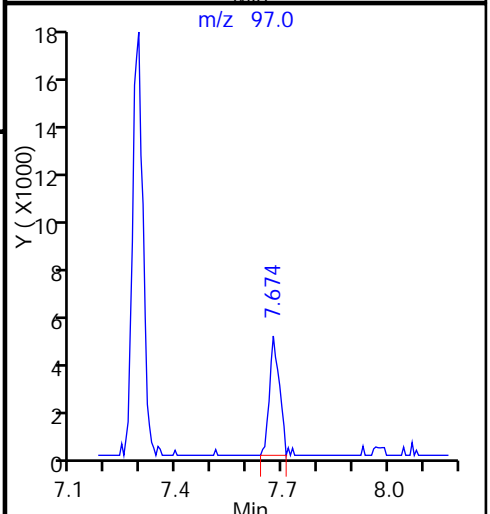
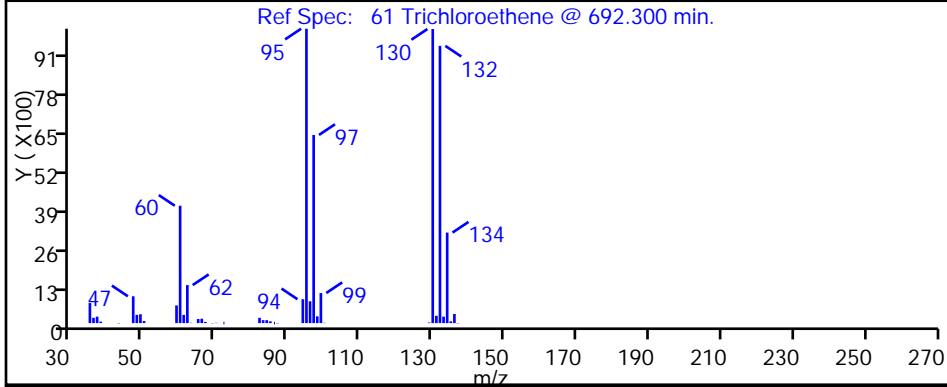
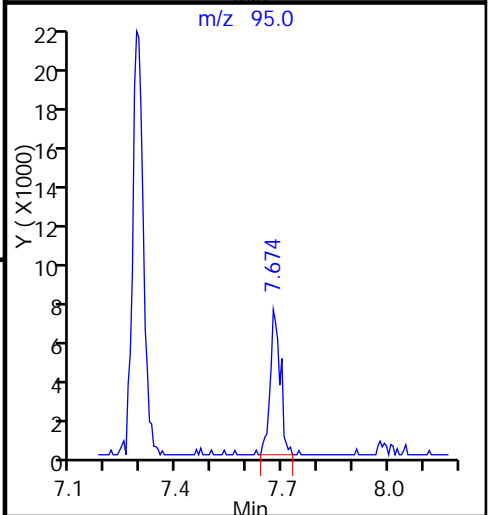
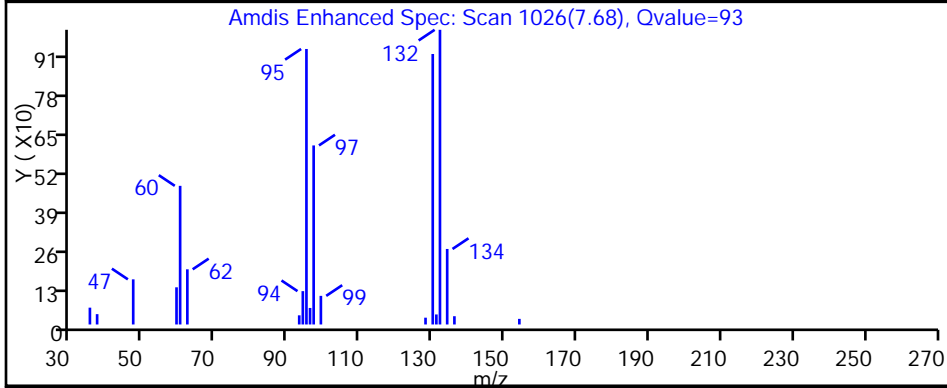
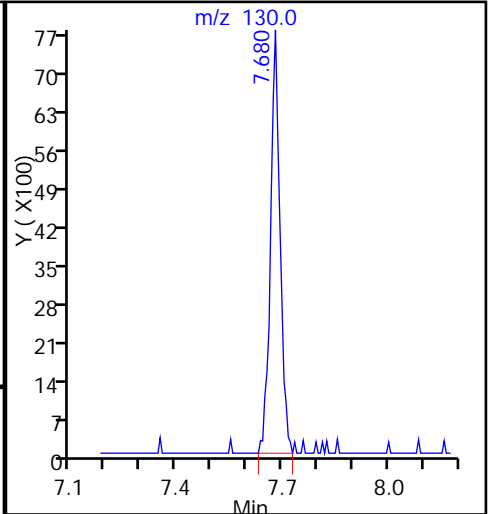
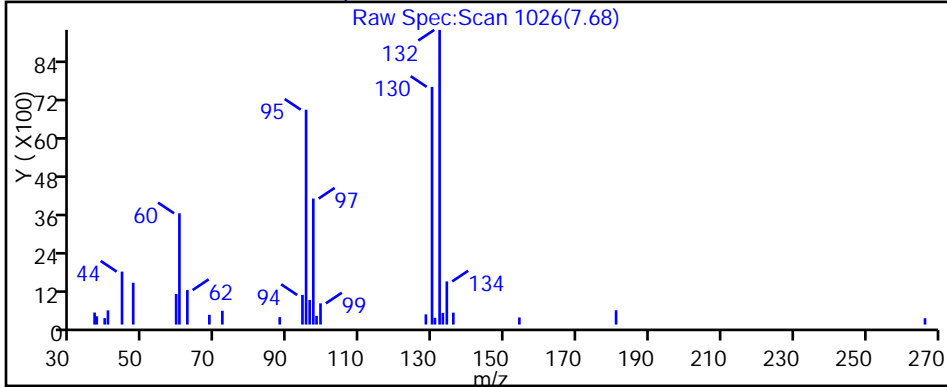
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

61 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013022.D

Injection Date: 13-Oct-2015 21:11:30

Instrument ID: CHHP6

Lims ID: 180-48399-A-5

Lab Sample ID: 180-48399-5

Client ID: HD-MW-166-0/1-0

Operator ID: 001562

ALS Bottle#: 22

Worklist Smp#: 22

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

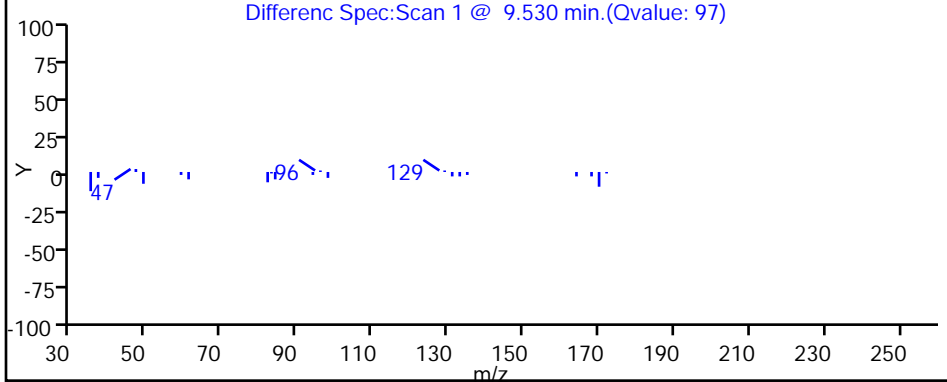
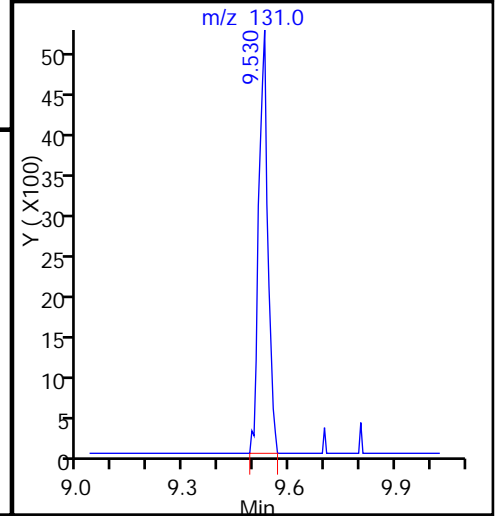
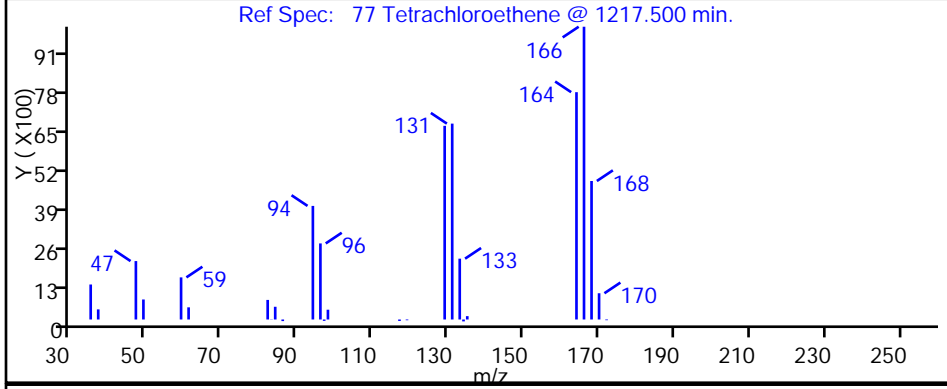
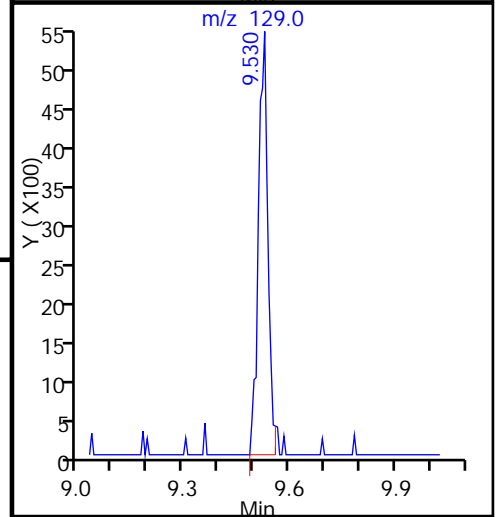
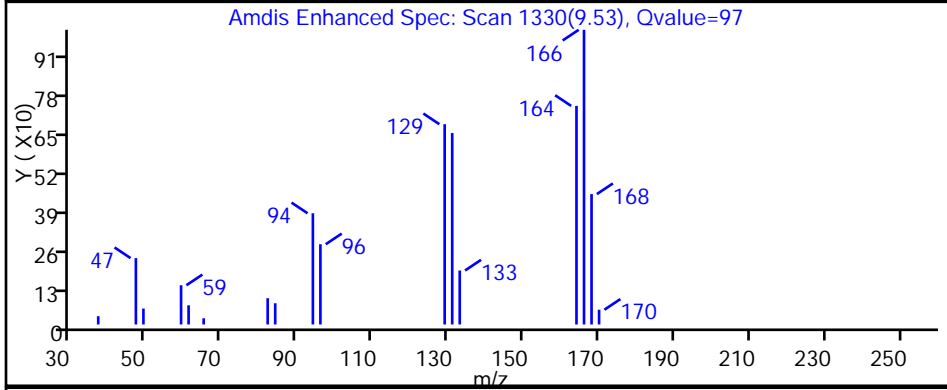
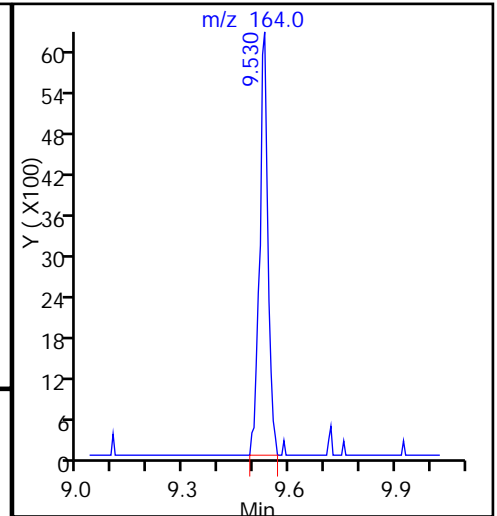
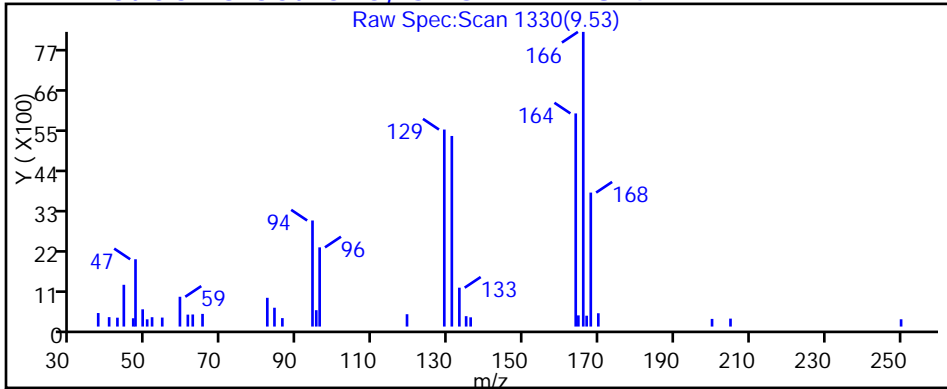
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

77 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-167-0/1-0 Lab Sample ID: 180-48399-6  
 Matrix: Water Lab File ID: 61013023.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 11:30  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 21:36  
 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.: 156820 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND	^c	1.0	0.31
75-00-3	Chloroethane	ND	^c	1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	0.31	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	1.8		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	7.4		1.0	0.15
591-78-6	2-Hexanone	ND	^c	5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-167-0/1-0 Lab Sample ID: 180-48399-6  
 Matrix: Water Lab File ID: 61013023.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 11:30  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 21:36  
 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.: 156820 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	80		64-135
2037-26-5	Toluene-d8 (Surr)	109		71-118
460-00-4	4-Bromofluorobenzene (Surr)	95		70-118
1868-53-7	Dibromofluoromethane (Surr)	90		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013023.D  
 Lims ID: 180-48399-C-6 Lab Sample ID: 180-48399-6  
 Client ID: HD-MW-167-0/1-0  
 Sample Type: Client  
 Inject. Date: 13-Oct-2015 21:36:30 ALS Bottle#: 23 Worklist Smp#: 23  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-48399-C-6  
 Misc. Info.: 180-0008971-023  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Oct-2015 08:11:09 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK037

First Level Reviewer: fergusond

Date: 14-Oct-2015 08:11:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.242	4.242	0.000	91	164044	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	98	511614	50.0	
* 3 Chlorobenzene-d5	119	10.399	10.399	0.000	89	112182	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.747	0.000	98	168497	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.560	6.554	0.006	94	106198	45.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.931	0.006	69	152670	40.2	
\$ 7 Toluene-d8 (Surr)	98	8.945	8.945	0.000	93	483223	54.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.591	-0.006	84	186311	47.4	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.235				ND	
16 Chloroethane	64		2.387				ND	
22 1,1-Dichloroethene	96		3.342				ND	
24 Acetone	43		3.427				ND	
26 Carbon disulfide	76		3.634				ND	
31 Methylene Chloride	84		4.133				ND	
33 Acrylonitrile	53		4.504				ND	
34 trans-1,2-Dichloroethene	96		4.565				ND	
35 Methyl tert-butyl ether	73		4.577				ND	
37 1,1-Dichloroethane	63		5.203				ND	
43 cis-1,2-Dichloroethene	96		5.939				ND	
44 2-Butanone (MEK)	43		5.952				ND	
48 Chlorobromomethane	128		6.231				ND	
50 Chloroform	83	6.377	6.371	0.006	94	8062	1.53	
51 1,1,1-Trichloroethane	97		6.542				ND	
53 Carbon tetrachloride	117		6.718				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.679	7.673	0.006	88	22660	9.11	
64 1,2-Dichloropropane	63		7.953				ND	
65 1,4-Dioxane	88		8.032				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.233				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
73 Toluene	91		9.012				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164	9.529	9.529	0.000	95	72580	36.8	
79 2-Hexanone	43		9.663				ND	
81 Chlorodibromomethane	129		9.827				ND	
82 Ethylene Dibromide	107		9.936				ND	
84 Chlorobenzene	112		10.429				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.660				ND	
89 o-Xylene	106		11.043				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.713				ND	
S 131 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00043

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00043

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013023.D

Injection Date: 13-Oct-2015 21:36:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-48399-C-6

Lab Sample ID: 180-48399-6

Worklist Smp#: 23

Client ID: HD-MW-167-0/1-0

Purge Vol: 5.000 mL

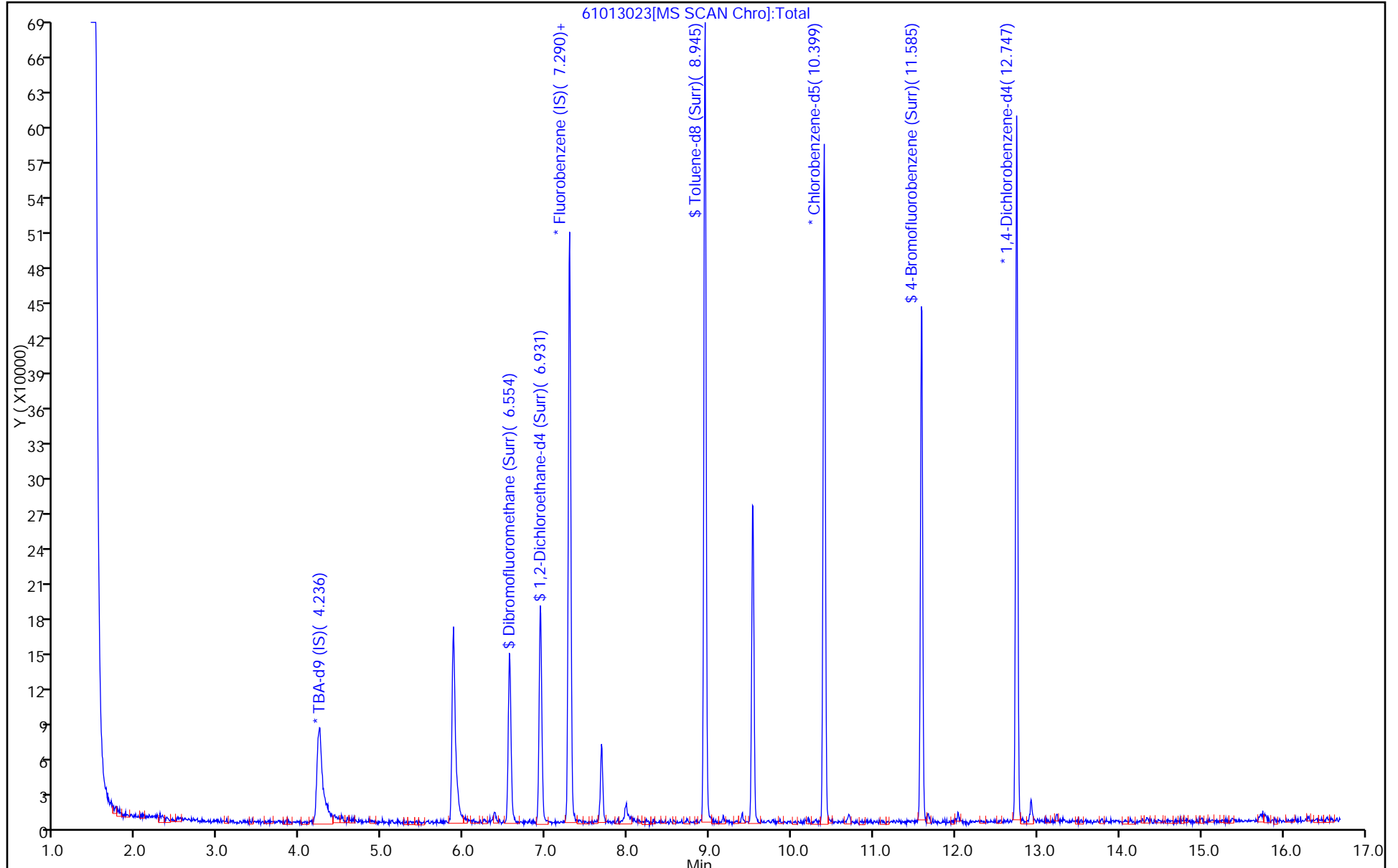
Dil. Factor: 1.0000

ALS Bottle#: 23

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013023.D

Injection Date: 13-Oct-2015 21:36:30

Instrument ID: CHHP6

Lims ID: 180-48399-C-6

Lab Sample ID: 180-48399-6

Client ID: HD-MW-167-0/1-0

Operator ID: 001562

ALS Bottle#: 23 Worklist Smp#: 23

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

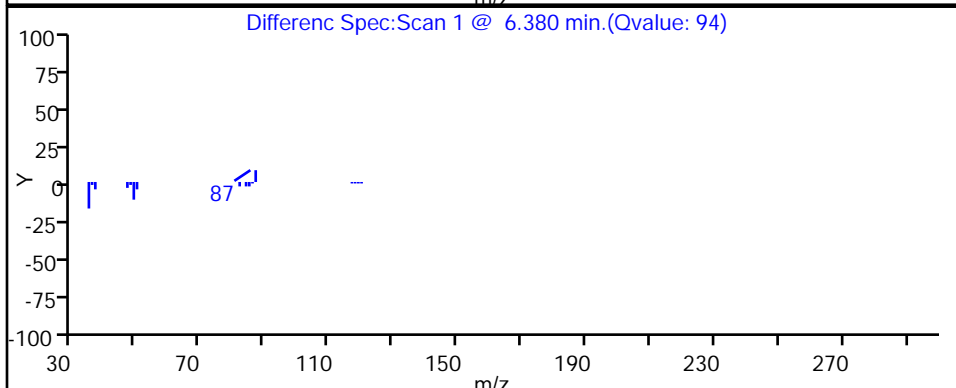
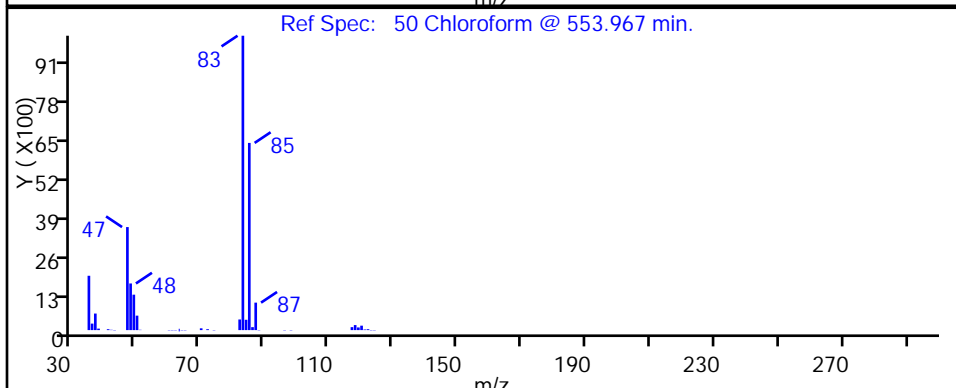
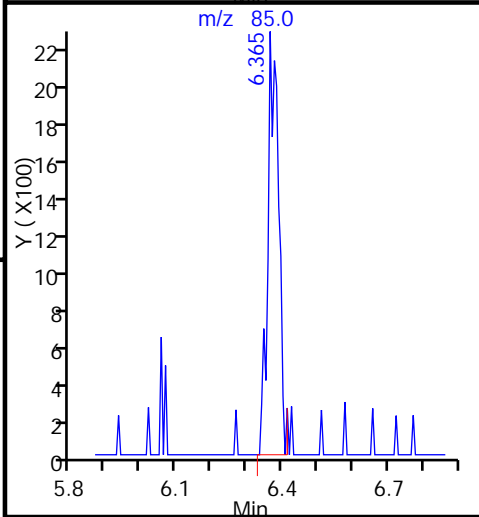
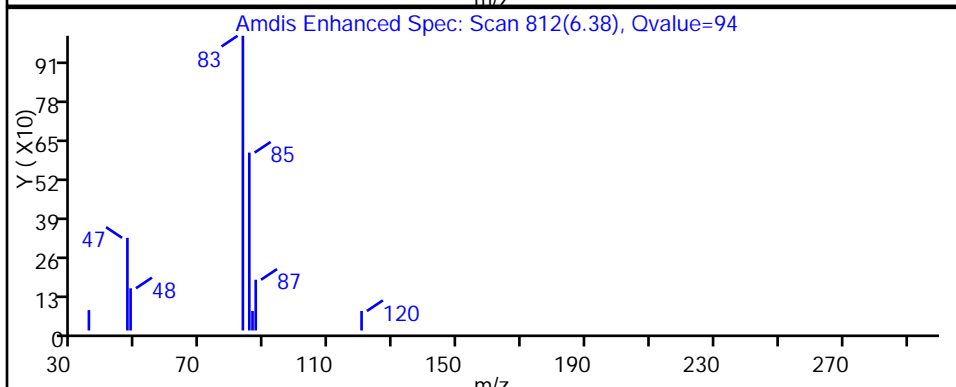
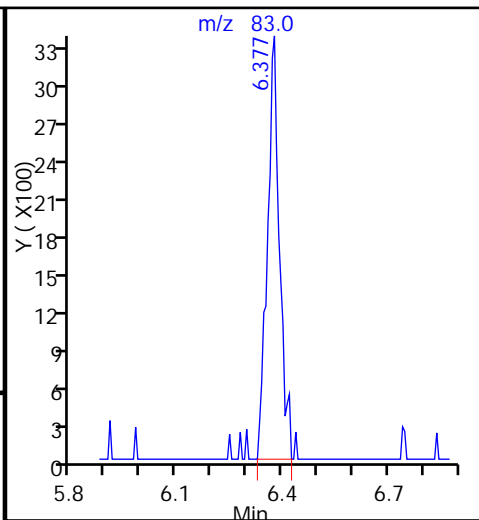
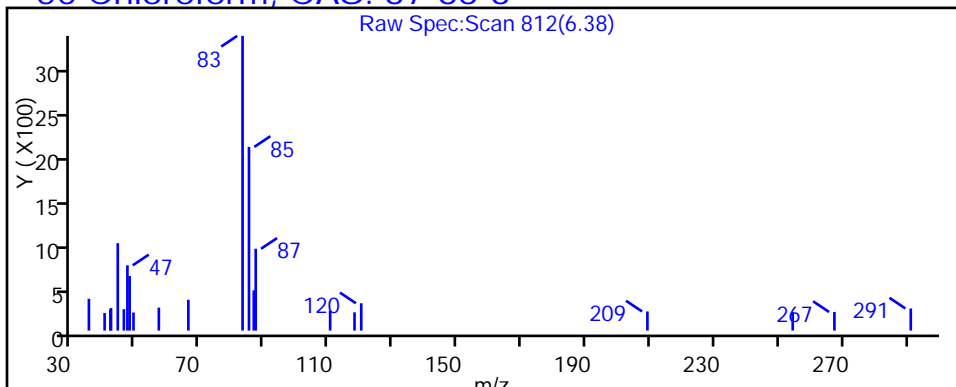
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

50 Chloroform, CAS: 67-66-3





TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013023.D

Injection Date: 13-Oct-2015 21:36:30

Instrument ID: CHHP6

Lims ID: 180-48399-C-6

Lab Sample ID: 180-48399-6

Client ID: HD-MW-167-0/1-0

Operator ID: 001562

ALS Bottle#: 23

Worklist Smp#: 23

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

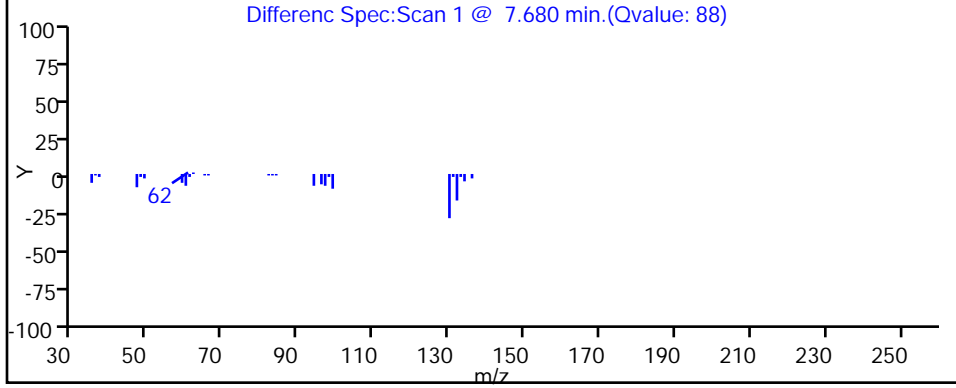
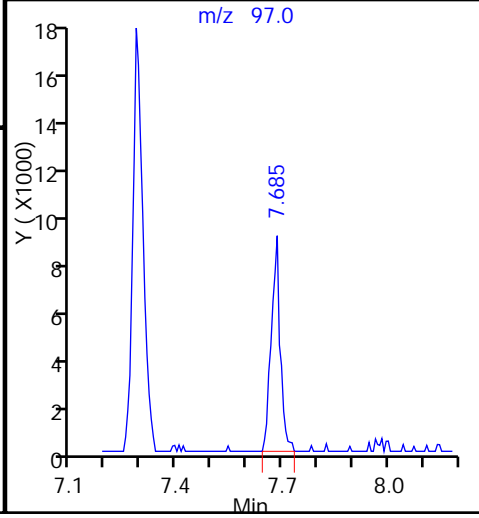
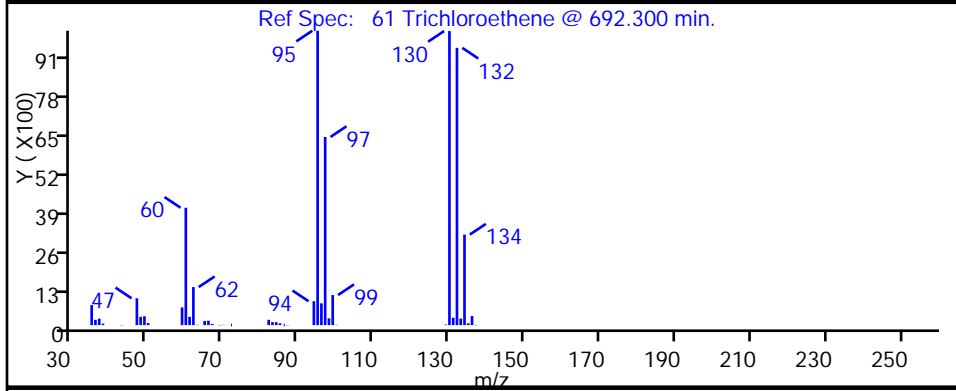
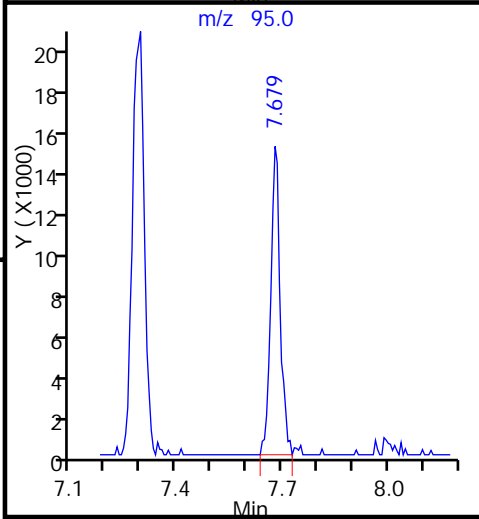
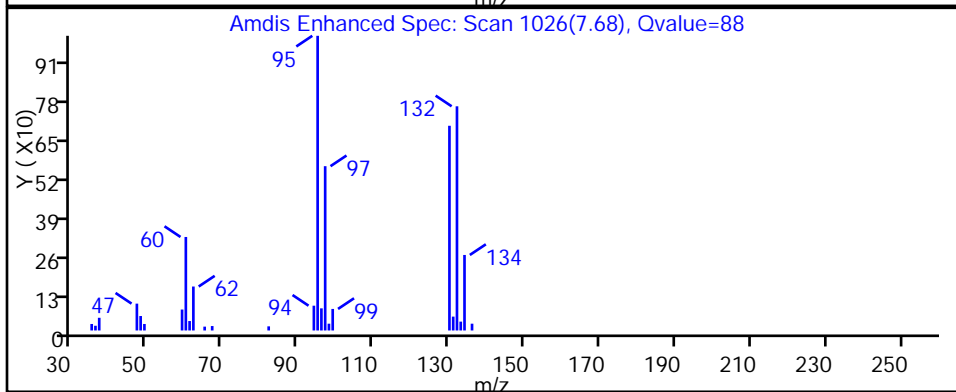
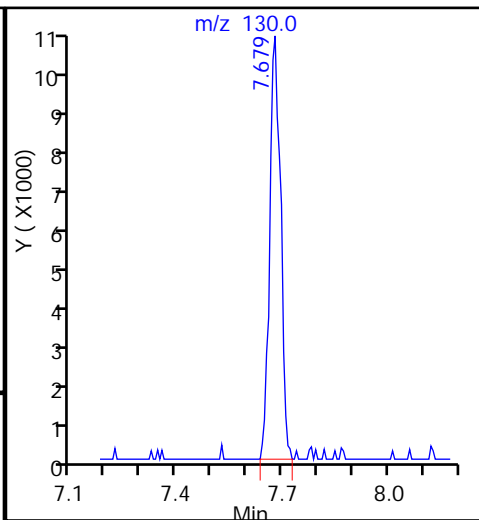
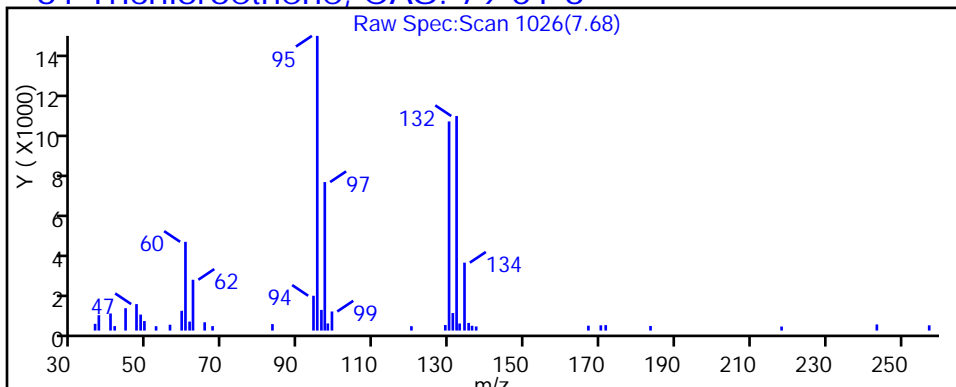
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

61 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013023.D

Injection Date: 13-Oct-2015 21:36:30

Instrument ID: CHHP6

Lims ID: 180-48399-C-6

Lab Sample ID: 180-48399-6

Client ID: HD-MW-167-0/1-0

Operator ID: 001562

ALS Bottle#: 23

Worklist Smp#: 23

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

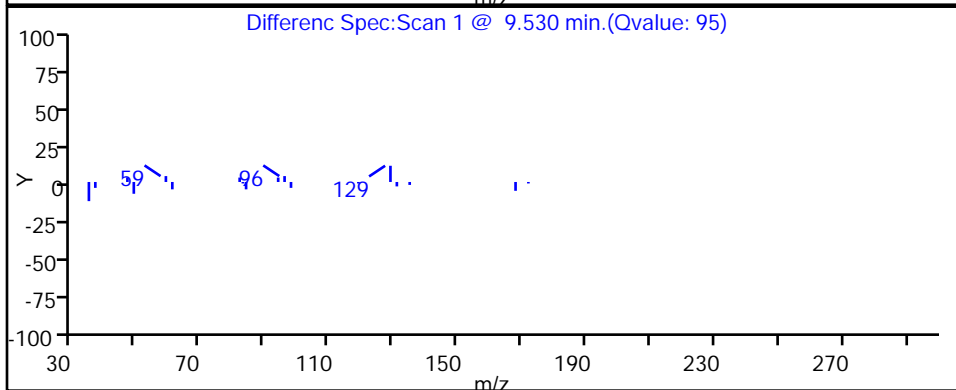
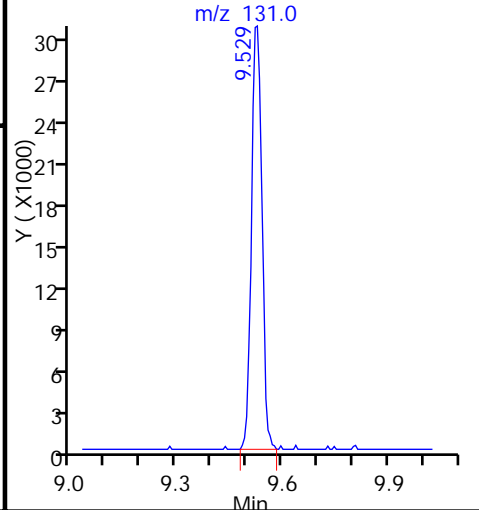
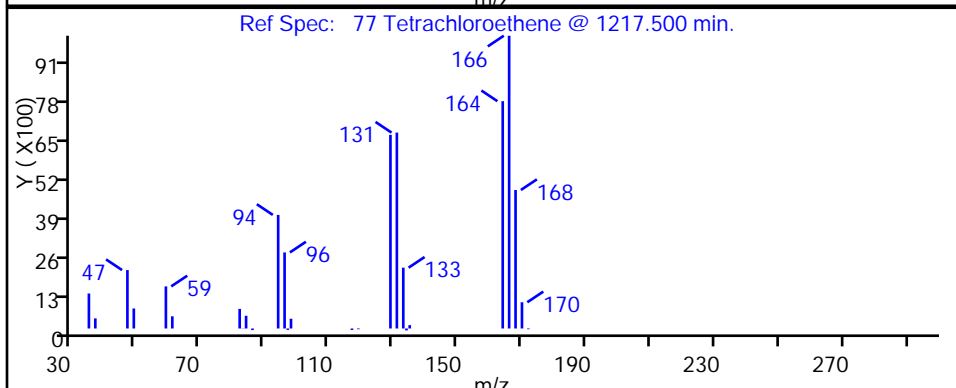
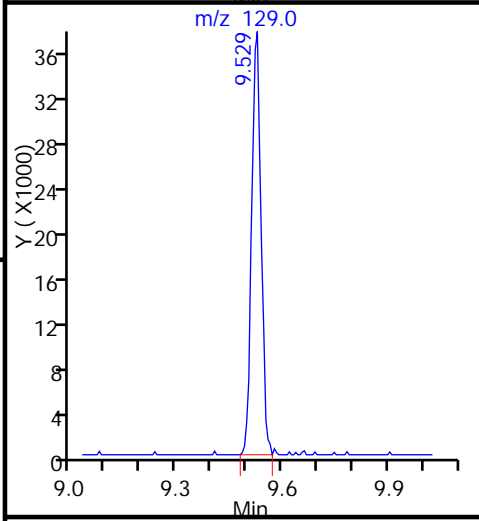
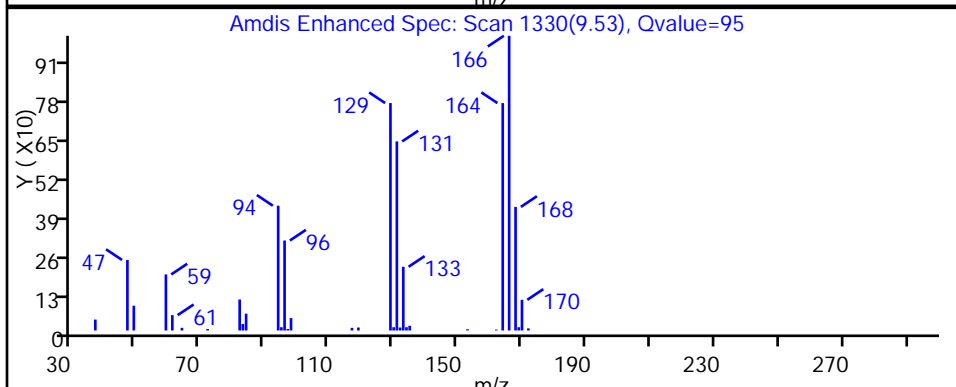
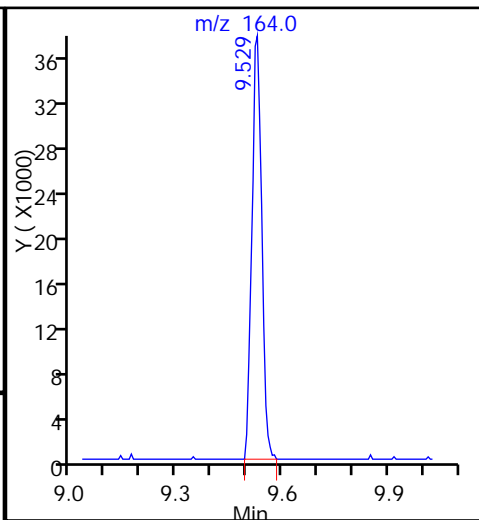
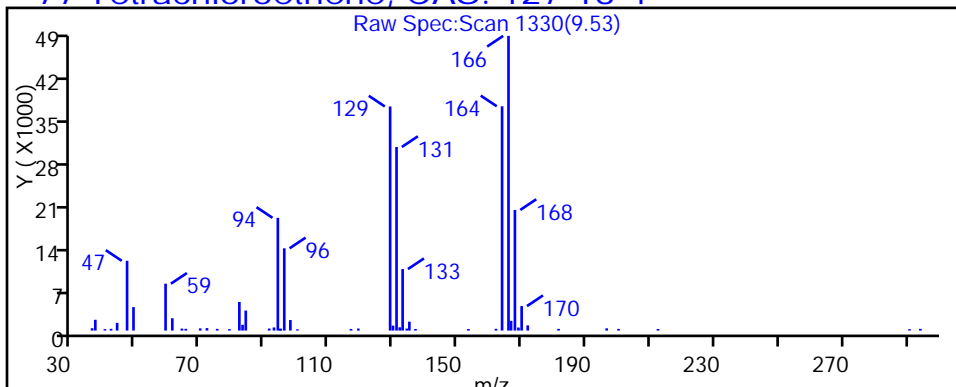
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

77 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-168-0/1-0 Lab Sample ID: 180-48399-7  
 Matrix: Water Lab File ID: 61013024.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 11:20  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 22:00  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 156820 Units: ug/L

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

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-168-0/1-0 Lab Sample ID: 180-48399-7  
 Matrix: Water Lab File ID: 61013024.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 11:20  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 22:00  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 156820 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	81		64-135
2037-26-5	Toluene-d8 (Surr)	108		71-118
460-00-4	4-Bromofluorobenzene (Surr)	95		70-118
1868-53-7	Dibromofluoromethane (Surr)	89		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013024.D  
 Lims ID: 180-48399-A-7 Lab Sample ID: 180-48399-7  
 Client ID: HD-MW-168-0/1-0  
 Sample Type: Client  
 Inject. Date: 13-Oct-2015 22:00:30 ALS Bottle#: 24 Worklist Smp#: 24  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-48399-A-7  
 Misc. Info.: 180-0008971-024  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Oct-2015 08:11:55 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK037

First Level Reviewer: fergusond

Date: 14-Oct-2015 08:11:55

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.223	4.242	-0.019	89	173537	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	98	506403	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.399	-0.001	90	112053	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.747	-0.001	98	168248	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.559	6.554	0.005	93	103730	44.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.931	0.000	70	153166	40.7	
\$ 7 Toluene-d8 (Surr)	98	8.944	8.945	-0.001	93	476983	54.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.591	-0.007	82	185528	47.3	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.235				ND	
16 Chloroethane	64		2.387				ND	
22 1,1-Dichloroethene	96		3.342				ND	
24 Acetone	43		3.427				ND	
26 Carbon disulfide	76		3.634				ND	
31 Methylene Chloride	84		4.133				ND	
33 Acrylonitrile	53		4.504				ND	
34 trans-1,2-Dichloroethene	96		4.565				ND	
35 Methyl tert-butyl ether	73		4.577				ND	
37 1,1-Dichloroethane	63		5.203				ND	
43 cis-1,2-Dichloroethene	96		5.939				ND	
44 2-Butanone (MEK)	43		5.952				ND	
48 Chlorobromomethane	128		6.231				ND	
50 Chloroform	83		6.371				ND	
51 1,1,1-Trichloroethane	97		6.542				ND	
53 Carbon tetrachloride	117		6.718				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130		7.673				ND	
64 1,2-Dichloropropane	63		7.953				ND	
65 1,4-Dioxane	88		8.032				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.233				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
73 Toluene	91		9.012				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164		9.529				ND	
79 2-Hexanone	43		9.663				ND	
81 Chlorodibromomethane	129		9.827				ND	
82 Ethylene Dibromide	107		9.936				ND	
84 Chlorobenzene	112		10.429				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.660				ND	
89 o-Xylene	106		11.043				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.713				ND	
S 131 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00043

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00043

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013024.D

Injection Date: 13-Oct-2015 22:00:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-48399-A-7

Lab Sample ID: 180-48399-7

Worklist Smp#: 24

Client ID: HD-MW-168-0/1-0

Purge Vol: 5.000 mL

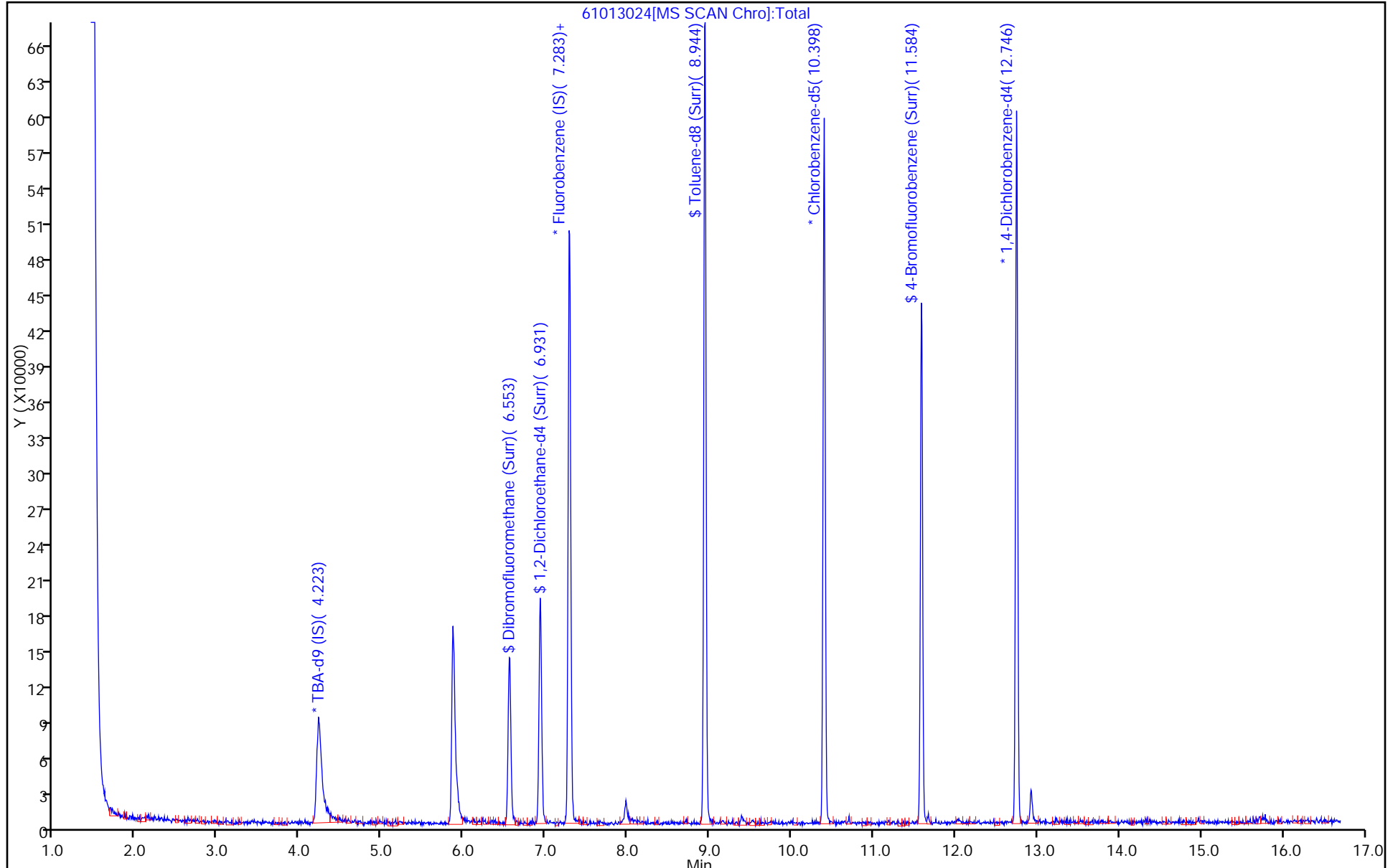
Dil. Factor: 1.0000

ALS Bottle#: 24

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-103S-0/1-0 Lab Sample ID: 180-48399-8  
 Matrix: Water Lab File ID: 51015026.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 12:02  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/15/2015 22:25  
 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.: 157127 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND	^c	1.0	0.23
74-83-9	Bromomethane	ND	^c	1.0	0.31
75-00-3	Chloroethane	ND	^c	1.0	0.21
75-35-4	1,1-Dichloroethene	1.3		1.0	0.30
67-64-1	Acetone	ND	^c	5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	0.16	J	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	5.4		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	0.48	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.1		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	100	E	1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	28		1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-103S-0/1-0 Lab Sample ID: 180-48399-8  
 Matrix: Water Lab File ID: 51015026.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 12:02  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/15/2015 22:25  
 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.: 157127 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		64-135
2037-26-5	Toluene-d8 (Surr)	105		71-118
460-00-4	4-Bromofluorobenzene (Surr)	91		70-118
1868-53-7	Dibromofluoromethane (Surr)	98		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015026.D  
 Lims ID: 180-48399-C-8 Lab Sample ID: 180-48399-8  
 Client ID: HD-MW-103S-0/1-0  
 Sample Type: Client  
 Inject. Date: 15-Oct-2015 22:25:30 ALS Bottle#: 25 Worklist Smp#: 26  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-48399-C-8  
 Misc. Info.: 180-0009022-026  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 16-Oct-2015 08:31:09 Calib Date: 26-Aug-2015 17:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK003

First Level Reviewer: fergusond

Date: 16-Oct-2015 08:31:09

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.262	4.273	-0.011	0	150133	1000.0	
* 2 Fluorobenzene (IS)	96	7.291	7.290	0.001	97	319536	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.386	0.002	90	73195	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.729	0.001	97	100010	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.567	6.554	0.013	93	76530	48.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.932	6.931	0.001	0	113506	52.7	
\$ 7 Toluene-d8 (Surr)	98	8.940	8.939	0.001	95	297775	52.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.568	11.573	-0.005	86	96778	45.4	
12 Chloromethane	50	1.761	1.772	-0.011	1	3495	1.32	
13 Vinyl chloride	62		1.912				ND	
15 Bromomethane	94		2.241				ND	
16 Chloroethane	64		2.399				ND	
22 1,1-Dichloroethene	96	3.373	3.330	0.043	92	11808	6.63	
24 Acetone	43		3.439				ND	
26 Carbon disulfide	76		3.640				ND	
31 Methylene Chloride	84		4.139				ND	
33 Acrylonitrile	53		4.522				ND	
34 trans-1,2-Dichloroethene	96		4.559				ND	
35 Methyl tert-butyl ether	73	4.566	4.577	-0.011	27	2449	0.5476	
37 1,1-Dichloroethane	63	5.205	5.197	0.007	0	2977	0.7820	M
45 cis-1,2-Dichloroethene	96	5.959	5.946	0.013	85	55752	27.0	
46 2-Butanone (MEK)	43		5.952				ND	
49 Chlorobromomethane	128		6.231				ND	
52 Chloroform	83	6.385	6.377	0.008	94	7843	2.38	
53 1,1,1-Trichloroethane	97	6.537	6.536	0.001	84	13209	5.43	
56 Carbon tetrachloride	117		6.718				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.016				ND	
64 Trichloroethene	130	7.680	7.673	0.007	96	990426	513.8	E
67 1,2-Dichloropropane	63		7.947				ND	
70 1,4-Dioxane	88		8.026				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.233				ND	
74 cis-1,3-Dichloropropene	75		8.671				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
76 Toluene	91		9.006				ND	
77 trans-1,3-Dichloropropene	75		9.255				ND	
79 1,1,2-Trichloroethane	97	9.451	9.444	0.007	1	965	0.7001	
80 Tetrachloroethene	164	9.518	9.517	0.001	96	200306	142.4	
82 2-Hexanone	43		9.663				ND	
84 Chlorodibromomethane	129		9.815				ND	
85 Ethylene Dibromide	107		9.930				ND	
87 Chlorobenzene	112		10.417				ND	
89 1,1,1,2-Tetrachloroethane	131		10.514				ND	
90 Ethylbenzene	106		10.520				ND	
91 m-Xylene & p-Xylene	106		10.654				ND	
92 o-Xylene	106		11.031				ND	
93 Styrene	104		11.050				ND	
94 Bromoform	173		11.232				ND	
99 1,1,2,2-Tetrachloroethane	83		11.707				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\_00043

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00043

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015026.D

Injection Date: 15-Oct-2015 22:25:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-48399-C-8

Lab Sample ID: 180-48399-8

Worklist Smp#: 26

Client ID: HD-MW-103S-0/1-0

Purge Vol: 5.000 mL

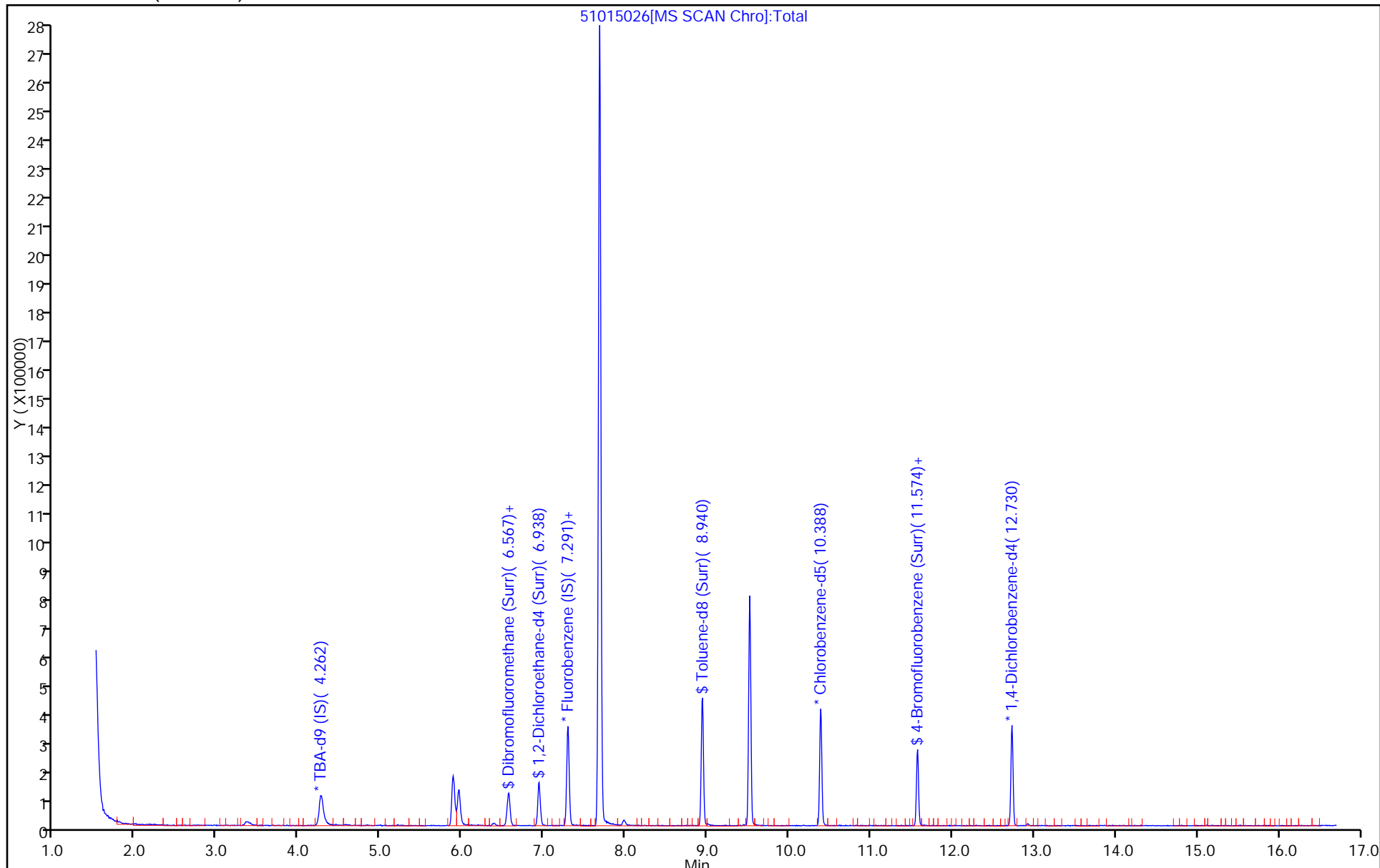
Dil. Factor: 1.0000

ALS Bottle#: 25

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015026.D

Injection Date: 15-Oct-2015 22:25:30

Instrument ID: CHHP5

Lims ID: 180-48399-C-8

Lab Sample ID: 180-48399-8

Client ID: HD-MW-103S-0/1-0

Operator ID: 001562

ALS Bottle#: 25

Worklist Smp#: 26

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

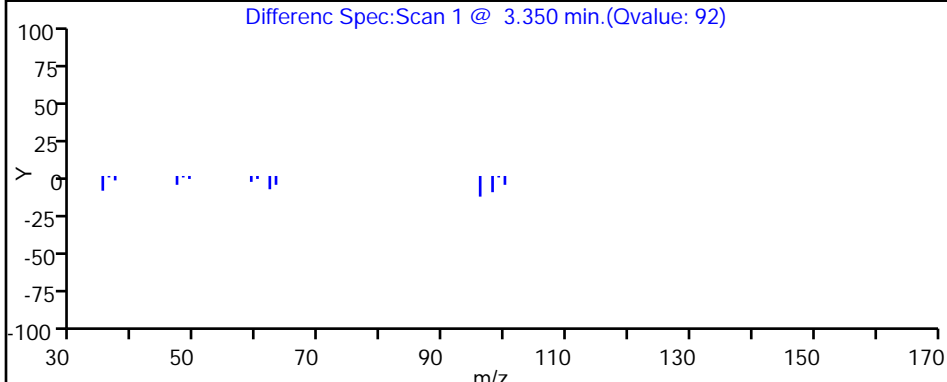
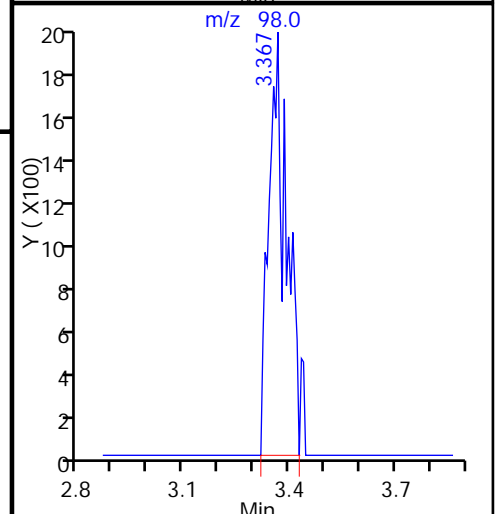
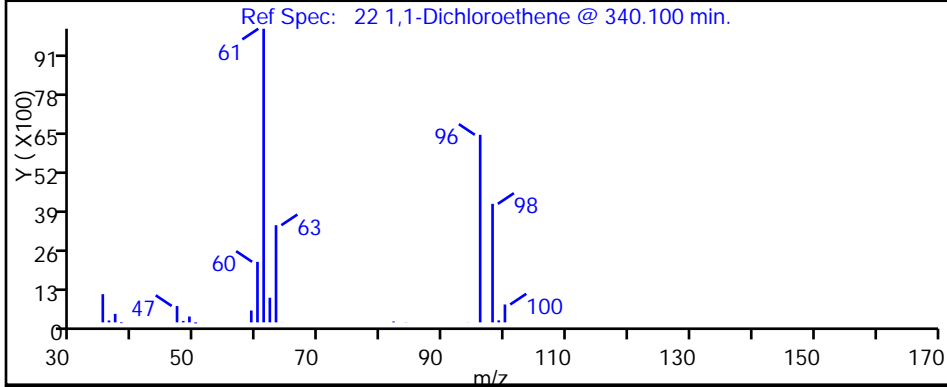
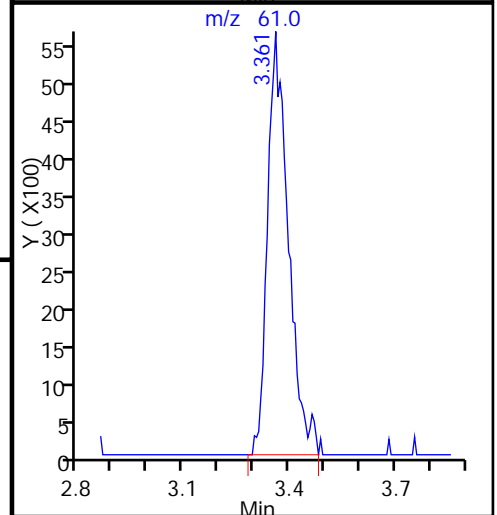
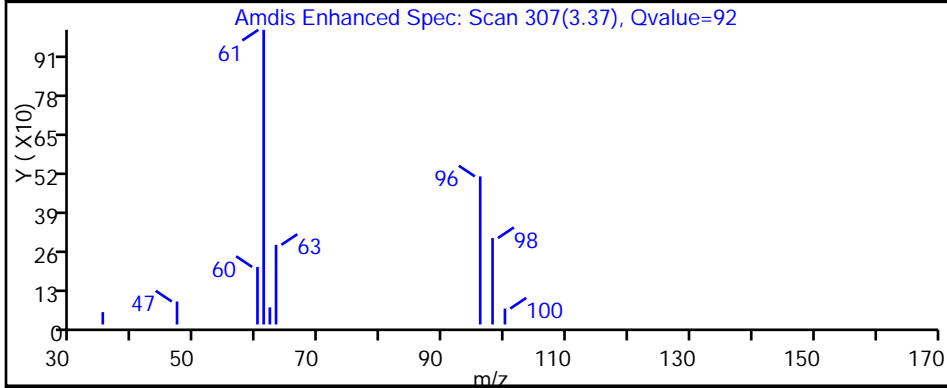
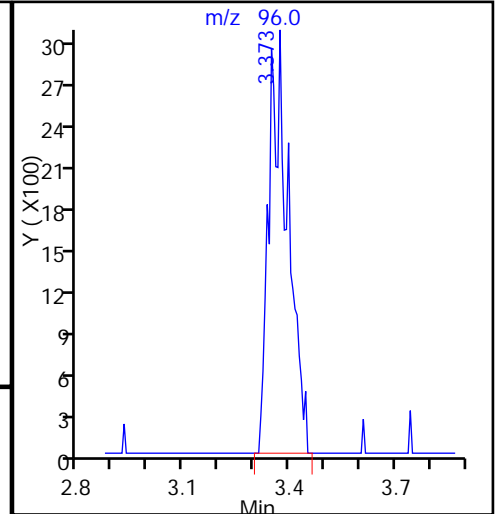
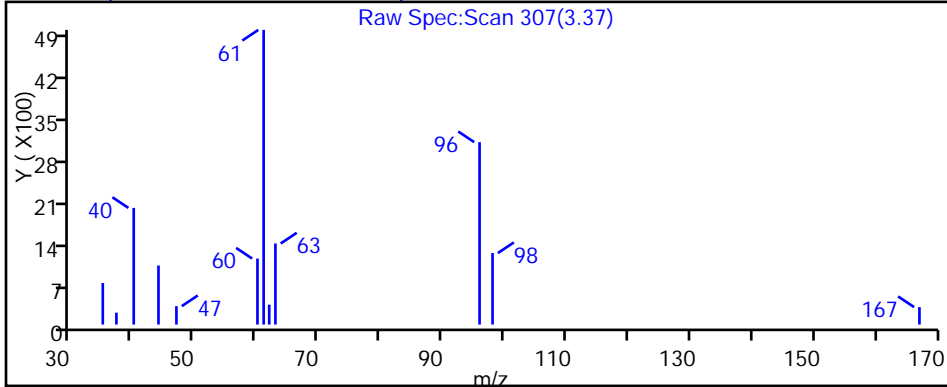
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015026.D

Injection Date: 15-Oct-2015 22:25:30

Instrument ID: CHHP5

Lims ID: 180-48399-C-8

Lab Sample ID: 180-48399-8

Client ID: HD-MW-103S-0/1-0

Operator ID: 001562

ALS Bottle#: 25 Worklist Smp#: 26

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

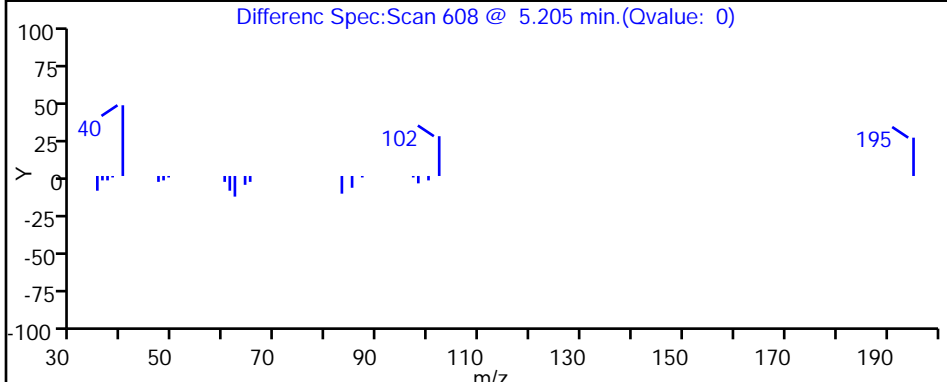
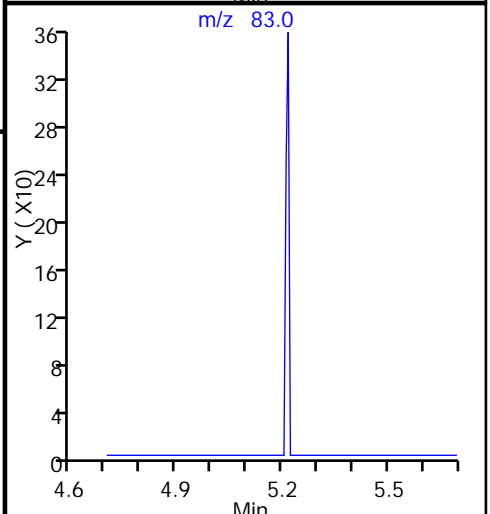
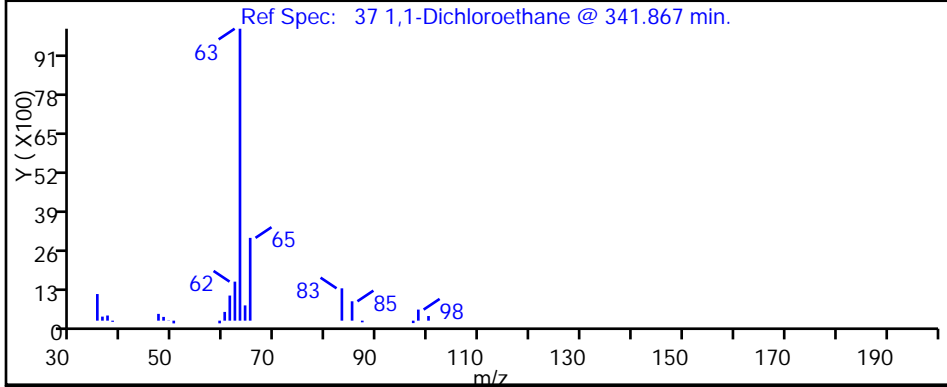
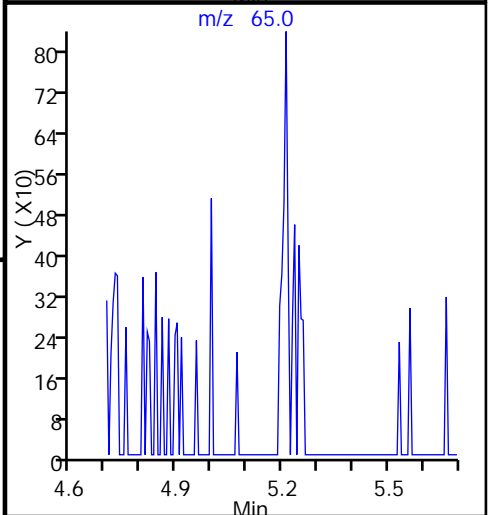
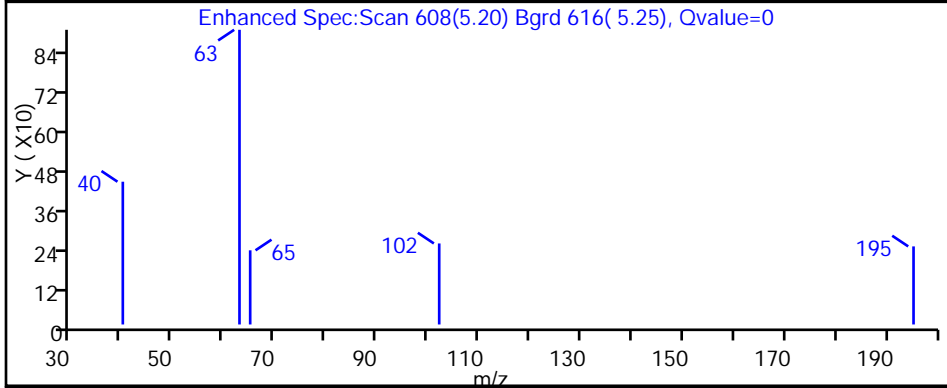
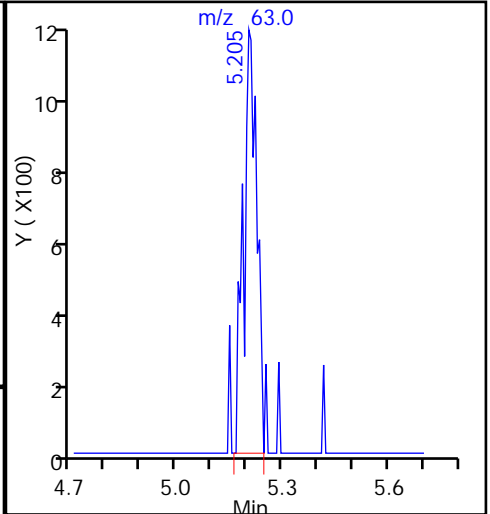
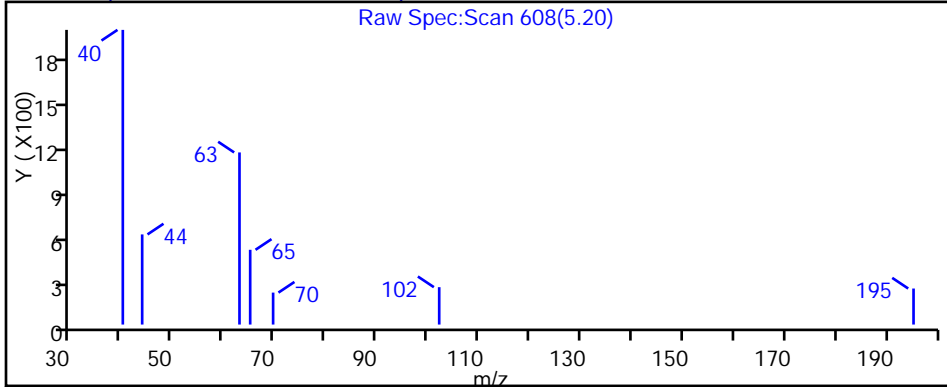
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015026.D

Injection Date: 15-Oct-2015 22:25:30

Instrument ID: CHHP5

Lims ID: 180-48399-C-8

Lab Sample ID: 180-48399-8

Client ID: HD-MW-103S-0/1-0

Operator ID: 001562

ALS Bottle#: 25

Worklist Smp#: 26

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

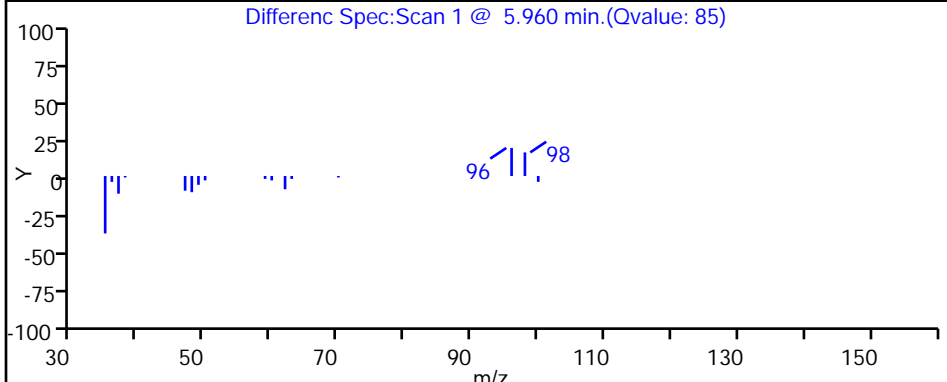
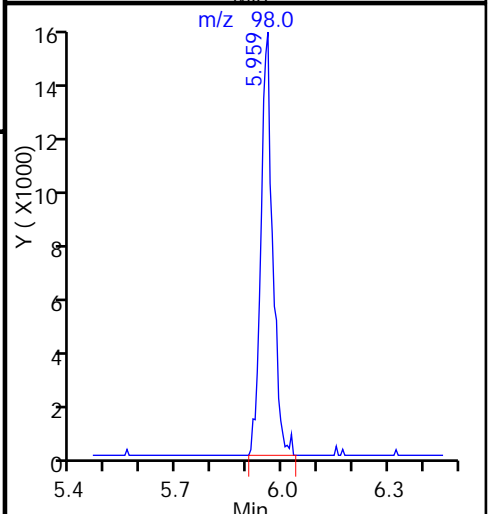
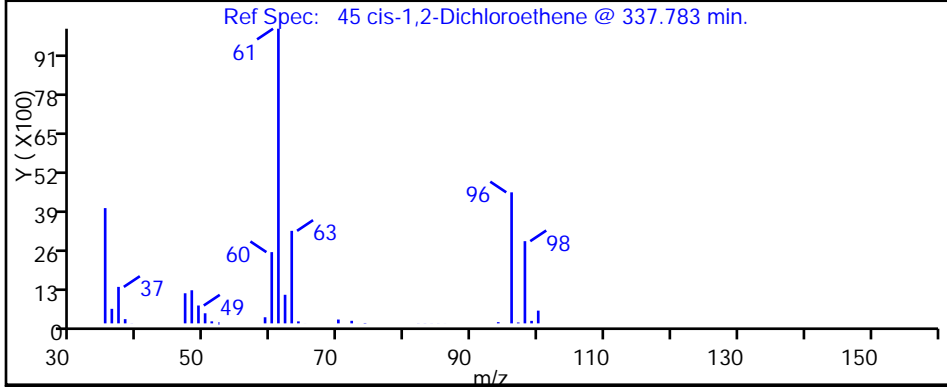
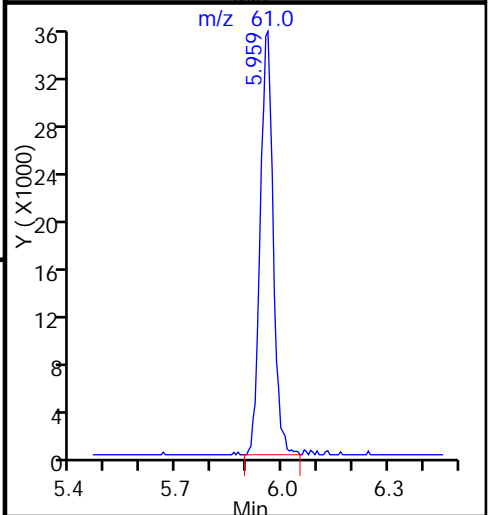
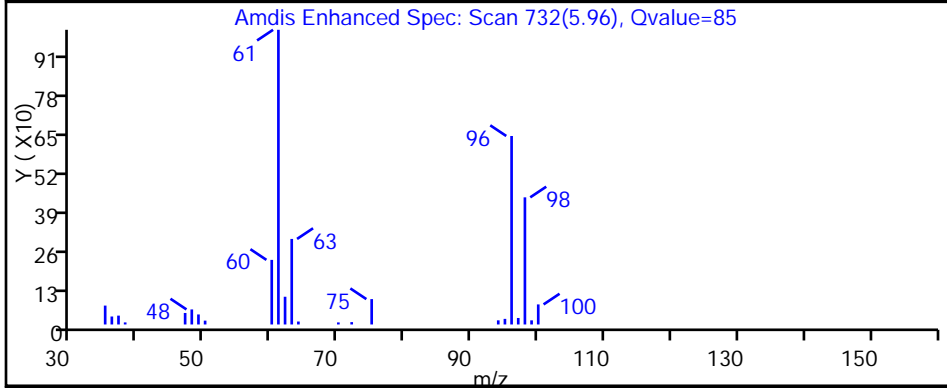
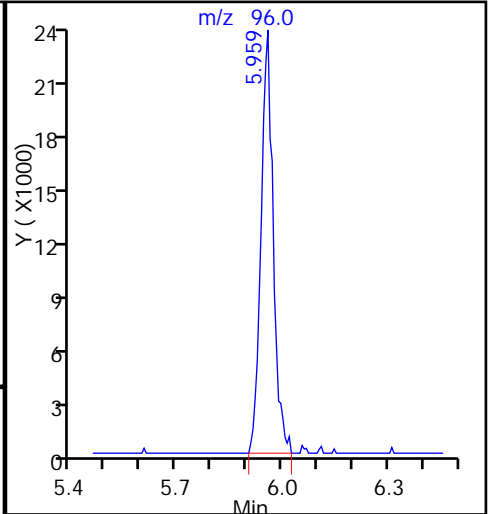
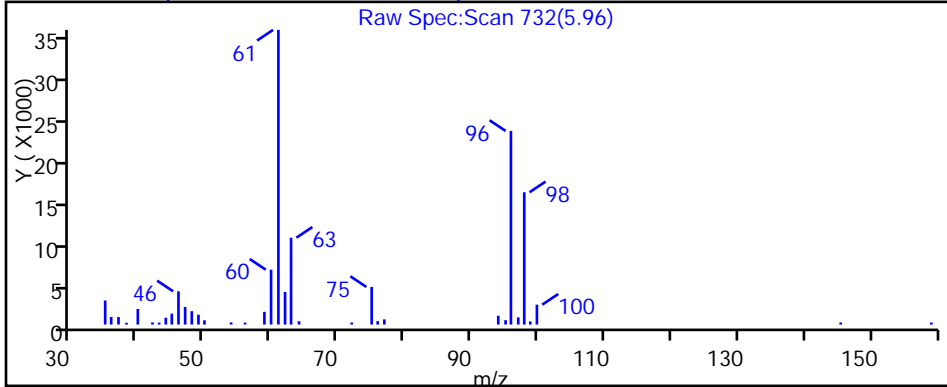
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015026.D

Injection Date: 15-Oct-2015 22:25:30

Instrument ID: CHHP5

Lims ID: 180-48399-C-8

Lab Sample ID: 180-48399-8

Client ID: HD-MW-103S-0/1-0

Operator ID: 001562

ALS Bottle#: 25 Worklist Smp#: 26

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

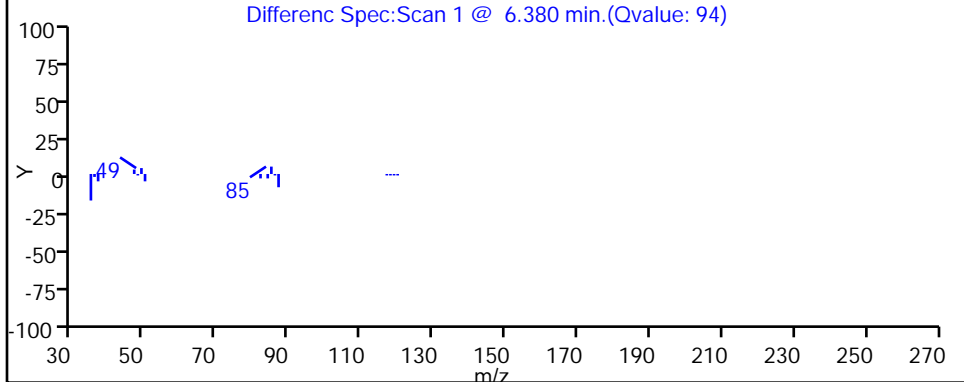
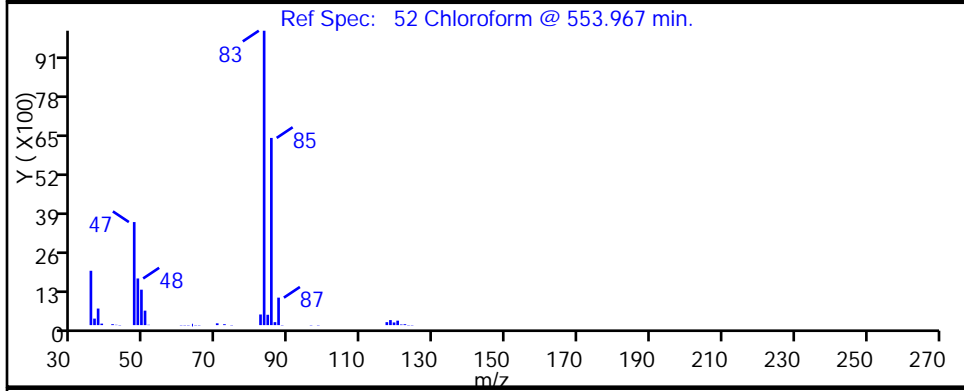
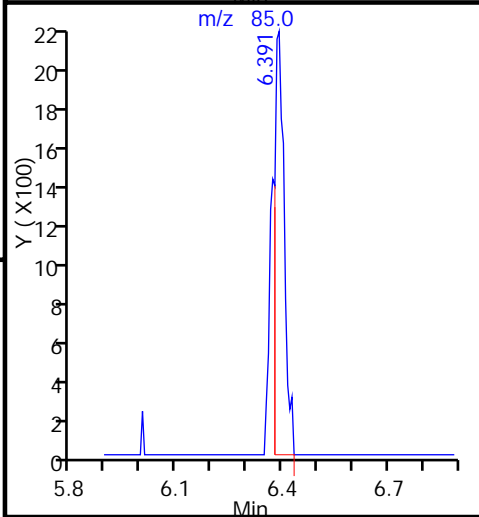
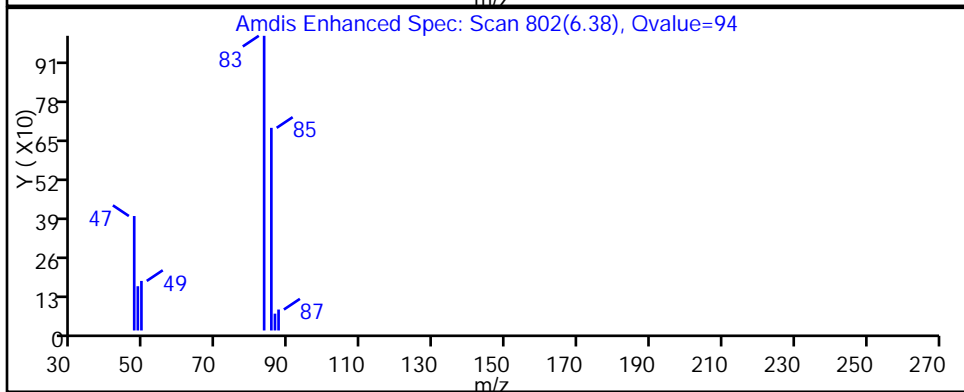
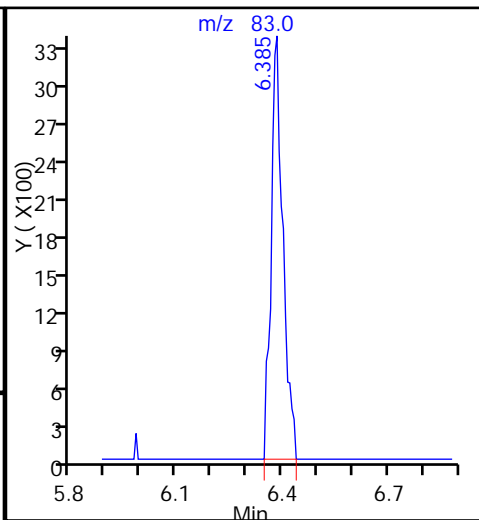
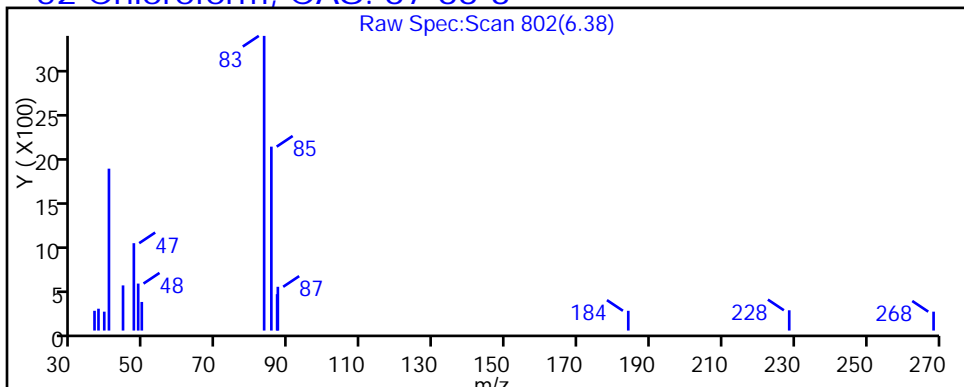
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

52 Chloroform, CAS: 67-66-3





TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015026.D

Injection Date: 15-Oct-2015 22:25:30

Instrument ID: CHHP5

Lims ID: 180-48399-C-8

Lab Sample ID: 180-48399-8

Client ID: HD-MW-103S-0/1-0

Operator ID: 001562

ALS Bottle#: 25 Worklist Smp#: 26

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

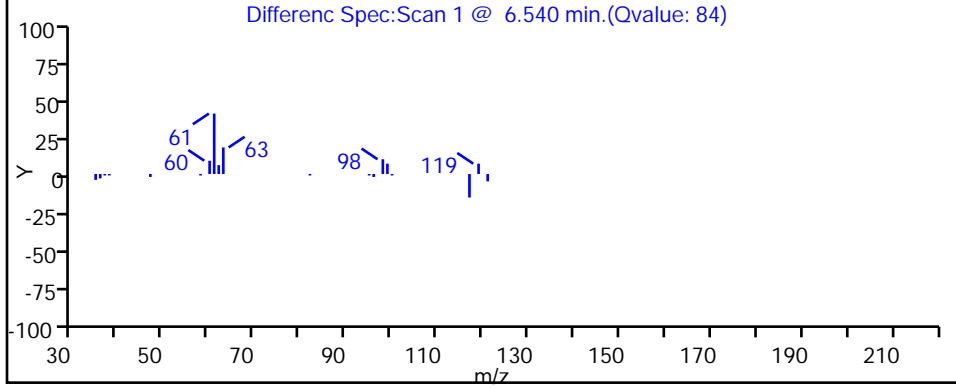
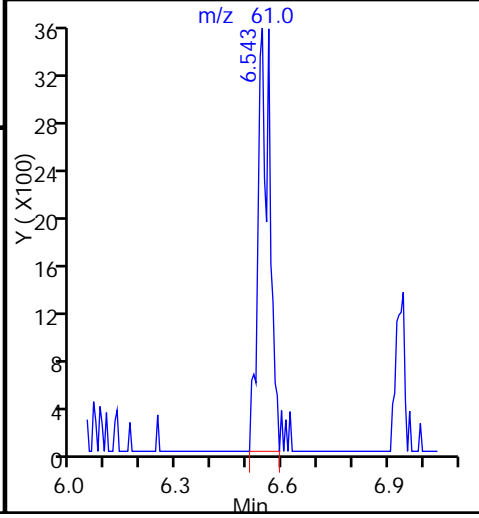
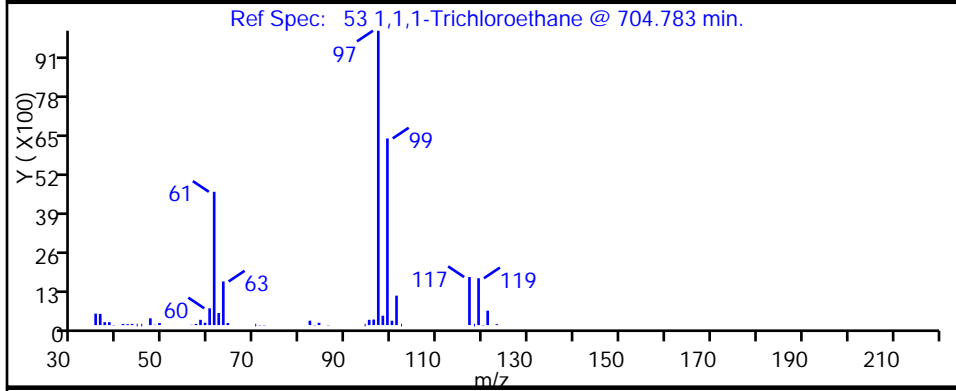
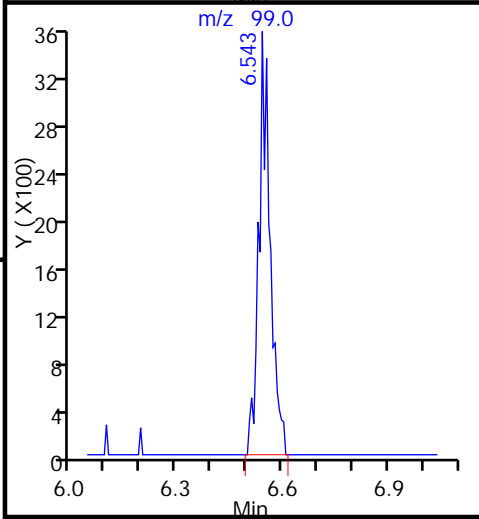
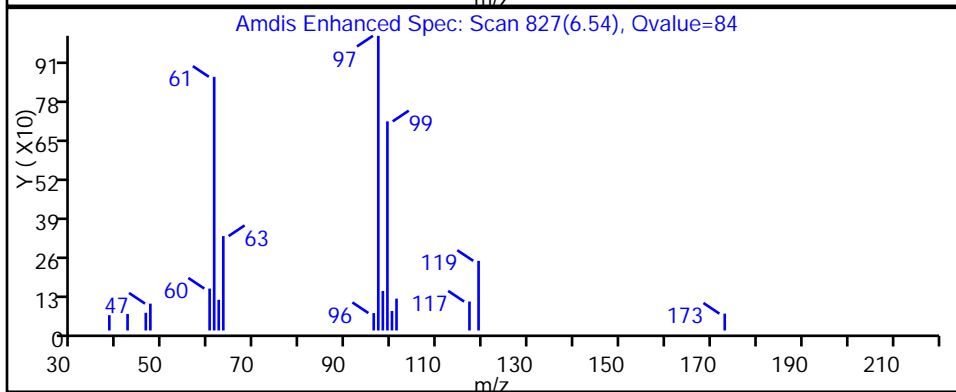
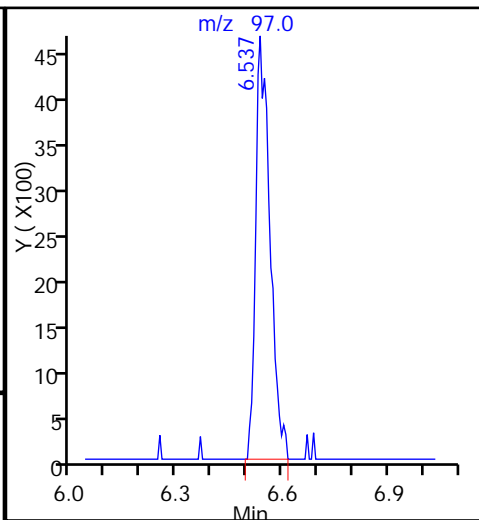
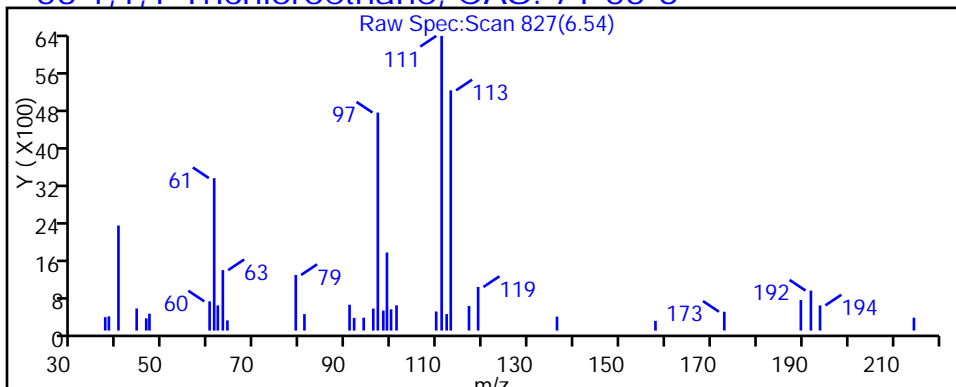
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

53 1,1,1-Trichloroethane, CAS: 71-55-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015026.D

Injection Date: 15-Oct-2015 22:25:30

Instrument ID: CHHP5

Lims ID: 180-48399-C-8

Lab Sample ID: 180-48399-8

Client ID: HD-MW-103S-0/1-0

Operator ID: 001562

ALS Bottle#: 25 Worklist Smp#: 26

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

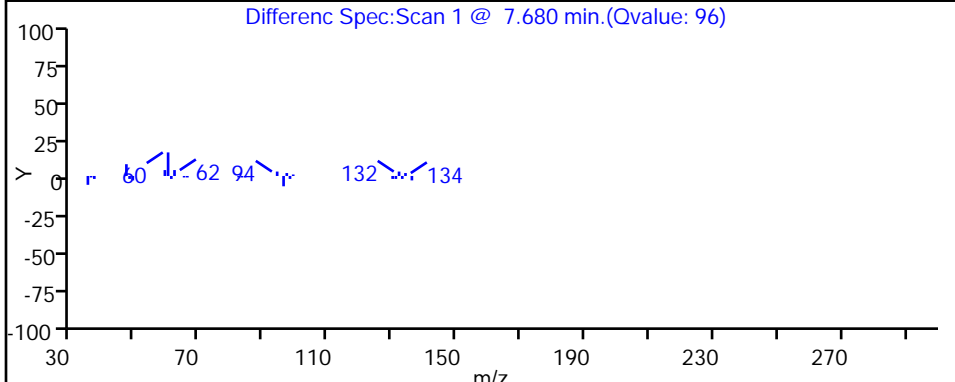
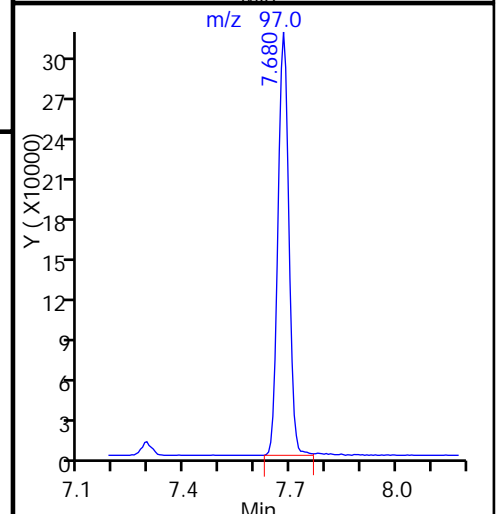
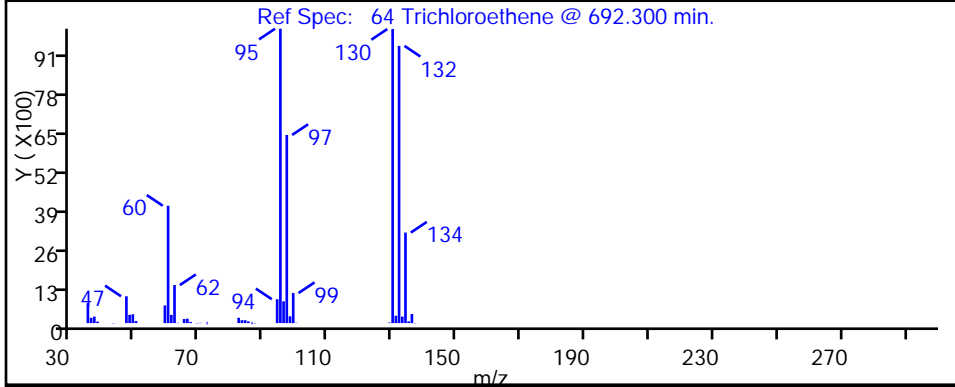
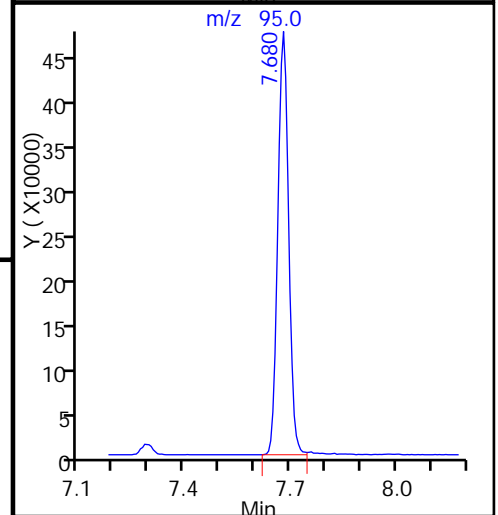
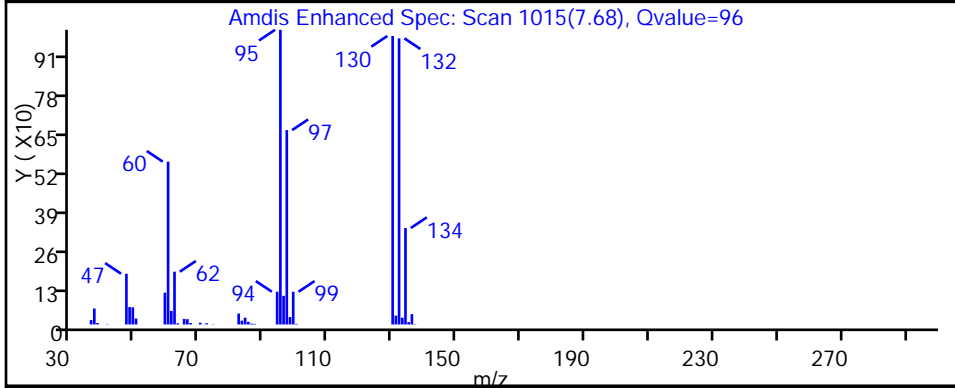
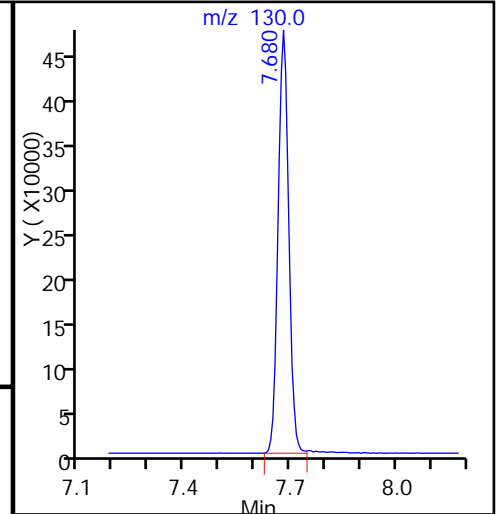
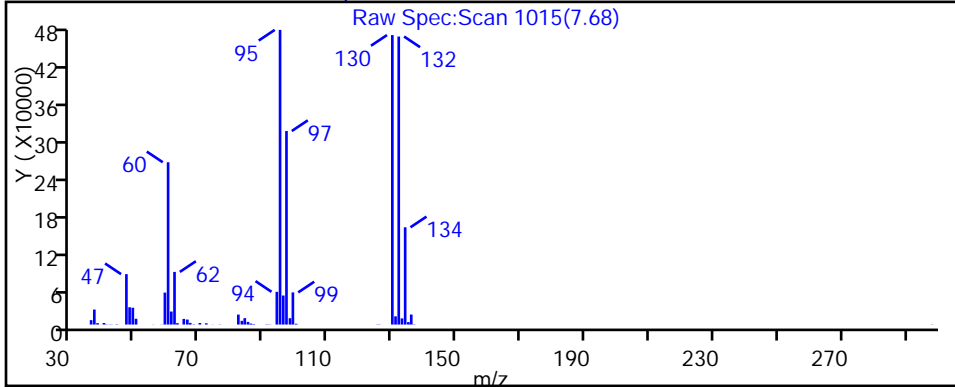
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

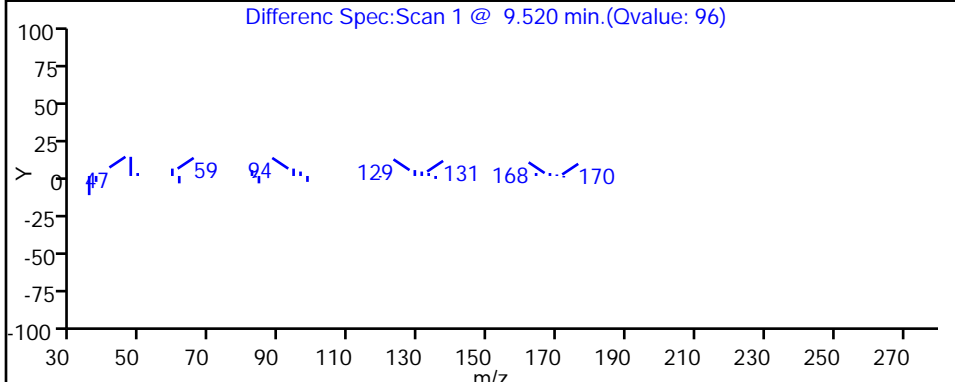
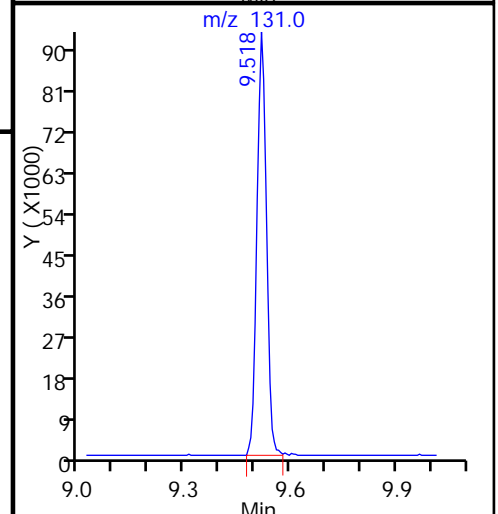
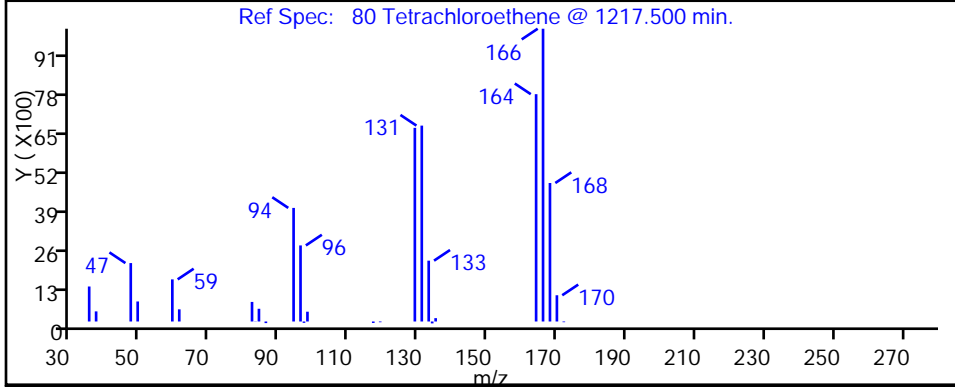
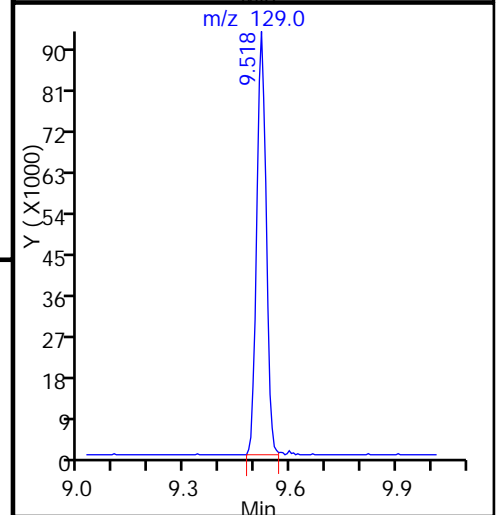
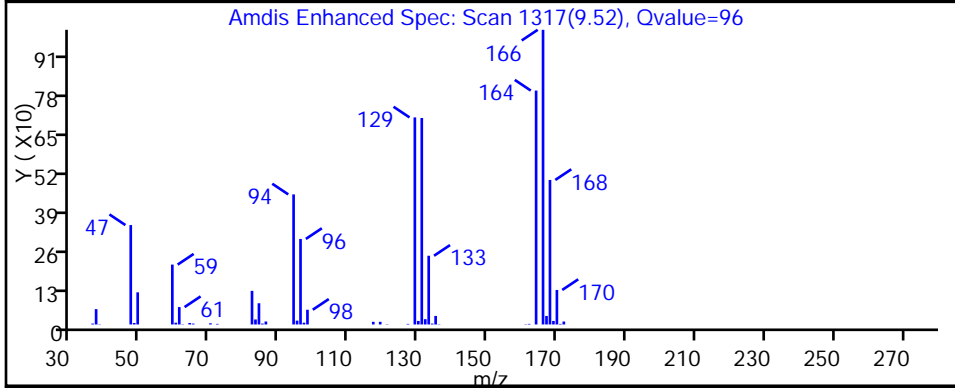
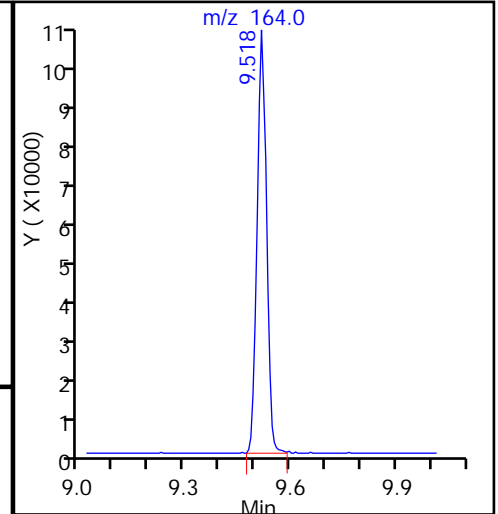
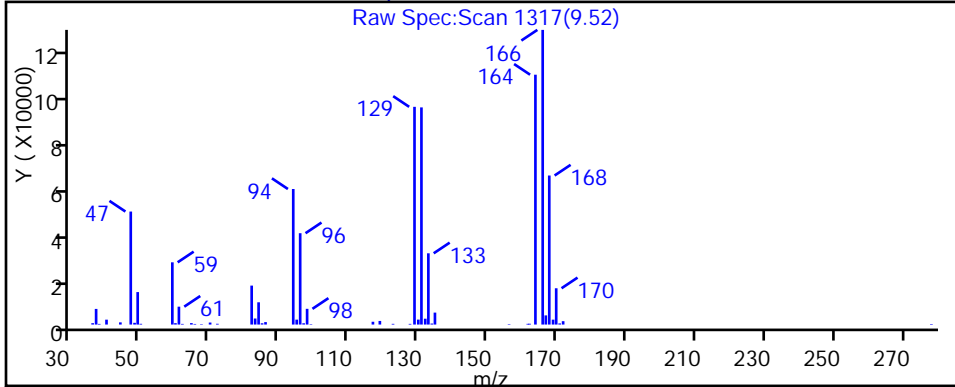
64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015026.D  
Injection Date: 15-Oct-2015 22:25:30 Instrument ID: CHHP5  
Lims ID: 180-48399-C-8 Lab Sample ID: 180-48399-8  
Client ID: HD-MW-103S-0/1-0  
Operator ID: 001562 ALS Bottle#: 25 Worklist Smp#: 26  
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



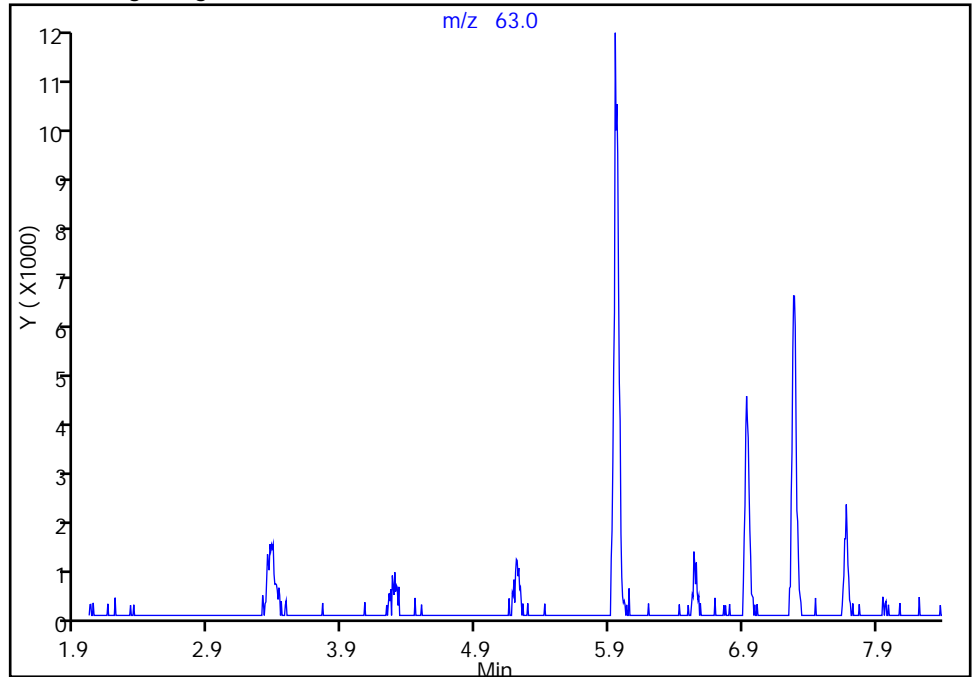
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015026.D  
Injection Date: 15-Oct-2015 22:25:30 Instrument ID: CHHP5  
Lims ID: 180-48399-C-8 Lab Sample ID: 180-48399-8  
Client ID: HD-MW-103S-0/1-0  
Operator ID: 001562 ALS Bottle#: 25 Worklist Smp#: 26  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

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

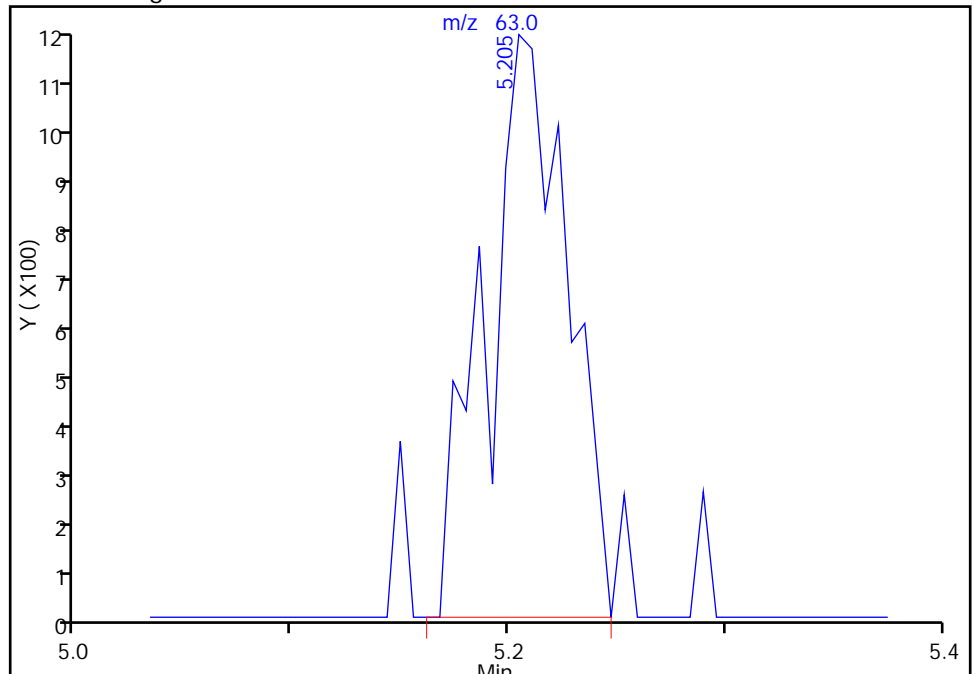
Not Detected  
Expected RT: 5.20

Processing Integration Results



Manual Integration Results

RT: 5.20  
Area: 2977  
Amount: 0.782048  
Amount Units: ng



Reviewer: fergusond, 16-Oct-2015 08:31:09  
Audit Action: Manually Integrated  
Audit Reason: Missed Peak

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-103S-0/1-0 DL Lab Sample ID: 180-48399-8 DL  
 Matrix: Water Lab File ID: 61014013.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 12:02  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/14/2015 17:14  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 5  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 156975 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		5.0	1.4
75-01-4	Vinyl chloride	ND		5.0	1.1
74-83-9	Bromomethane	ND	^c	5.0	1.6
75-00-3	Chloroethane	ND		5.0	1.1
75-35-4	1,1-Dichloroethene	ND		5.0	1.5
67-64-1	Acetone	ND		25	13
75-15-0	Carbon disulfide	ND		5.0	1.1
75-09-2	Methylene Chloride	ND		5.0	0.63
156-60-5	trans-1,2-Dichloroethene	ND		5.0	0.85
1634-04-4	Methyl tert-butyl ether	ND		5.0	0.92
75-34-3	1,1-Dichloroethane	ND		5.0	0.58
156-59-2	cis-1,2-Dichloroethene	4.7	J	5.0	1.2
74-97-5	Bromochloromethane	ND		5.0	0.90
78-93-3	2-Butanone (MEK)	ND		25	2.7
67-66-3	Chloroform	ND		5.0	0.85
71-55-6	1,1,1-Trichloroethane	ND		5.0	1.4
56-23-5	Carbon tetrachloride	ND		5.0	0.68
71-43-2	Benzene	ND		5.0	0.53
107-06-2	1,2-Dichloroethane	ND		5.0	1.1
79-01-6	Trichloroethene	94		5.0	0.72
78-87-5	1,2-Dichloropropane	ND		5.0	0.47
75-27-4	Bromodichloromethane	ND		5.0	0.65
10061-01-5	cis-1,3-Dichloropropene	ND		5.0	0.93
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		25	2.6
108-88-3	Toluene	ND		5.0	0.75
10061-02-6	trans-1,3-Dichloropropene	ND		5.0	0.74
79-00-5	1,1,2-Trichloroethane	ND		5.0	1.0
127-18-4	Tetrachloroethene	22		5.0	0.74
591-78-6	2-Hexanone	ND		25	0.80
124-48-1	Dibromochloromethane	ND		5.0	0.68
106-93-4	1,2-Dibromoethane (EDB)	ND		5.0	0.90
108-90-7	Chlorobenzene	ND		5.0	0.68
630-20-6	1,1,1,2-Tetrachloroethane	ND		5.0	1.4
100-41-4	Ethylbenzene	ND		5.0	1.1
1330-20-7	Xylenes, Total	ND		15	2.4
100-42-5	Styrene	ND		5.0	0.48

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-103S-0/1-0 DL Lab Sample ID: 180-48399-8 DL  
 Matrix: Water Lab File ID: 61014013.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 12:02  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/14/2015 17:14  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 5  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 156975 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	<i>Bromoform</i>	ND		5.0	0.96
79-34-5	<i>1,1,2,2-Tetrachloroethane</i>	ND		5.0	1.0
107-13-1	<i>Acrylonitrile</i>	ND		100	2.7
123-91-1	<i>1,4-Dioxane</i>	ND		1000	170

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	76		64-135
2037-26-5	Toluene-d8 (Surr)	104		71-118
460-00-4	4-Bromofluorobenzene (Surr)	95		70-118
1868-53-7	Dibromofluoromethane (Surr)	87		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014013.D  
 Lims ID: 180-48399-B-8 Lab Sample ID: 180-48399-8  
 Client ID: HD-MW-103S-0/1-0  
 Sample Type: Client  
 Inject. Date: 14-Oct-2015 17:14:30 ALS Bottle#: 14 Worklist Smp#: 13  
 Purge Vol: 5.000 mL Dil. Factor: 5.0000  
 Sample Info: 180-48399-B-8, 5x  
 Misc. Info.: 180-0008996-013  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 15-Oct-2015 08:35:40 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK008

First Level Reviewer: fergusond

Date: 15-Oct-2015 08:35:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.230	4.230	0.000	92	186626	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	98	530545	50.0	
* 3 Chlorobenzene-d5	119	10.392	10.399	-0.007	91	118943	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.753	-0.006	98	173926	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.554	6.560	-0.006	92	105708	43.3	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.931	0.000	68	150759	38.2	
\$ 7 Toluene-d8 (Surr)	98	8.945	8.939	0.006	93	488874	52.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.585	0.000	83	197123	47.3	
12 Chloromethane	50		1.760				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.235				ND	
16 Chloroethane	64		2.381				ND	
22 1,1-Dichloroethene	96	3.342	3.336	0.006	17	2902	1.09	
24 Acetone	43		3.433				ND	
26 Carbon disulfide	76		3.628				ND	
31 Methylene Chloride	84		4.120				ND	
33 Acrylonitrile	53		4.498				ND	
35 Methyl tert-butyl ether	73		4.565				ND	
34 trans-1,2-Dichloroethene	96		4.565				ND	
37 1,1-Dichloroethane	63		5.191				ND	
43 cis-1,2-Dichloroethene	96	5.945	5.939	0.006	78	15637	4.67	
44 2-Butanone (MEK)	43		5.945				ND	
48 Chlorobromomethane	128		6.225				ND	
50 Chloroform	83		6.365				ND	
51 1,1,1-Trichloroethane	97	6.529	6.536	-0.007	35	2577	0.6369	
53 Carbon tetrachloride	117		6.718				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.679	7.673	0.006	97	243185	94.3	
64 1,2-Dichloropropane	63		7.947				ND	
65 1,4-Dioxane	88		8.026				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
73 Toluene	91		9.012				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164	9.529	9.529	0.000	97	46423	22.2	
79 2-Hexanone	43		9.656				ND	
81 Chlorodibromomethane	129		9.821				ND	
82 Ethylene Dibromide	107		9.936				ND	
84 Chlorobenzene	112		10.429				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.654				ND	
89 o-Xylene	106		11.037				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.238				ND	
96 1,1,2,2-Tetrachloroethane	83		11.719				ND	
S 131 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00043

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00043

Amount Added: 2.00

Units: uL

Run Reagent



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014013.D

Injection Date: 14-Oct-2015 17:14:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-48399-B-8

Lab Sample ID: 180-48399-8

Worklist Smp#: 13

Client ID: HD-MW-103S-0/1-0

Purge Vol: 5.000 mL

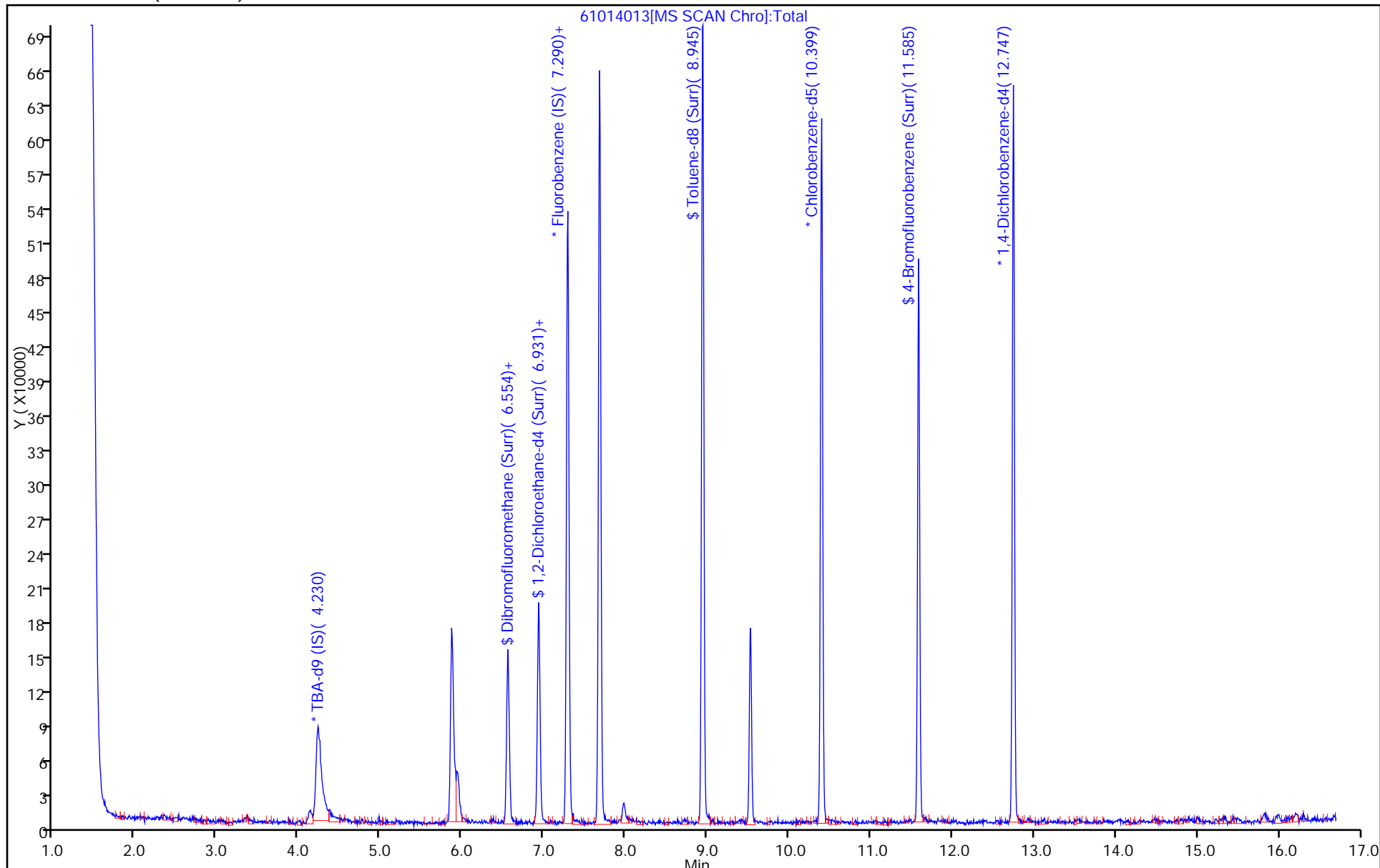
Dil. Factor: 5.0000

ALS Bottle#: 14

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014013.D

Injection Date: 14-Oct-2015 17:14:30

Instrument ID: CHHP6

Lims ID: 180-48399-B-8

Lab Sample ID: 180-48399-8

Client ID: HD-MW-103S-0/1-0

Operator ID: 001562

ALS Bottle#: 14

Worklist Smp#: 13

Purge Vol: 5.000 mL

Dil. Factor: 5.0000

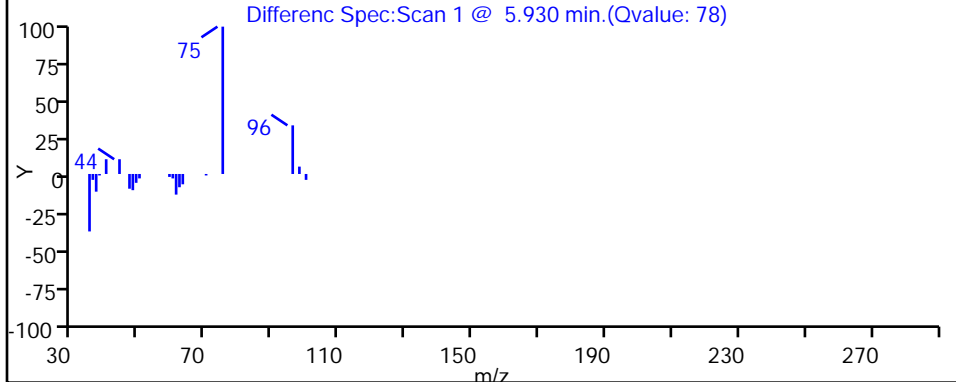
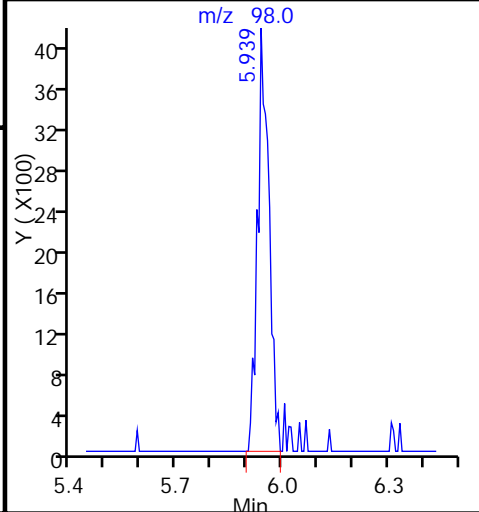
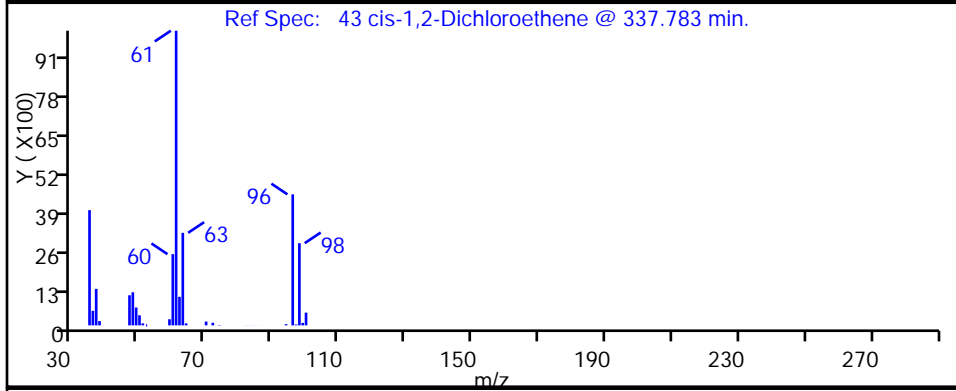
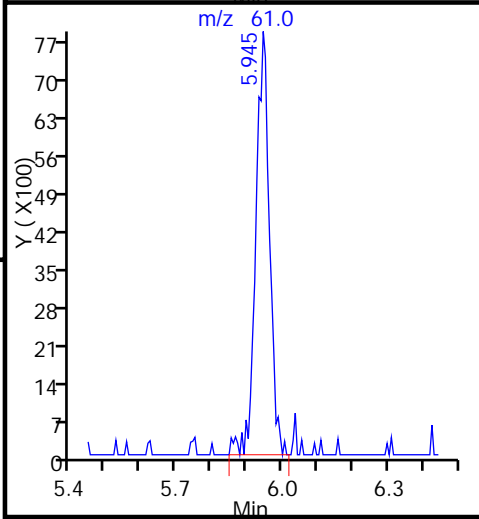
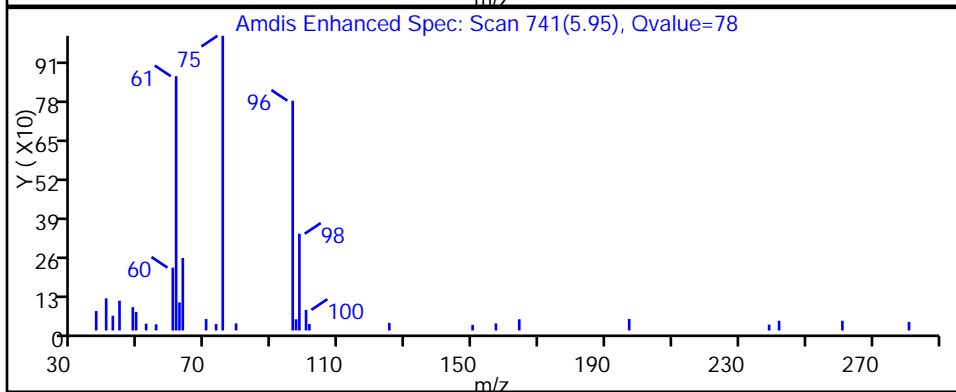
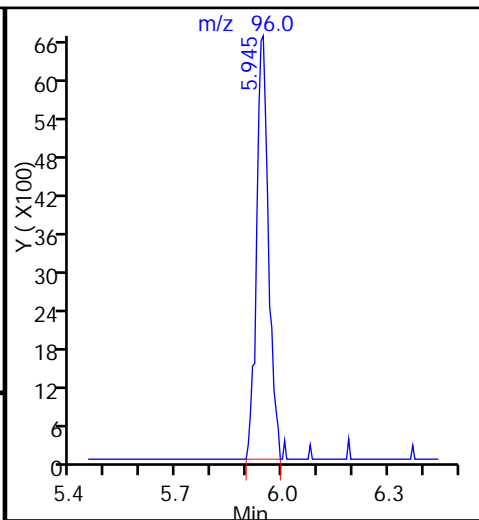
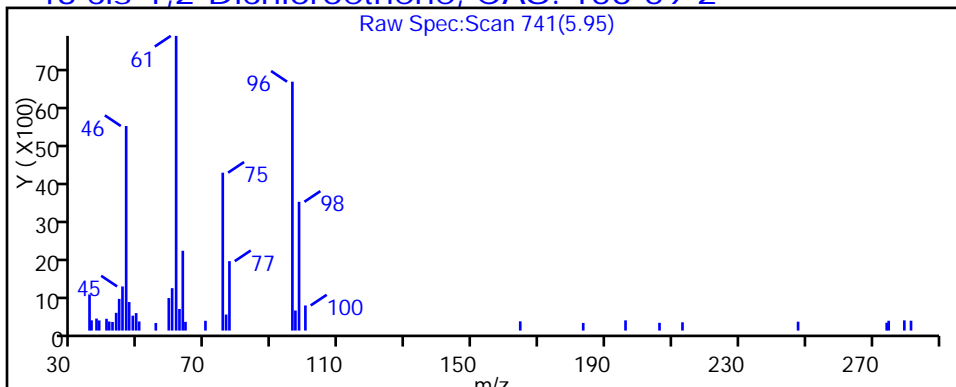
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014013.D

Injection Date: 14-Oct-2015 17:14:30

Instrument ID: CHHP6

Lims ID: 180-48399-B-8

Lab Sample ID: 180-48399-8

Client ID: HD-MW-103S-0/1-0

Operator ID: 001562

ALS Bottle#: 14 Worklist Smp#: 13

Purge Vol: 5.000 mL

Dil. Factor: 5.0000

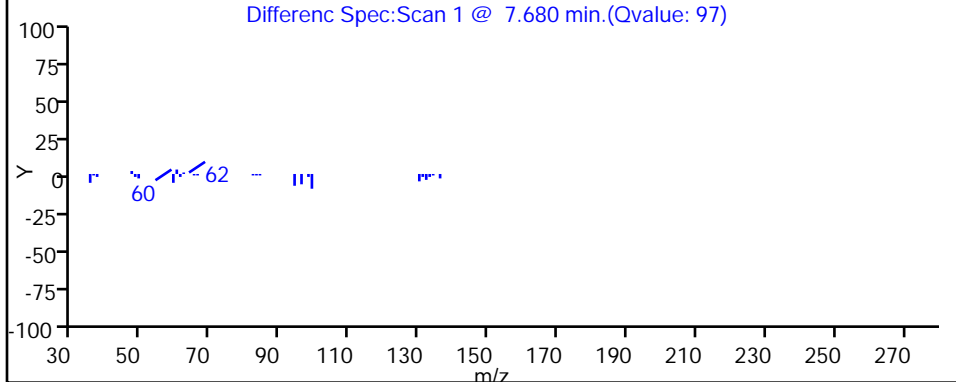
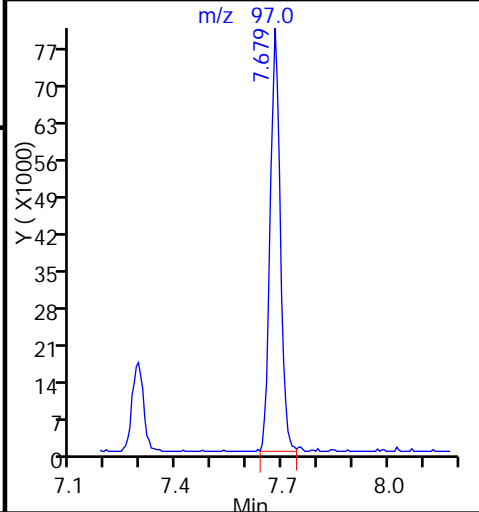
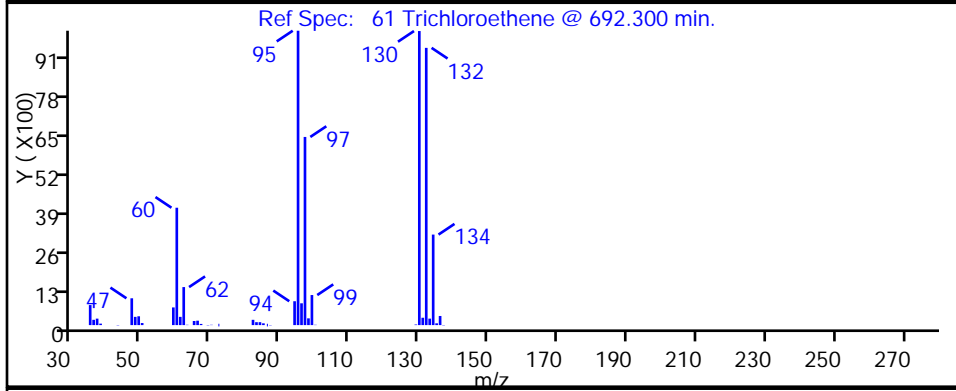
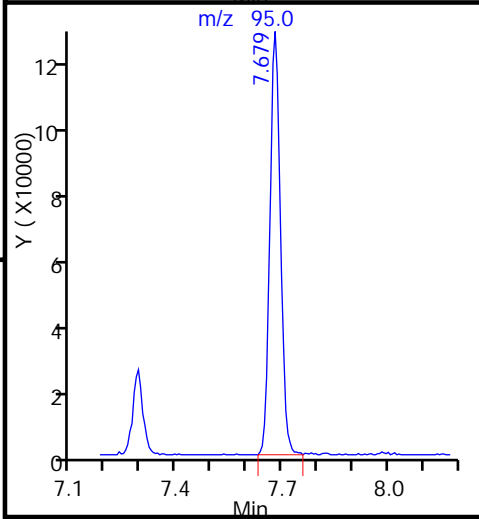
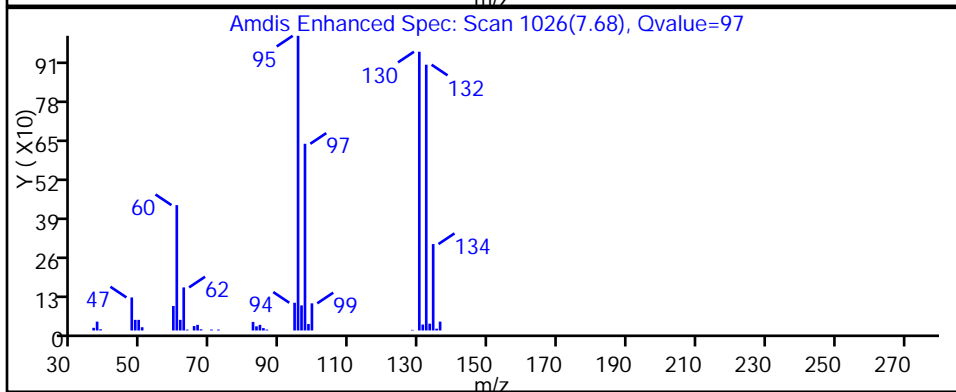
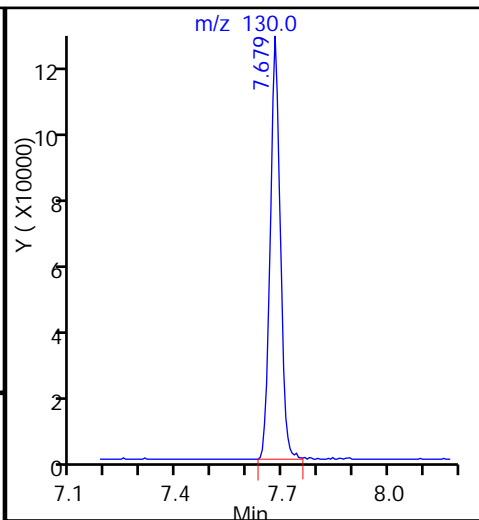
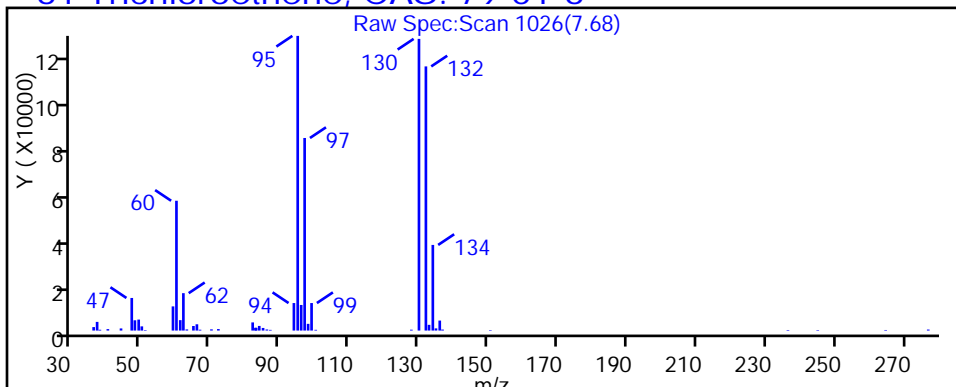
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

61 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014013.D

Injection Date: 14-Oct-2015 17:14:30

Instrument ID: CHHP6

Lims ID: 180-48399-B-8

Lab Sample ID: 180-48399-8

Client ID: HD-MW-103S-0/1-0

Operator ID: 001562

ALS Bottle#: 14

Worklist Smp#: 13

Purge Vol: 5.000 mL

Dil. Factor: 5.0000

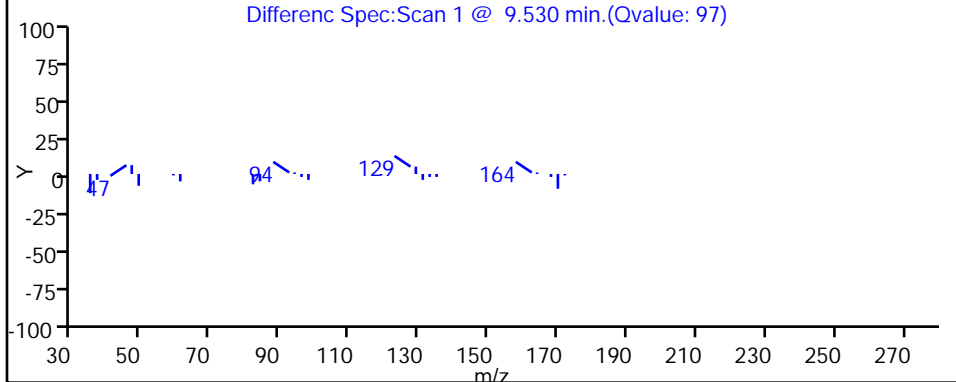
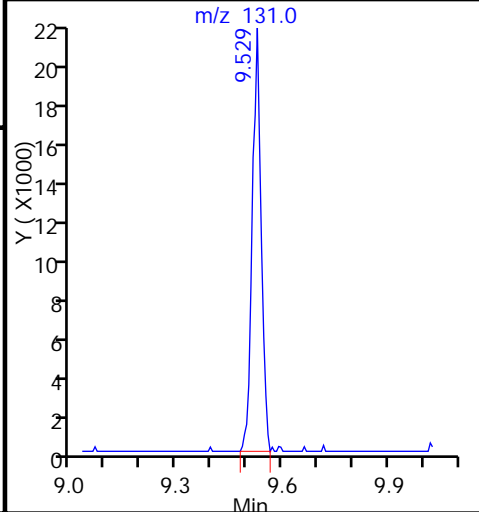
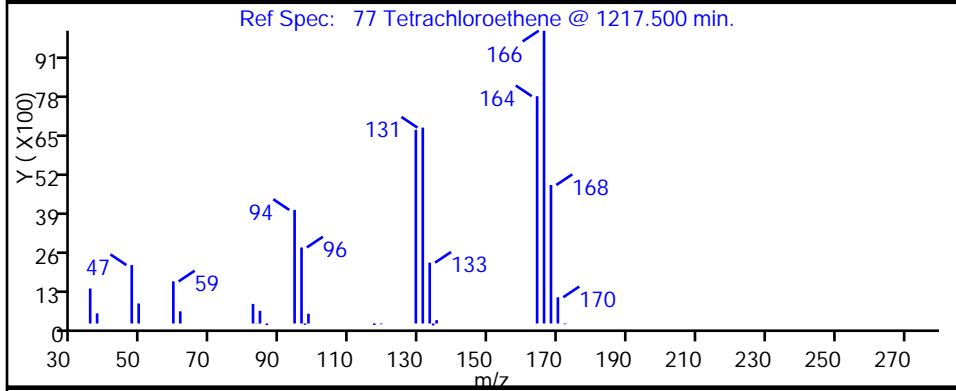
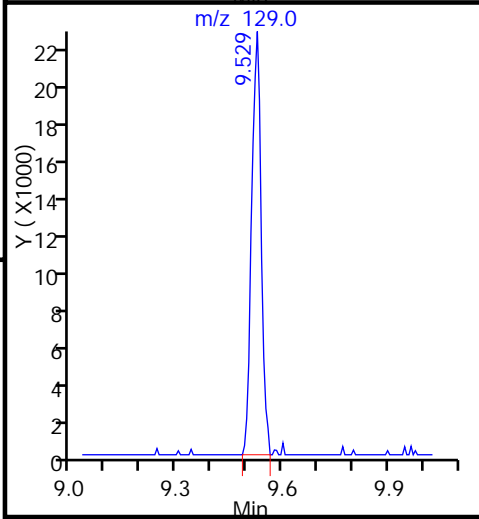
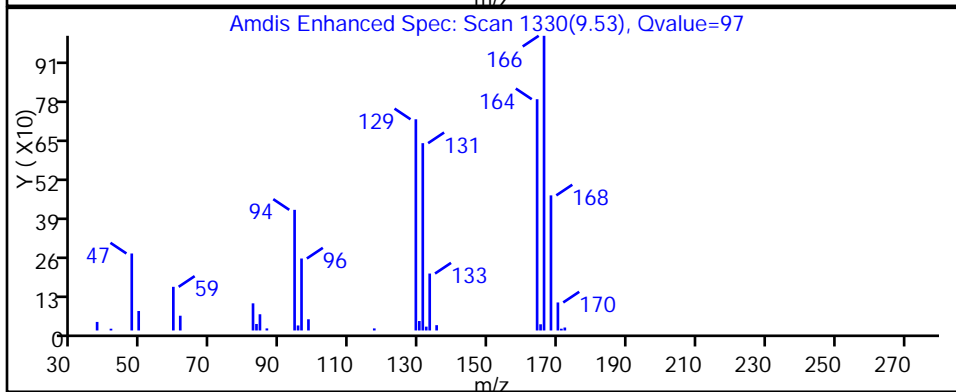
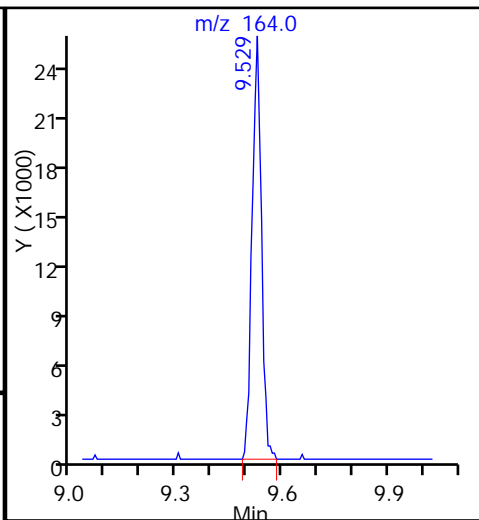
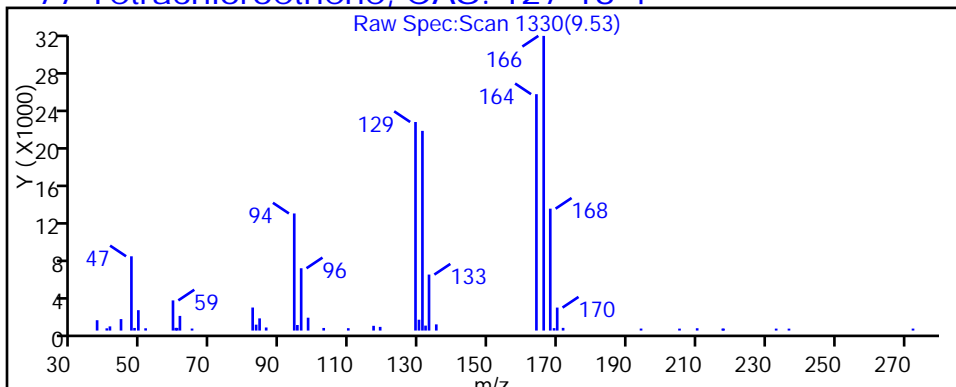
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

77 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-103D-0/1-0 Lab Sample ID: 180-48399-9  
 Matrix: Water Lab File ID: 61014014.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 09:52  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/14/2015 17:38  
 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.: 156975 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND	^c	1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	2.0		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	0.44	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	18		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	9.6		1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-103D-0/1-0 Lab Sample ID: 180-48399-9  
 Matrix: Water Lab File ID: 61014014.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 09:52  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/14/2015 17:38  
 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.: 156975 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	76		64-135
2037-26-5	Toluene-d8 (Surr)	107		71-118
460-00-4	4-Bromofluorobenzene (Surr)	96		70-118
1868-53-7	Dibromofluoromethane (Surr)	83		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014014.D  
 Lims ID: 180-48399-B-9 Lab Sample ID: 180-48399-9  
 Client ID: HD-MW-103D-0/1-0  
 Sample Type: Client  
 Inject. Date: 14-Oct-2015 17:38:30 ALS Bottle#: 15 Worklist Smp#: 14  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-48399-B-9  
 Misc. Info.: 180-0008996-014  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 15-Oct-2015 08:37:23 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK008

First Level Reviewer: fergusond

Date: 15-Oct-2015 08:37:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.231	4.230	0.001	92	172165	1000.0	
* 2 Fluorobenzene (IS)	96	7.285	7.290	-0.005	98	544831	50.0	
* 3 Chlorobenzene-d5	119	10.400	10.399	0.001	90	118764	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.748	12.753	-0.005	98	176177	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.555	6.560	-0.005	94	103570	41.3	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.932	6.931	0.001	69	154413	38.1	
\$ 7 Toluene-d8 (Surr)	98	8.940	8.939	0.001	93	500416	53.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.586	11.585	0.001	83	200228	48.1	
12 Chloromethane	50		1.760				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.235				ND	
16 Chloroethane	64		2.381				ND	
22 1,1-Dichloroethene	96		3.336				ND	
24 Acetone	43		3.433				ND	
26 Carbon disulfide	76		3.628				ND	
31 Methylene Chloride	84		4.120				ND	
33 Acrylonitrile	53		4.498				ND	
35 Methyl tert-butyl ether	73	4.578	4.565	0.013	31	2749	0.2899	M
34 trans-1,2-Dichloroethene	96		4.565				ND	
37 1,1-Dichloroethane	63		5.191				ND	
43 cis-1,2-Dichloroethene	96	5.940	5.939	0.001	80	34824	10.1	
44 2-Butanone (MEK)	43		5.945				ND	
48 Chlorobromomethane	128		6.225				ND	
50 Chloroform	83	6.378	6.365	0.013	90	12464	2.22	
51 1,1,1-Trichloroethane	97	6.543	6.536	0.007	35	1621	0.3901	
53 Carbon tetrachloride	117		6.718				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.674	7.673	0.001	97	239043	90.3	
64 1,2-Dichloropropane	63		7.947				ND	
65 1,4-Dioxane	88		8.026				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
73 Toluene	91	9.013	9.012	0.000	54	3613	0.2948	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164	9.524	9.529	-0.005	96	100172	47.9	
79 2-Hexanone	43		9.656				ND	
81 Chlorodibromomethane	129		9.821				ND	
82 Ethylene Dibromide	107		9.936				ND	
84 Chlorobenzene	112		10.429				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.654				ND	
89 o-Xylene	106		11.037				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.238				ND	
96 1,1,2,2-Tetrachloroethane	83		11.719				ND	
S 131 Xylenes, Total	106		1.000				ND	

### QC Flag Legend

Review Flags

M - Manually Integrated

### Reagents:

VOA8260INT\_00043

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00043

Amount Added: 2.00

Units: uL

Run Reagent



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014014.D

Injection Date: 14-Oct-2015 17:38:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-48399-B-9

Lab Sample ID: 180-48399-9

Worklist Smp#: 14

Client ID: HD-MW-103D-0/1-0

Purge Vol: 5.000 mL

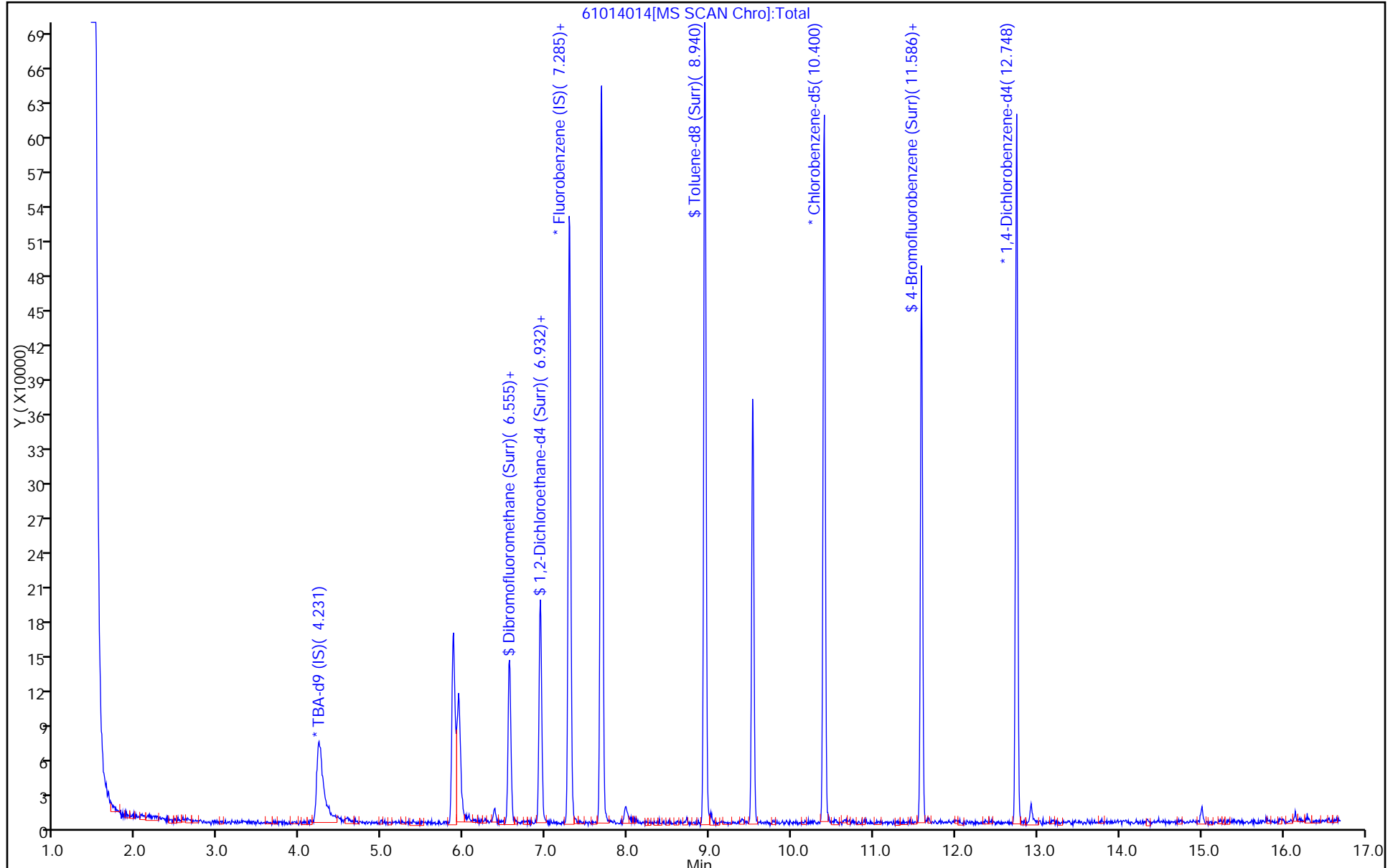
Dil. Factor: 1.0000

ALS Bottle#: 15

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014014.D

Injection Date: 14-Oct-2015 17:38:30

Instrument ID: CHHP6

Lims ID: 180-48399-B-9

Lab Sample ID: 180-48399-9

Client ID: HD-MW-103D-0/1-0

Operator ID: 001562

ALS Bottle#: 15 Worklist Smp#: 14

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

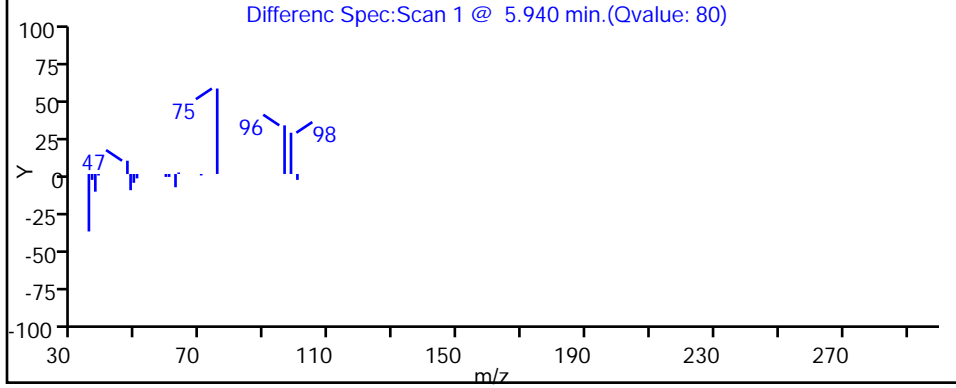
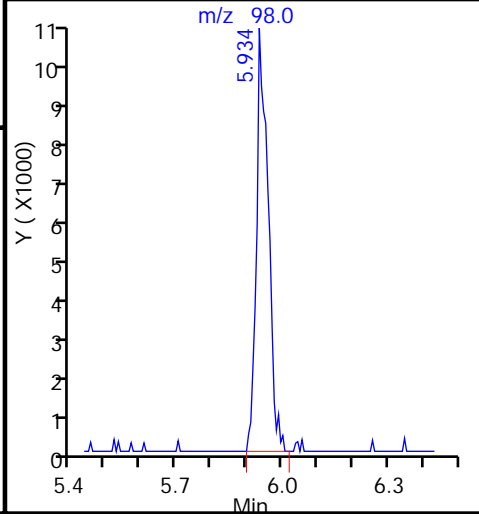
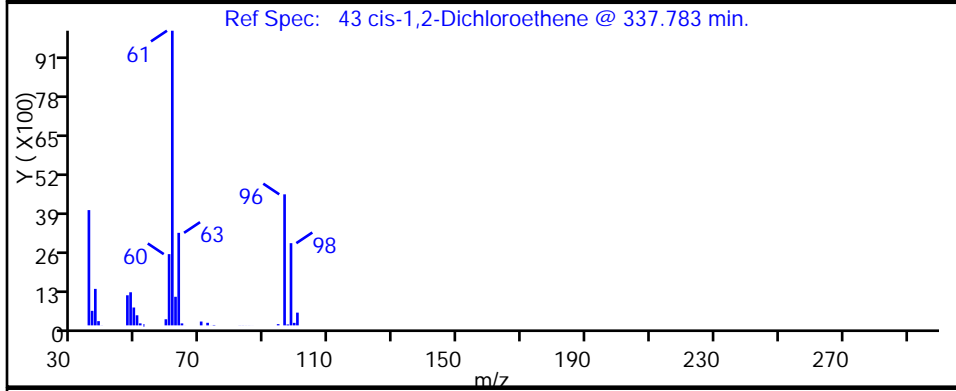
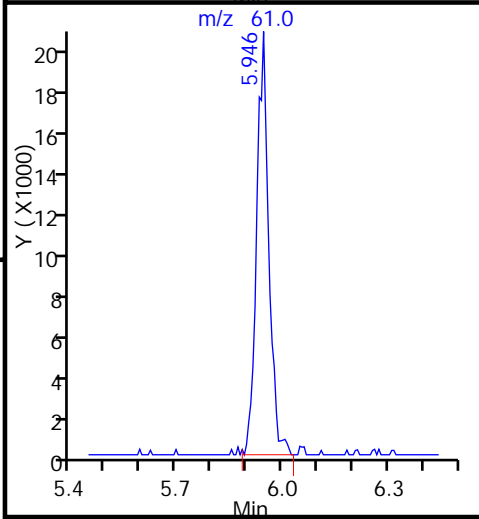
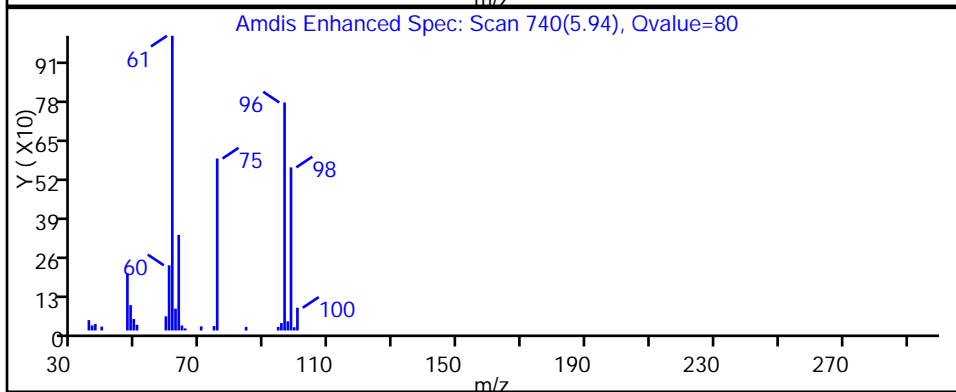
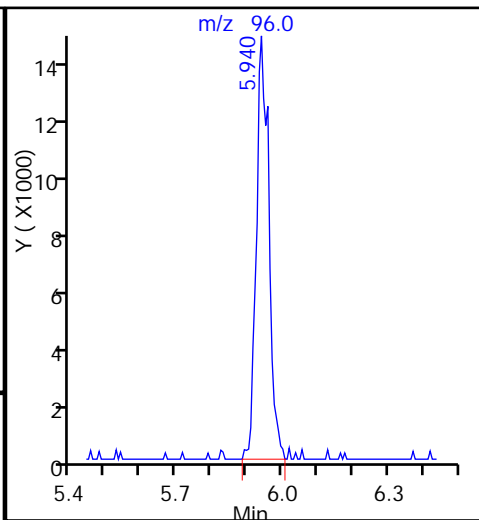
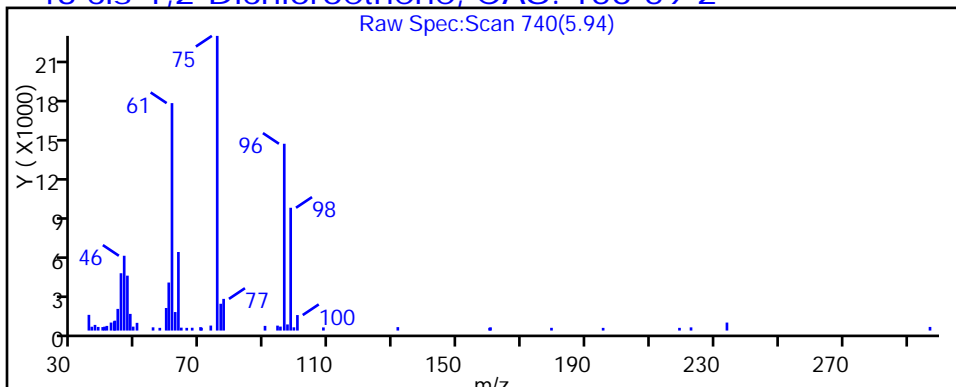
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014014.D

Injection Date: 14-Oct-2015 17:38:30

Instrument ID: CHHP6

Lims ID: 180-48399-B-9

Lab Sample ID: 180-48399-9

Client ID: HD-MW-103D-0/1-0

Operator ID: 001562

ALS Bottle#: 15 Worklist Smp#: 14

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

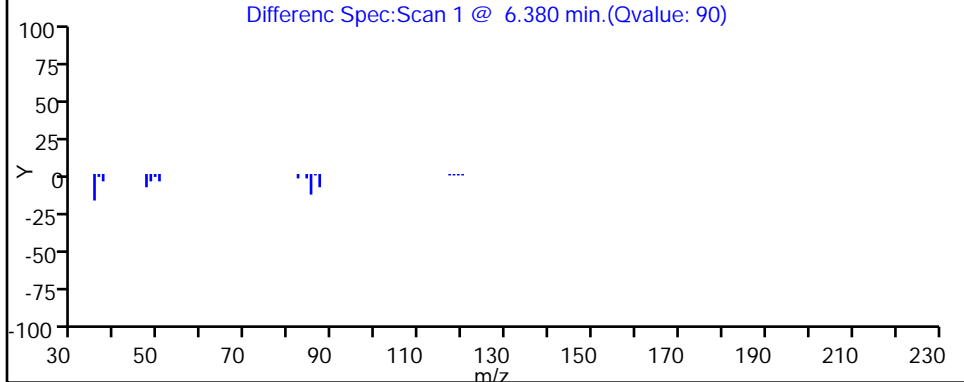
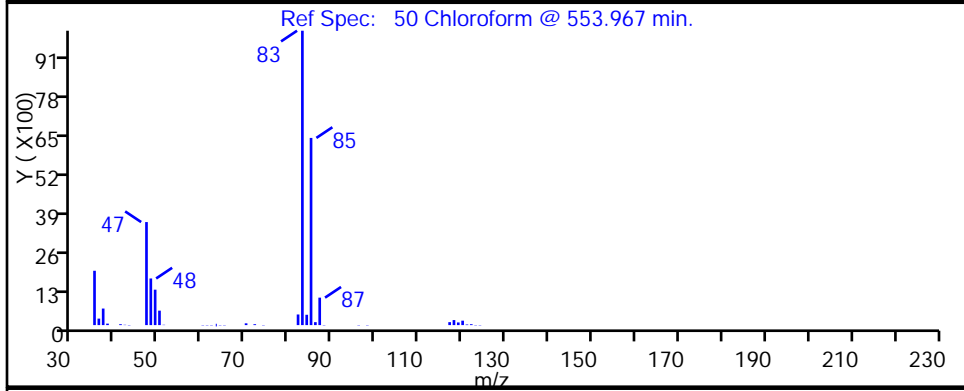
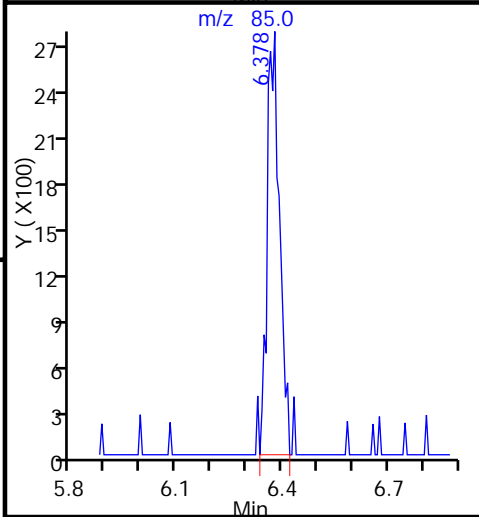
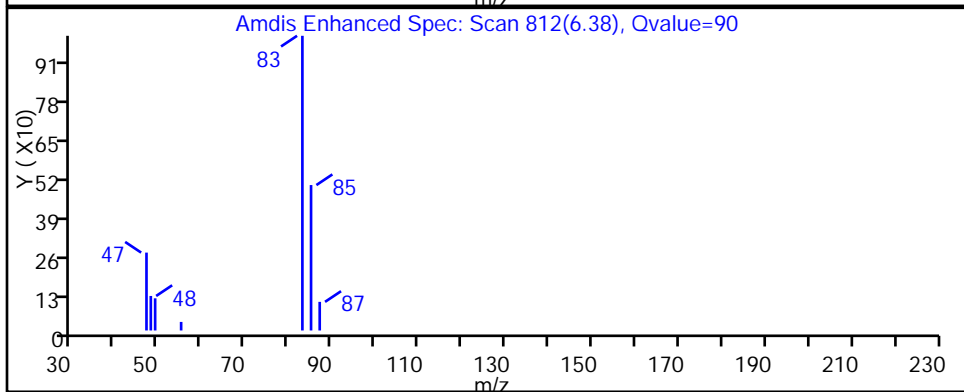
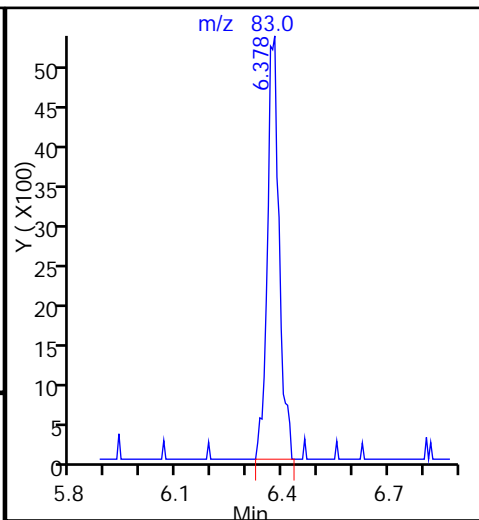
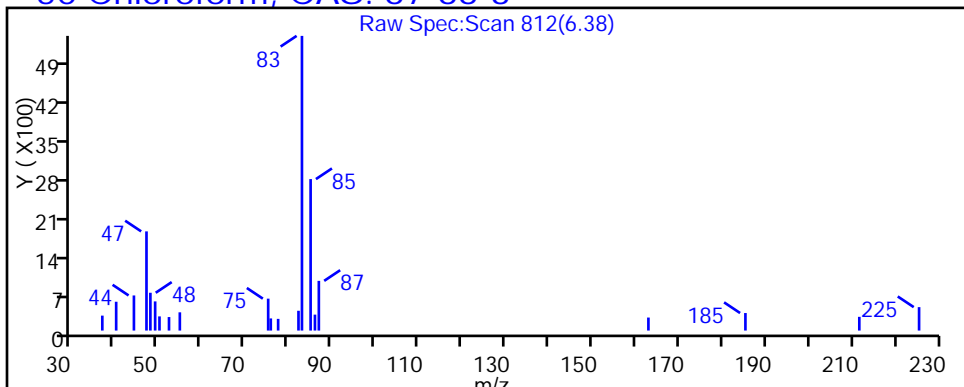
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

50 Chloroform, CAS: 67-66-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014014.D

Injection Date: 14-Oct-2015 17:38:30

Instrument ID: CHHP6

Lims ID: 180-48399-B-9

Lab Sample ID: 180-48399-9

Client ID: HD-MW-103D-0/1-0

Operator ID: 001562

ALS Bottle#: 15 Worklist Smp#: 14

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

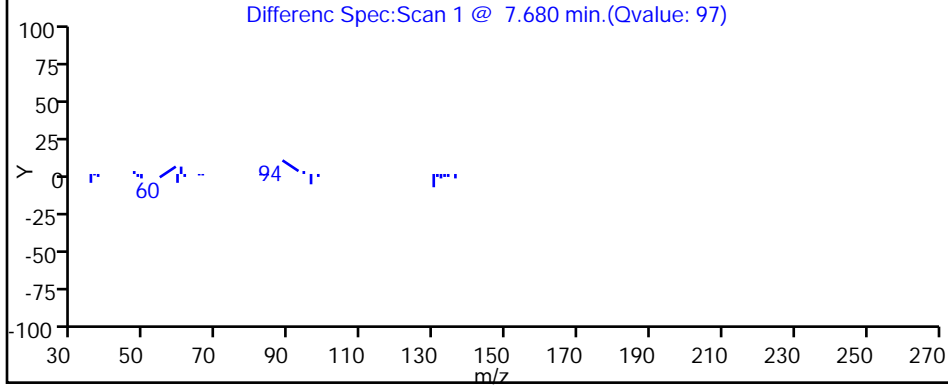
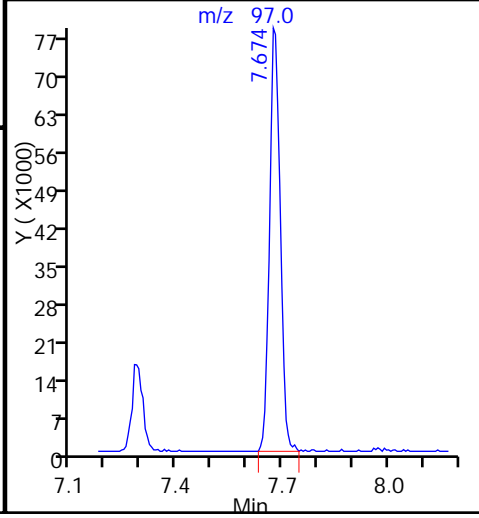
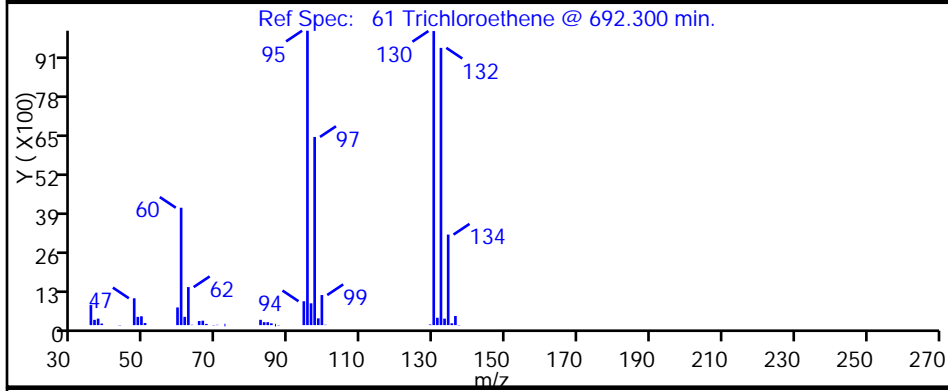
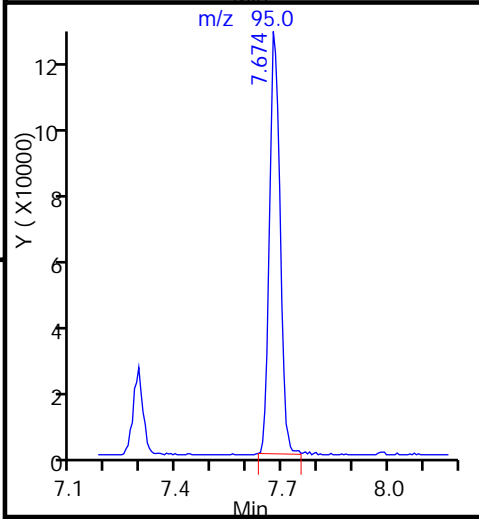
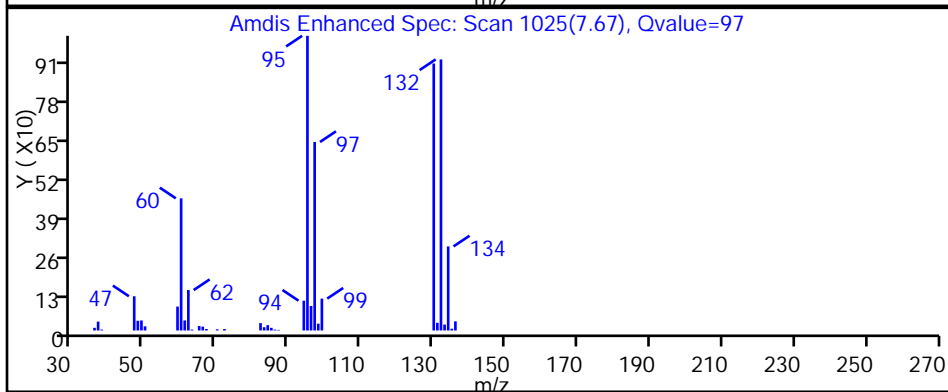
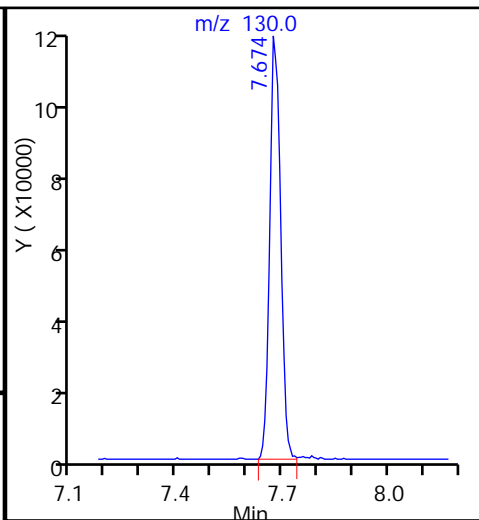
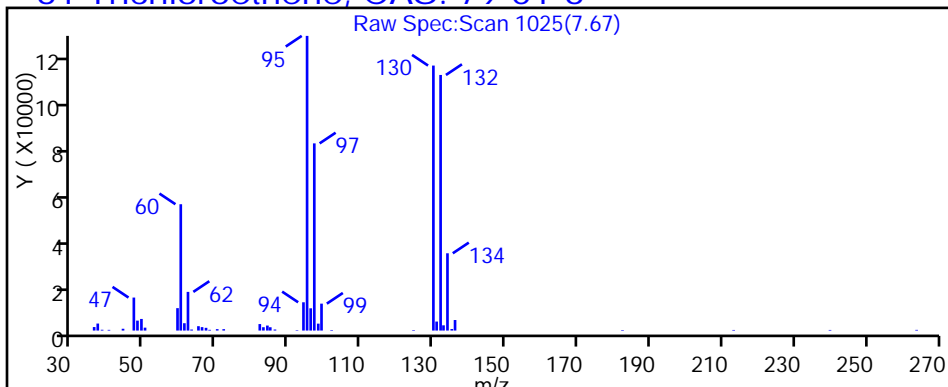
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

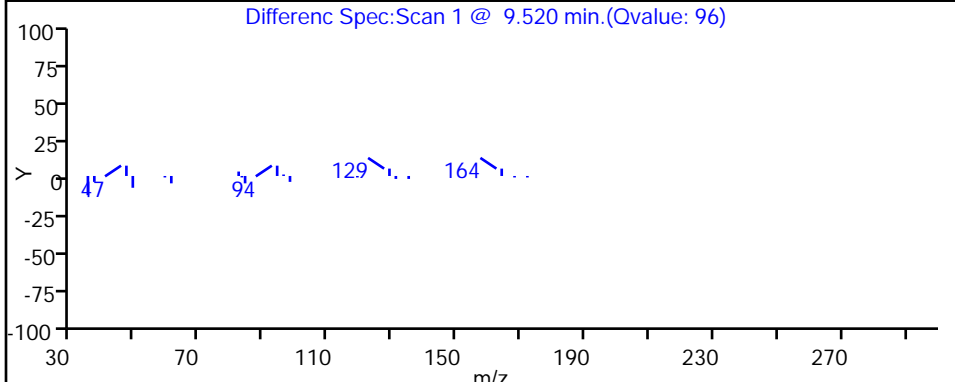
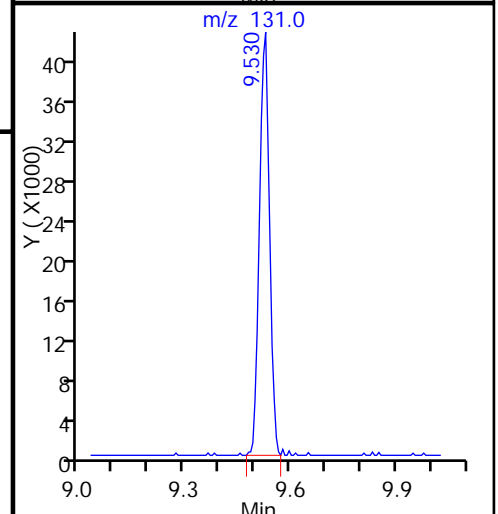
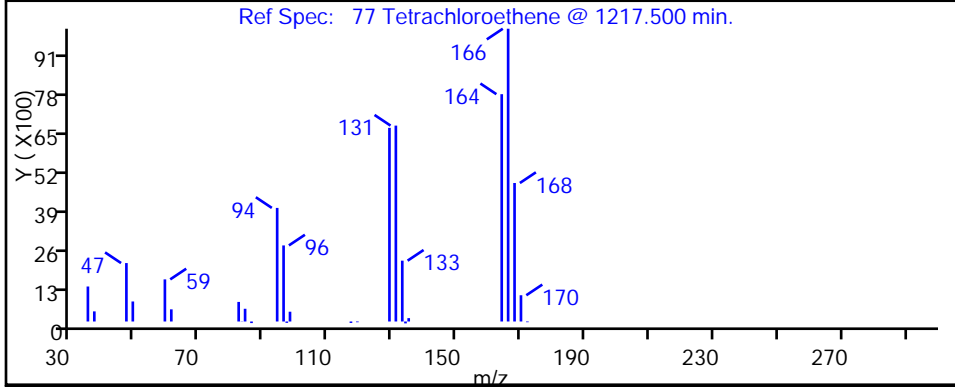
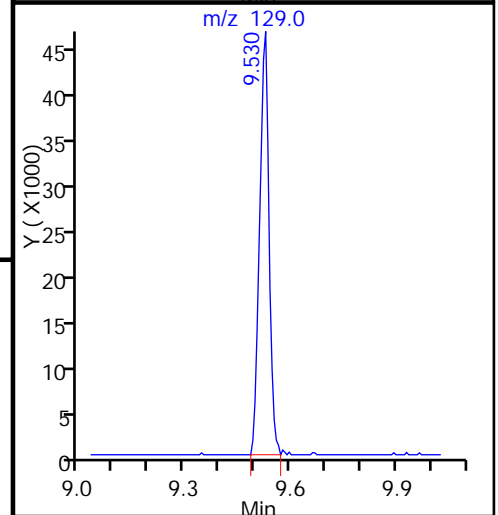
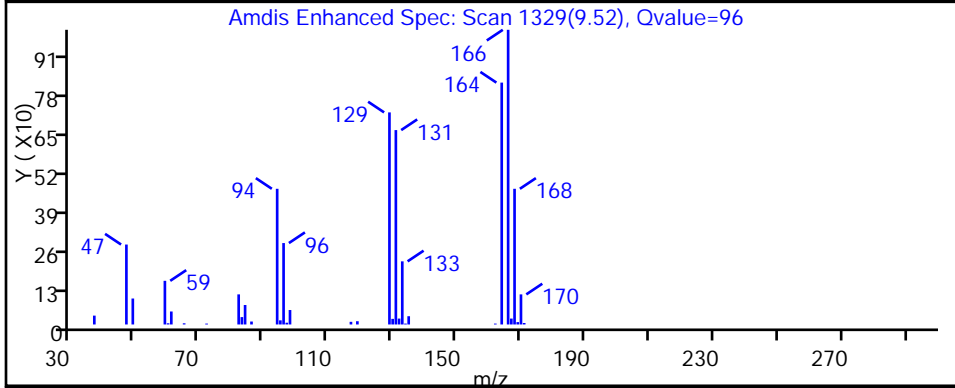
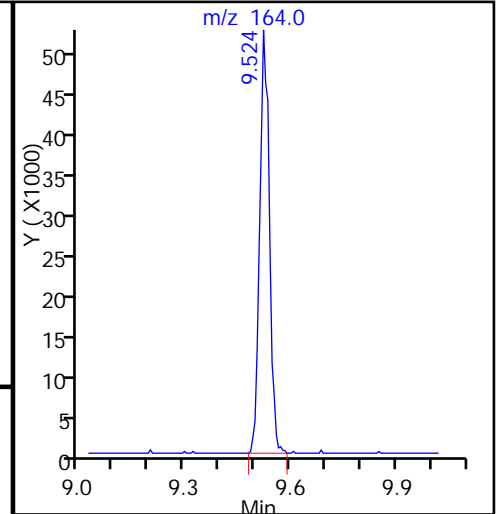
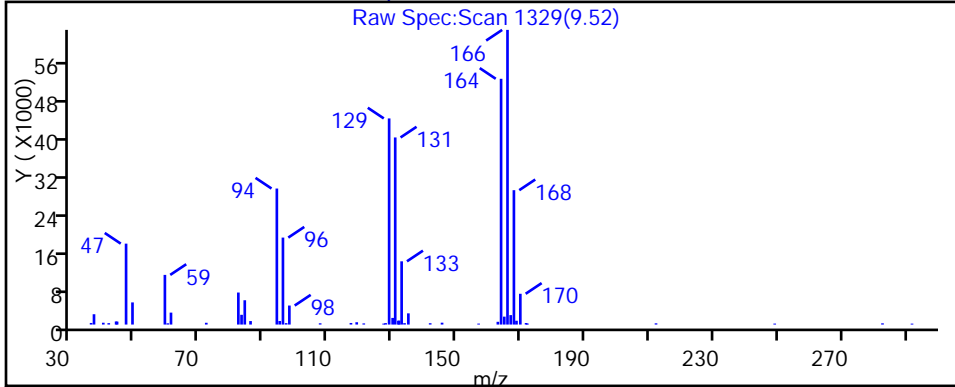
61 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014014.D  
Injection Date: 14-Oct-2015 17:38:30 Instrument ID: CHHP6  
Lims ID: 180-48399-B-9 Lab Sample ID: 180-48399-9  
Client ID: HD-MW-103D-0/1-0  
Operator ID: 001562 ALS Bottle#: 15 Worklist Smp#: 14  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector MS SCAN

77 Tetrachloroethene, CAS: 127-18-4



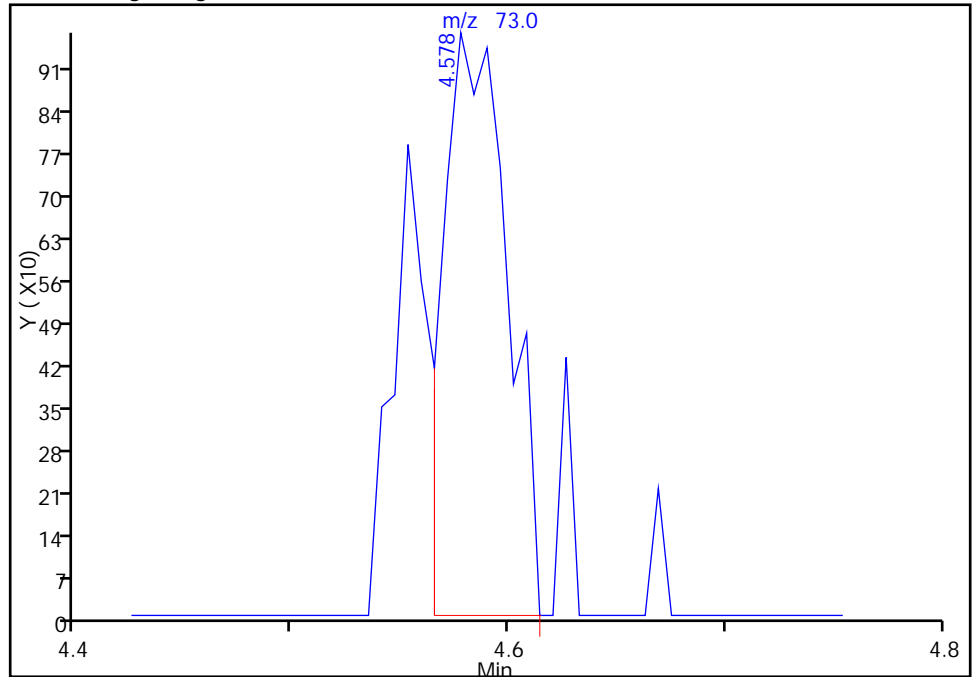
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014014.D  
Injection Date: 14-Oct-2015 17:38:30 Instrument ID: CHHP6  
Lims ID: 180-48399-B-9 Lab Sample ID: 180-48399-9  
Client ID: HD-MW-103D-0/1-0  
Operator ID: 001562 ALS Bottle#: 15 Worklist Smp#: 14  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

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

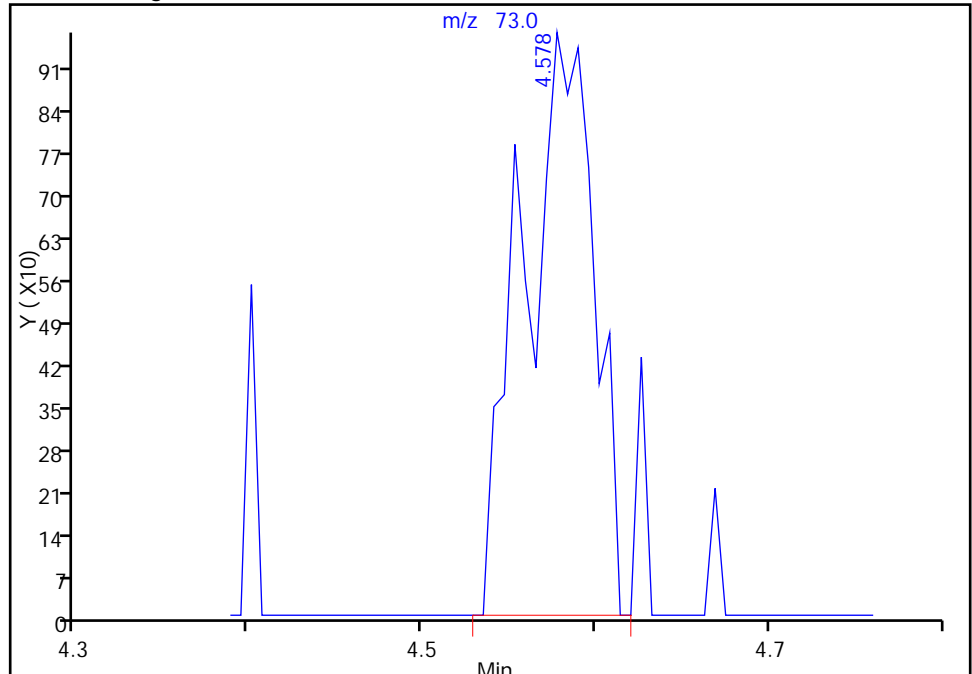
RT: 4.58  
Area: 2003  
Amount: 0.211205  
Amount Units: ng

Processing Integration Results



RT: 4.58  
Area: 2749  
Amount: 0.289866  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 15-Oct-2015 08:37:23  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-102S-0/1-0 Lab Sample ID: 180-48399-10  
 Matrix: Water Lab File ID: 61013028.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 14:50  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 23:37  
 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.: 156820 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND	^c	1.0	0.31
75-00-3	Chloroethane	ND	^c	1.0	0.21
75-35-4	1,1-Dichloroethene	5.7		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	0.62	J	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	3.7		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	3.8		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	27		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	12		1.0	0.15
591-78-6	2-Hexanone	ND	^c	5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-102S-0/1-0 Lab Sample ID: 180-48399-10  
 Matrix: Water Lab File ID: 61013028.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 14:50  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 23:37  
 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.: 156820 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	78		64-135
2037-26-5	Toluene-d8 (Surr)	109		71-118
460-00-4	4-Bromofluorobenzene (Surr)	99		70-118
1868-53-7	Dibromofluoromethane (Surr)	92		70-128



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013028.D  
 Lims ID: 180-48399-A-10 Lab Sample ID: 180-48399-10  
 Client ID: HD-MW-102S-0/1-0  
 Sample Type: Client  
 Inject. Date: 13-Oct-2015 23:37:30 ALS Bottle#: 28 Worklist Smp#: 28  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-48399-A-10  
 Misc. Info.: 180-0008971-028  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Oct-2015 08:19:05 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK037

First Level Reviewer: fergusond

Date: 14-Oct-2015 08:19:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.225	4.242	-0.017	92	169479	1000.0	
* 2 Fluorobenzene (IS)	96	7.291	7.290	0.001	99	498300	50.0	
* 3 Chlorobenzene-d5	119	10.400	10.399	0.001	90	105440	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.748	12.747	0.001	98	163959	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.555	6.554	0.001	93	105732	46.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.932	6.931	0.001	69	143588	38.8	
\$ 7 Toluene-d8 (Surr)	98	8.940	8.945	-0.005	92	453844	54.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.586	11.591	-0.005	82	183129	49.6	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.235				ND	
16 Chloroethane	64		2.387				ND	
22 1,1-Dichloroethene	96	3.349	3.342	0.007	97	70943	28.3	
24 Acetone	43		3.427				ND	
26 Carbon disulfide	76		3.634				ND	
31 Methylene Chloride	84		4.133				ND	
33 Acrylonitrile	53		4.504				ND	
34 trans-1,2-Dichloroethene	96		4.565				ND	
35 Methyl tert-butyl ether	73		4.577				ND	
37 1,1-Dichloroethane	63	5.205	5.203	0.002	53	15959	3.08	
43 cis-1,2-Dichloroethene	96	5.941	5.939	0.002	80	57920	18.4	
44 2-Butanone (MEK)	43		5.952				ND	
48 Chlorobromomethane	128		6.231				ND	
50 Chloroform	83		6.371				ND	
51 1,1,1-Trichloroethane	97	6.543	6.542	0.001	85	72644	19.1	
53 Carbon tetrachloride	117		6.718				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.681	7.673	0.008	97	323049	133.4	
64 1,2-Dichloropropane	63		7.953				ND	
65 1,4-Dioxane	88		8.032				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.233				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
73 Toluene	91		9.012				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164	9.530	9.529	0.001	95	115005	62.0	
79 2-Hexanone	43		9.663				ND	
81 Chlorodibromomethane	129		9.827				ND	
82 Ethylene Dibromide	107		9.936				ND	
84 Chlorobenzene	112		10.429				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.660				ND	
89 o-Xylene	106		11.043				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.713				ND	
S 131 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00043

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00043

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013028.D

Injection Date: 13-Oct-2015 23:37:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-48399-A-10

Lab Sample ID: 180-48399-10

Worklist Smp#: 28

Client ID: HD-MW-102S-0/1-0

Purge Vol: 5.000 mL

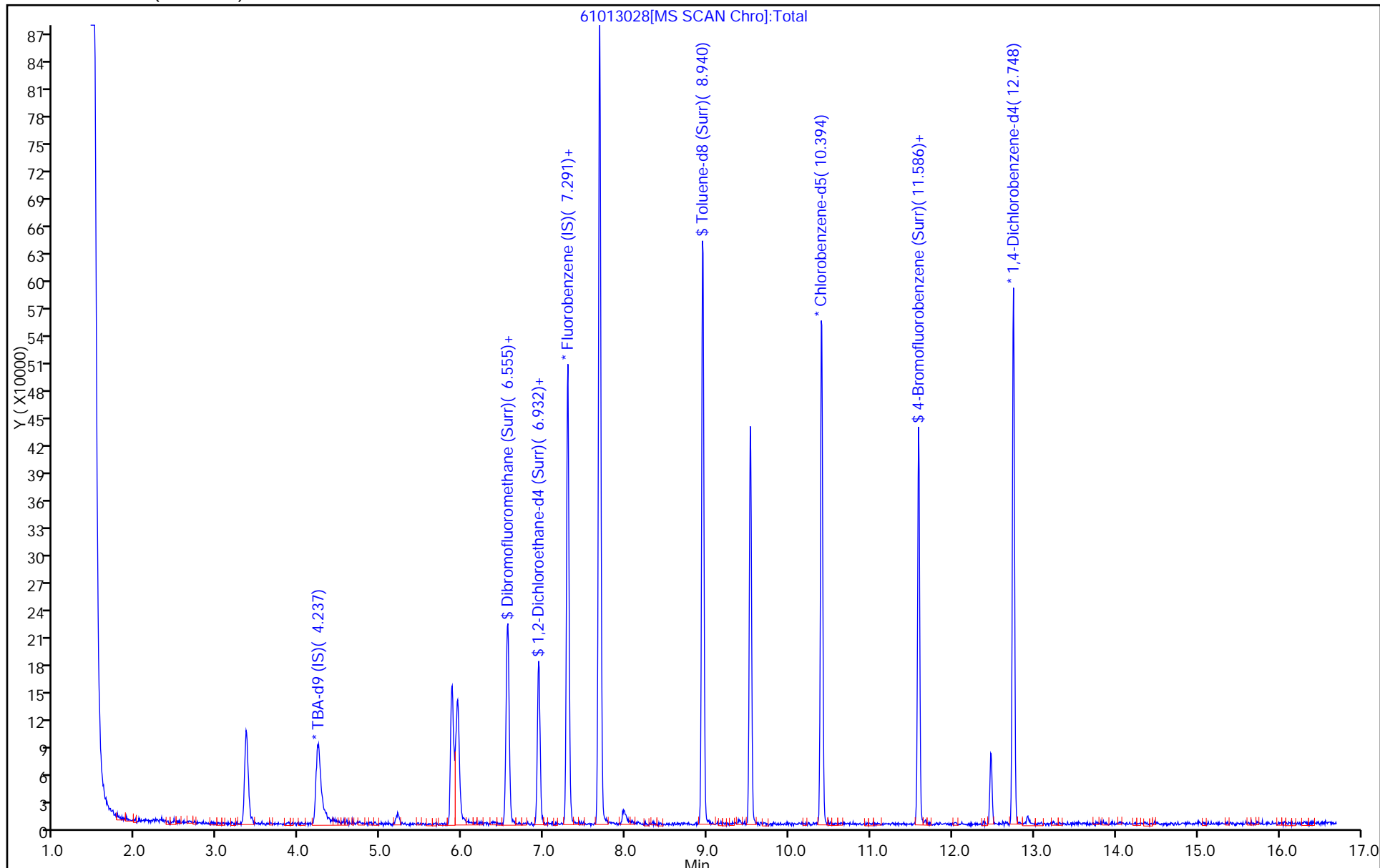
Dil. Factor: 1.0000

ALS Bottle#: 28

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013028.D

Injection Date: 13-Oct-2015 23:37:30

Instrument ID: CHHP6

Lims ID: 180-48399-A-10

Lab Sample ID: 180-48399-10

Client ID: HD-MW-102S-0/1-0

Operator ID: 001562

ALS Bottle#: 28 Worklist Smp#: 28

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

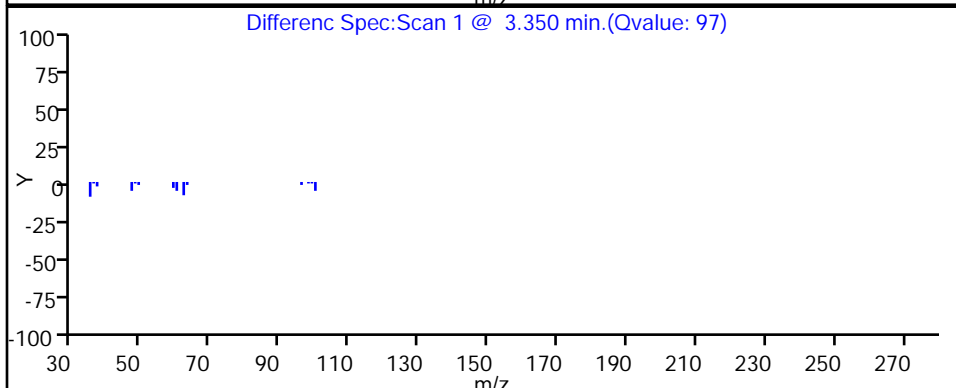
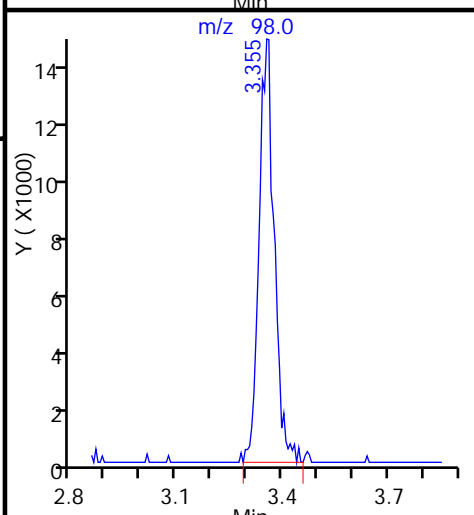
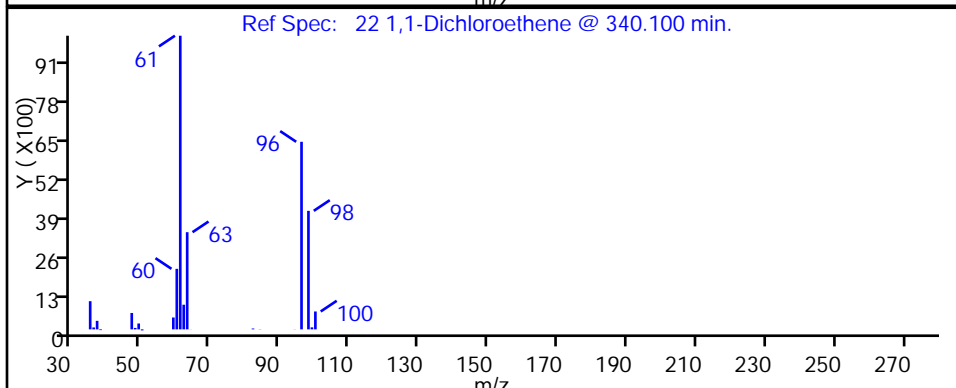
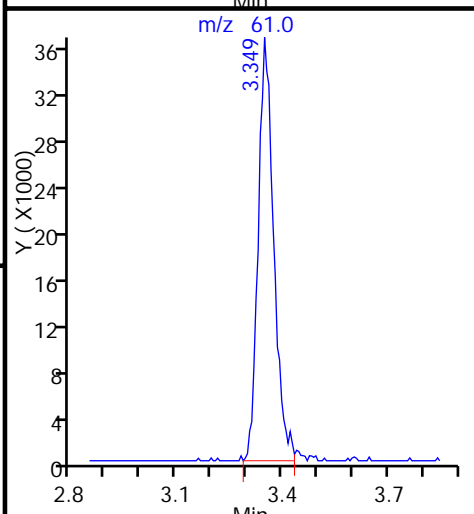
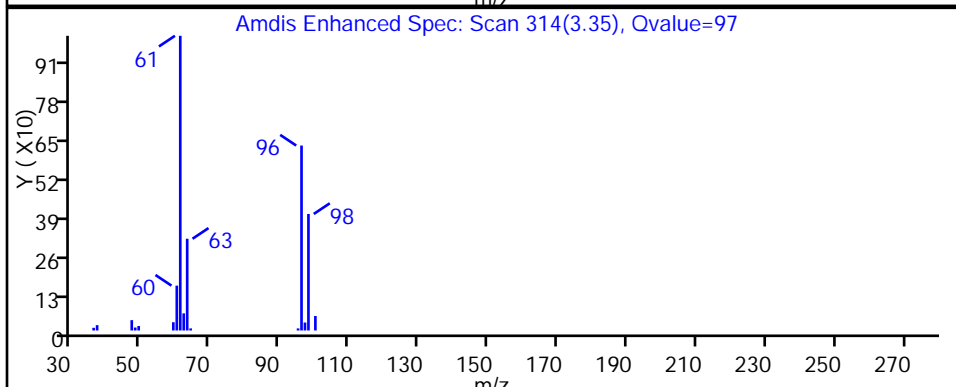
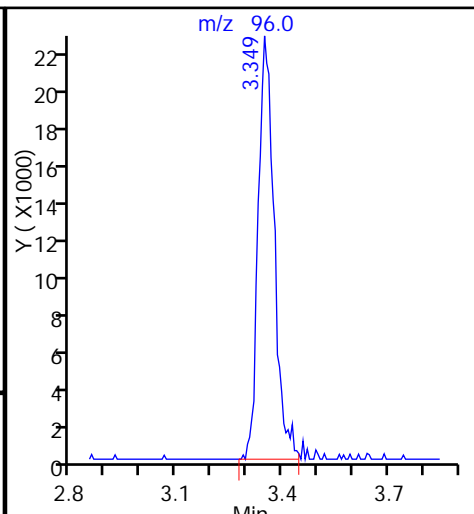
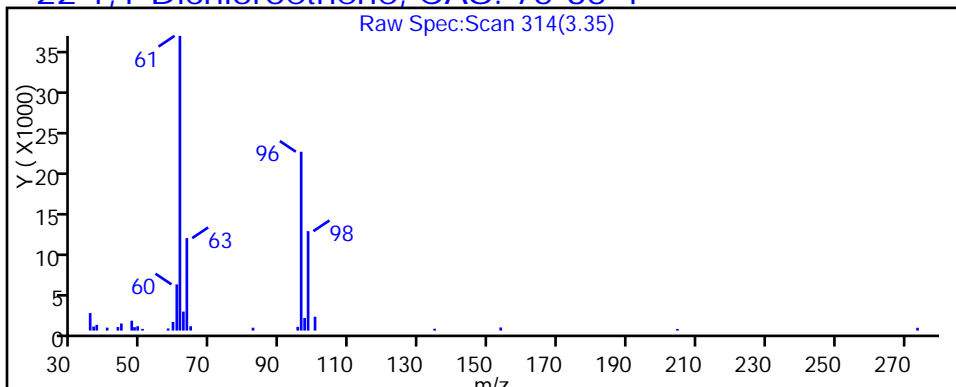
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013028.D

Injection Date: 13-Oct-2015 23:37:30

Instrument ID: CHHP6

Lims ID: 180-48399-A-10

Lab Sample ID: 180-48399-10

Client ID: HD-MW-102S-0/1-0

Operator ID: 001562

ALS Bottle#: 28 Worklist Smp#: 28

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

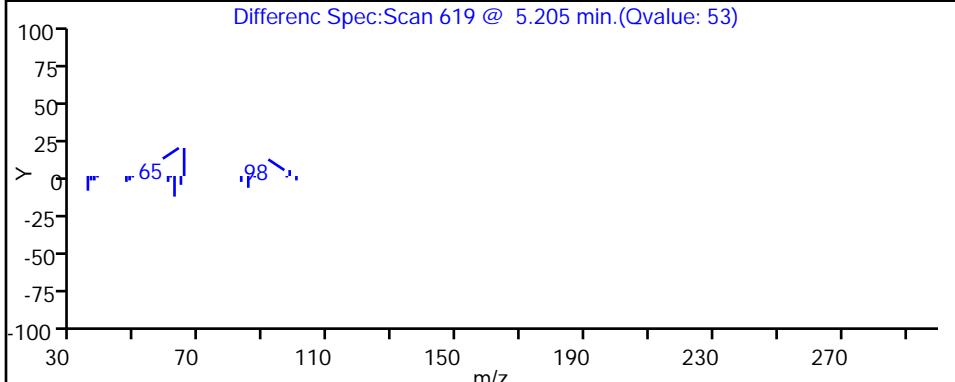
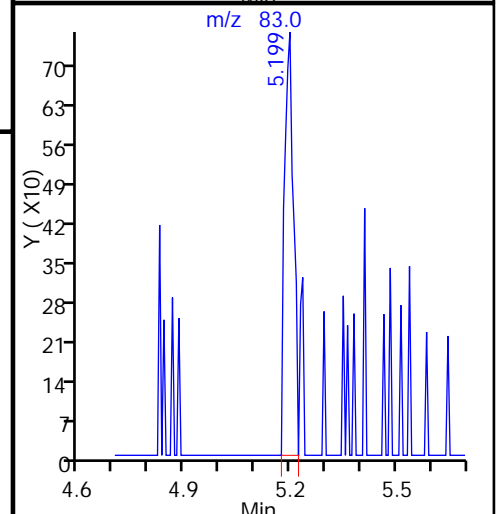
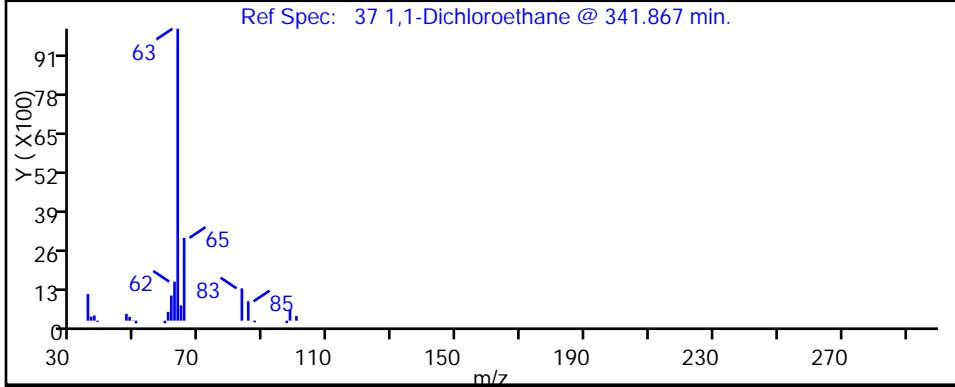
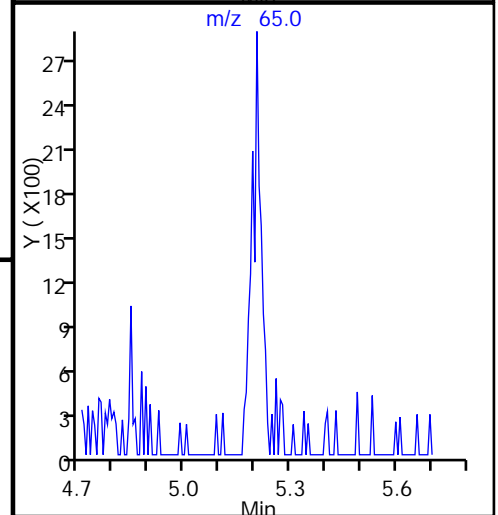
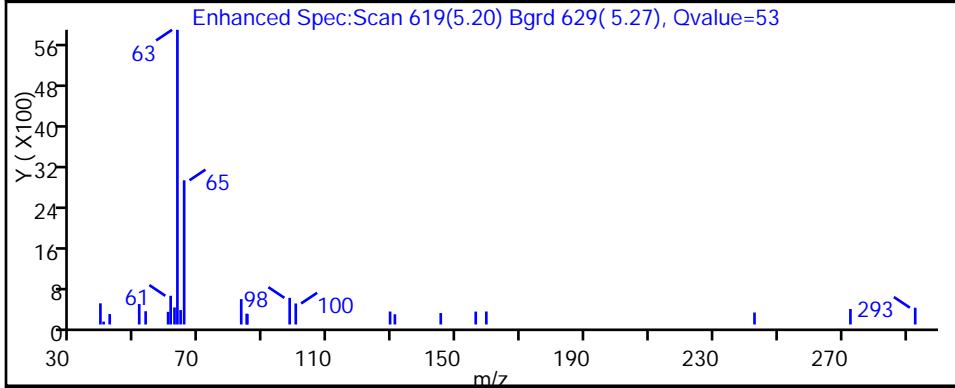
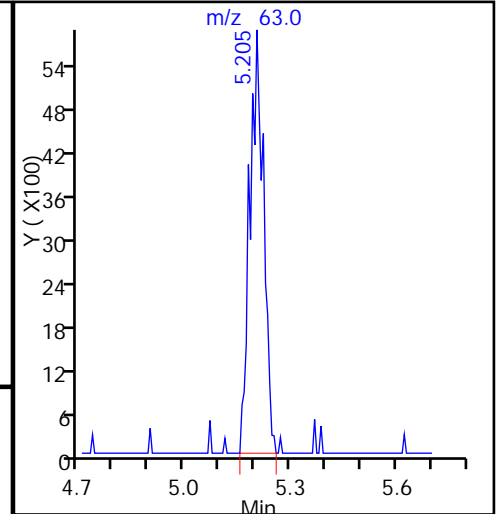
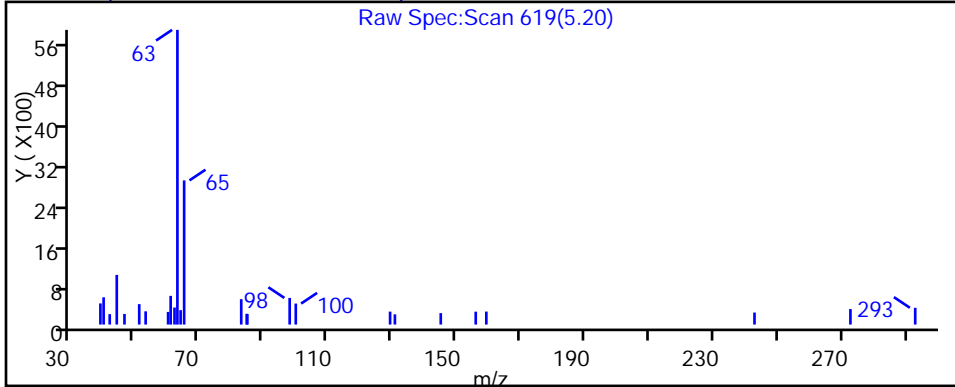
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013028.D

Injection Date: 13-Oct-2015 23:37:30

Instrument ID: CHHP6

Lims ID: 180-48399-A-10

Lab Sample ID: 180-48399-10

Client ID: HD-MW-102S-0/1-0

Operator ID: 001562

ALS Bottle#: 28

Worklist Smp#: 28

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

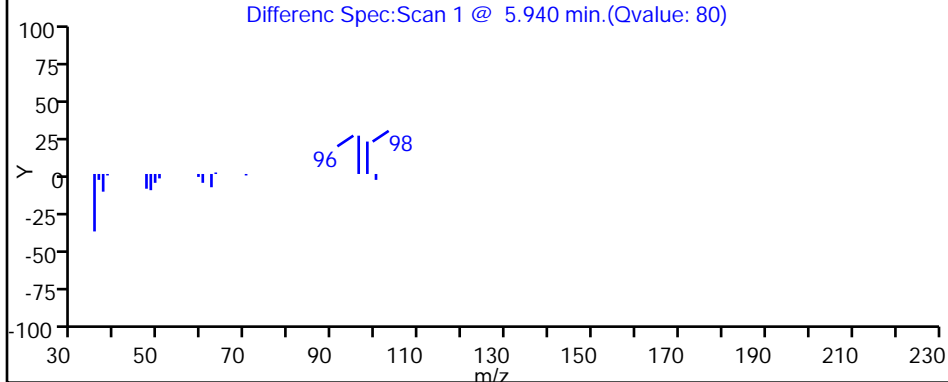
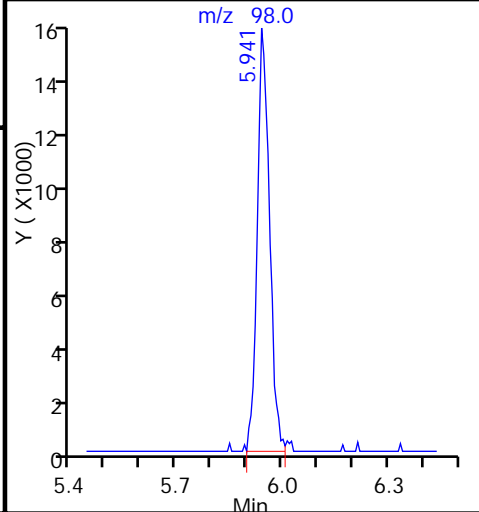
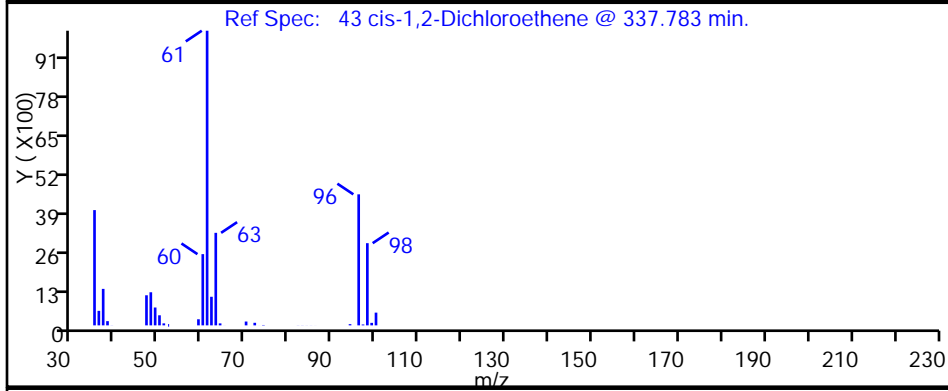
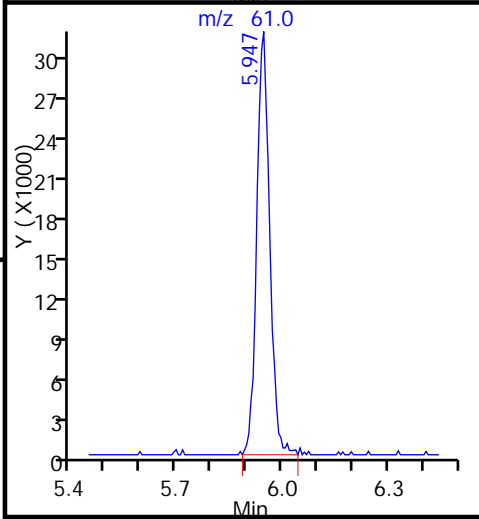
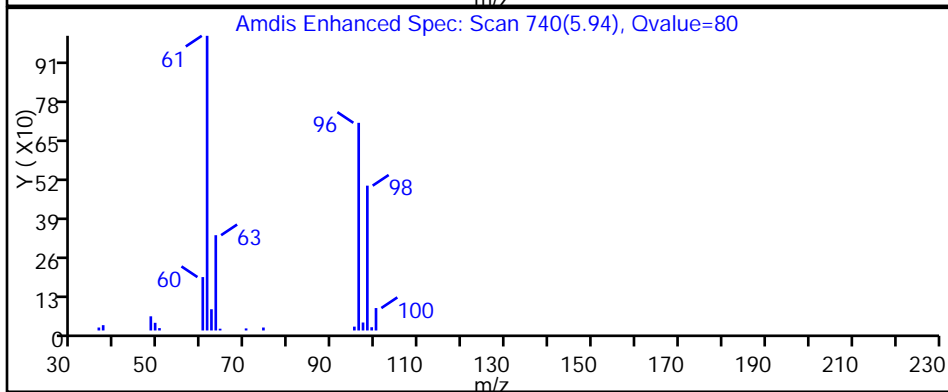
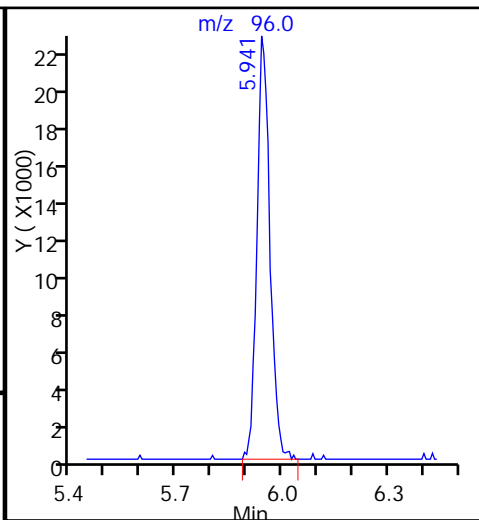
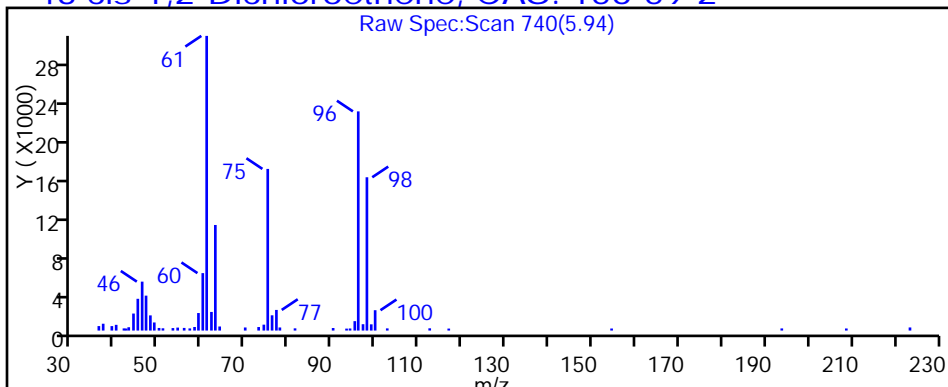
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

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Injection Date: 13-Oct-2015 23:37:30

Instrument ID: CHHP6

Lims ID: 180-48399-A-10

Lab Sample ID: 180-48399-10

Client ID: HD-MW-102S-0/1-0

Operator ID: 001562

ALS Bottle#: 28

Worklist Smp#: 28

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

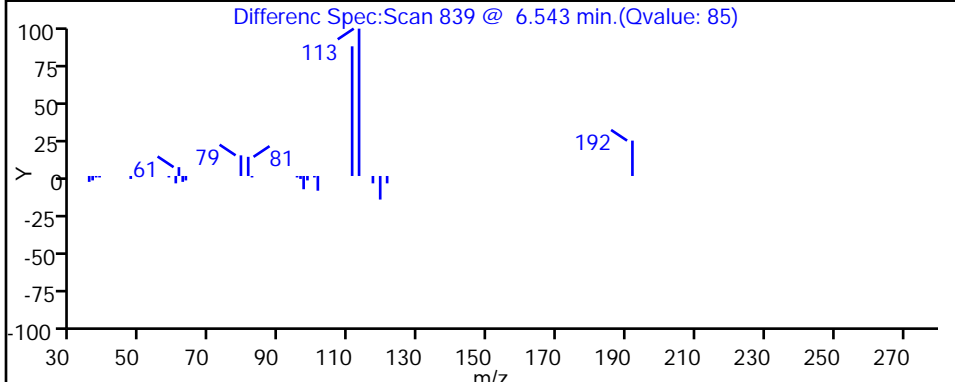
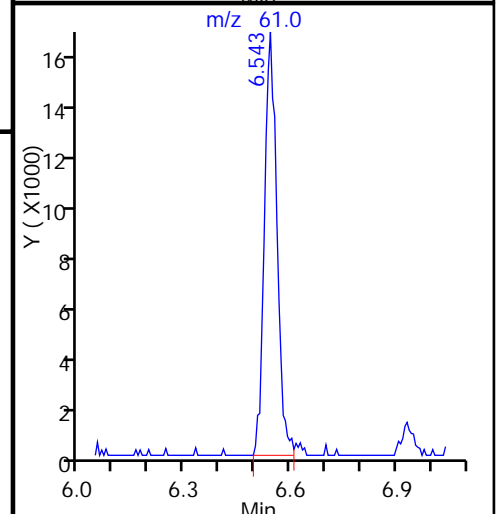
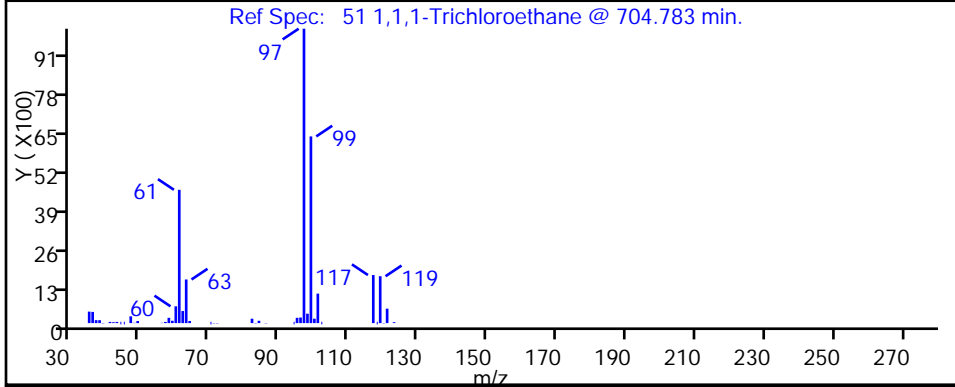
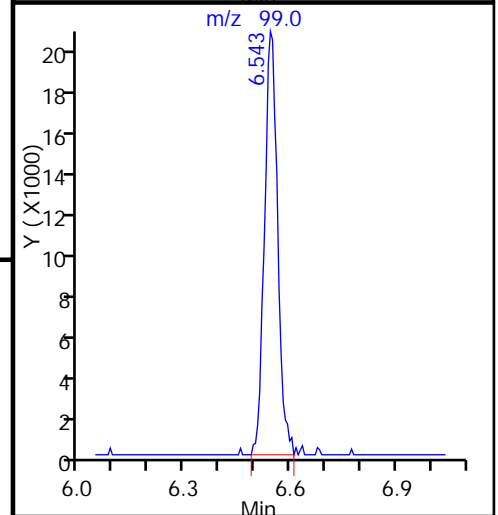
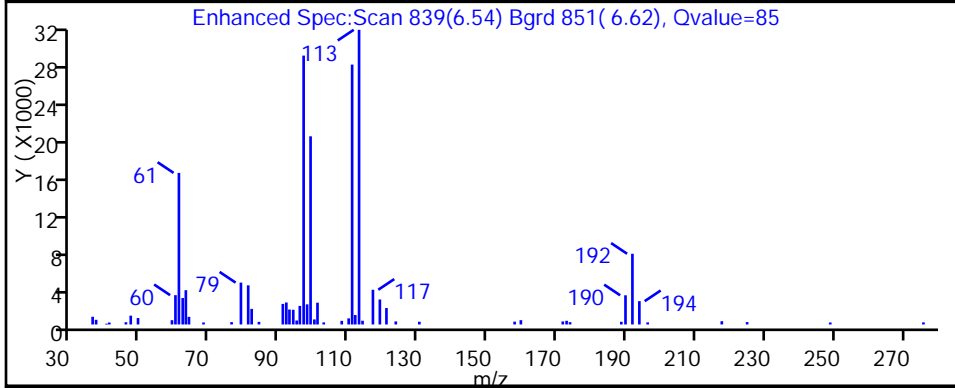
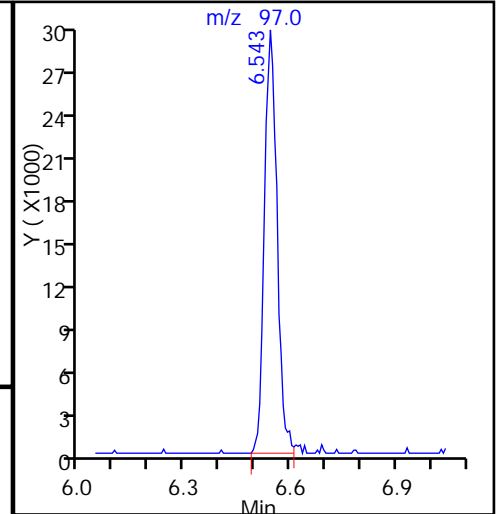
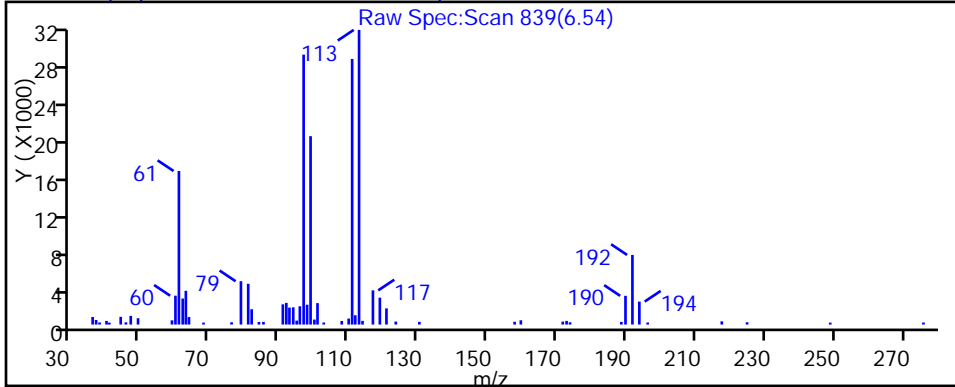
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

51 1,1,1-Trichloroethane, CAS: 71-55-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013028.D

Injection Date: 13-Oct-2015 23:37:30

Instrument ID: CHHP6

Lims ID: 180-48399-A-10

Lab Sample ID: 180-48399-10

Client ID: HD-MW-102S-0/1-0

Operator ID: 001562

ALS Bottle#: 28 Worklist Smp#: 28

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

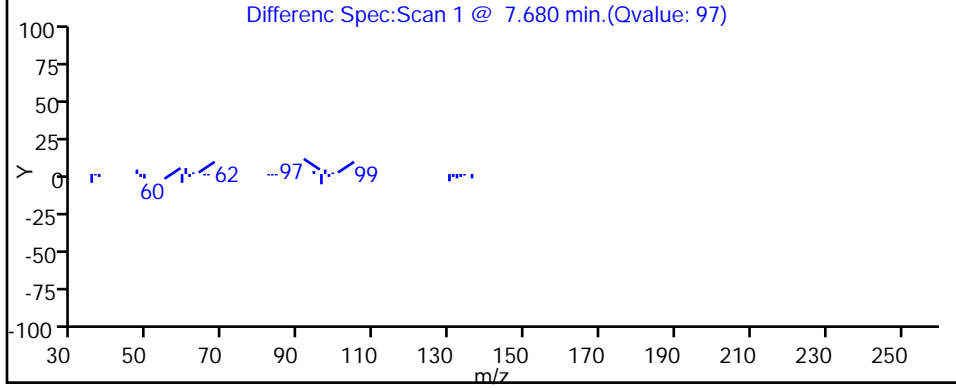
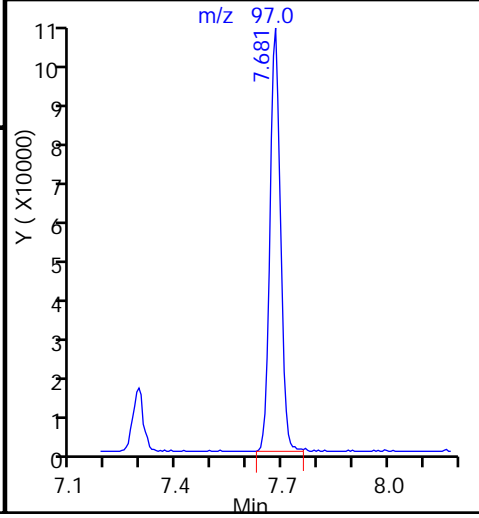
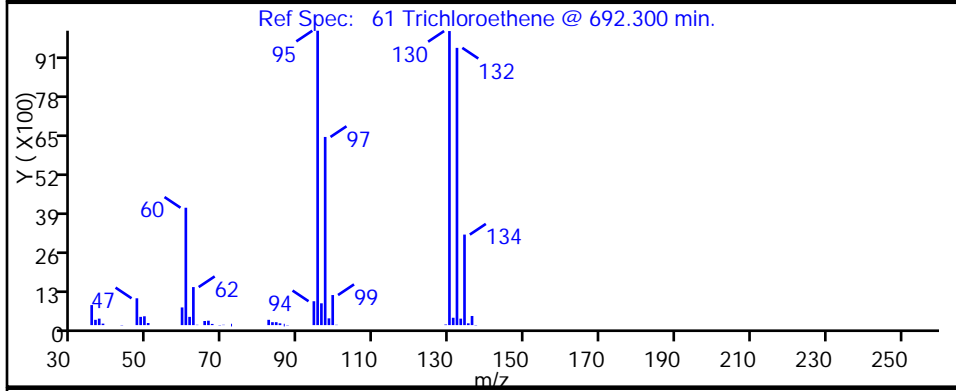
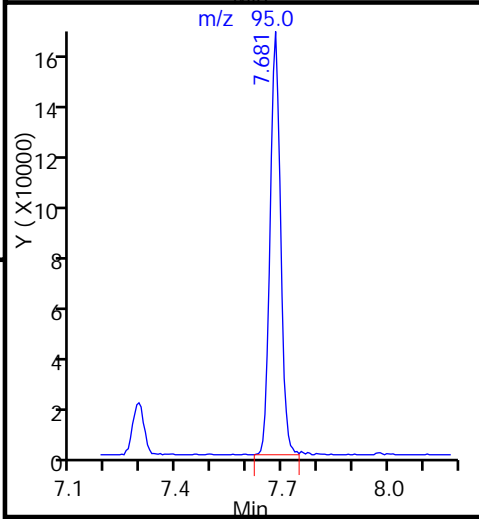
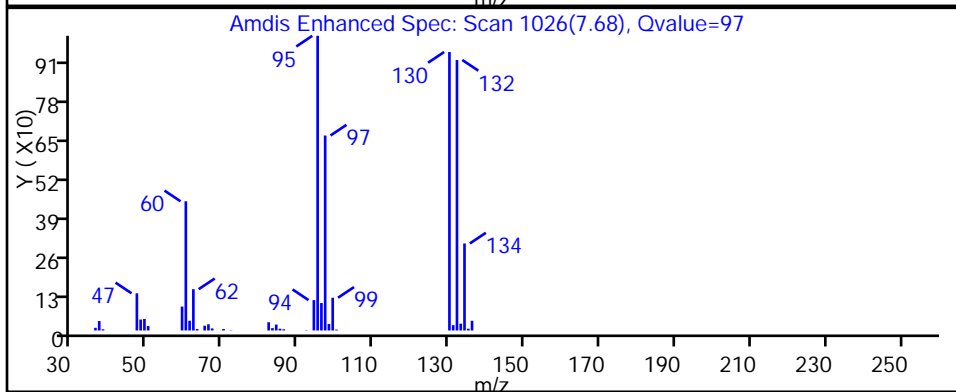
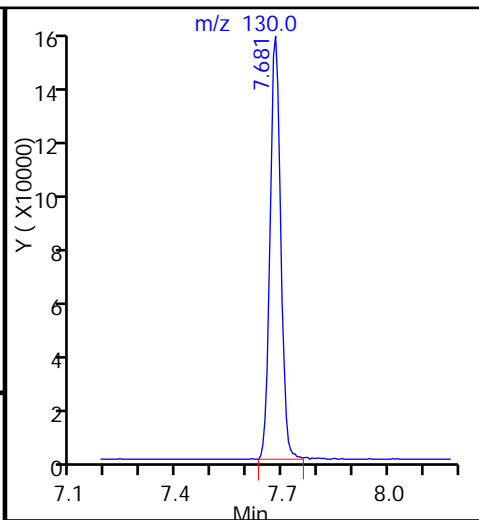
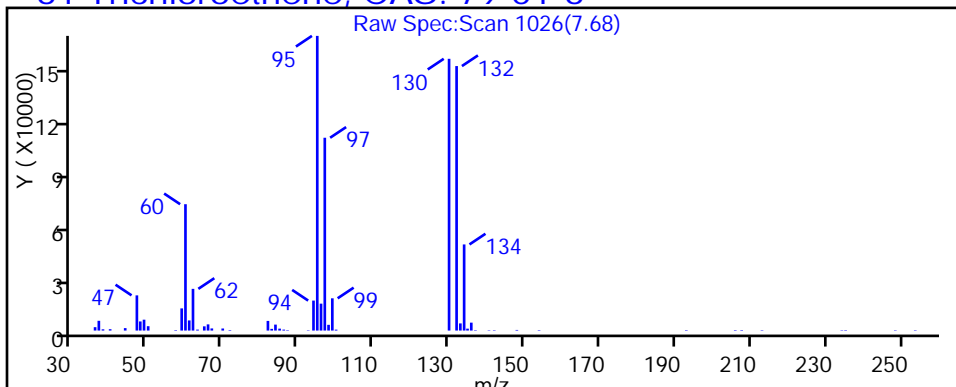
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

61 Trichloroethene, CAS: 79-01-6





TestAmerica Pittsburgh

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Injection Date: 13-Oct-2015 23:37:30

Instrument ID: CHHP6

Lims ID: 180-48399-A-10

Lab Sample ID: 180-48399-10

Client ID: HD-MW-102S-0/1-0

Operator ID: 001562

ALS Bottle#: 28

Worklist Smp#: 28

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

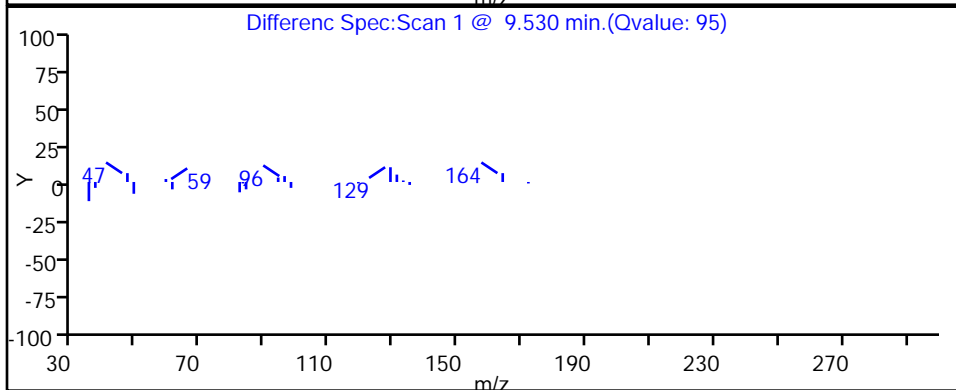
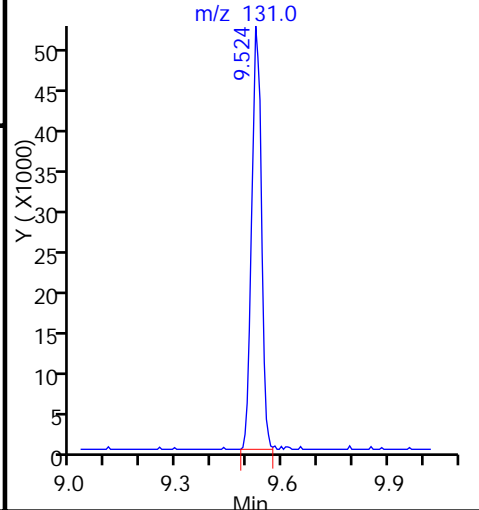
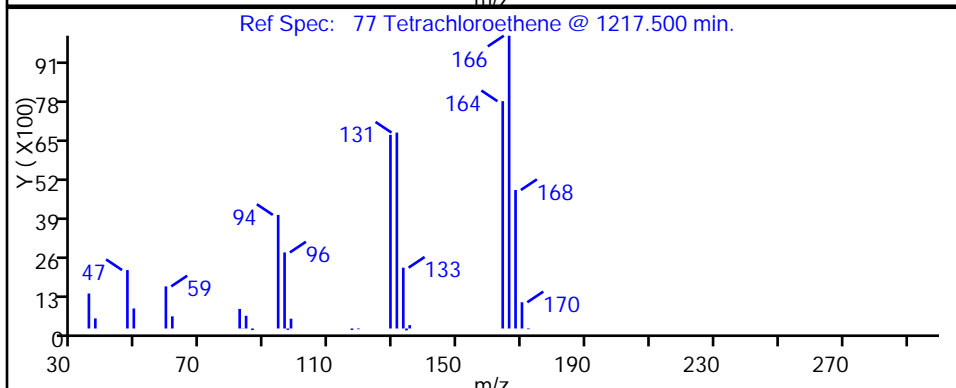
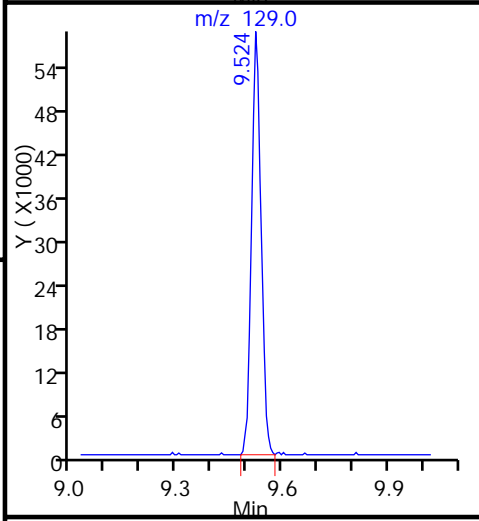
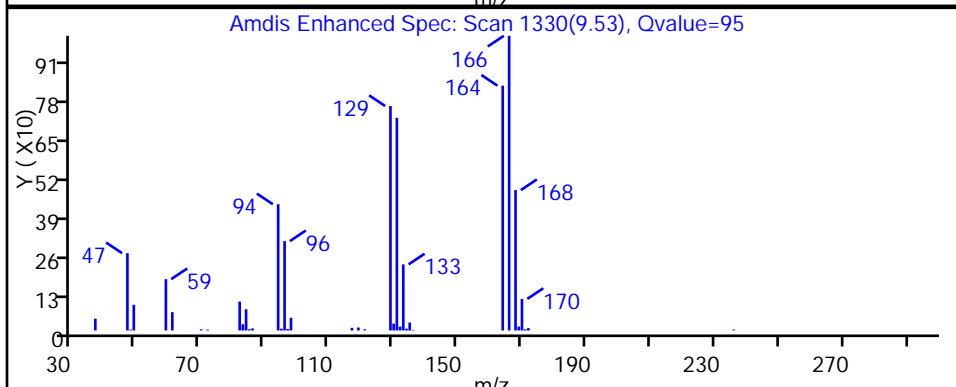
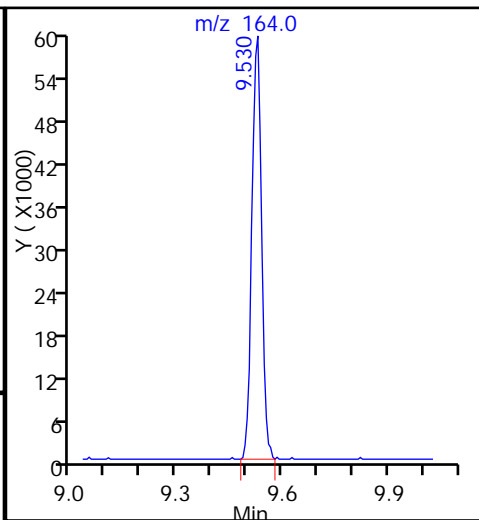
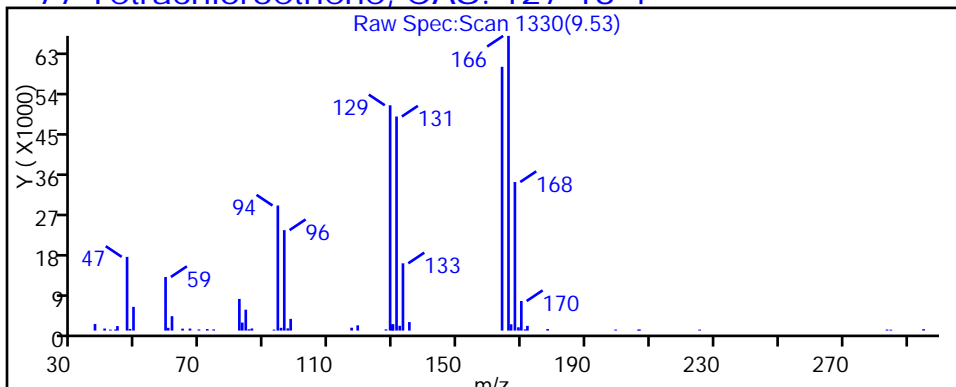
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

77 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-102D-0/1-0 Lab Sample ID: 180-48399-11  
 Matrix: Water Lab File ID: 51015027.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 14:42  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/15/2015 22:49  
 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.: 157127 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND	^c	1.0	0.23
74-83-9	Bromomethane	ND	^c	1.0	0.31
75-00-3	Chloroethane	ND	^c	1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND	^c	5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	10		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	0.45	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	150	E	1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	11		1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-102D-0/1-0 Lab Sample ID: 180-48399-11  
 Matrix: Water Lab File ID: 51015027.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 14:42  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/15/2015 22:49  
 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.: 157127 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		64-135
2037-26-5	Toluene-d8 (Surr)	105		71-118
460-00-4	4-Bromofluorobenzene (Surr)	92		70-118
1868-53-7	Dibromofluoromethane (Surr)	97		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015027.D  
 Lims ID: 180-48399-C-11 Lab Sample ID: 180-48399-11  
 Client ID: HD-MW-102D-0/1-0  
 Sample Type: Client  
 Inject. Date: 15-Oct-2015 22:49:30 ALS Bottle#: 26 Worklist Smp#: 27  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-48399-C-11  
 Misc. Info.: 180-0009022-027  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 16-Oct-2015 08:32:55 Calib Date: 26-Aug-2015 17:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK003

First Level Reviewer: fergusond

Date: 16-Oct-2015 08:32:55

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.269	4.273	-0.004	0	137835	1000.0	
* 2 Fluorobenzene (IS)	96	7.287	7.290	-0.003	97	305720	50.0	
* 3 Chlorobenzene-d5	119	10.383	10.386	-0.003	91	69970	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.731	12.729	0.002	98	87169	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.569	6.554	0.015	92	72969	48.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.934	6.931	0.003	0	107590	52.2	
\$ 7 Toluene-d8 (Surr)	98	8.935	8.939	-0.004	95	283538	52.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.575	11.573	0.002	86	93691	46.0	
12 Chloromethane	50	1.757	1.772	-0.015	1	2065	0.8143	M
13 Vinyl chloride	62		1.912				ND	
15 Bromomethane	94		2.241				ND	
16 Chloroethane	64		2.399				ND	
22 1,1-Dichloroethene	96		3.330				ND	
24 Acetone	43		3.439				ND	
26 Carbon disulfide	76		3.640				ND	
31 Methylene Chloride	84		4.139				ND	
33 Acrylonitrile	53		4.522				ND	
34 trans-1,2-Dichloroethene	96		4.559				ND	
35 Methyl tert-butyl ether	73	4.573	4.577	-0.004	41	2559	0.5980	
37 1,1-Dichloroethane	63		5.197				ND	
45 cis-1,2-Dichloroethene	96	5.954	5.946	0.008	84	101626	51.5	
46 2-Butanone (MEK)	43		5.952				ND	
49 Chlorobromomethane	128		6.231				ND	
52 Chloroform	83	6.374	6.377	-0.003	96	7106	2.26	
53 1,1,1-Trichloroethane	97		6.536				ND	
56 Carbon tetrachloride	117		6.718				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.016				ND	
64 Trichloroethene	130	7.682	7.673	0.009	96	1345408	729.5	E
67 1,2-Dichloropropane	63		7.947				ND	
70 1,4-Dioxane	88		8.026				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.233				ND	
74 cis-1,3-Dichloropropene	75		8.671				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
76 Toluene	91		9.006				ND	
77 trans-1,3-Dichloropropene	75		9.255				ND	
79 1,1,2-Trichloroethane	97		9.444				ND	
80 Tetrachloroethene	164	9.519	9.517	0.002	94	72049	53.6	
82 2-Hexanone	43		9.663				ND	
84 Chlorodibromomethane	129		9.815				ND	
85 Ethylene Dibromide	107		9.930				ND	
87 Chlorobenzene	112		10.417				ND	
89 1,1,1,2-Tetrachloroethane	131		10.514				ND	
90 Ethylbenzene	106		10.520				ND	
91 m-Xylene & p-Xylene	106		10.654				ND	
92 o-Xylene	106		11.031				ND	
93 Styrene	104		11.050				ND	
94 Bromoform	173		11.232				ND	
99 1,1,2,2-Tetrachloroethane	83		11.707				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\_00043

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00043

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015027.D

Injection Date: 15-Oct-2015 22:49:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-48399-C-11

Lab Sample ID: 180-48399-11

Worklist Smp#: 27

Client ID: HD-MW-102D-0/1-0

Purge Vol: 5.000 mL

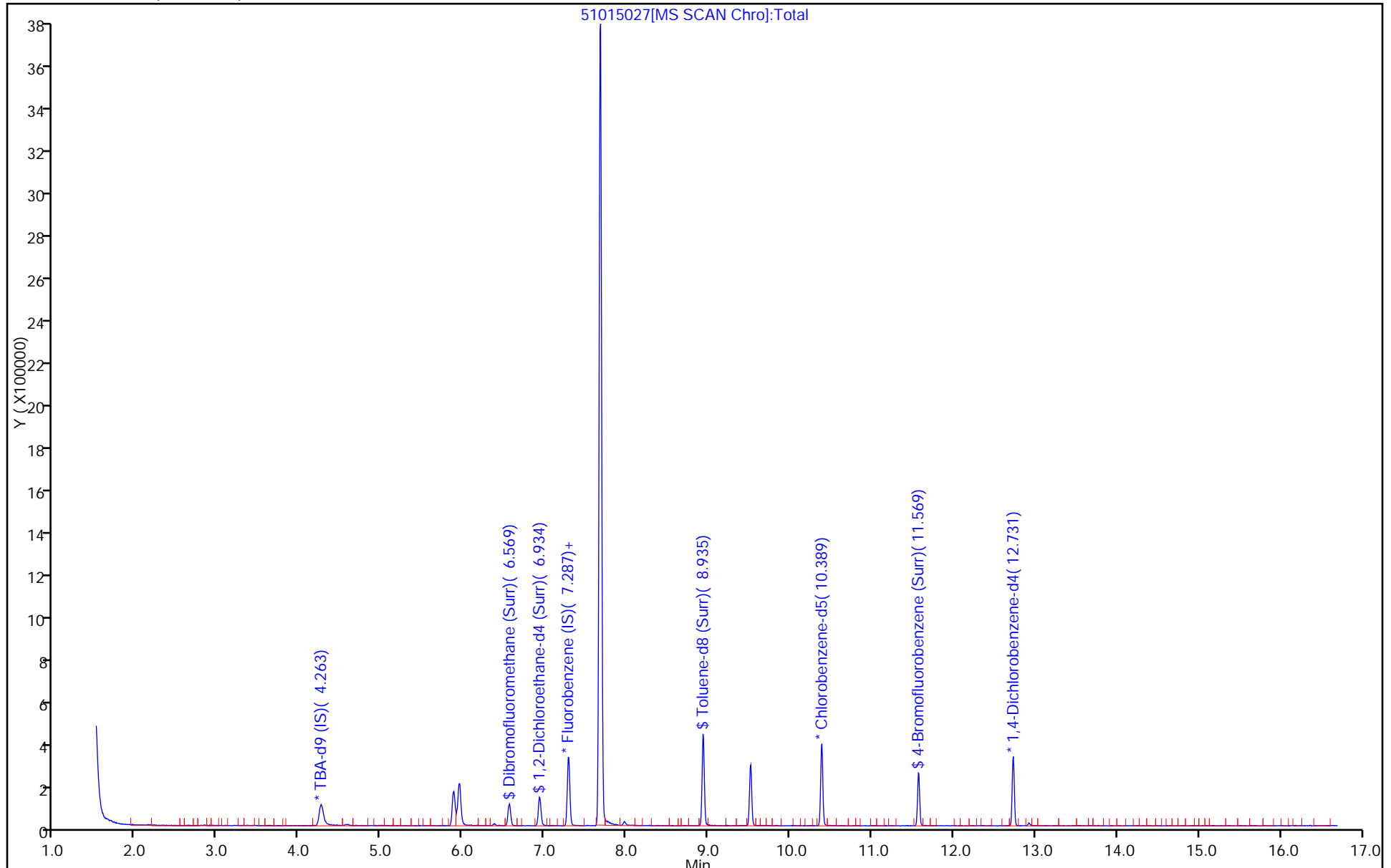
Dil. Factor: 1.0000

ALS Bottle#: 26

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015027.D

Injection Date: 15-Oct-2015 22:49:30

Instrument ID: CHHP5

Lims ID: 180-48399-C-11

Lab Sample ID: 180-48399-11

Client ID: HD-MW-102D-0/1-0

Operator ID: 001562

ALS Bottle#: 26

Worklist Smp#: 27

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

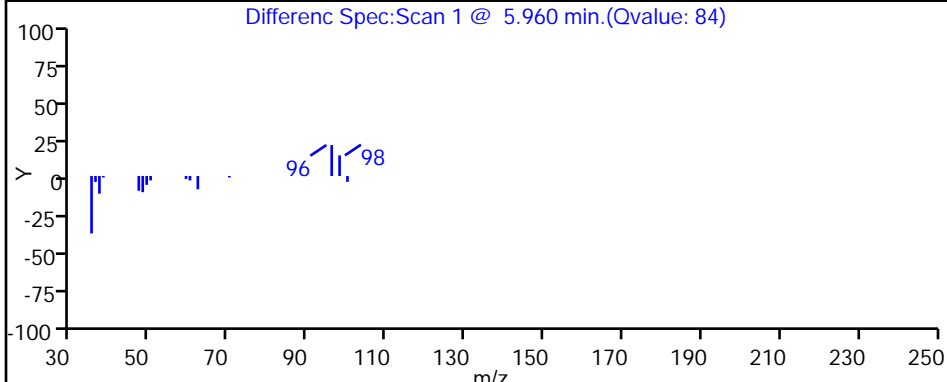
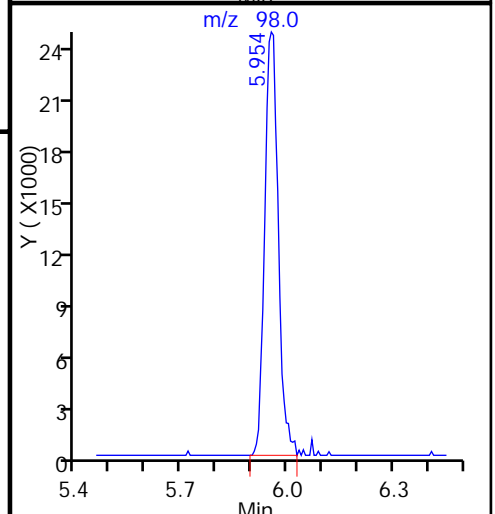
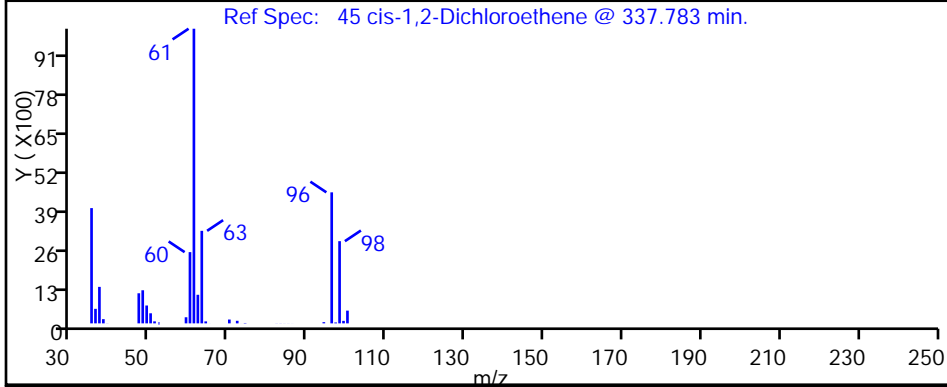
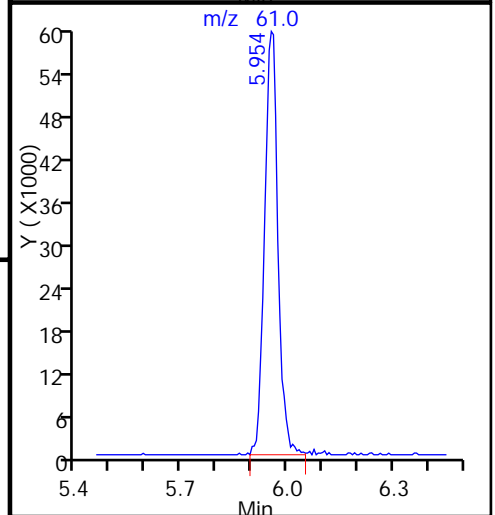
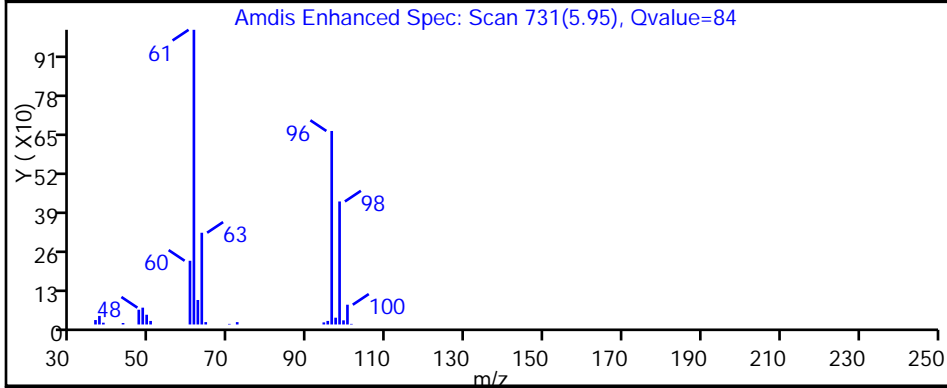
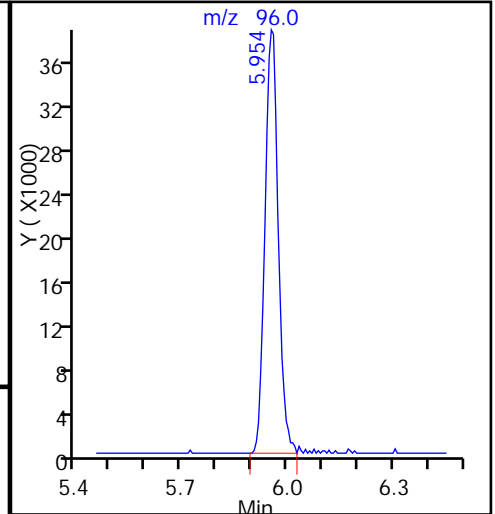
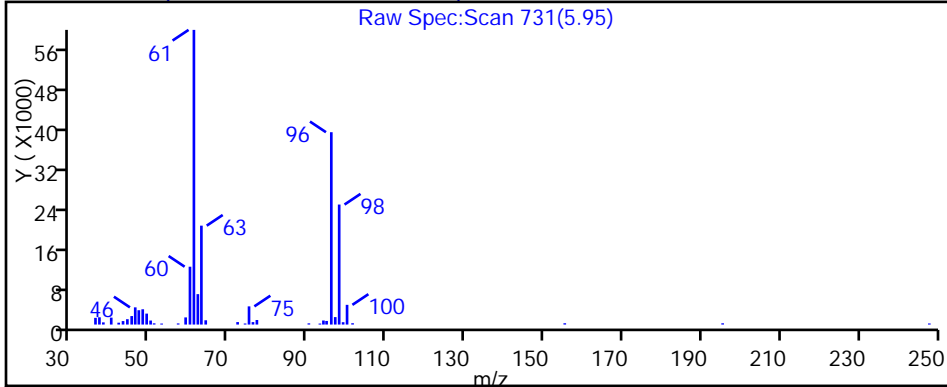
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015027.D

Injection Date: 15-Oct-2015 22:49:30

Instrument ID: CHHP5

Lims ID: 180-48399-C-11

Lab Sample ID: 180-48399-11

Client ID: HD-MW-102D-0/1-0

Operator ID: 001562

ALS Bottle#: 26 Worklist Smp#: 27

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

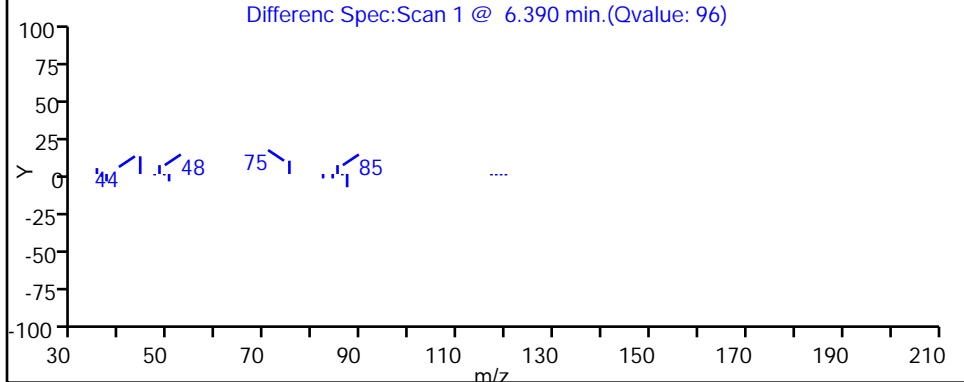
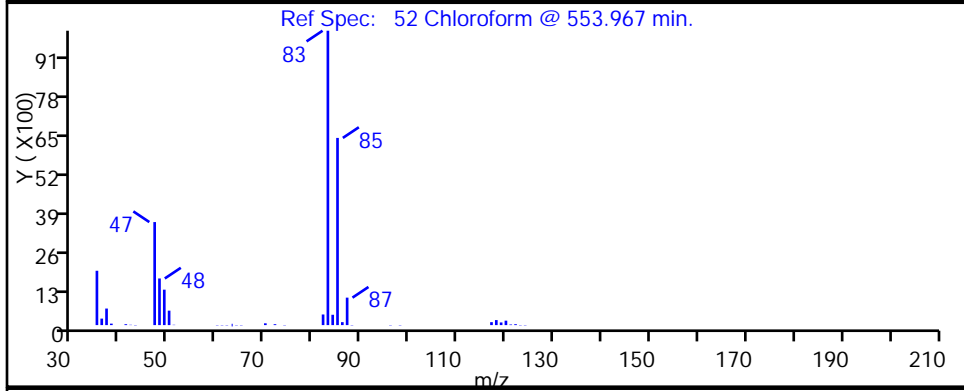
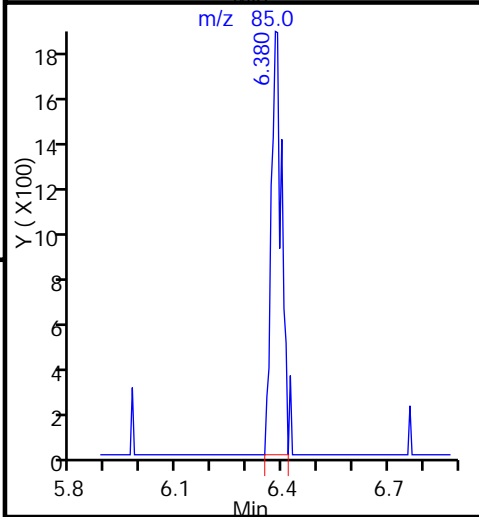
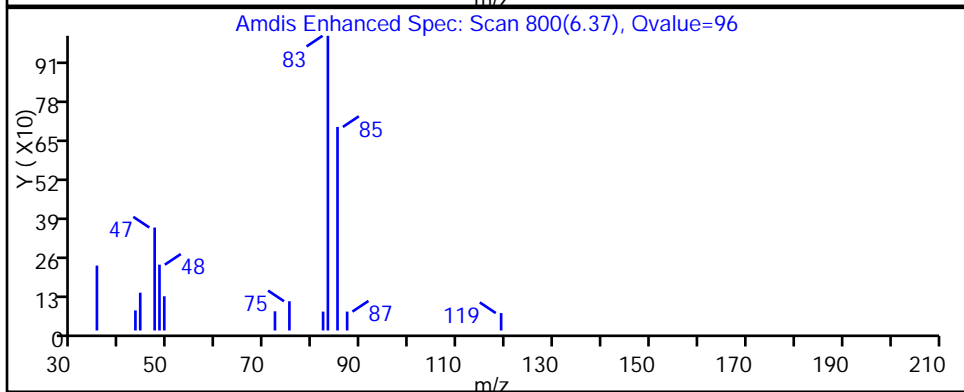
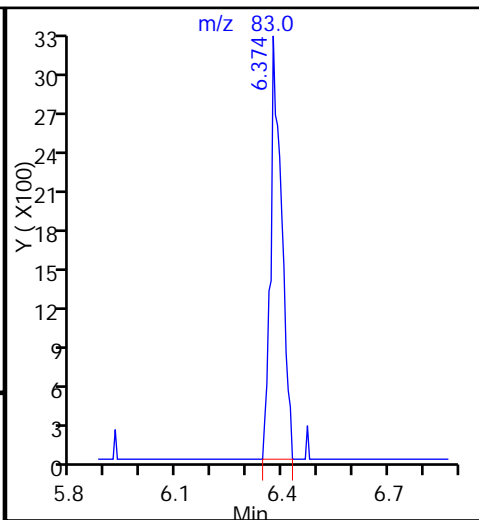
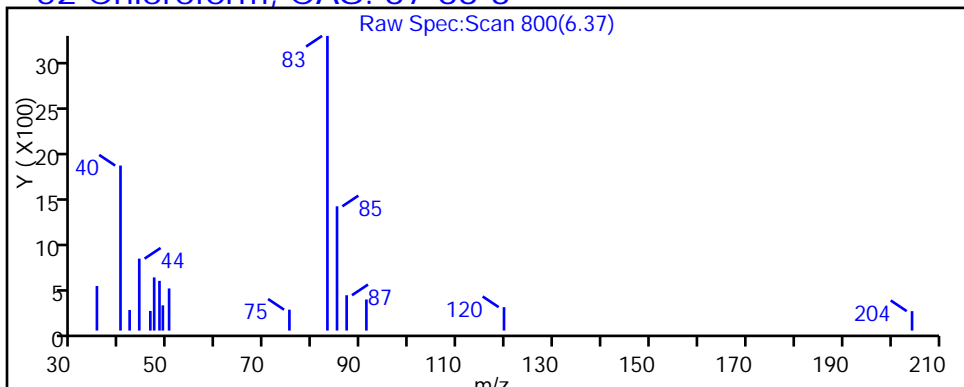
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

52 Chloroform, CAS: 67-66-3





TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015027.D

Injection Date: 15-Oct-2015 22:49:30

Instrument ID: CHHP5

Lims ID: 180-48399-C-11

Lab Sample ID: 180-48399-11

Client ID: HD-MW-102D-0/1-0

Operator ID: 001562

ALS Bottle#: 26

Worklist Smp#: 27

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

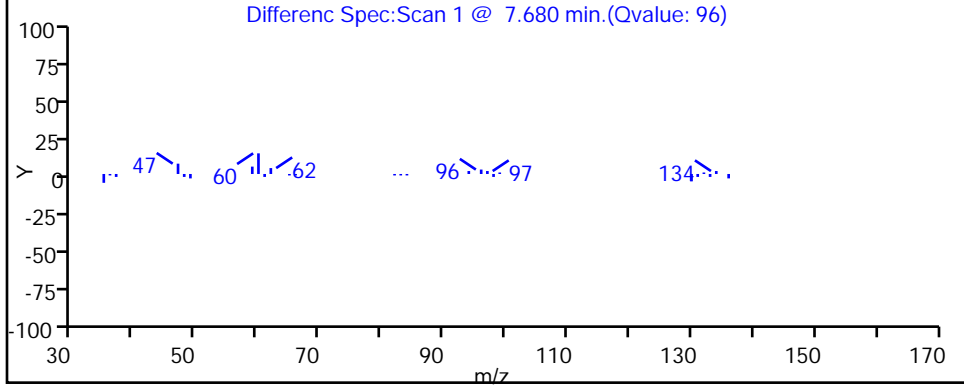
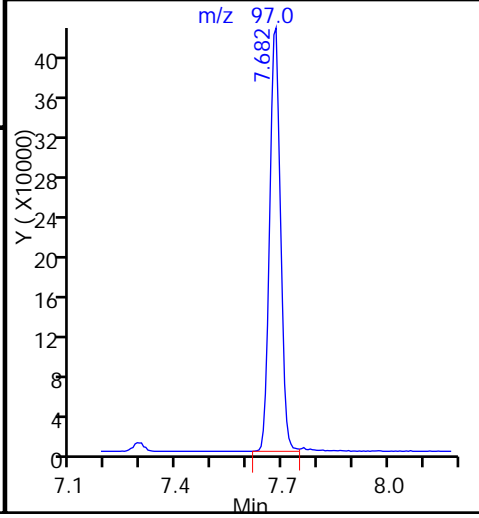
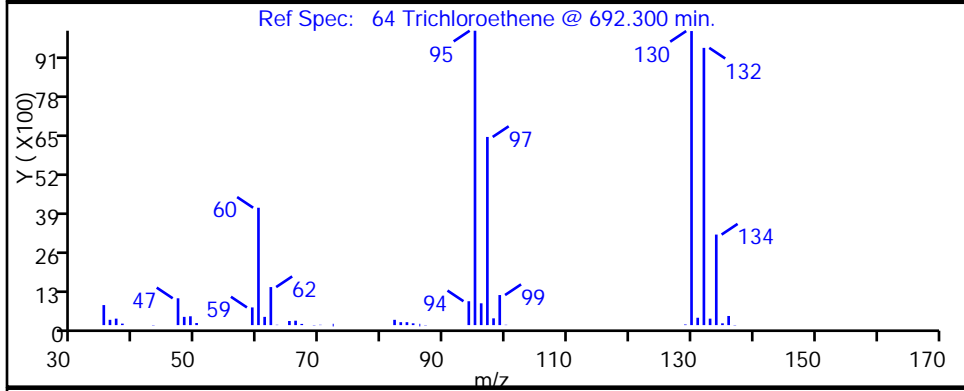
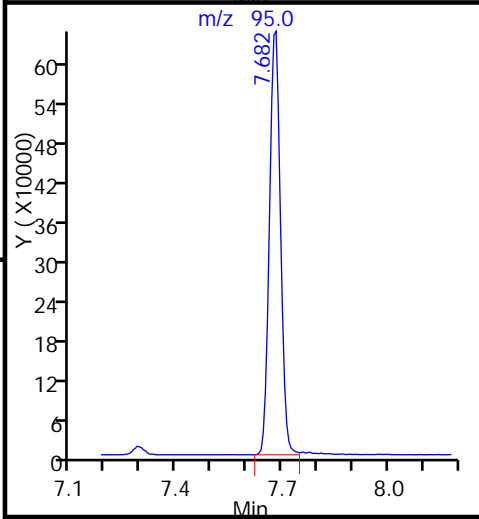
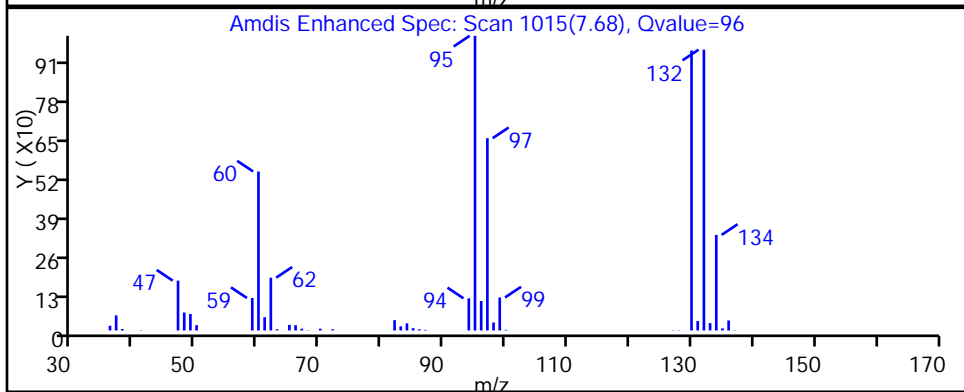
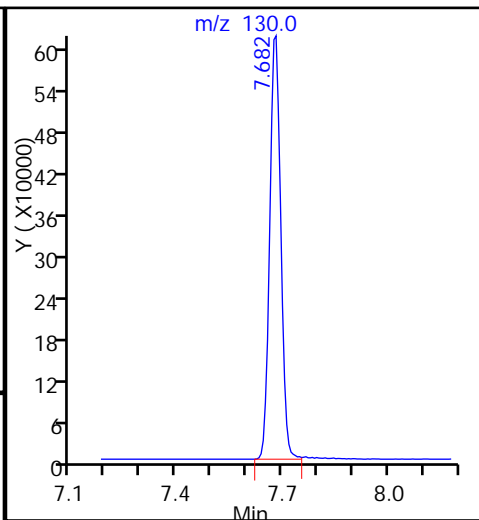
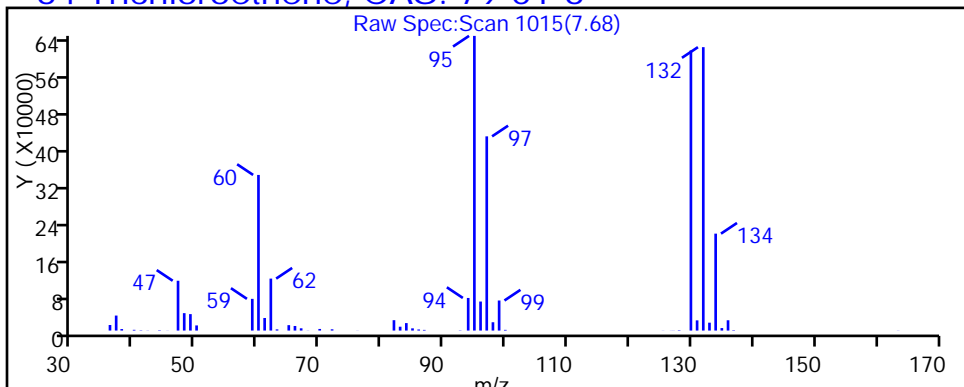
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015027.D

Injection Date: 15-Oct-2015 22:49:30

Instrument ID: CHHP5

Lims ID: 180-48399-C-11

Lab Sample ID: 180-48399-11

Client ID: HD-MW-102D-0/1-0

Operator ID: 001562

ALS Bottle#: 26

Worklist Smp#: 27

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

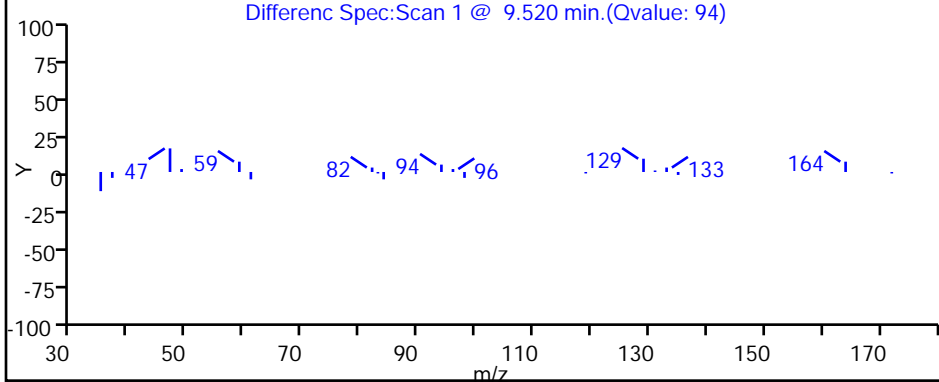
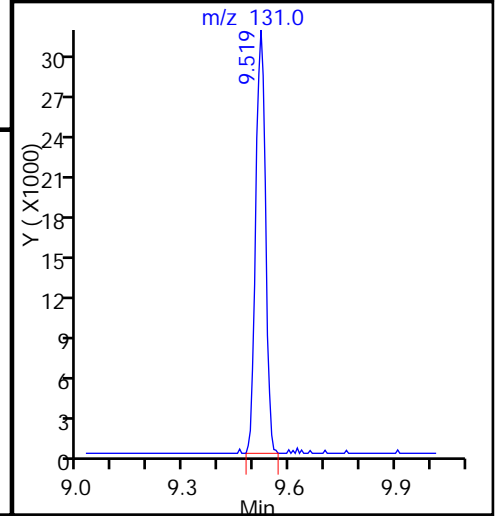
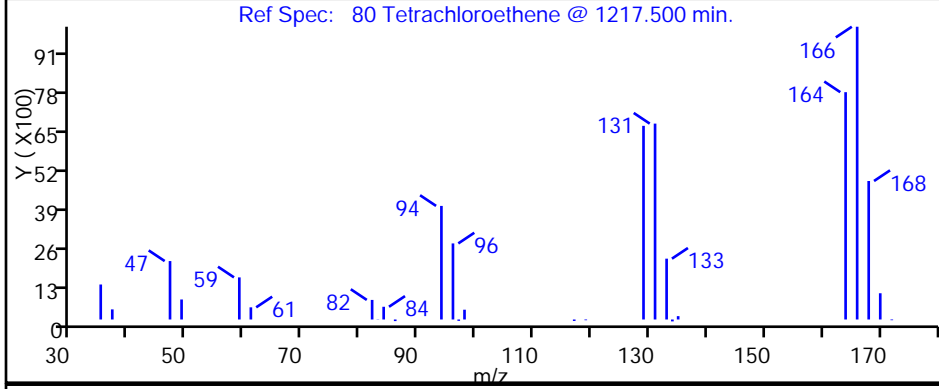
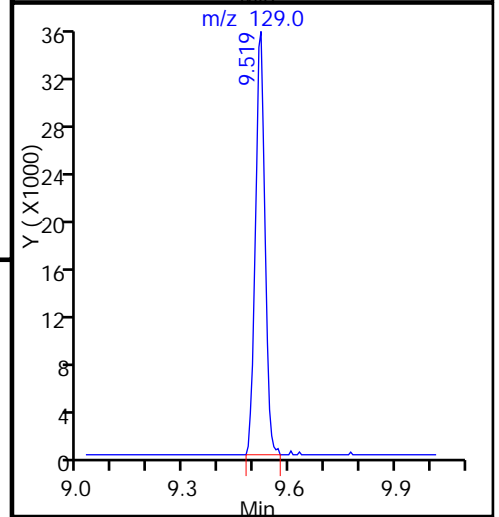
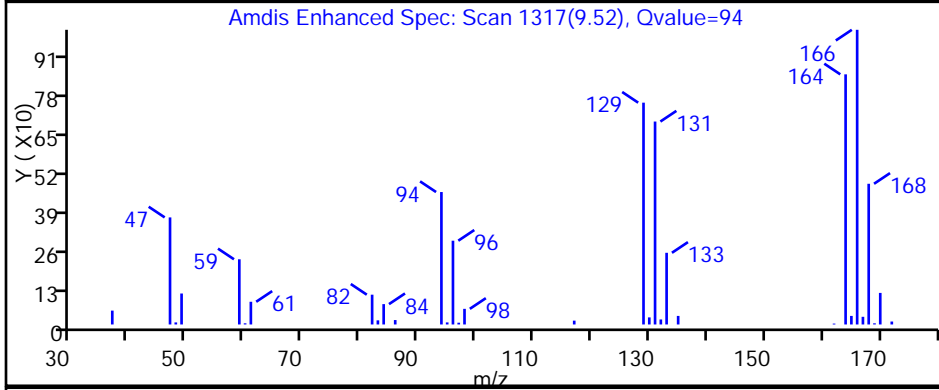
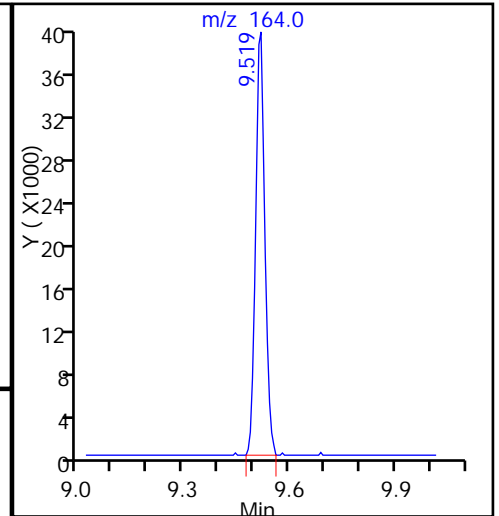
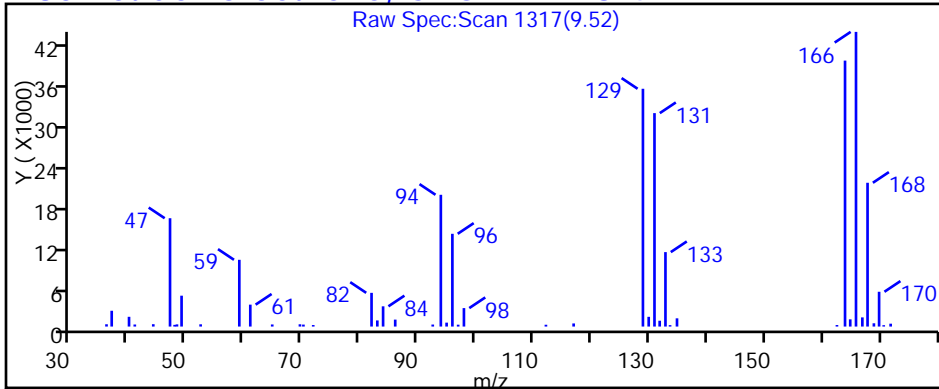
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



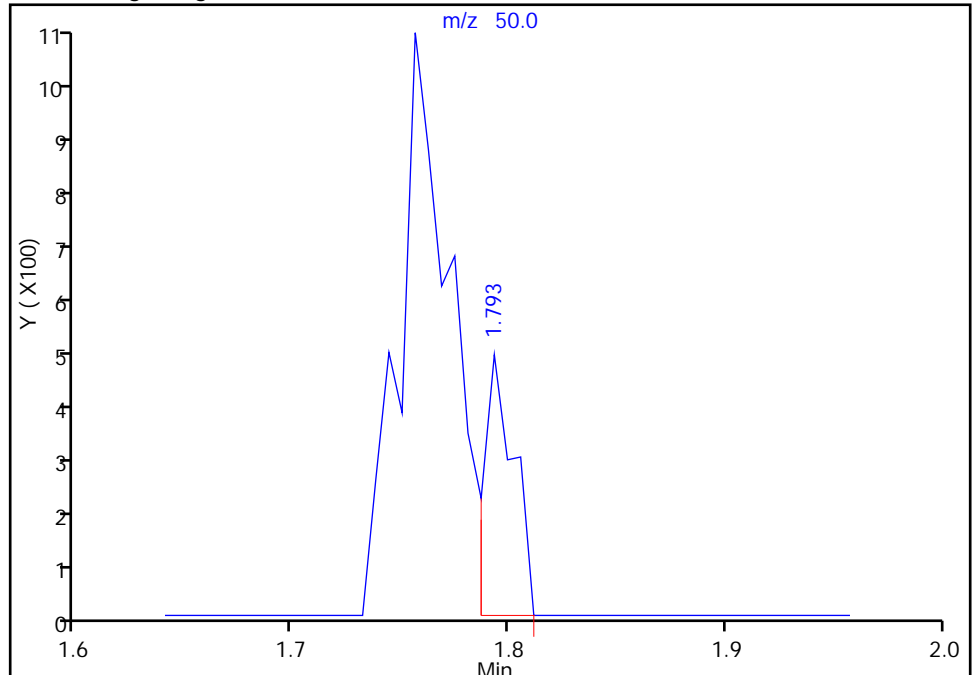
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015027.D  
Injection Date: 15-Oct-2015 22:49:30 Instrument ID: CHHP5  
Lims ID: 180-48399-C-11 Lab Sample ID: 180-48399-11  
Client ID: HD-MW-102D-0/1-0  
Operator ID: 001562 ALS Bottle#: 26 Worklist Smp#: 27  
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

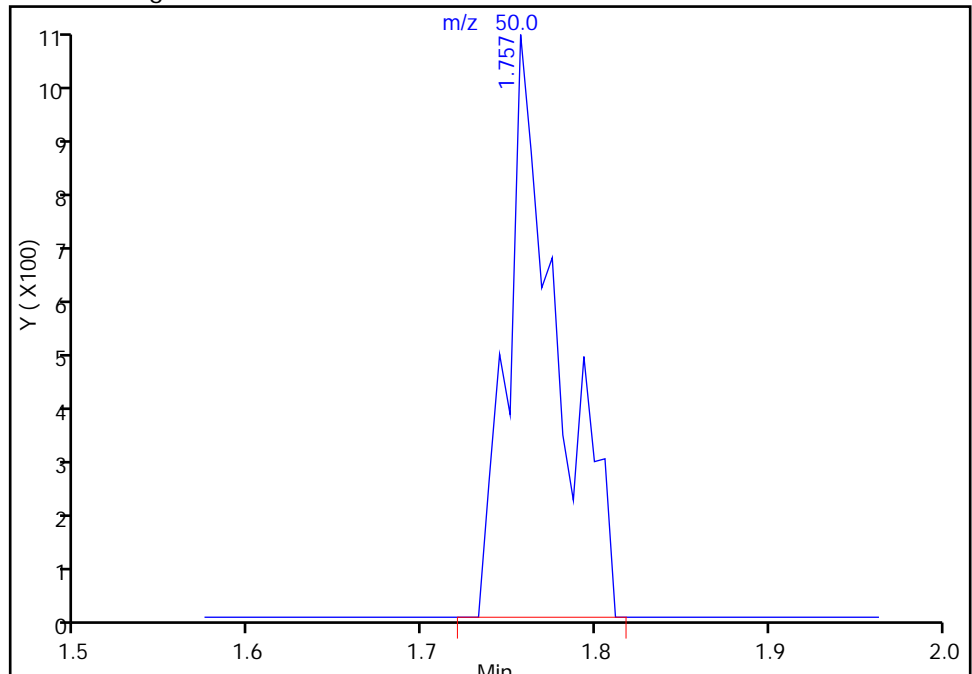
RT: 1.79  
Area: 444  
Amount: 0.175077  
Amount Units: ng

Processing Integration Results



RT: 1.76  
Area: 2065  
Amount: 0.814268  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 16-Oct-2015 08:32:55  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-102D-0/1-0 DL Lab Sample ID: 180-48399-11 DL  
 Matrix: Water Lab File ID: 61014015.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 14:42  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/14/2015 18:02  
 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.: 156975 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		10	2.8
75-01-4	Vinyl chloride	ND		10	2.3
74-83-9	Bromomethane	ND	^c	10	3.1
75-00-3	Chloroethane	ND		10	2.1
75-35-4	1,1-Dichloroethene	ND		10	3.0
67-64-1	Acetone	ND		50	25
75-15-0	Carbon disulfide	ND		10	2.1
75-09-2	Methylene Chloride	ND		10	1.3
156-60-5	trans-1,2-Dichloroethene	ND		10	1.7
1634-04-4	Methyl tert-butyl ether	ND		10	1.8
75-34-3	1,1-Dichloroethane	ND		10	1.2
156-59-2	cis-1,2-Dichloroethene	7.4	J	10	2.4
74-97-5	Bromochloromethane	ND		10	1.8
78-93-3	2-Butanone (MEK)	ND		50	5.5
67-66-3	Chloroform	ND		10	1.7
71-55-6	1,1,1-Trichloroethane	ND		10	2.9
56-23-5	Carbon tetrachloride	ND		10	1.4
71-43-2	Benzene	ND		10	1.1
107-06-2	1,2-Dichloroethane	ND		10	2.1
79-01-6	Trichloroethene	120		10	1.4
78-87-5	1,2-Dichloropropane	ND		10	0.95
75-27-4	Bromodichloromethane	ND		10	1.3
10061-01-5	cis-1,3-Dichloropropene	ND		10	1.9
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	5.3
108-88-3	Toluene	ND		10	1.5
10061-02-6	trans-1,3-Dichloropropene	ND		10	1.5
79-00-5	1,1,2-Trichloroethane	ND		10	2.0
127-18-4	Tetrachloroethene	7.4	J	10	1.5
591-78-6	2-Hexanone	ND		50	1.6
124-48-1	Dibromochloromethane	ND		10	1.4
106-93-4	1,2-Dibromoethane (EDB)	ND		10	1.8
108-90-7	Chlorobenzene	ND		10	1.4
630-20-6	1,1,1,2-Tetrachloroethane	ND		10	2.8
100-41-4	Ethylbenzene	ND		10	2.3
1330-20-7	Xylenes, Total	ND		30	4.9
100-42-5	Styrene	ND		10	0.97

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-102D-0/1-0 DL Lab Sample ID: 180-48399-11 DL  
 Matrix: Water Lab File ID: 61014015.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 14:42  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/14/2015 18:02  
 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.: 156975 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	78		64-135
2037-26-5	Toluene-d8 (Surr)	108		71-118
460-00-4	4-Bromofluorobenzene (Surr)	96		70-118
1868-53-7	Dibromofluoromethane (Surr)	85		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014015.D  
 Lims ID: 180-48399-B-11 Lab Sample ID: 180-48399-11  
 Client ID: HD-MW-102D-0/1-0  
 Sample Type: Client  
 Inject. Date: 14-Oct-2015 18:02:30 ALS Bottle#: 16 Worklist Smp#: 15  
 Purge Vol: 5.000 mL Dil. Factor: 10.0000  
 Sample Info: 180-48399-B-11, 10x  
 Misc. Info.: 180-0008996-015  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 15-Oct-2015 08:38:12 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK008

First Level Reviewer: fergusond

Date: 15-Oct-2015 08:38:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.239	4.230	0.009	88	162329	1000.0	
* 2 Fluorobenzene (IS)	96	7.287	7.290	-0.003	98	530227	50.0	
* 3 Chlorobenzene-d5	119	10.396	10.399	-0.003	90	112527	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.750	12.753	-0.003	99	169731	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.551	6.560	-0.009	93	103752	42.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.928	6.931	-0.003	69	153623	39.0	
\$ 7 Toluene-d8 (Surr)	98	8.942	8.939	0.003	93	481373	54.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.588	11.585	0.003	84	190023	48.2	
12 Chloromethane	50		1.760				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.235				ND	
16 Chloroethane	64		2.381				ND	
22 1,1-Dichloroethene	96		3.336				ND	
24 Acetone	43		3.433				ND	
26 Carbon disulfide	76		3.628				ND	
31 Methylene Chloride	84		4.120				ND	
33 Acrylonitrile	53		4.498				ND	
35 Methyl tert-butyl ether	73		4.565				ND	
34 trans-1,2-Dichloroethene	96		4.565				ND	
37 1,1-Dichloroethane	63		5.191				ND	
43 cis-1,2-Dichloroethene	96	5.949	5.939	0.010	71	12378	3.70	
44 2-Butanone (MEK)	43		5.945				ND	
48 Chlorobromomethane	128		6.225				ND	
50 Chloroform	83		6.365				ND	
51 1,1,1-Trichloroethane	97		6.536				ND	
53 Carbon tetrachloride	117		6.718				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.682	7.673	0.009	96	160661	62.3	
64 1,2-Dichloropropane	63		7.947				ND	
65 1,4-Dioxane	88		8.026				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
73 Toluene	91		9.012				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164	9.520	9.529	-0.009	94	7345	3.71	
79 2-Hexanone	43		9.656				ND	
81 Chlorodibromomethane	129		9.821				ND	
82 Ethylene Dibromide	107		9.936				ND	
84 Chlorobenzene	112		10.429				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.654				ND	
89 o-Xylene	106		11.037				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.238				ND	
96 1,1,2,2-Tetrachloroethane	83		11.719				ND	
S 131 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00043

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00043

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014015.D

Injection Date: 14-Oct-2015 18:02:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-48399-B-11

Lab Sample ID: 180-48399-11

Worklist Smp#: 15

Client ID: HD-MW-102D-0/1-0

Purge Vol: 5.000 mL

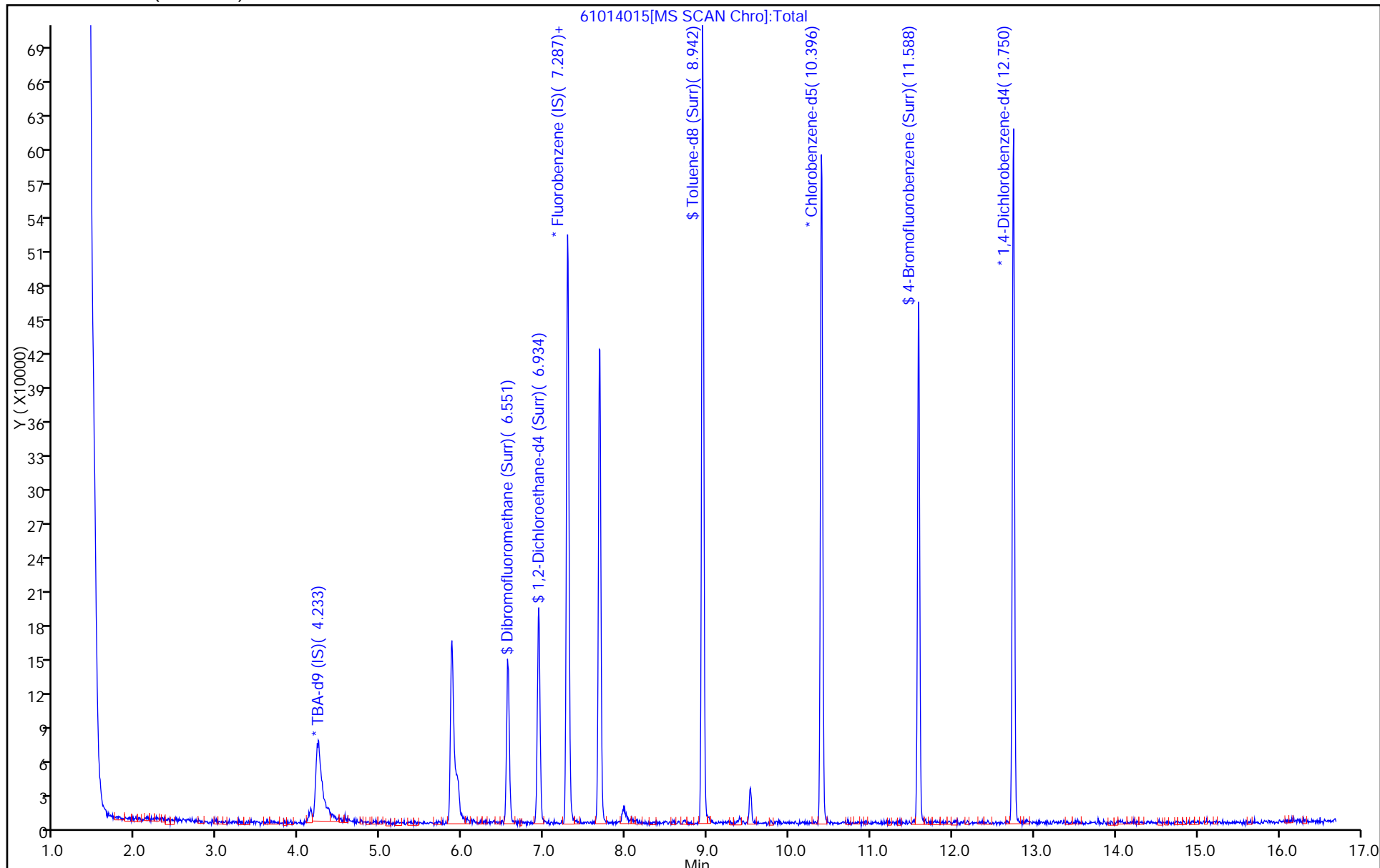
Dil. Factor: 10.0000

ALS Bottle#: 16

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014015.D

Injection Date: 14-Oct-2015 18:02:30

Instrument ID: CHHP6

Lims ID: 180-48399-B-11

Lab Sample ID: 180-48399-11

Client ID: HD-MW-102D-0/1-0

Operator ID: 001562

ALS Bottle#: 16

Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

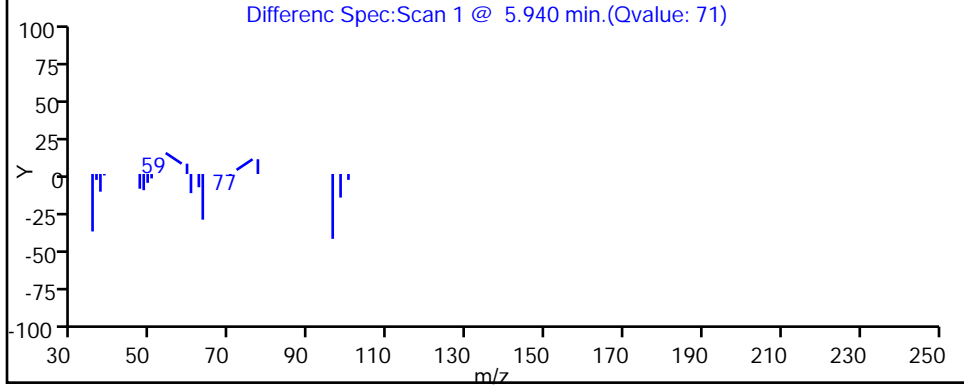
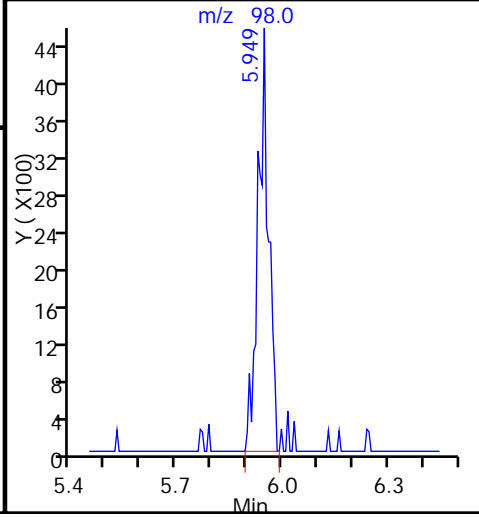
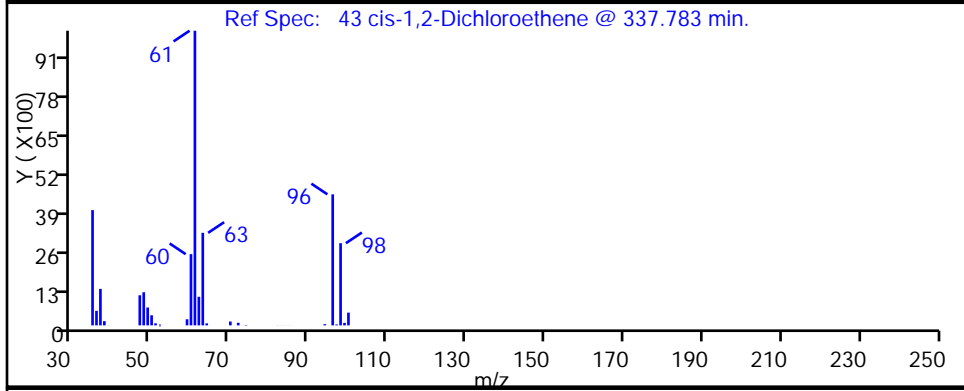
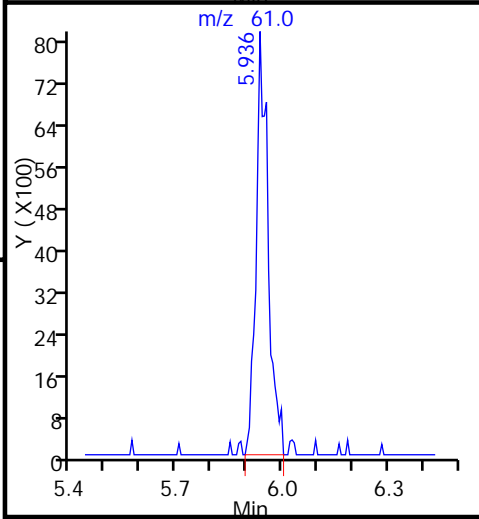
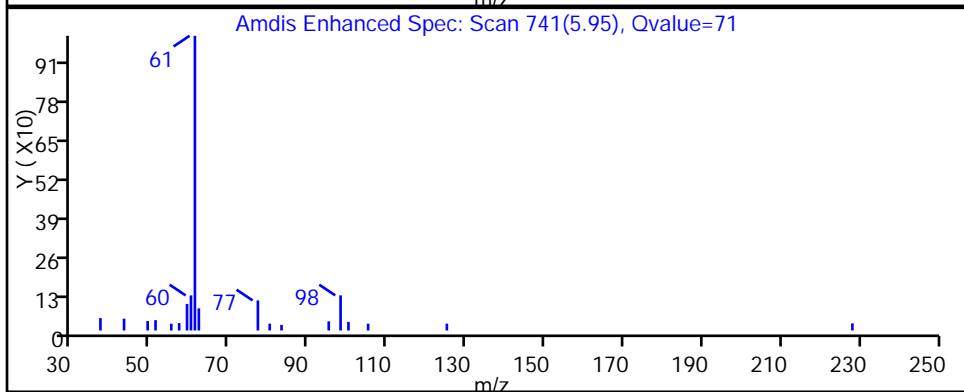
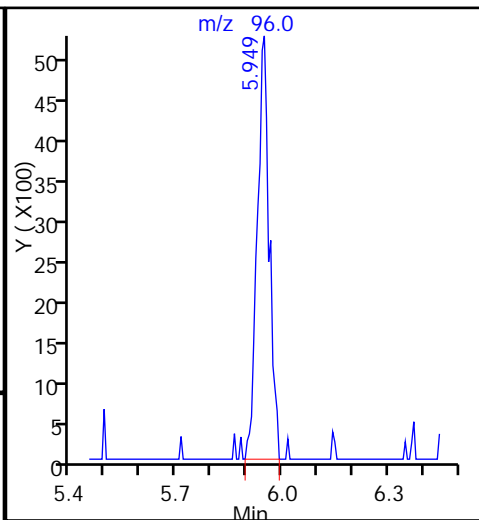
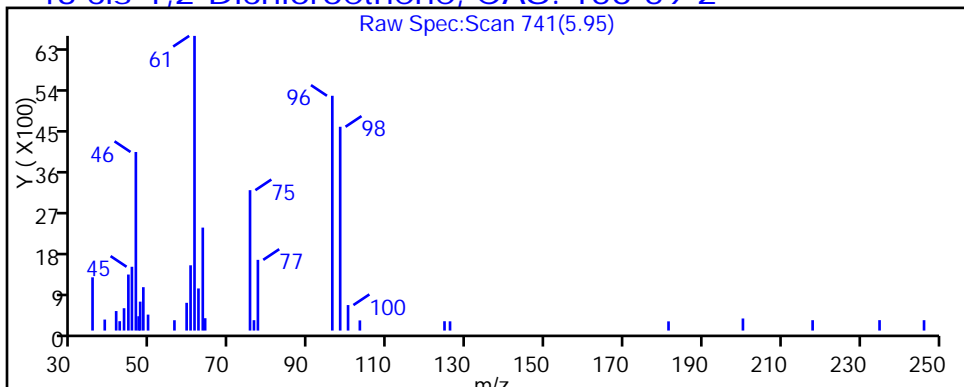
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014015.D

Injection Date: 14-Oct-2015 18:02:30

Instrument ID: CHHP6

Lims ID: 180-48399-B-11

Lab Sample ID: 180-48399-11

Client ID: HD-MW-102D-0/1-0

Operator ID: 001562

ALS Bottle#: 16

Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

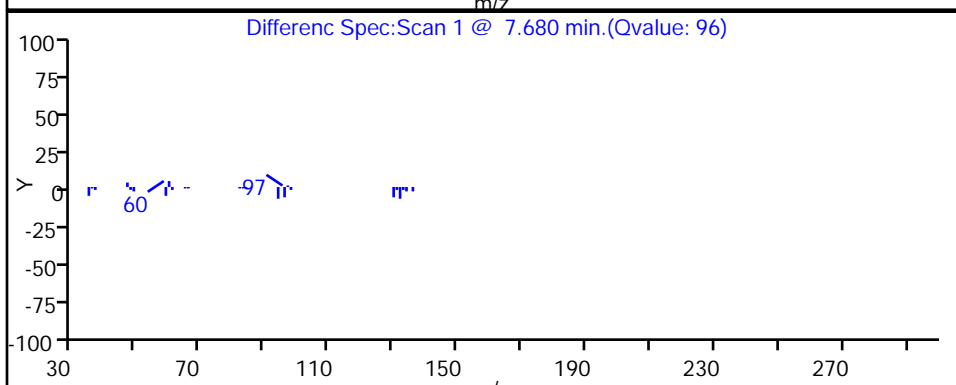
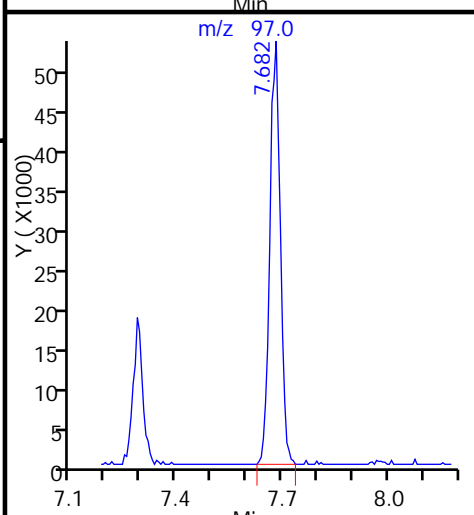
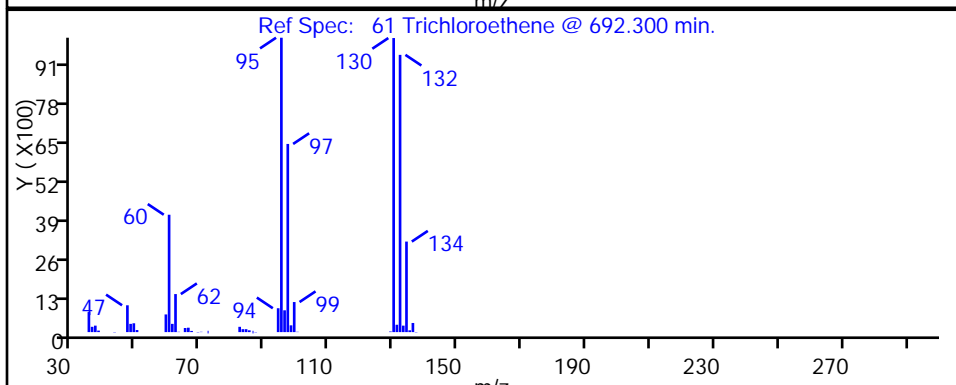
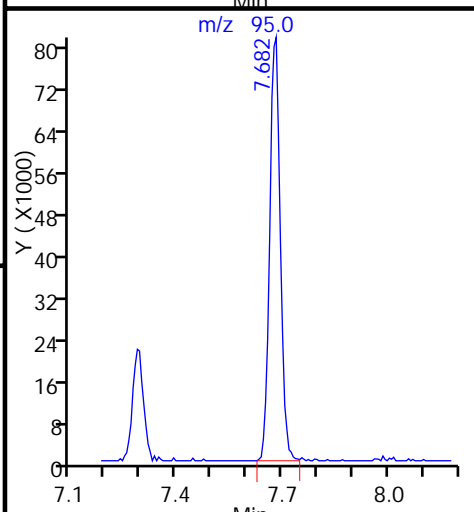
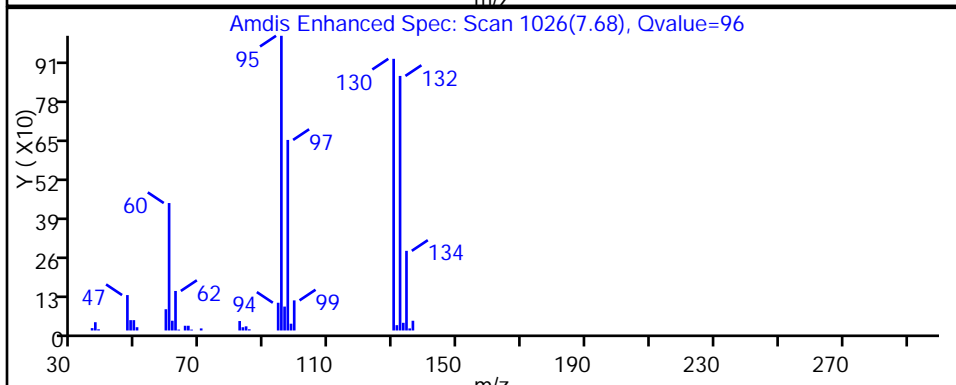
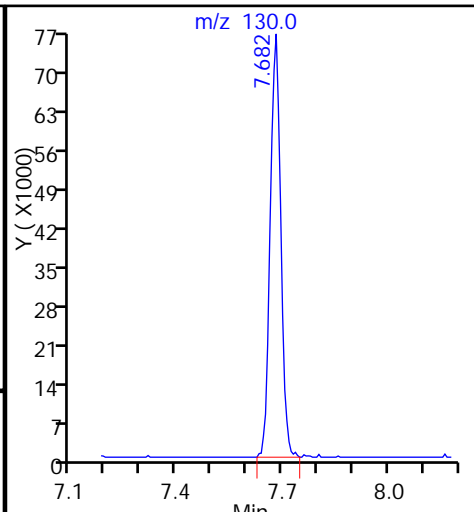
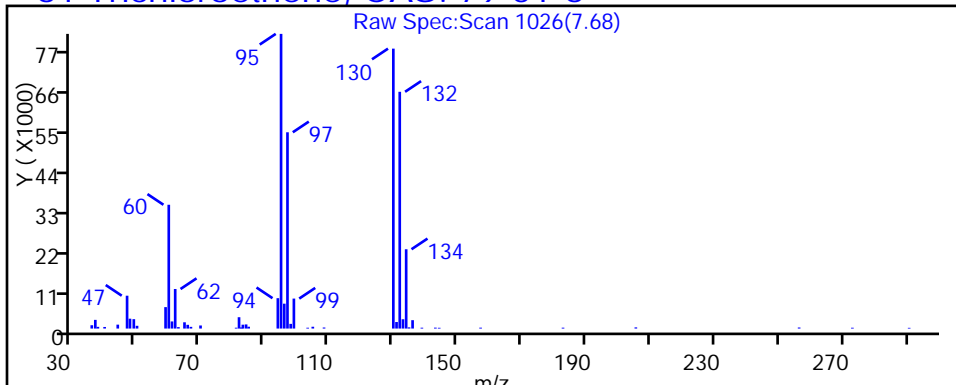
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

61 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014015.D

Injection Date: 14-Oct-2015 18:02:30

Instrument ID: CHHP6

Lims ID: 180-48399-B-11

Lab Sample ID: 180-48399-11

Client ID: HD-MW-102D-0/1-0

Operator ID: 001562

ALS Bottle#: 16

Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

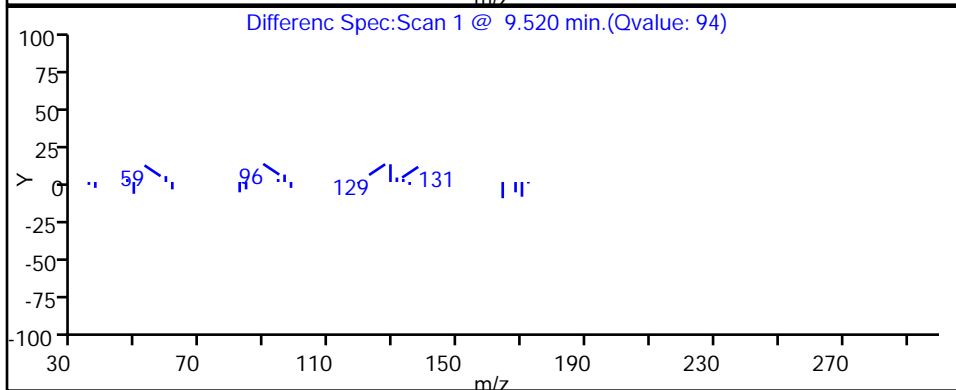
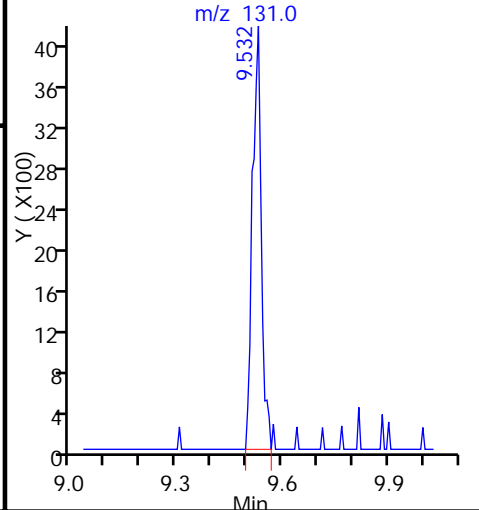
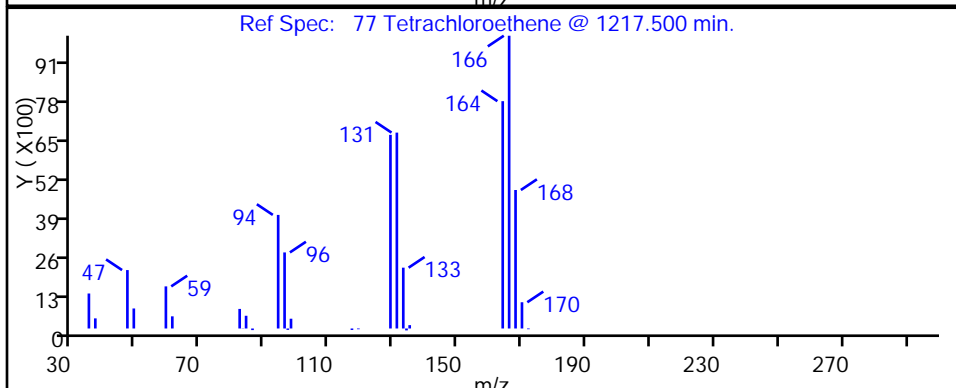
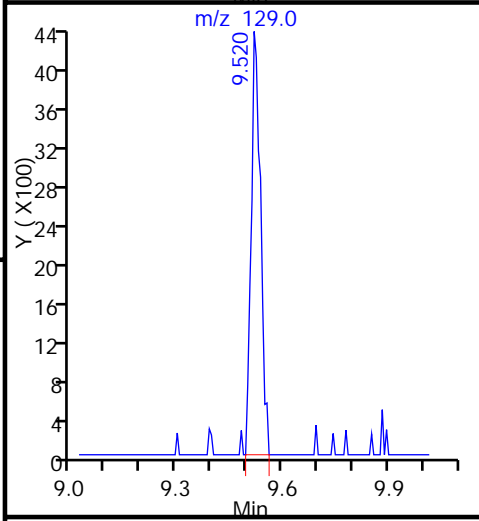
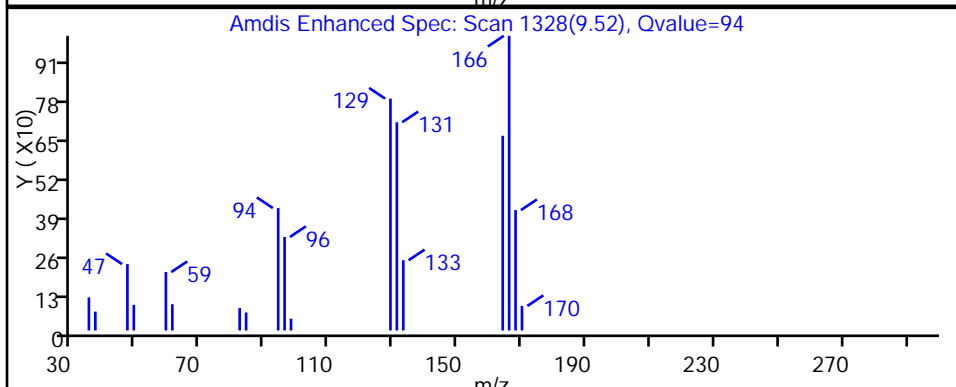
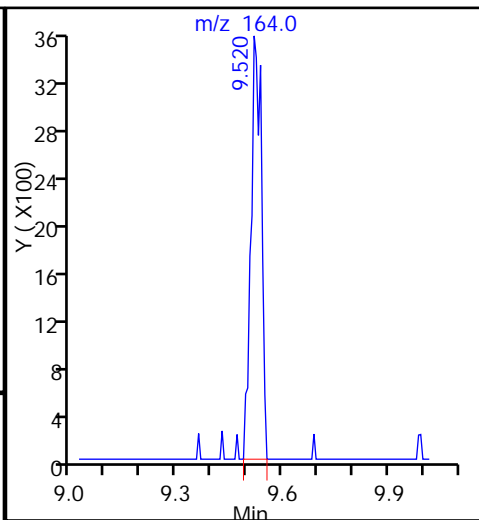
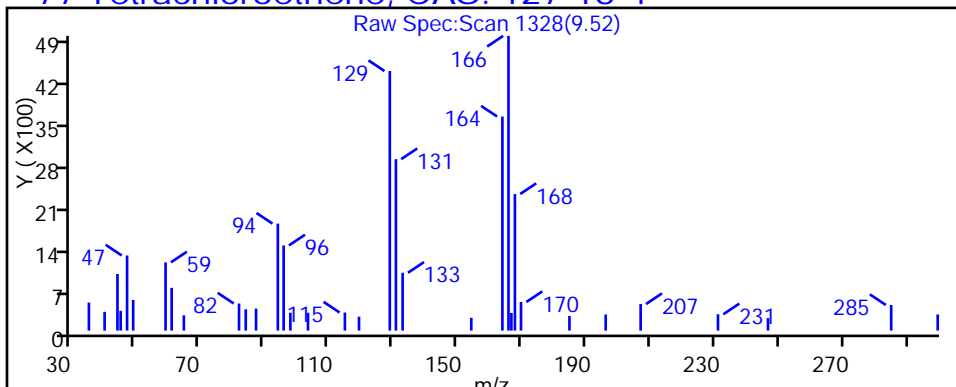
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

77 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC4-0/1-3 Lab Sample ID: 180-48399-12  
 Matrix: Water Lab File ID: 51013029.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 13:30  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 23:41  
 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.: 156816 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND	^c	1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	5.3	^c	5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	1.9	J ^c	5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	ND		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	ND		1.0	0.15
591-78-6	2-Hexanone	ND	^c	5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC4-0/1-3 Lab Sample ID: 180-48399-12  
 Matrix: Water Lab File ID: 51013029.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 13:30  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 23:41  
 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.: 156816 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.20
107-13-1	Acrylonitrile	ND	^c	20	0.55
123-91-1	1,4-Dioxane	ND	^c	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)	96		71-118
460-00-4	4-Bromofluorobenzene (Surr)	80		70-118
1868-53-7	Dibromofluoromethane (Surr)	102		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151013-8970.b\51013029.D  
 Lims ID: 180-48399-C-12 Lab Sample ID: 180-48399-12  
 Client ID: HD-QC4-0/1-3  
 Sample Type: Client  
 Inject. Date: 13-Oct-2015 23:41:30 ALS Bottle#: 28 Worklist Smp#: 29  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-48399-C-12  
 Misc. Info.: 180-0008970-029  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151013-8970.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Oct-2015 08:53:07 Calib Date: 26-Aug-2015 17:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK037

First Level Reviewer: fergusond

Date: 14-Oct-2015 08:53:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.279	4.284	-0.005	0	155890	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.289	0.001	97	337584	50.0	
* 3 Chlorobenzene-d5	119	10.387	10.386	0.001	90	80172	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.729	12.734	-0.005	98	94953	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.566	6.566	0.000	94	84392	50.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	125027	54.9	
\$ 7 Toluene-d8 (Surr)	98	8.939	8.938	0.001	96	297172	48.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.573	11.572	0.001	86	93052	39.9	
12 Chloromethane	50		1.772				ND	
13 Vinyl chloride	62		1.918				ND	
15 Bromomethane	94		2.265				ND	
16 Chloroethane	64		2.417				ND	
22 1,1-Dichloroethene	96		3.341				ND	
24 Acetone	43	3.445	3.439	0.006	98	18133	26.6	
26 Carbon disulfide	76		3.633				ND	
31 Methylene Chloride	84		4.144				ND	
33 Acrylonitrile	53		4.521				ND	
34 trans-1,2-Dichloroethene	96		4.570				ND	
35 Methyl tert-butyl ether	73		4.582				ND	
37 1,1-Dichloroethane	63		5.209				ND	
45 cis-1,2-Dichloroethene	96		5.951				ND	
46 2-Butanone (MEK)	43	5.976	5.963	0.013	41	9489	9.27	
49 Chlorobromomethane	128		6.237				ND	
52 Chloroform	83		6.383				ND	
53 1,1,1-Trichloroethane	97		6.547				ND	
56 Carbon tetrachloride	117		6.718				ND	
58 Benzene	78		6.949				ND	
59 1,2-Dichloroethane	62		7.022				ND	
64 Trichloroethene	130		7.685				ND	
67 1,2-Dichloropropane	63		7.946				ND	
70 1,4-Dioxane	88		8.044				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.232				ND	
74 cis-1,3-Dichloropropene	75		8.676				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.829				ND	
76 Toluene	91		9.005				ND	
77 trans-1,3-Dichloropropene	75		9.254				ND	
79 1,1,2-Trichloroethane	97		9.449				ND	
80 Tetrachloroethene	164		9.522				ND	
82 2-Hexanone	43		9.656				ND	
84 Chlorodibromomethane	129		9.820				ND	
85 Ethylene Dibromide	107		9.936				ND	
87 Chlorobenzene	112		10.416				ND	
89 1,1,1,2-Tetrachloroethane	131		10.514				ND	
90 Ethylbenzene	106		10.520				ND	
91 m-Xylene & p-Xylene	106		10.648				ND	
92 o-Xylene	106		11.031				ND	
93 Styrene	104		11.049				ND	
94 Bromoform	173		11.238				ND	
99 1,1,2,2-Tetrachloroethane	83		11.706				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00043

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00043

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151013-8970.b\51013029.D

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

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-48399-C-12

Lab Sample ID: 180-48399-12

Worklist Smp#: 29

Client ID: HD-QC4-0/1-3

Purge Vol: 5.000 mL

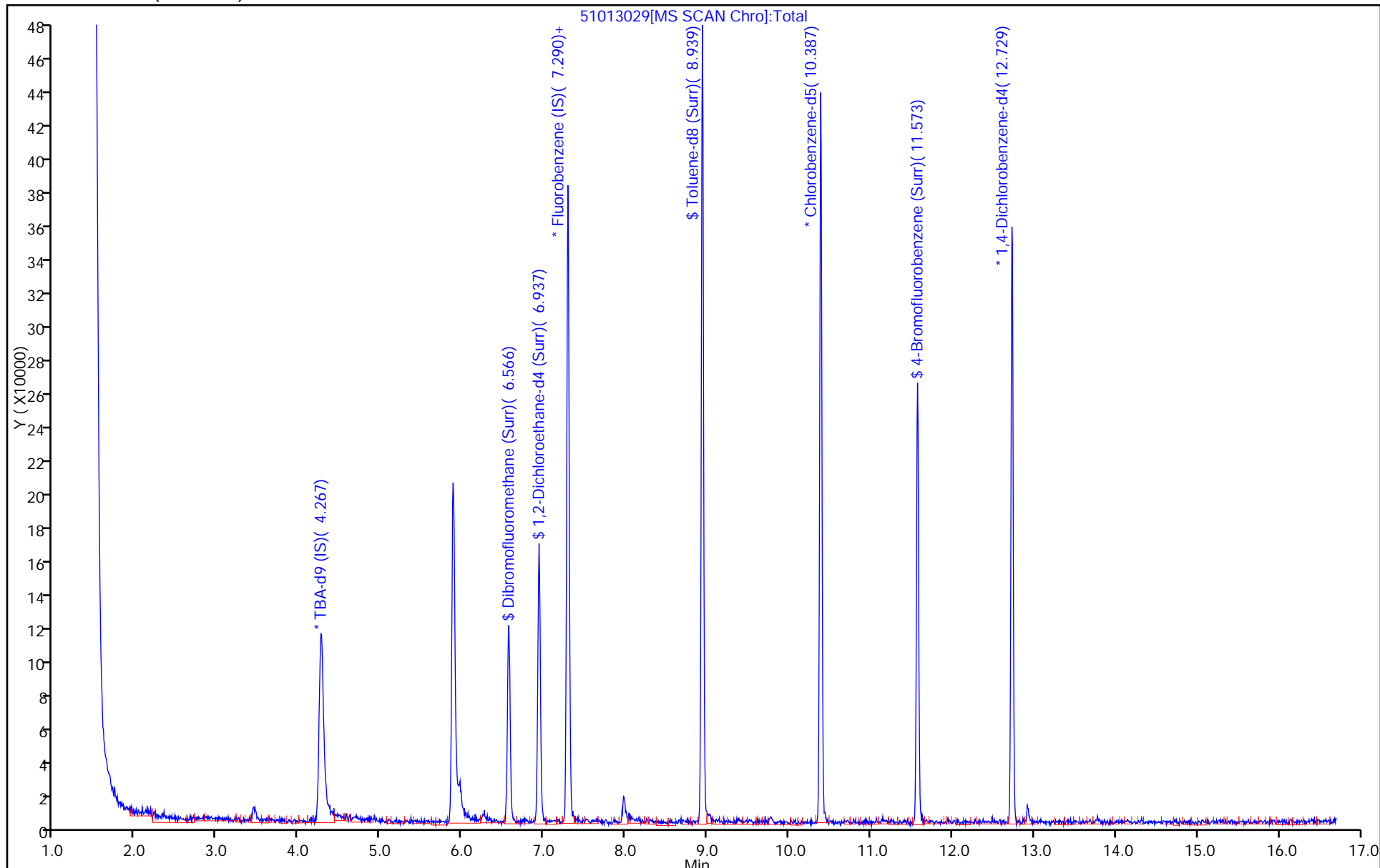
Dil. Factor: 1.0000

ALS Bottle#: 28

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151013-8970.b\51013029.D

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

Instrument ID: CHHP5

Lims ID: 180-48399-C-12

Lab Sample ID: 180-48399-12

Client ID: HD-QC4-0/1-3

Operator ID: 001562

ALS Bottle#: 28

Worklist Smp#: 29

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

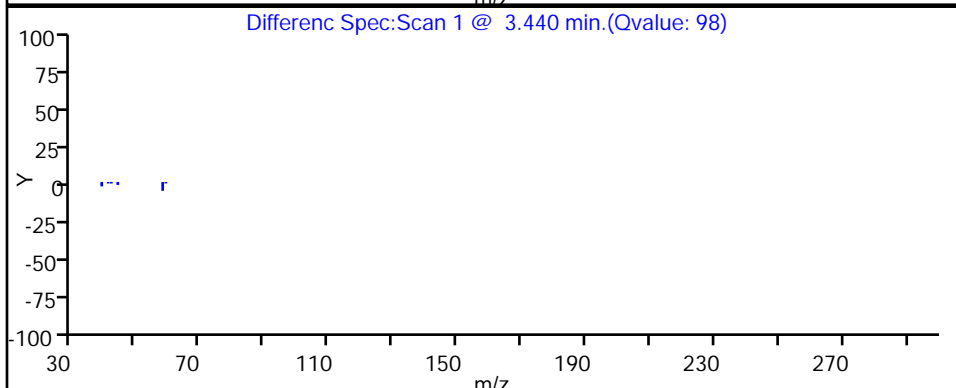
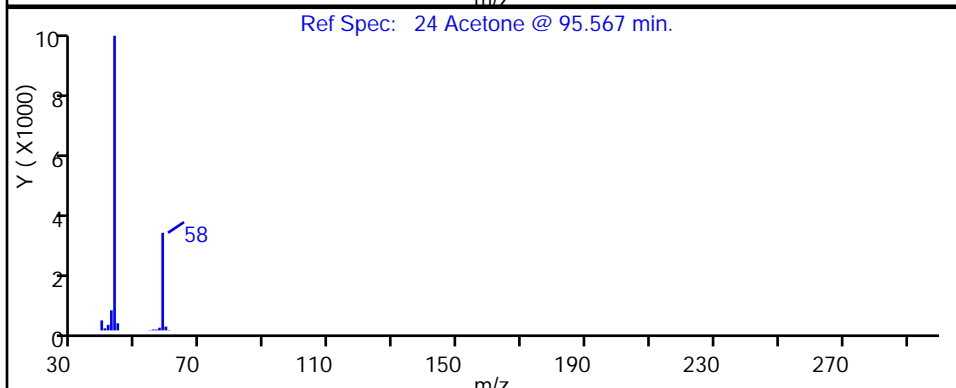
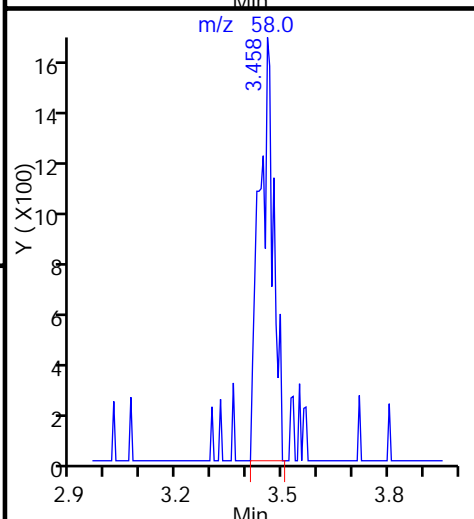
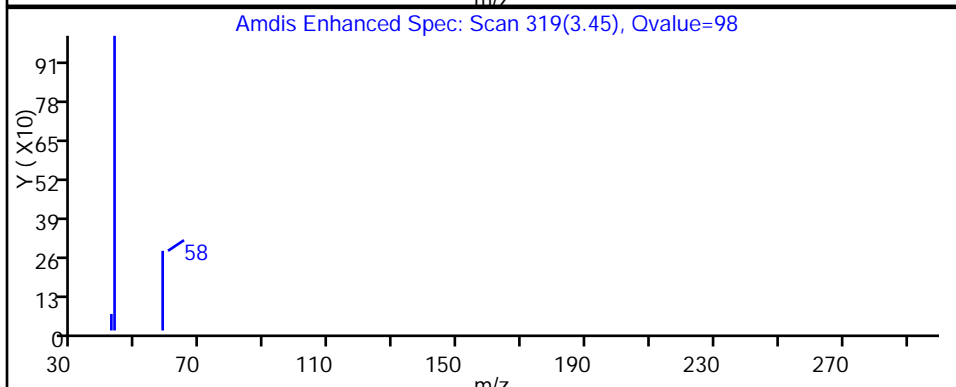
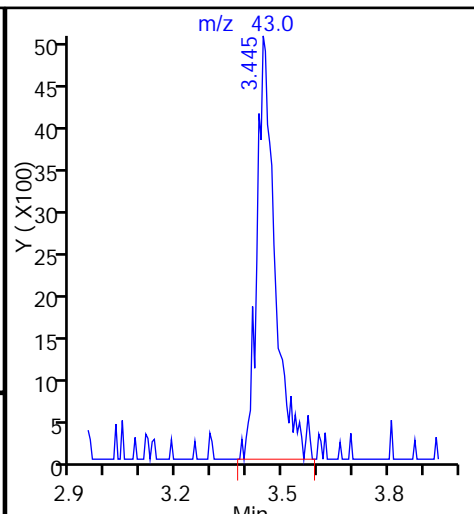
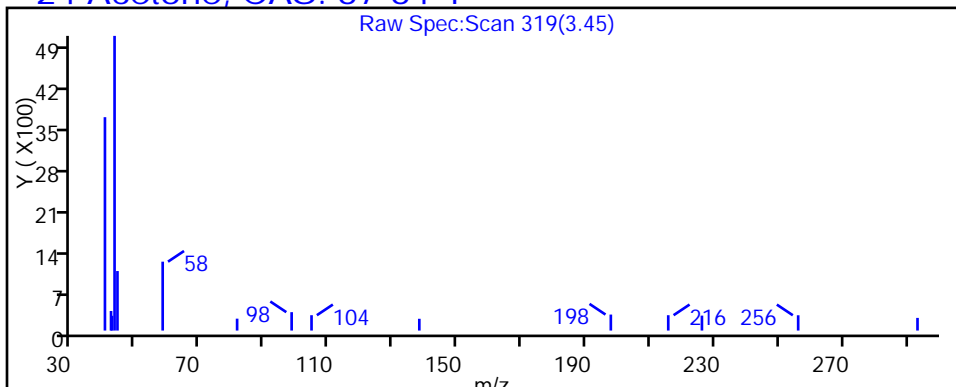
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

24 Acetone, CAS: 67-64-1



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151013-8970.b\51013029.D

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

Instrument ID: CHHP5

Lims ID: 180-48399-C-12

Lab Sample ID: 180-48399-12

Client ID: HD-QC4-0/1-3

Operator ID: 001562

ALS Bottle#: 28 Worklist Smp#: 29

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

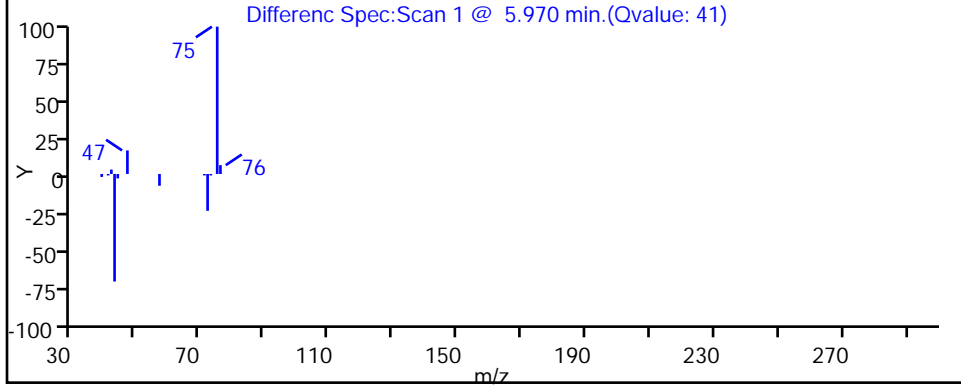
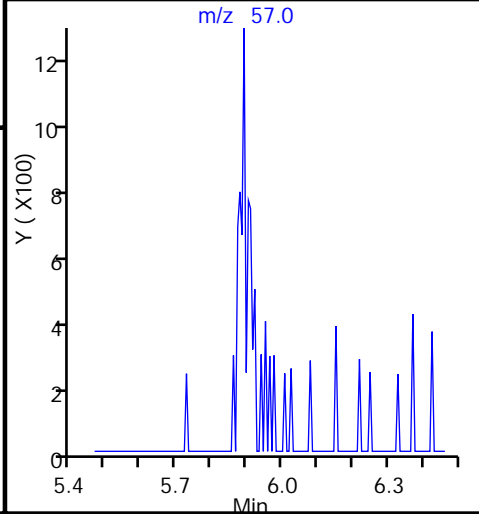
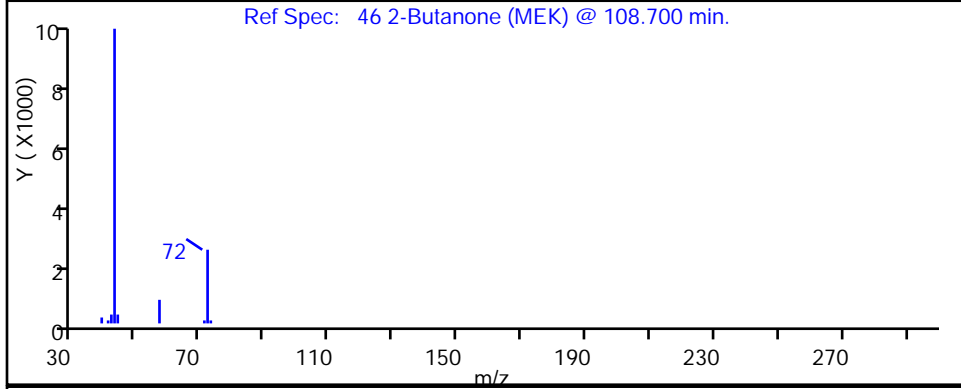
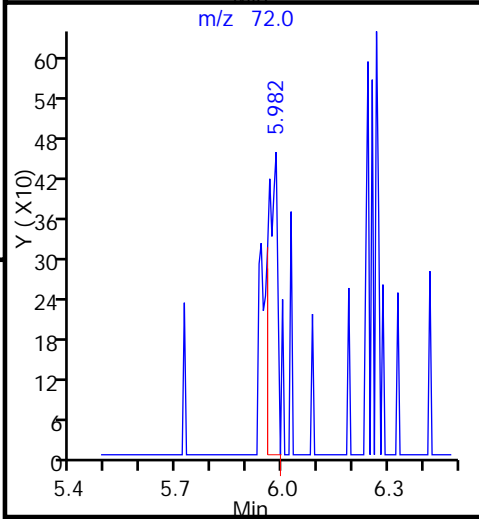
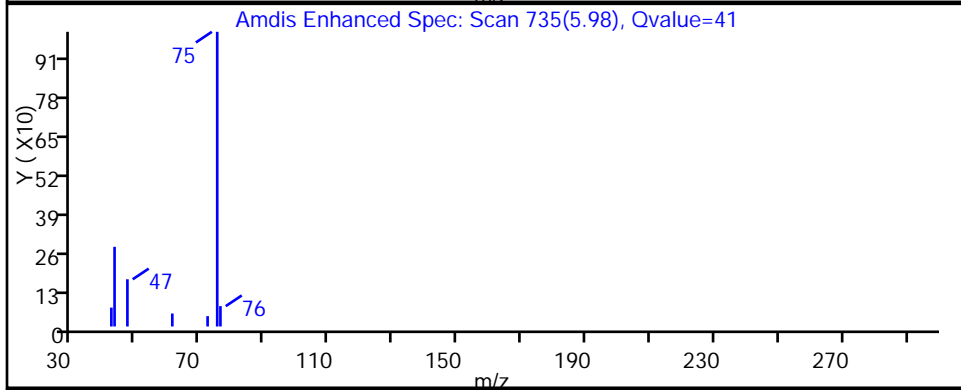
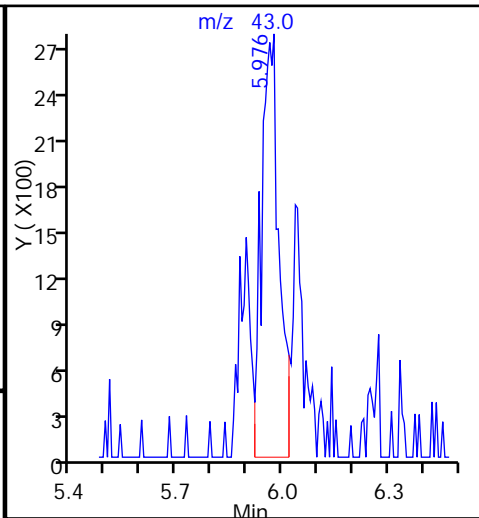
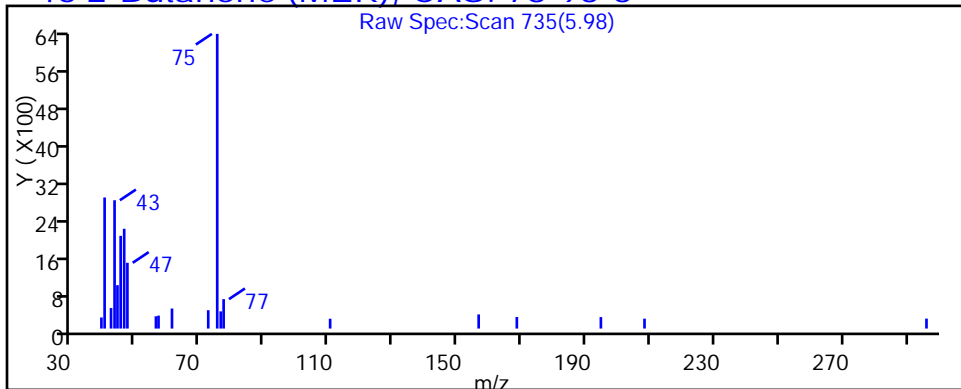
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC4-0/1-4 Lab Sample ID: 180-48399-13  
 Matrix: Water Lab File ID: 61014016.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 13:35  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/14/2015 18:26  
 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.: 156975 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND	^c	1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	2.5	J	5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	1.4	J	5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	ND		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	ND		1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC4-0/1-4 Lab Sample ID: 180-48399-13  
 Matrix: Water Lab File ID: 61014016.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 13:35  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/14/2015 18:26  
 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.: 156975 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	77		64-135
2037-26-5	Toluene-d8 (Surr)	105		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	85		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014016.D  
 Lims ID: 180-48399-B-13 Lab Sample ID: 180-48399-13  
 Client ID: HD-QC4-0/1-4  
 Sample Type: Client  
 Inject. Date: 14-Oct-2015 18:26:30 ALS Bottle#: 17 Worklist Smp#: 16  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-48399-B-13  
 Misc. Info.: 180-0008996-016  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 15-Oct-2015 08:40:26 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK008

First Level Reviewer: fergusond

Date: 15-Oct-2015 08:40:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.230	4.230	0.000	91	170355	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	99	534354	50.0	
* 3 Chlorobenzene-d5	119	10.399	10.399	0.000	91	118850	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.753	-0.006	99	176642	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.554	6.560	-0.006	93	104063	42.3	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.931	0.000	69	152975	38.5	
\$ 7 Toluene-d8 (Surr)	98	8.945	8.939	0.006	93	491883	52.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.585	0.000	84	192676	46.3	
12 Chloromethane	50		1.760				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.235				ND	
16 Chloroethane	64		2.381				ND	
22 1,1-Dichloroethene	96		3.336				ND	
24 Acetone	43	3.446	3.433	0.013	39	11684	12.4	M
26 Carbon disulfide	76		3.628				ND	
31 Methylene Chloride	84		4.120				ND	
33 Acrylonitrile	53		4.498				ND	
35 Methyl tert-butyl ether	73		4.565				ND	
34 trans-1,2-Dichloroethene	96		4.565				ND	
37 1,1-Dichloroethane	63		5.191				ND	
43 cis-1,2-Dichloroethene	96		5.939				ND	
44 2-Butanone (MEK)	43	5.952	5.945	0.007	28	8751	6.78	
48 Chlorobromomethane	128		6.225				ND	
50 Chloroform	83		6.365				ND	
51 1,1,1-Trichloroethane	97		6.536				ND	
53 Carbon tetrachloride	117		6.718				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130		7.673				ND	
64 1,2-Dichloropropane	63		7.947				ND	
65 1,4-Dioxane	88		8.026				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
73 Toluene	91		9.012				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164		9.529				ND	
79 2-Hexanone	43		9.656				ND	
81 Chlorodibromomethane	129		9.821				ND	
82 Ethylene Dibromide	107		9.936				ND	
84 Chlorobenzene	112		10.429				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.654				ND	
89 o-Xylene	106		11.037				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.238				ND	
96 1,1,2,2-Tetrachloroethane	83		11.719				ND	
S 131 Xylenes, Total	106		1.000				ND	

**QC Flag Legend**

Review Flags

M - Manually Integrated

**Reagents:**

VOA8260INT\_00043

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00043

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014016.D

Injection Date: 14-Oct-2015 18:26:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-48399-B-13

Lab Sample ID: 180-48399-13

Worklist Smp#: 16

Client ID: HD-QC4-0/1-4

Purge Vol: 5.000 mL

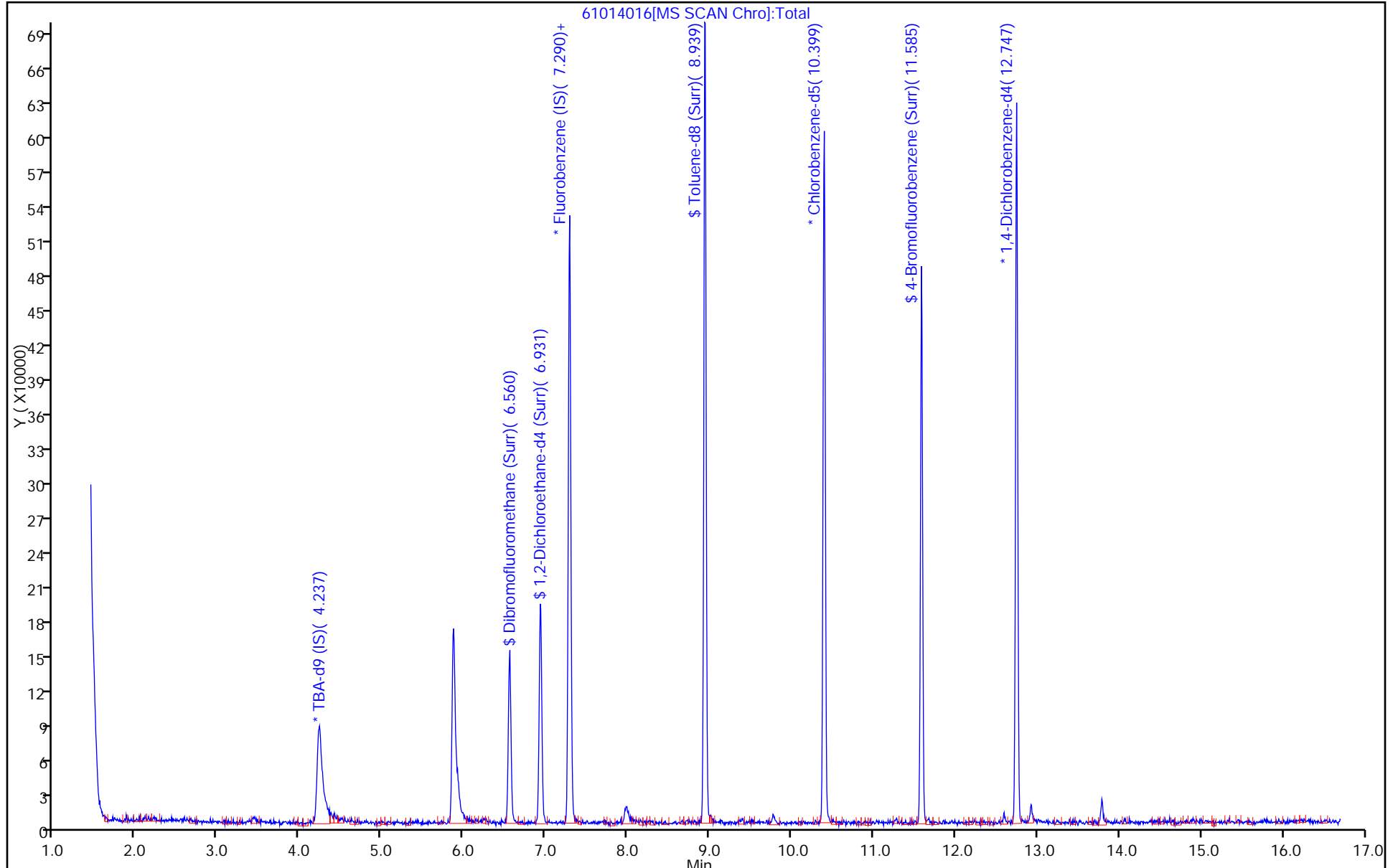
Dil. Factor: 1.0000

ALS Bottle#: 17

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014016.D

Injection Date: 14-Oct-2015 18:26:30

Instrument ID: CHHP6

Lims ID: 180-48399-B-13

Lab Sample ID: 180-48399-13

Client ID: HD-QC4-0/1-4

Operator ID: 001562

ALS Bottle#: 17 Worklist Smp#: 16

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

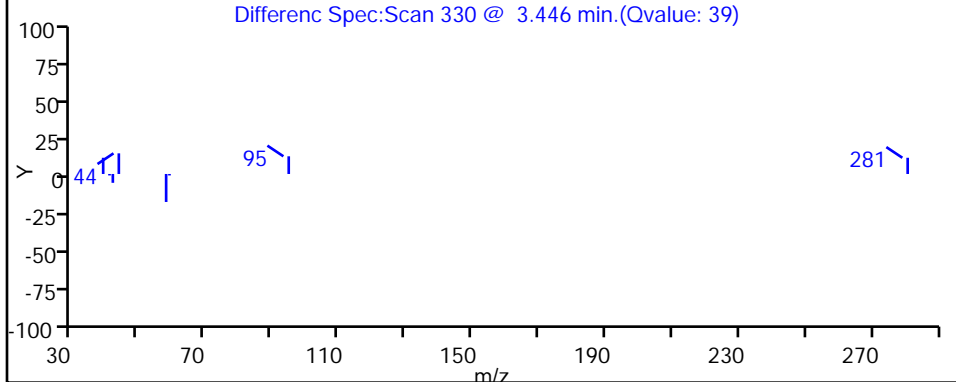
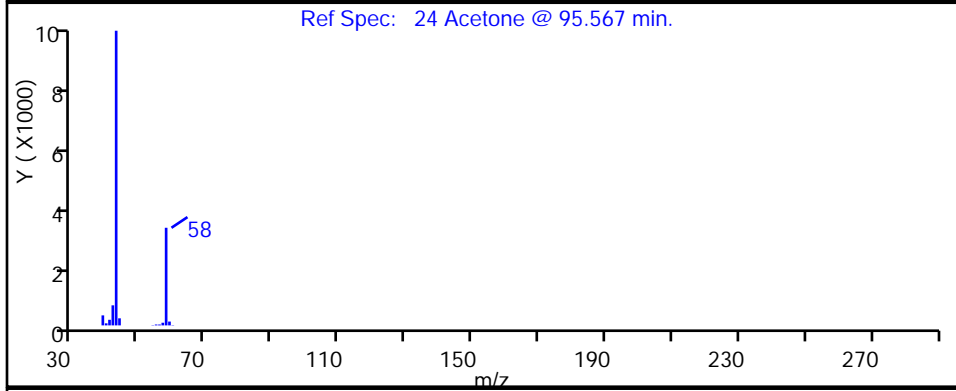
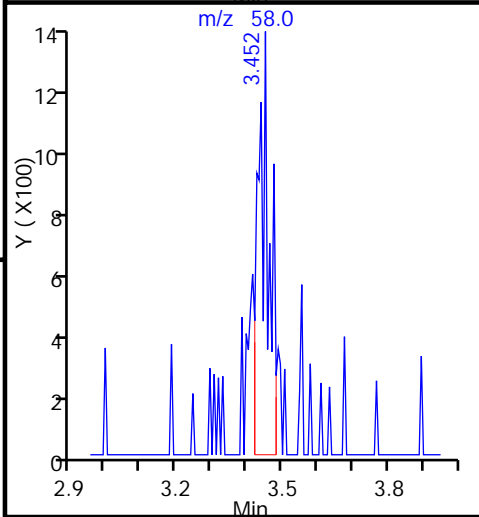
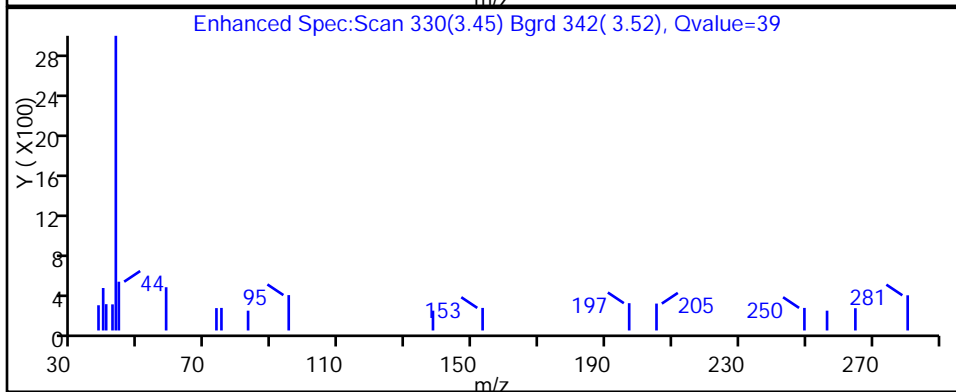
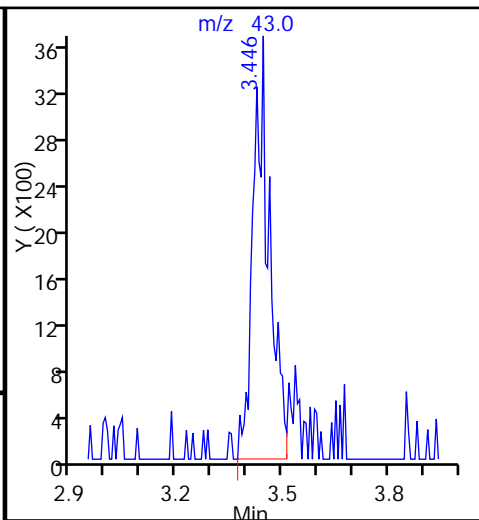
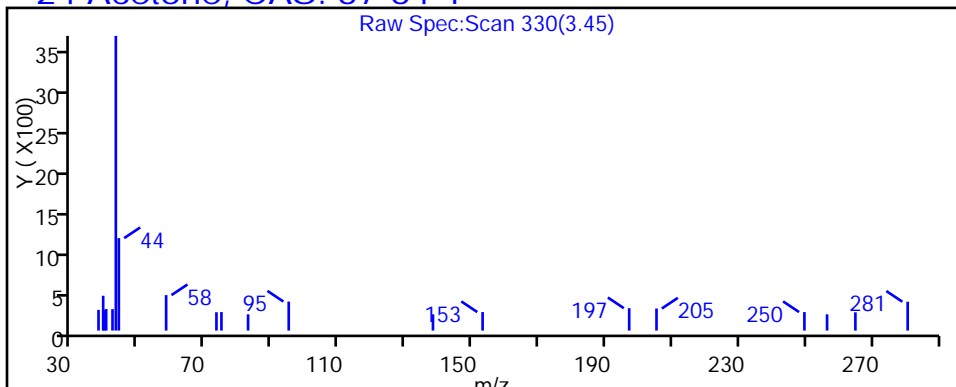
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

24 Acetone, CAS: 67-64-1





TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014016.D

Injection Date: 14-Oct-2015 18:26:30

Instrument ID: CHHP6

Lims ID: 180-48399-B-13

Lab Sample ID: 180-48399-13

Client ID: HD-QC4-0/1-4

Operator ID: 001562

ALS Bottle#: 17 Worklist Smp#: 16

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

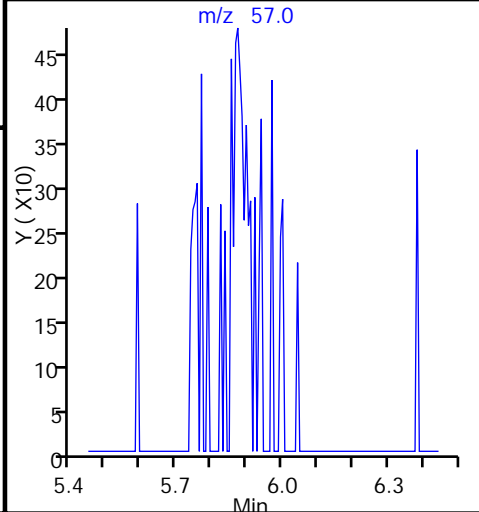
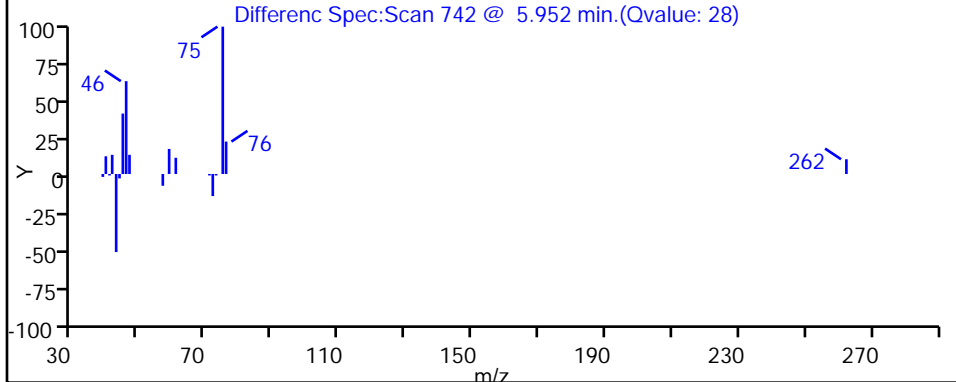
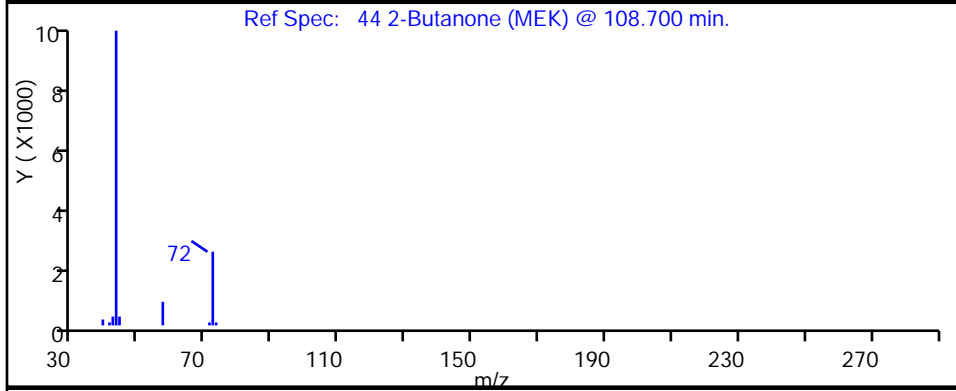
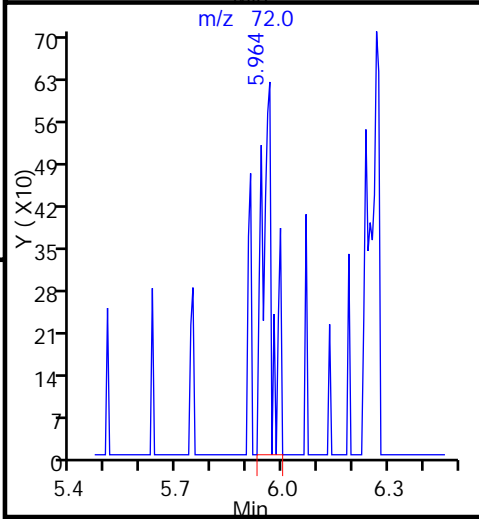
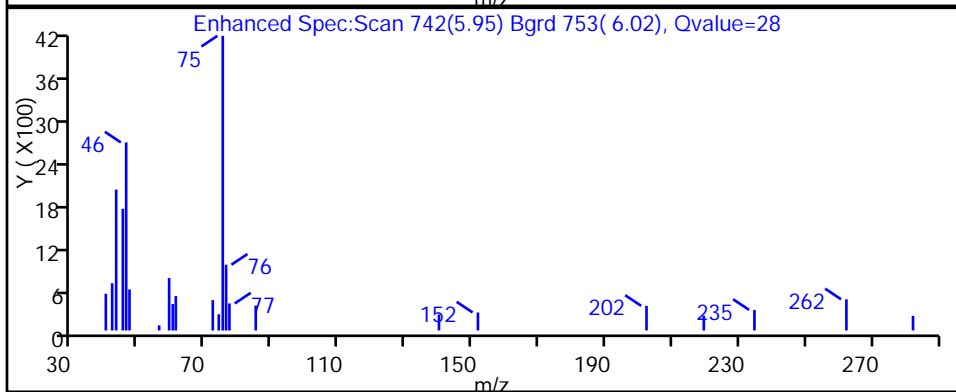
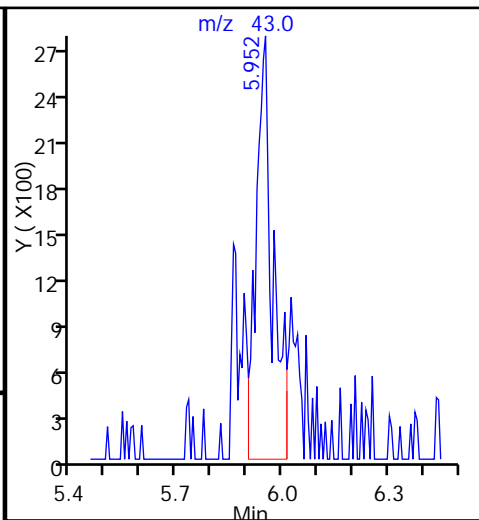
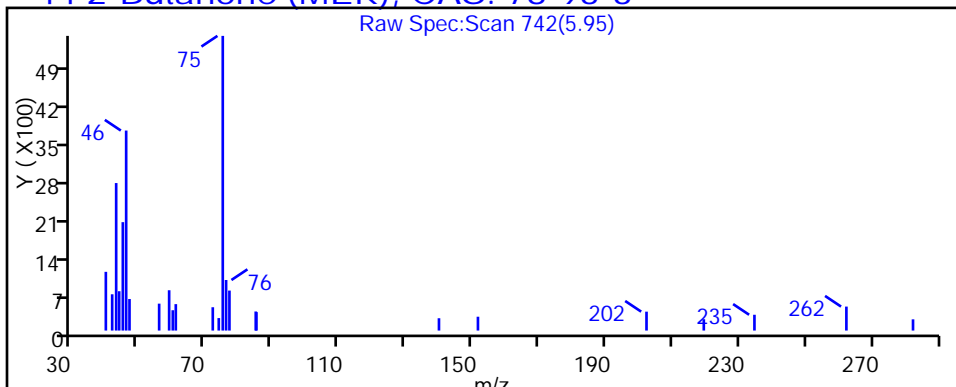
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

44 2-Butanone (MEK), CAS: 78-93-3



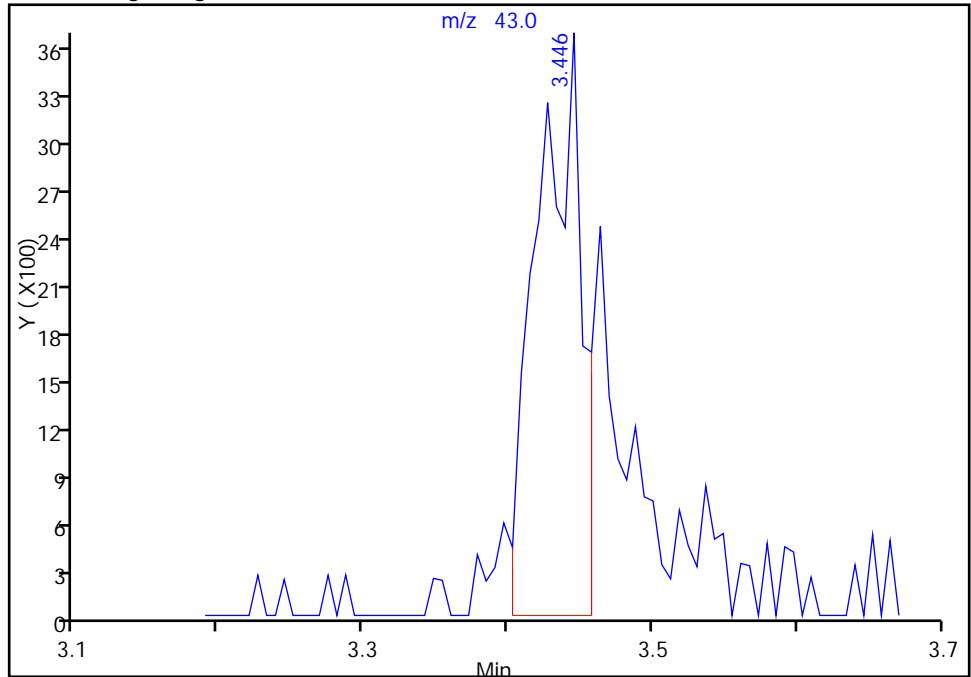
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014016.D  
Injection Date: 14-Oct-2015 18:26:30 Instrument ID: CHHP6  
Lims ID: 180-48399-B-13 Lab Sample ID: 180-48399-13  
Client ID: HD-QC4-0/1-4  
Operator ID: 001562 ALS Bottle#: 17 Worklist Smp#: 16  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

24 Acetone, CAS: 67-64-1

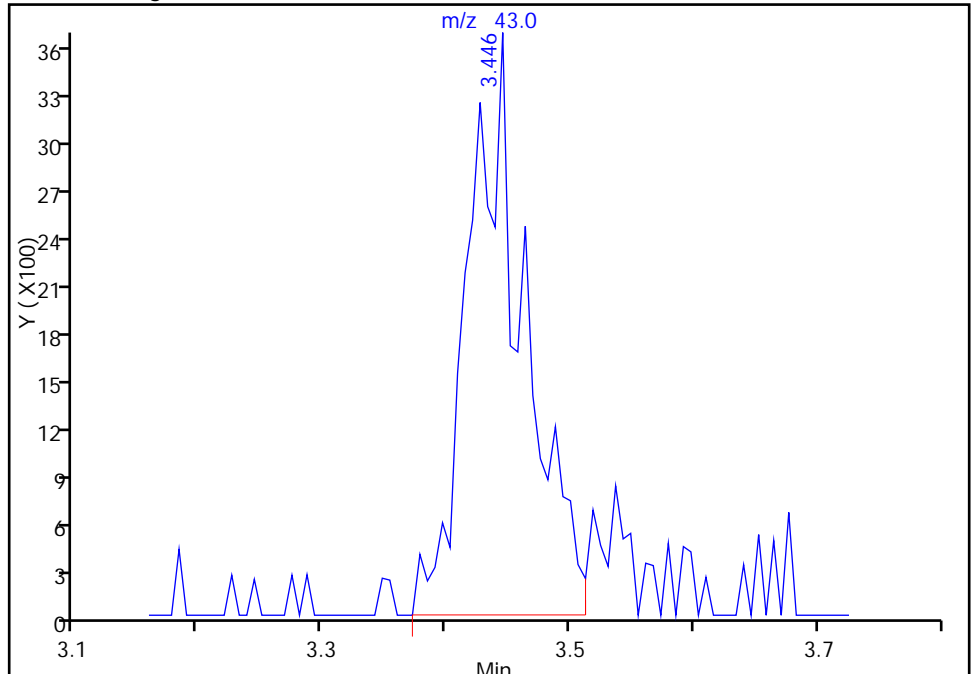
RT: 3.45  
Area: 7938  
Amount: 8.396815  
Amount Units: ng

Processing Integration Results



RT: 3.45  
Area: 11684  
Amount: 12.359334  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 15-Oct-2015 08:40:26  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC14-0/1-2 Lab Sample ID: 180-48399-14  
 Matrix: Water Lab File ID: 61013027.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 12:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 23:13  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 156820 Units: ug/L

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

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC14-0/1-2 Lab Sample ID: 180-48399-14  
 Matrix: Water Lab File ID: 61013027.D  
 Analysis Method: 8260C Date Collected: 10/02/2015 12:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 23:13  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 156820 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	80		64-135
2037-26-5	Toluene-d8 (Surr)	106		71-118
460-00-4	4-Bromofluorobenzene (Surr)	92		70-118
1868-53-7	Dibromofluoromethane (Surr)	94		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013027.D  
 Lims ID: 180-48399-B-14 Lab Sample ID: 180-48399-14  
 Client ID: HD-QC14-0/1-2  
 Sample Type: Client  
 Inject. Date: 13-Oct-2015 23:13:30 ALS Bottle#: 27 Worklist Smp#: 27  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-48399-B-14  
 Misc. Info.: 180-0008971-027  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Oct-2015 08:17:19 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK037

First Level Reviewer: fergusond

Date: 14-Oct-2015 08:17:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.231	4.242	-0.011	94	159420	1000.0	
* 2 Fluorobenzene (IS)	96	7.285	7.290	-0.005	98	492003	50.0	
* 3 Chlorobenzene-d5	119	10.400	10.399	0.001	90	106502	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.748	12.747	0.001	98	162595	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.555	6.554	0.001	93	106727	47.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.932	6.931	0.001	69	146059	39.9	
\$ 7 Toluene-d8 (Surr)	98	8.946	8.945	0.001	93	446960	53.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.586	11.591	-0.005	84	171423	46.0	
12 Chloromethane	50	1.761	1.766	-0.005	56	3629	1.24	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.235				ND	
16 Chloroethane	64		2.387				ND	
22 1,1-Dichloroethene	96		3.342				ND	
24 Acetone	43		3.427				ND	
26 Carbon disulfide	76		3.634				ND	
31 Methylene Chloride	84		4.133				ND	
33 Acrylonitrile	53		4.504				ND	
34 trans-1,2-Dichloroethene	96		4.565				ND	
35 Methyl tert-butyl ether	73		4.577				ND	
37 1,1-Dichloroethane	63		5.203				ND	
43 cis-1,2-Dichloroethene	96		5.939				ND	
44 2-Butanone (MEK)	43		5.952				ND	
48 Chlorobromomethane	128		6.231				ND	
50 Chloroform	83		6.371				ND	
51 1,1,1-Trichloroethane	97		6.542				ND	
53 Carbon tetrachloride	117		6.718				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130		7.673				ND	
64 1,2-Dichloropropane	63		7.953				ND	
65 1,4-Dioxane	88		8.032				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.233				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
73 Toluene	91		9.012				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164		9.529				ND	
79 2-Hexanone	43		9.663				ND	
81 Chlorodibromomethane	129		9.827				ND	
82 Ethylene Dibromide	107		9.936				ND	
84 Chlorobenzene	112		10.429				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.660				ND	
89 o-Xylene	106		11.043				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.713				ND	
S 131 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00043

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00043

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013027.D

Injection Date: 13-Oct-2015 23:13:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-48399-B-14

Lab Sample ID: 180-48399-14

Worklist Smp#: 27

Client ID: HD-QC14-0/1-2

Purge Vol: 5.000 mL

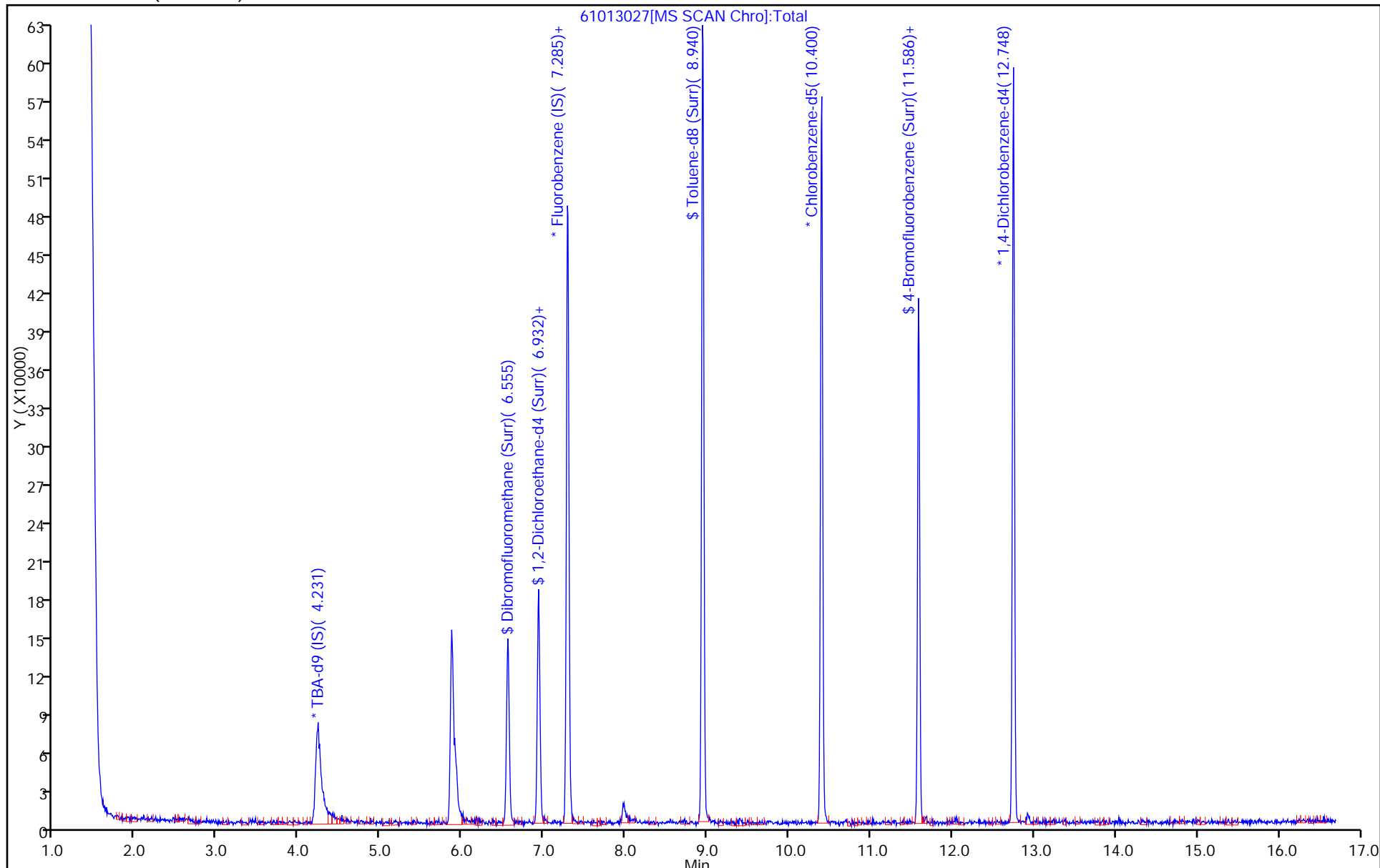
Dil. Factor: 1.0000

ALS Bottle#: 27

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



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

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1 Analy Batch No.: 151868

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

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

Calibration Start Date: 08/26/2015 15:04 Calibration End Date: 08/26/2015 17:52 Calibration ID: 25113

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-151868/6	50826006.D
Level 2	IC 180-151868/8	50826008.D
Level 3	ICIS 180-151868/9	50826009.D
Level 4	IC 180-151868/10	50826010.D
Level 5	IC 180-151868/11	50826011.D
Level 6	IC 180-151868/12	50826012.D
Level 7	IC 180-151868/13	50826013.D
Level 8	IC 180-151868/14	50826014.D

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														
Dichlorodifluoromethane	0.3287 0.2623	0.2973 0.2575	0.3036 0.2768	0.2652	0.2686	Ave		0.2825		0.1000	8.8		20.0				
Chloromethane	0.5129 0.3809	0.4550 0.3728	0.4119 0.4194	0.3793	0.3858	Ave		0.4148		0.1000	11.6		20.0				
Vinyl chloride	0.4001 0.3434	0.3977 0.3372	0.3943 0.3699	0.3444	0.3565	Ave		0.3679		0.1000	7.2		20.0				
1,3-Butadiene	0.5239 0.3986	0.4751 0.3875	0.4623 0.4226	0.3955	0.4108	Ave		0.4345		0.0100	11.0		20.0				
Bromomethane	0.1691 0.1521	0.1576 0.1241	0.1270 0.1576	0.1608	0.1494	Ave		0.1497		0.0500	10.7		20.0				
Chloroethane	0.2791 0.2041	0.2380 0.2011	0.2154 0.2199	0.2110	0.2070	Ave		0.2220		0.0500	11.6		20.0				
Dichlorofluoromethane	0.5546 0.4260	0.5213 0.4285	0.5031 0.4664	0.4321	0.4354	Ave		0.4709		0.0100	10.5		20.0				
Trichlorofluoromethane	0.3948 0.3299	0.3814 0.3233	0.3774 0.3496	0.3273	0.3345	Ave		0.3523		0.1000	8.0		20.0				
Ethyl ether	0.4234 0.2964	0.3324 0.2960	0.3164 0.3549	0.2973	0.2952	Ave		0.3265		0.0100	13.7		20.0				
Acrolein	0.0512 0.0479	0.0489 0.0478	0.0480 0.0550	0.0441	0.0462	Ave		0.0486		0.0100	6.7		20.0				
1,1-Dichloroethene	0.2946 0.2694	0.2816 0.2624	0.2875 0.2968	0.2618	0.2736	Ave		0.2785		0.1000	5.0		20.0				
1,1,2-Trichloro-1,2,2-trifluoroethane	0.3300 0.2776	0.3157 0.2707	0.3079 0.2975	0.2771	0.2839	Ave		0.2951		0.1000	7.2		20.0				
Acetone	0.1264 0.0944	0.1213 0.0888	0.0958 0.1083	0.0854	0.0868	Ave		0.1009		0.0500	15.8		20.0				
Iodomethane	0.4682 0.3963	0.4179 0.3889	0.4130 0.4559	0.3863	0.3938	Ave		0.4150		0.0100	7.5		20.0				

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



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

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1 Analy Batch No.: 151868

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

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

Calibration Start Date: 08/26/2015 15:04 Calibration End Date: 08/26/2015 17:52 Calibration ID: 25113

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														
Carbon disulfide	0.6362 0.6697	0.5938 0.6592	0.6262 0.7601	0.5915	0.6365	Ave		0.6466			0.1000	8.3	20.0				
Allyl chloride	0.1392 0.1626	0.1500 0.1654	0.1522 0.1887	0.1471	0.1566	Ave		0.1577			0.0100	9.6	20.0				
Methyl acetate	0.3337 0.2890	0.3263 0.2857	0.2882 0.3263	0.2787	0.2836	Ave		0.3015			0.1000	7.6	20.0				
Methylene Chloride	0.6517 0.2904	0.3723 0.2913	0.3258 0.3382	0.3056	0.2911	Lin2	1.8054	0.2910			0.1000			0.9950		0.9900	
tert-Butyl alcohol	1.3524 1.1479	1.0348 1.0778	1.0400 1.1523	1.0913	1.1079	Ave		1.1255			0.0100	9.0	20.0				
Acrylonitrile	0.1618 0.1395	0.1545 0.1388	0.1504 0.1578	0.1327	0.1347	Ave		0.1463			0.0100	7.7	20.0				
trans-1,2-Dichloroethene	0.3383 0.2905	0.3111 0.2805	0.3070 0.3253	0.2770	0.2891	Ave		0.3024			0.1000	7.2	20.0				
Methyl tert-butyl ether	0.7340 0.6851	0.6905 0.6950	0.6558 0.8276	0.6473	0.6637	Ave		0.6999			0.1000	8.3	20.0				
Hexane	0.5487 0.5062	0.5124 0.4822	0.5150 0.5325	0.4707	0.4929	Ave		0.5076			0.0100	5.1	20.0				
1,1-Dichloroethane	0.6731 0.5678	0.6009 0.5615	0.5929 0.6517	0.5533	0.5641	Ave		0.5957			0.2000	7.5	20.0				
Vinyl acetate	0.4658 0.4559	0.4321 0.4509	0.4142 0.5072	0.4114	0.4375	Ave		0.4469			0.0100	6.9	20.0				
2,2-Dichloropropane	0.2543 0.2353	0.2294 0.2294	0.2373 0.2670	0.2227	0.2344	Ave		0.2387			0.0100	6.1	20.0				
cis-1,2-Dichloroethene	0.3560 0.3133	0.3276 0.3052	0.3171 0.3596	0.3029	0.3027	Ave		0.3230			0.1000	7.1	20.0				
2-Butanone (MEK)	0.1700 0.1465	0.1604 0.1446	0.1482 0.1652	0.1430	0.1348	Ave		0.1516			0.0500	8.1	20.0				
Bromochloromethane	0.1549 0.1331	0.1498 0.1336	0.1364 0.1592	0.1347	0.1330	Ave		0.1418			0.0100	7.7	20.0				
Tetrahydrofuran	0.1584 0.1188	0.1210 0.1173	0.1165 0.1328	0.1044	0.1035	Ave		0.1216			0.0100	14.4	20.0				
Chloroform	0.6121 0.4769	0.5334 0.4687	0.5043 0.5518	0.4874	0.4825	Ave		0.5146			0.2000	9.5	20.0				
1,1,1-Trichloroethane	0.3907 0.3764	0.3802 0.3610	0.3863 0.4248	0.3588	0.3661	Ave		0.3805			0.1000	5.6	20.0				
Cyclohexane	0.6174 0.6347	0.6332 0.6154	0.6564 0.6862	0.6129	0.6374	Ave		0.6367			0.1000	3.9	20.0				
Carbon tetrachloride	0.3208 0.3222	0.3255 0.3130	0.3231 0.3616	0.3071	0.3191	Ave		0.3240			0.1000	5.0	20.0				

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1 Analy Batch No.: 151868

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

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

Calibration Start Date: 08/26/2015 15:04 Calibration End Date: 08/26/2015 17:52 Calibration ID: 25113

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	0.4109 0.4177	0.4291 0.3991	0.4295 0.4615	0.4010	0.4176	Ave		0.4208			0.0100	4.7	20.0				
Isobutyl alcohol	0.0095 0.0095	0.0091 0.0100	0.0099 0.0111	0.0081	0.0090	Ave		0.0095	*	0.0100	9.4	20.0					
Benzene	1.3619 1.1379	1.3471 1.1166	1.2583 1.2803	1.1865	1.1745	Ave		1.2329		0.5000	7.6	20.0					
1,2-Dichloroethane	0.4741 0.4037	0.4480 0.4008	0.4163 0.4668	0.4018	0.3996	Ave		0.4264		0.1000	7.4	20.0					
n-Heptane	0.4905 0.4664	0.4584 0.4370	0.4667 0.4920	0.4330	0.4446	Ave		0.4611		0.0100	4.9	20.0					
Trichloroethene	0.3438 0.2884	0.3023 0.2830	0.3001 0.3282	0.2819	0.2852	Ave		0.3016		0.2000	7.6	20.0					
Methylcyclohexane	0.4249 0.4931	0.4566 0.4767	0.4833 0.5272	0.4569	0.4841	Ave		0.4753		0.1000	6.4	20.0					
1,2-Dichloropropane	0.3806 0.3114	0.3166 0.3023	0.3142 0.3619	0.2970	0.3041	Ave		0.3235		0.1000	9.5	20.0					
1,4-Dioxane	0.0018 0.0024	0.0022 0.0023	0.0022 0.0026	0.0021	0.0022	Ave		0.0022	*	0.0100	11.0	20.0					
Dibromomethane	0.1726 0.1580	0.1745 0.1564	0.1618 0.1826	0.1547	0.1528	Ave		0.1642		0.0100	6.7	20.0					
Bromodichloromethane	0.3187 0.3277	0.3165 0.3275	0.3067 0.3841	0.3076	0.3105	Ave		0.3249		0.2000	7.8	20.0					
cis-1,3-Dichloropropene	0.3262 0.4065	0.3324 0.4128	0.3462 0.4886	0.3587	0.3740	Ave		0.3807		0.2000	14.2	20.0					
4-Methyl-2-pentanone (MIBK)	1.0903 1.2759	1.2109 1.2196	1.2320 1.3578	1.2204	1.2490	Ave		1.2320		0.1000	6.0	20.0					
Toluene	5.5703 4.5203	5.5571 4.1167	5.4822 4.5535	4.9121	4.8891	Ave		4.9502		0.4000	11.0	20.0					
trans-1,3-Dichloropropene	1.1012 1.3656	1.2222 1.3022	1.2566 1.5136	1.2587	1.3145	Ave		1.2918		0.1000	9.2	20.0					
Ethyl methacrylate	1.0084 1.3290	1.1451 1.2693	1.2245 1.4637	1.2645	1.2889	Ave		1.2492		0.0100	10.7	20.0					
1,1,2-Trichloroethane	0.9854 0.8899	1.0921 0.8150	0.9726 0.9474	0.9168	0.9135	Ave		0.9416		0.1000	8.6	20.0					
Tetrachloroethene	1.1379 0.8860	1.0568 0.8108	1.0252 0.9003	0.9316	0.9384	Ave		0.9609		0.2000	11.0	20.0					
1,3-Dichloropropane	1.9919 1.6394	1.8881 1.5526	1.7977 1.7492	1.7044	1.6621	Ave		1.7482		0.0100	8.1	20.0					
2-Hexanone	0.8243 0.9047	0.9086 0.8711	0.9027 0.9534	0.8729	0.8767	Ave		0.8893		0.1000	4.2	20.0					

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

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

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

Analy Batch No.: 151868

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

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 08/26/2015 15:04

Calibration End Date: 08/26/2015 17:52

Calibration ID: 25113

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	0.7656 0.8311	0.7604 0.7903	0.8248 0.9219	0.8043	0.8232	Ave		0.8152			0.1000	6.2	20.0				
1,2-Dibromoethane (EDB)	0.9759 0.8616	0.9872 0.8306	0.9279 0.9400	0.8704	0.8651	Ave		0.9073			0.1000	6.4	20.0				
3-Chlorobenzotrifluoride	1.9141 1.5139	1.7300 1.3853	1.7441 1.3810	1.5596	1.4979	Ave		1.5907			0.0100	11.9	20.0				
Chlorobenzene	3.7359 2.9360	3.5057 2.7547	3.3592 3.0452	3.0983	3.0632	Ave		3.1873			0.5000	10.1	20.0				
4-Chlorobenzotrifluoride	1.7602 1.4166	1.6482 1.3106	1.6401 1.3278	1.5024	1.4249	Ave		1.5038			0.0100	10.9	20.0				
1,1,1,2-Tetrachloroethane	1.1225 0.9996	1.0966 0.9489	1.0413 1.0904	1.0057	1.0062	Ave		1.0389			0.0100	5.7	20.0				
Ethylbenzene	1.6196 1.6672	1.7534 1.5472	1.8359 1.7000	1.6962	1.6973	Ave		1.6896			0.1000	5.1	20.0				
m-Xylene & p-Xylene	1.9469 2.0590	2.1320 1.8861	2.2561 2.1036	2.0873	2.1024	Ave		2.0717			0.1000	5.5	20.0				
o-Xylene	1.7875 1.9631	1.9618 1.8192	2.1700 2.0438	2.0181	1.9885	Ave		1.9690			0.3000	6.2	20.0				
Styrene	2.9089 3.2190	3.4288 3.0069	3.5226 3.3091	3.3907	3.3066	Ave		3.2616			0.3000	6.4	20.0				
Bromoform	0.4690 0.4795	0.4313 0.4703	0.4499 0.5395	0.4346	0.4474	Ave		0.4652			0.1000	7.4	20.0				
2-Chlorobenzotrifluoride	1.7885 1.4787	1.7489 1.3827	1.7033 1.3749	1.5707	1.4741	Ave		1.5652			0.0100	10.5	20.0				
Isopropylbenzene	4.3653 4.6596	5.1113 4.2808	5.5491 4.6316	4.9755	5.0001	Ave		4.8217			0.1000	8.7	20.0				
1,1,2,2-Tetrachloroethane	1.4661 1.1699	1.3993 1.1182	1.3725 1.2326	1.2215	1.1808	Ave		1.2701			0.3000	9.9	20.0				
Bromobenzene	0.9000 0.8558	0.8314 0.8194	0.8380 0.9507	0.8287	0.8423	Ave		0.8583			0.0100	5.2	20.0				
trans-1,4-Dichloro-2-butene	0.2917 0.3299	0.2806 0.3207	0.2875 0.3711	0.2997	0.3010	Ave		0.3103			0.0100	9.5	20.0				
1,2,3-Trichloropropane	0.3063 0.2797	0.2926 0.2700	0.2690 0.3158	0.2674	0.2639	Ave		0.2831			0.0100	6.9	20.0				
N-Propylbenzene	0.8996 1.0031	0.9330 0.9647	1.0104 1.0875	0.9757	0.9863	Ave		0.9825			0.0100	5.7	20.0				
2-Chlorotoluene	0.7422 0.8347	0.8275 0.8182	0.8534 0.9287	0.8318	0.8446	Ave		0.8351			0.0100	6.1	20.0				
3-Chlorotoluene	0.8266 0.8699	0.8669 0.8353	0.8759 0.8984	0.8585	0.8348	Ave		0.8583			0.0100	2.9	20.0				

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

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

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

Analy Batch No.: 151868

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

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 08/26/2015 15:04

Calibration End Date: 08/26/2015 17:52

Calibration ID: 25113

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
1,3,5-Trimethylbenzene	2.3645 2.7734	2.8908 2.6232	2.9957 2.8967	2.8185	2.8452	Ave		2.7760			0.0100	7.1	20.0				
4-Chlorotoluene	0.8633 0.9172	0.9746 0.8728	0.9234 0.9963	0.8946	0.9096	Ave		0.9190			0.0100	5.0	20.0				
tert-Butylbenzene	1.8741 2.3430	2.1778 2.2068	2.3521 2.4799	2.2754	2.3463	Ave		2.2569			0.0100	8.0	20.0				
1,2,4-Trimethylbenzene	2.3075 2.7925	2.8627 2.6520	2.9863 2.9459	2.8624	2.8401	Ave		2.7812			0.0100	7.8	20.0				
3,4-Dichlorobenzotrifluoride	0.9332 0.7629	0.7706 0.7120	0.8114 0.7421	0.7469	0.7246	Ave		0.7754			0.0100	9.1	20.0				
sec-Butylbenzene	2.7780 3.1978	3.2532 3.0155	3.5024 3.2789	3.1902	3.2760	Ave		3.1865			0.0100	6.7	20.0				
1,3-Dichlorobenzene	1.5731 1.4773	1.6002 1.4395	1.5858 1.6167	1.4673	1.4672	Ave		1.5284			0.6000	4.7	20.0				
4-Isopropyltoluene	2.1994 2.7400	2.7068 2.6136	2.9233 2.8630	2.7523	2.7684	Ave		2.6959			0.0100	8.2	20.0				
1,4-Dichlorobenzene	1.8395 1.4959	1.6730 1.4568	1.6062 1.6474	1.5057	1.4918	Ave		1.5895			0.5000	8.1	20.0				
2,4-Dichlorobenzotrifluoride	0.8167 0.7142	0.7458 0.6499	0.7804 0.6801	0.6991	0.6616	Ave		0.7185			0.0100	8.2	20.0				
2,5-Dichlorobenzotrifluoride	0.8953 0.7661	0.7731 0.7682	0.8004 0.7491	0.7462	0.7137	Ave		0.7765			0.0100	7.0	20.0				
n-Butylbenzene	1.9548 2.3709	2.2758 2.2727	2.5056 2.4426	2.2735	2.3594	Ave		2.3069			0.0100	7.2	20.0				
1,2-Dichlorobenzene	1.6347 1.3388	1.5012 1.3288	1.4944 1.4525	1.3452	1.3303	Ave		1.4282			0.4000	7.8	20.0				
1,2-Dibromo-3-Chloropropane	0.1072 0.1191	0.1212 0.1226	0.1194 0.1351	0.1034	0.1102	Ave		0.1173			0.0500	8.6	20.0				
2,4- & 2,5- & 2,6- Dichlorotoluene	0.7554 0.8278	0.7846 0.8399	0.9569 0.8065	0.7811	0.7733	Ave		0.8157			0.0100	7.8	20.0				
2,3- & 3,4- Dichlorotoluene	0.7045 0.7833	0.7591 0.8096	0.9510 0.7804	0.7194	0.7151	Ave		0.7778			0.0100	10.2	20.0				
1,2,4-Trichlorobenzene	0.5337 0.5349	0.5713 0.5698	0.6897 0.5692	0.4840	0.4928	Ave		0.5557			0.2000	11.5	20.0				
Hexachlorobutadiene	0.2789 0.2527	0.2957 0.2535	0.3393 0.2508	0.2366	0.2338	Ave		0.2677			0.0100	13.3	20.0				
Naphthalene	1.2233 1.4724	1.2705 1.5865	1.7478 1.5810	1.2452	1.2988	Ave		1.4282			0.0100	13.7	20.0				
1,2,3-Trichlorobenzene	0.4915 0.4124	0.4501 0.4480	0.5796 0.4500	0.3828	0.3844	Ave		0.4498			0.0100	14.2	20.0				

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1 Analy Batch No.: 151868

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

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

Calibration Start Date: 08/26/2015 15:04 Calibration End Date: 08/26/2015 17:52 Calibration ID: 25113

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
2,4,5-Trichlorotoluene	0.1695 0.1581	0.1451 0.1827	0.2185 0.1750	0.1232	0.1263	Ave		0.1623			0.0100	19.4		20.0			
2,3,6-Trichlorotoluene	0.1057 +++++	0.1323 +++++	0.2120 +++++	0.1162	0.1265	Ave		0.1496			0.0100	24.0	*	20.0			
Dibromofluoromethane (Surr)	0.2897 0.2274	0.2548 0.2230	0.2447 0.2662	0.2287	0.2299	Ave		0.2455				9.5		20.0			
1,2-Dichloroethane-d4 (Surr)	0.4203 0.3099	0.3560 0.3035	0.3369 0.3556	0.3100	0.3058	Ave		0.3373				11.9		20.0			
Toluene-d8 (Surr)	4.5689 3.4832	4.1450 3.1902	4.3481 3.5716	3.8169	3.7347	Ave		3.8573				12.1		20.0			
4-Bromofluorobenzene (Surr)	1.6296 1.3602	1.5022 1.2884	1.5824 1.4505	1.4462	1.3812	Ave		1.4551				7.8		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1 Analy Batch No.: 151868

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

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

Calibration Start Date: 08/26/2015 15:04 Calibration End Date: 08/26/2015 17:52 Calibration ID: 25113

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-151868/6	50826006.D
Level 2	IC 180-151868/8	50826008.D
Level 3	ICIS 180-151868/9	50826009.D
Level 4	IC 180-151868/10	50826010.D
Level 5	IC 180-151868/11	50826011.D
Level 6	IC 180-151868/12	50826012.D
Level 7	IC 180-151868/13	50826013.D
Level 8	IC 180-151868/14	50826014.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	13335 461015	63359 506611	139988 585297	195493	268740	5.00 175	25.0 200	50.0 250	75.0	100
Chloromethane	FB	Ave	20806 669660	96975 733518	189967 886889	279657	386017	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl chloride	FB	Ave	16232 603655	84746 663498	181809 782206	253941	356745	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Butadiene	FB	Ave	21253 700624	101243 762590	213171 893578	291582	411077	5.00 175	25.0 200	50.0 250	75.0	100
Bromomethane	FB	Ave	6860 267454	33586 244127	58568 333317	118541	149495	5.00 175	25.0 200	50.0 250	75.0	100
Chloroethane	FB	Ave	11321 358728	50718 395735	99329 465079	155578	207155	5.00 175	25.0 200	50.0 250	75.0	100
Dichlorofluoromethane	FB	Ave	22499 748877	111107 843233	232009 986298	318608	435665	5.00 175	25.0 200	50.0 250	75.0	100
Trichlorofluoromethane	FB	Ave	16013 579992	81291 636269	174036 739174	241309	334740	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl ether	FB	Ave	17175 521056	70836 582513	145899 750491	219194	295395	5.00 175	25.0 200	50.0 250	75.0	100
Acrolein	FB	Ave	41531 108307	52087 117496	66358 127965	75936	92519	100 225	125 250	150 275	175	200
1,1-Dichloroethene	FB	Ave	11952 473565	60024 516257	132602 627614	192998	273818	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	13388 488054	67283 532678	141996 629046	204297	284081	5.00 175	25.0 200	50.0 250	75.0	100
Acetone	FB	Ave	25628 332039	51703 349354	88342 457819	125942	173687	25.0 350	50.0 400	100 500	150	200
Iodomethane	FB	Ave	18992 696716	89056 765249	190440 963985	284793	394076	5.00 175	25.0 200	50.0 250	75.0	100
Carbon disulfide	FB	Ave	25807 1177201	126552 1297173	288788 1607306	436105	636866	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1 Analy Batch No.: 151868

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

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

Calibration Start Date: 08/26/2015 15:04 Calibration End Date: 08/26/2015 17:52 Calibration ID: 25113

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		
Allyl chloride	FB	Ave	5646 285911	31974 325399	70192 399041	108440	156677	5.00 175	25.0 200	50.0 250	75.0	100
Methyl acetate	FB	Ave	67684 2539904	347746 2811173	664608 3450277	1027560	1419018	25.0 875	125 1000	250 1250	375	500
Methylene Chloride	FB	Lin2	26437 510471	79338 573290	150258 715184	225319	291271	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butyl alcohol	TBA	Ave	9257 352268	39038 410928	81932 514360	122262	185374	50.0 1750	250 2000	500 2500	750	1000
Acrylonitrile	FB	Ave	65631 2452551	329204 2730347	693478 3337347	978697	1347643	50.0 1750	250 2000	500 2500	750	1000
trans-1,2-Dichloroethene	FB	Ave	13723 510637	66301 552053	141577 687878	204201	289331	5.00 175	25.0 200	50.0 250	75.0	100
Methyl tert-butyl ether	FB	Ave	29774 1204325	147150 1367672	302403 1750025	477236	664089	5.00 175	25.0 200	50.0 250	75.0	100
Hexane	FB	Ave	22257 889892	109198 948868	237492 1125958	347025	493203	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethane	FB	Ave	27303 998105	128072 1104940	273423 1377944	407919	564450	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl acetate	FB	Ave	18896 801339	92081 887283	191017 1072494	303320	437799	5.00 175	25.0 200	50.0 250	75.0	100
2,2-Dichloropropane	FB	Ave	10315 413686	48880 451339	109416 564524	164171	234514	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,2-Dichloroethene	FB	Ave	14442 550789	69819 600559	146208 760457	223289	302874	5.00 175	25.0 200	50.0 250	75.0	100
2-Butanone (MEK)	FB	Ave	34471 514894	68384 569128	136667 698551	210830	269779	25.0 350	50.0 400	100 500	150	200
Bromochloromethane	FB	Ave	6284 234034	31931 262832	62915 336595	99282	133128	5.00 175	25.0 200	50.0 250	75.0	100
Tetrahydrofuran	FB	Ave	12850 417684	51589 461621	107444 561739	153971	207145	10.0 350	50.0 400	100 500	150	200
Chloroform	FB	Ave	24828 838419	113670 922240	232542 1166838	359318	482795	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1-Trichloroethane	FB	Ave	15850 661680	81030 710348	178131 898258	264507	366328	5.00 175	25.0 200	50.0 250	75.0	100
Cyclohexane	FB	Ave	25044 1115710	134937 1210903	302702 1451032	451893	637776	5.00 175	25.0 200	50.0 250	75.0	100
Carbon tetrachloride	FB	Ave	13013 566329	69375 616016	148991 764597	226405	319309	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloropropene	FB	Ave	16668 734207	91438 785333	198075 975802	295676	417880	5.00 175	25.0 200	50.0 250	75.0	100
Isobutyl alcohol	FB	Ave	9663 417725	48239 492768	113924 588608	149085	224262	125 4375	625 5000	1250 6250	1875	2500

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

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

Analy Batch No.: 151868

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

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 08/26/2015 15:04

Calibration End Date: 08/26/2015 17:52

Calibration ID: 25113

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	55246 2000326	287091 2197241	580241 2707324	874781	1175215	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane	FB	Ave	19231 709743	95482 788760	191991 987010	296218	399895	5.00 175	25.0 200	50.0 250	75.0	100
n-Heptane	FB	Ave	19899 819932	97699 859948	215218 1040377	319252	444901	5.00 175	25.0 200	50.0 250	75.0	100
Trichloroethene	FB	Ave	13948 506964	64418 556980	138404 693909	207852	285365	5.00 175	25.0 200	50.0 250	75.0	100
Methylcyclohexane	FB	Ave	17237 866758	97305 937977	222858 1114866	336831	484430	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloropropane	FB	Ave	15440 547361	67479 594824	144895 765352	218947	304322	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dioxane	FB	Ave	1429 82622	9374 91547	20164 111802	31691	44562	100 3500	500 4000	1000 5000	1500	2000
Dibromomethane	FB	Ave	7003 277699	37187 307857	74626 386058	114083	152946	5.00 175	25.0 200	50.0 250	75.0	100
Bromodichloromethane	FB	Ave	12926 576102	67441 644471	141423 812136	226806	310676	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,3-Dichloropropene	FB	Ave	13234 714562	70847 812298	159644 1033255	264451	374197	5.00 175	25.0 200	50.0 250	75.0	100
4-Methyl-2-pentanone (MIBK)	CBZ	Ave	52387 1157588	122590 1320471	267134 1599371	434749	614019	25.0 350	50.0 400	100 500	150	200
Toluene	CBZ	Ave	53527 2050607	281285 2228576	594334 2681762	874948	1201786	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,3-Dichloropropene	CBZ	Ave	10582 619485	61867 704918	136231 891401	224205	323125	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl methacrylate	CBZ	Ave	9690 602921	57962 687101	132749 862044	225233	316812	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloroethane	CBZ	Ave	9469 403722	55277 441190	105440 557982	163298	224541	5.00 175	25.0 200	50.0 250	75.0	100
Tetrachloroethene	CBZ	Ave	10935 401915	53495 438898	111146 530215	165929	230665	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichloropropane	CBZ	Ave	19141 743698	95569 840507	194887 1030200	303582	408560	5.00 175	25.0 200	50.0 250	75.0	100
2-Hexanone	CBZ	Ave	39604 820858	91984 943138	195734 1123041	310969	430988	25.0 350	50.0 400	100 500	150	200
Dibromochloromethane	CBZ	Ave	7357 377032	38492 427847	89414 542940	143257	202349	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromoethane (EDB)	CBZ	Ave	9378 390862	49971 449617	100600 553588	155041	212653	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorobenzotrifluoride	CBZ	Ave	18393 686777	87568 749898	189078 813323	277802	368187	5.00 175	25.0 200	50.0 250	75.0	100



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

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

Analy Batch No.: 151868

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

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 08/26/2015 15:04

Calibration End Date: 08/26/2015 17:52

Calibration ID: 25113

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	35900 1331912	177451 1491257	364174 1793475	551865	752971	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorobenzotrifluoride	CBZ	Ave	16914 642626	83430 709487	177807 781989	267607	350243	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1,2-Tetrachloroethane	CBZ	Ave	10787 453483	55507 513686	112884 642159	179137	247335	5.00 175	25.0 200	50.0 250	75.0	100
Ethylbenzene	CBZ	Ave	15563 756322	88753 837593	199030 1001210	302122	417206	5.00 175	25.0 200	50.0 250	75.0	100
m-Xylene & p-Xylene	CBZ	Ave	18709 934055	107918 1021032	244588 1238884	371799	516778	5.00 175	25.0 200	50.0 250	75.0	100
o-Xylene	CBZ	Ave	17177 890574	99302 984811	235252 1203666	359461	488783	5.00 175	25.0 200	50.0 250	75.0	100
Styrene	CBZ	Ave	27953 1460286	173558 1627751	381888 1948876	603962	812783	5.00 175	25.0 200	50.0 250	75.0	100
Bromoform	CBZ	Ave	4507 217546	21829 254607	48771 317730	77411	109983	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorobenzotrifluoride	CBZ	Ave	17186 670799	88525 748529	184654 809757	279773	362334	5.00 175	25.0 200	50.0 250	75.0	100
Isopropylbenzene	CBZ	Ave	41948 2113845	258721 2317406	601591 2727755	886244	1229067	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2,2-Tetrachloroethane	CBZ	Ave	14088 530728	70831 605346	148796 725938	217578	290248	5.00 175	25.0 200	50.0 250	75.0	100
Bromobenzene	DCB	Ave	12648 543146	66130 609774	144660 743219	218069	300450	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,4-Dichloro-2-butene	DCB	Ave	4099 209384	22318 238659	49630 290130	78865	107372	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichloropropane	DCB	Ave	4305 177490	23273 200908	46443 246872	70373	94129	5.00 175	25.0 200	50.0 250	75.0	100
N-Propylbenzene	DCB	Ave	12643 636587	74204 717909	174426 850210	256762	351814	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorotoluene	DCB	Ave	10430 529736	65813 608876	147328 726063	218909	301246	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorotoluene	DCB	Ave	11617 552058	68954 621607	151211 702342	225916	297767	5.00 175	25.0 200	50.0 250	75.0	100
1,3,5-Trimethylbenzene	DCB	Ave	33229 1760059	229921 1952122	517168 2264532	741712	1014826	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorotoluene	DCB	Ave	12133 582109	77519 649501	159410 778860	235437	324433	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butylbenzene	DCB	Ave	26338 1486960	173217 1642231	406052 1938716	598804	836893	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trimethylbenzene	DCB	Ave	32428 1772230	227690 1973541	515539 2303042	753282	1013032	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1 Analy Batch No.: 151868

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

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

Calibration Start Date: 08/26/2015 15:04 Calibration End Date: 08/26/2015 17:52 Calibration ID: 25113

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	13115 484133	61289 529814	140073 580120	196559	258438	5.00 175	25.0 200	50.0 250	75.0	100
sec-Butylbenzene	DCB	Ave	39041 2029430	258745 2244027	604638 2563359	839536	1168492	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichlorobenzene	DCB	Ave	22108 937539	127273 1071203	273757 1263925	386149	523315	5.00 175	25.0 200	50.0 250	75.0	100
4-Isopropyltoluene	DCB	Ave	30909 1738859	215293 1944911	504672 2238219	724310	987448	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dichlorobenzene	DCB	Ave	25851 949324	133066 1084086	277292 1287906	396239	532103	5.00 175	25.0 200	50.0 250	75.0	100
2,4-Dichlorobenzotrifluoride	DCB	Ave	11477 453275	59316 483618	134729 531698	183967	235991	5.00 175	25.0 200	50.0 250	75.0	100
2,5-Dichlorobenzotrifluoride	DCB	Ave	12582 486163	61489 571654	138171 585601	196358	254571	5.00 175	25.0 200	50.0 250	75.0	100
n-Butylbenzene	DCB	Ave	27472 1504673	181007 1691227	432555 1909580	598297	841574	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichlorobenzene	DCB	Ave	22973 849612	119403 988861	257985 1135542	354012	474503	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromo-3-Chloropropane	DCB	Ave	1507 75555	9637 91242	20608 105625	27203	39315	5.00 175	25.0 200	50.0 250	75.0	100
2,4- & 2,5- & 2,6- Dichlorotoluene	DCB	Ave	31847 1576122	187206 1875036	495585 1891413	616649	827426	15.0 525	75.0 600	150 750	225	300
2,3- & 3,4- Dichlorotoluene	DCB	Ave	19801 994231	120746 1204899	328345 1220209	378630	510138	10.0 350	50.0 400	100 500	150	200
1,2,4-Trichlorobenzene	DCB	Ave	7500 339446	45439 424061	119069 445017	127381	175776	5.00 175	25.0 200	50.0 250	75.0	100
Hexachlorobutadiene	DCB	Ave	3919 160392	23516 188644	58574 196056	62268	83392	5.00 175	25.0 200	50.0 250	75.0	100
Naphthalene	DCB	Ave	17192 934428	101055 1180622	301738 1235965	327683	463258	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichlorobenzene	DCB	Ave	6907 261711	35802 333363	100055 351787	100749	137103	5.00 175	25.0 200	50.0 250	75.0	100
2,4,5-Trichlorotoluene	DCB	Ave	2382 100325	11540 135933	37716 136778	32434	45065	5.00 175	25.0 200	50.0 250	75.0	100
2,3,6-Trichlorotoluene	DCB	Ave	1485 +++++	10524 +++++	36592 +++++	30574	45128	5.00 +++++	25.0 +++++	50.0 +++++	75.0	100
Dibromofluoromethane (Surr)	FB	Ave	11752 399678	54310 438908	112824 562879	168602	230039	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	17051 544829	75876 597233	155346 751925	228530	306020	5.00 175	25.0 200	50.0 250	75.0	100
Toluene-d8 (Surr)	CBZ	Ave	43904 1580158	209810 1727014	471382 2103482	679876	918031	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1 Analy Batch No.: 151868

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

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

Calibration Start Date: 08/26/2015 15:04 Calibration End Date: 08/26/2015 17:52 Calibration ID: 25113

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8			LVL 6	LVL 7	LVL 8		
4-Bromofluorobenzene (Surr)	CBZ	Ave	15659 617045	76038 697446	171548 854277	257596	339508	5.00 175	25.0 200	50.0 250	75.0	100

Curve Type Legend:

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1 Analy Batch No.: 151868

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

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

Calibration Start Date: 08/26/2015 15:04 Calibration End Date: 08/26/2015 17:52 Calibration ID: 25113

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-151868/6	50826006.D
Level 2	IC 180-151868/8	50826008.D
Level 3	ICIS 180-151868/9	50826009.D
Level 4	IC 180-151868/10	50826010.D
Level 5	IC 180-151868/11	50826011.D
Level 6	IC 180-151868/12	50826012.D
Level 7	IC 180-151868/13	50826013.D
Level 8	IC 180-151868/14	50826014.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
Methylene Chloride	-0.1	3.1	-0.5	-3.3	-6.2	-3.8	40	40	40	40	40	40
	-3.0	13.7					40	40				

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826006.D  
 Lims ID: IC VSTD1  
 Client ID:  
 Sample Type: IC Calib Level: 1  
 Inject. Date: 26-Aug-2015 15:04:30 ALS Bottle#: 6 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD1  
 Misc. Info.: 180-0008300-006  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub4  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 27-Aug-2015 12:16:48 Calib Date: 26-Aug-2015 17:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK048

First Level Reviewer: fergusond

Date: 27-Aug-2015 12:16:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.266	4.274	-0.008	0	136898	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.291	-0.001	98	405648	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.387	-0.001	88	96094	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.730	-0.002	97	140534	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.566	6.567	-0.001	89	11752	5.00	5.90	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.938	-0.001	0	17051	5.00	6.23	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.933	0.005	95	43904	5.00	5.92	
\$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.574	-0.002	84	15659	5.00	5.60	
11 Dichlorodifluoromethane	85	1.608	1.627	-0.019	94	13335	5.00	5.82	
12 Chloromethane	50	1.760	1.761	-0.001	98	20806	5.00	6.18	
13 Vinyl chloride	62	1.906	1.901	0.005	72	16232	5.00	5.44	
14 Butadiene	39	1.930	1.931	-0.001	96	21253	5.00	6.03	
15 Bromomethane	94	2.228	2.236	-0.008	92	6860	5.00	5.65	
16 Chloroethane	64	2.386	2.376	0.010	96	11321	5.00	6.29	
17 Dichlorofluoromethane	67	2.660	2.661	-0.001	95	22499	5.00	5.89	
18 Trichlorofluoromethane	101	2.648	2.661	-0.013	71	16013	5.00	5.60	M
20 Ethyl ether	59	3.049	3.051	-0.002	97	17175	5.00	6.48	
21 Acrolein	56	3.220	3.233	-0.013	99	41531	100.0	105.2	
22 1,1-Dichloroethene	96	3.335	3.355	-0.020	78	11952	5.00	5.29	
23 1,1,2-Trichloro-1,2,2-trif	101	3.402	3.416	-0.014	66	13388	5.00	5.59	
24 Acetone	43	3.451	3.452	-0.001	99	25628	25.0	31.3	M
25 Iodomethane	142	3.536	3.556	-0.020	100	18992	5.00	5.64	
26 Carbon disulfide	76	3.627	3.635	-0.008	99	25807	5.00	4.92	
28 3-Chloro-1-propene	76	3.913	3.921	-0.008	88	5646	5.00	4.41	
30 Methyl acetate	43	3.938	3.945	-0.007	100	67684	25.0	27.7	
31 Methylene Chloride	84	4.126	4.152	-0.026	96	26437	5.00	4.99	
32 2-Methyl-2-propanol	59	4.406	4.413	-0.007	90	9257	50.0	60.1	
33 Acrylonitrile	53	4.515	4.517	-0.002	99	65631	50.0	55.3	
34 trans-1,2-Dichloroethene	96	4.558	4.566	-0.008	90	13723	5.00	5.59	
35 Methyl tert-butyl ether	73	4.576	4.584	-0.008	92	29774	5.00	5.24	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.990	4.991	-0.001	93	22257	5.00	5.40	
37 1,1-Dichloroethane	63	5.203	5.198	0.005	96	27303	5.00	5.65	
38 Vinyl acetate	43	5.252	5.253	-0.001	98	18896	5.00	5.21	
45 cis-1,2-Dichloroethene	96	5.951	5.953	-0.002	85	14442	5.00	5.51	
44 2,2-Dichloropropane	77	5.939	5.946	-0.007	60	10315	5.00	5.33	
46 2-Butanone (MEK)	43	5.963	5.959	0.004	97	34471	25.0	28.0	
49 Chlorobromomethane	128	6.237	6.238	-0.001	92	6284	5.00	5.46	
51 Tetrahydrofuran	42	6.249	6.257	-0.008	93	12850	10.0	13.0	
52 Chloroform	83	6.389	6.385	0.005	74	24828	5.00	5.95	
53 1,1,1-Trichloroethane	97	6.535	6.549	-0.014	91	15850	5.00	5.13	
54 Cyclohexane	56	6.614	6.616	-0.002	96	25044	5.00	4.85	
56 Carbon tetrachloride	117	6.718	6.719	-0.001	94	13013	5.00	4.95	
55 1,1-Dichloropropene	75	6.724	6.731	-0.007	91	16668	5.00	4.88	
57 Isobutyl alcohol	41	6.918	6.926	-0.008	70	9663	125.0	125.1	
58 Benzene	78	6.943	6.944	-0.001	97	55246	5.00	5.52	
59 1,2-Dichloroethane	62	7.022	7.023	-0.001	95	19231	5.00	5.56	
62 n-Heptane	43	7.314	7.309	0.005	93	19899	5.00	5.32	
64 Trichloroethene	130	7.679	7.674	0.005	92	13948	5.00	5.70	
66 Methylcyclohexane	83	7.916	7.918	-0.002	93	17237	5.00	4.47	
67 1,2-Dichloropropane	63	7.947	7.954	-0.007	90	15440	5.00	5.88	
70 1,4-Dioxane	88	8.026	8.027	-0.001	42	1429	100.0	79.0	
68 Dibromomethane	93	8.026	8.039	-0.013	95	7003	5.00	5.26	
71 Dichlorobromomethane	83	8.232	8.234	-0.002	93	12926	5.00	4.90	
74 cis-1,3-Dichloropropene	75	8.664	8.678	-0.014	65	13234	5.00	4.29	
75 4-Methyl-2-pentanone (MIBK)	43	8.823	8.830	-0.007	97	52387	25.0	22.1	
76 Toluene	91	9.005	9.006	-0.001	97	53527	5.00	5.63	
77 trans-1,3-Dichloropropene	75	9.248	9.250	-0.002	96	10582	5.00	4.26	
78 Ethyl methacrylate	69	9.315	9.311	0.004	94	9690	5.00	4.04	
79 1,1,2-Trichloroethane	97	9.449	9.444	0.005	93	9469	5.00	5.23	
80 Tetrachloroethene	164	9.522	9.517	0.005	93	10935	5.00	5.92	
81 1,3-Dichloropropane	76	9.607	9.603	0.004	99	19141	5.00	5.70	
82 2-Hexanone	43	9.662	9.657	0.005	97	39604	25.0	23.2	
84 Chlorodibromomethane	129	9.814	9.816	-0.002	89	7357	5.00	4.70	
85 Ethylene Dibromide	107	9.930	9.931	-0.001	99	9378	5.00	5.38	
86 3-Chlorobenzotrifluoride	180	10.392	10.387	0.005	56	18393	5.00	6.02	
87 Chlorobenzene	112	10.416	10.418	-0.002	94	35900	5.00	5.86	
88 4-Chlorobenzotrifluoride	180	10.477	10.479	-0.002	96	16914	5.00	5.85	
89 1,1,1,2-Tetrachloroethane	131	10.508	10.509	-0.001	87	10787	5.00	5.40	
90 Ethylbenzene	106	10.514	10.515	-0.001	98	15563	5.00	4.79	
91 m-Xylene & p-Xylene	106	10.648	10.649	-0.001	0	18709	5.00	4.70	
92 o-Xylene	106	11.025	11.026	-0.001	97	17177	5.00	4.54	
93 Styrene	104	11.049	11.051	-0.002	93	27953	5.00	4.46	
94 Bromoform	173	11.226	11.233	-0.007	96	4507	5.00	5.04	
96 2-Chlorobenzotrifluoride	180	11.305	11.294	0.011	92	17186	5.00	5.71	
97 Isopropylbenzene	105	11.396	11.397	-0.001	96	41948	5.00	4.53	
100 Bromobenzene	156	11.712	11.708	0.004	96	12648	5.00	5.24	
99 1,1,2,2-Tetrachloroethane	83	11.712	11.708	0.004	82	14088	5.00	5.77	
102 trans-1,4-Dichloro-2-buten	53	11.749	11.744	0.005	58	4099	5.00	4.70	
101 1,2,3-Trichloropropane	110	11.761	11.762	-0.001	85	4305	5.00	5.41	
103 N-Propylbenzene	120	11.810	11.811	-0.001	99	12643	5.00	4.58	
104 2-Chlorotoluene	126	11.895	11.902	-0.007	95	10430	5.00	4.44	
105 3-Chlorotoluene	126	11.968	11.963	0.005	96	11617	5.00	4.82	

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	11.992	11.993	-0.001	95	33229	5.00	4.26	
107 4-Chlorotoluene	126	12.022	12.024	-0.002	98	12133	5.00	4.70	
108 tert-Butylbenzene	119	12.308	12.310	-0.002	96	26338	5.00	4.15	
110 1,2,4-Trimethylbenzene	105	12.369	12.371	-0.002	96	32428	5.00	4.15	
111 1,2-dichloro-4-(trifluorom	214	12.406	12.413	-0.007	95	13115	5.00	6.02	
112 sec-Butylbenzene	105	12.533	12.535	-0.002	96	39041	5.00	4.36	
113 1,3-Dichlorobenzene	146	12.655	12.650	0.005	94	22108	5.00	5.15	
114 4-Isopropyltoluene	119	12.692	12.687	0.005	94	30909	5.00	4.08	
115 1,4-Dichlorobenzene	146	12.752	12.754	-0.002	94	25851	5.00	5.79	
116 2,4-Dichloro-1-(trifluorom	214	12.783	12.778	0.005	92	11477	5.00	5.68	
118 2,5-Dichlorobenzotrifluori	214	12.825	12.821	0.004	0	12582	5.00	5.77	
120 n-Butylbenzene	91	13.099	13.101	-0.002	98	27472	5.00	4.24	
121 1,2-Dichlorobenzene	146	13.111	13.113	-0.002	97	22973	5.00	5.72	
122 1,2-Dibromo-3-Chloropropan	75	13.920	13.904	0.016	1	1507	5.00	4.57	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.048	14.044	0.004	0	31847	15.0	13.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.462	14.463	-0.001	0	19801	10.0	9.06	
126 1,2,4-Trichlorobenzene	180	14.723	14.725	-0.002	94	7500	5.00	4.80	
127 Hexachlorobutadiene	225	14.876	14.871	0.005	90	3919	5.00	5.21	
128 Naphthalene	128	14.991	14.993	-0.002	96	17192	5.00	4.28	
129 1,2,3-Trichlorobenzene	180	15.216	15.218	-0.002	92	6907	5.00	5.46	
131 2,4,5-Trichlorotoluene	159	15.989	15.990	-0.001	0	2382	5.00	5.22	
130 2,3,6-Trichlorotoluene	159	16.092	16.094	-0.002	87	1485	5.00	3.53	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		10.0	9.24	
S 134 1,2-Dichloroethene, Total	96				0		10.0	11.1	
S 135 1,3-Dichloropropene, Total	1				0		10.0	8.55	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260VOAPRI_00139	Amount Added: 0.20	Units: uL	
voaWEE1stRest_00001	Amount Added: 0.20	Units: uL	
VOAVAPRI_00006	Amount Added: 0.20	Units: uL	
voaWKet1 Rest_00001	Amount Added: 0.80	Units: uL	
VOAACROLEINPR_00006	Amount Added: 4.00	Units: uL	
VOA8260SURRE_00040	Amount Added: 0.20	Units: uL	
VOA8260INT_00040	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826006.D

Injection Date: 26-Aug-2015 15:04:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD1

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

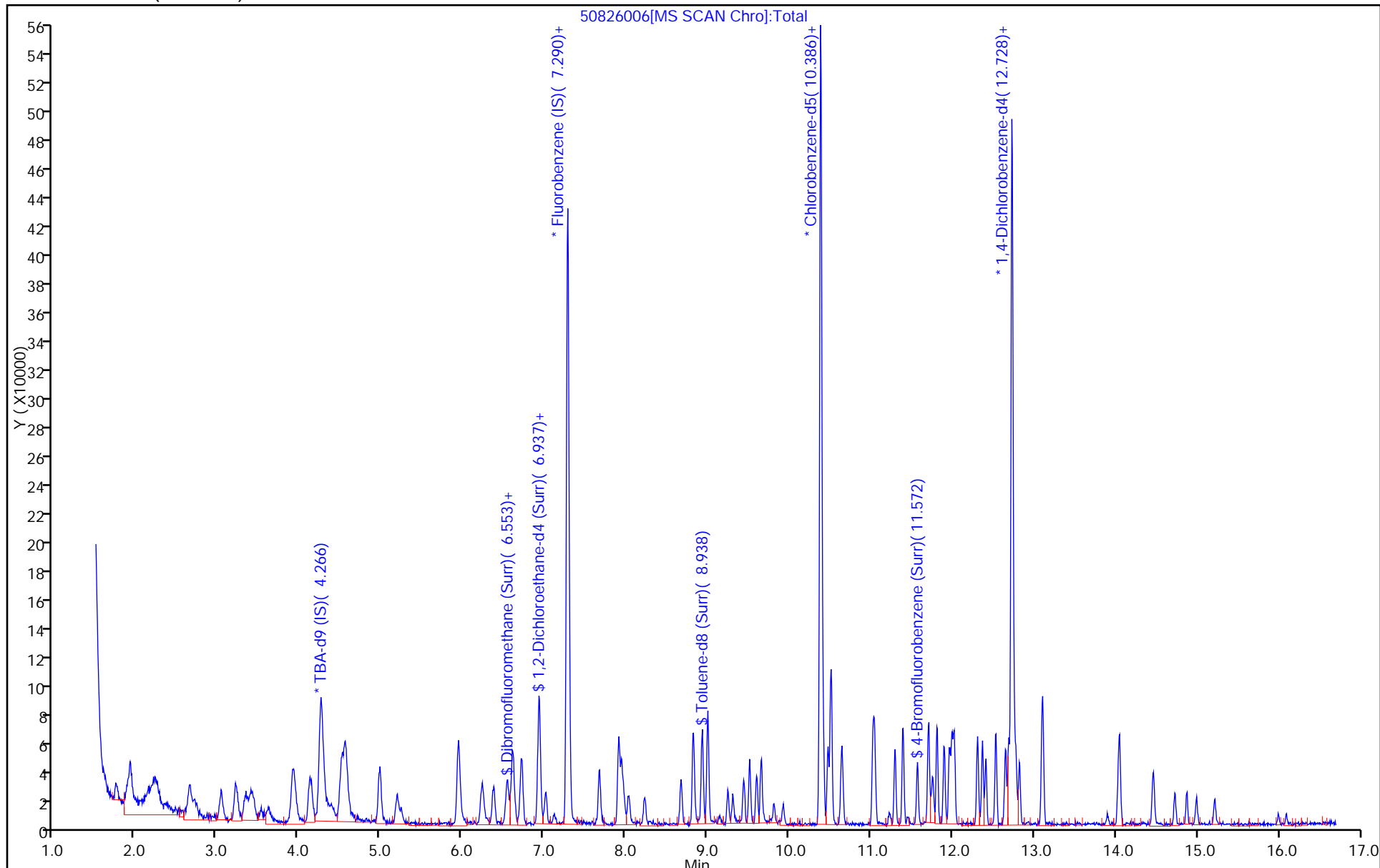
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





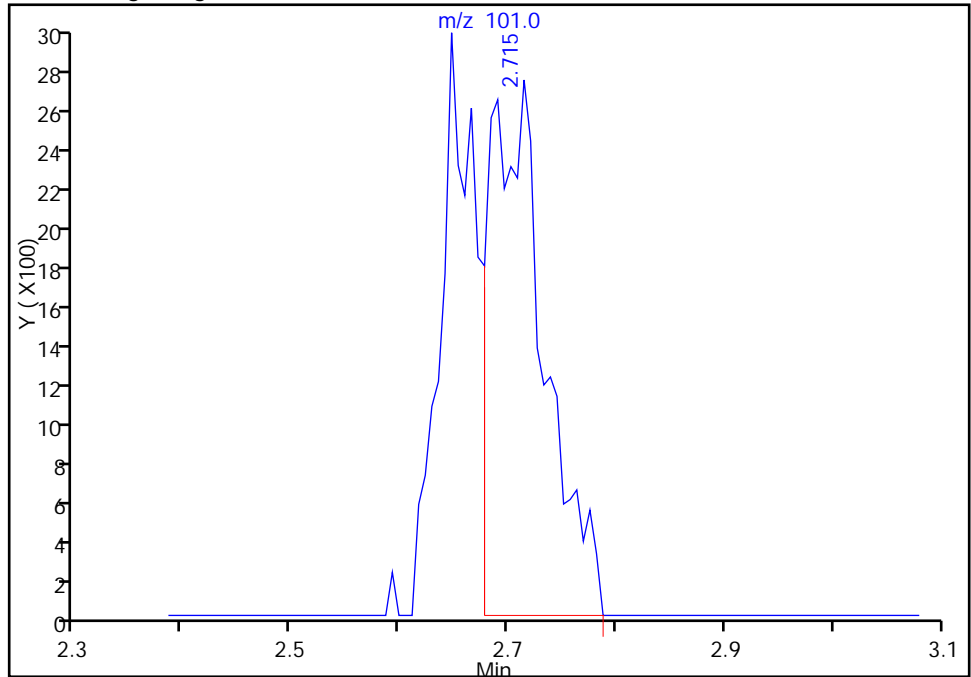
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826006.D  
Injection Date: 26-Aug-2015 15:04:30 Instrument ID: CHHP5  
Lims ID: IC VSTD1  
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

18 Trichlorofluoromethane, CAS: 75-69-4

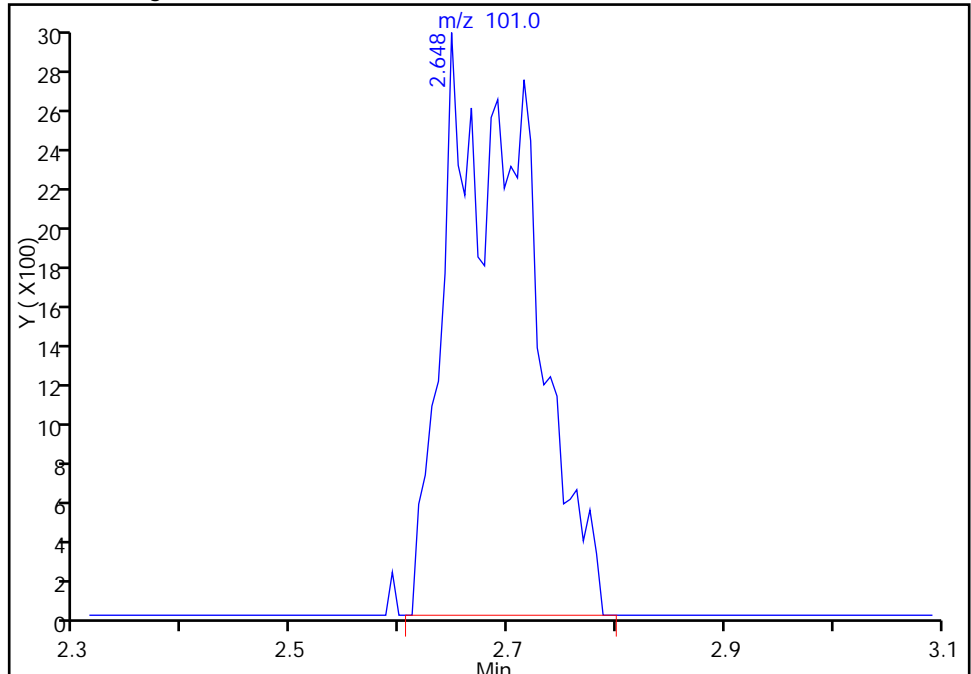
RT: 2.71  
Area: 9760  
Amount: 4.111403  
Amount Units: ng

Processing Integration Results



RT: 2.65  
Area: 16013  
Amount: 5.602773  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 27-Aug-2015 10:07:27  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

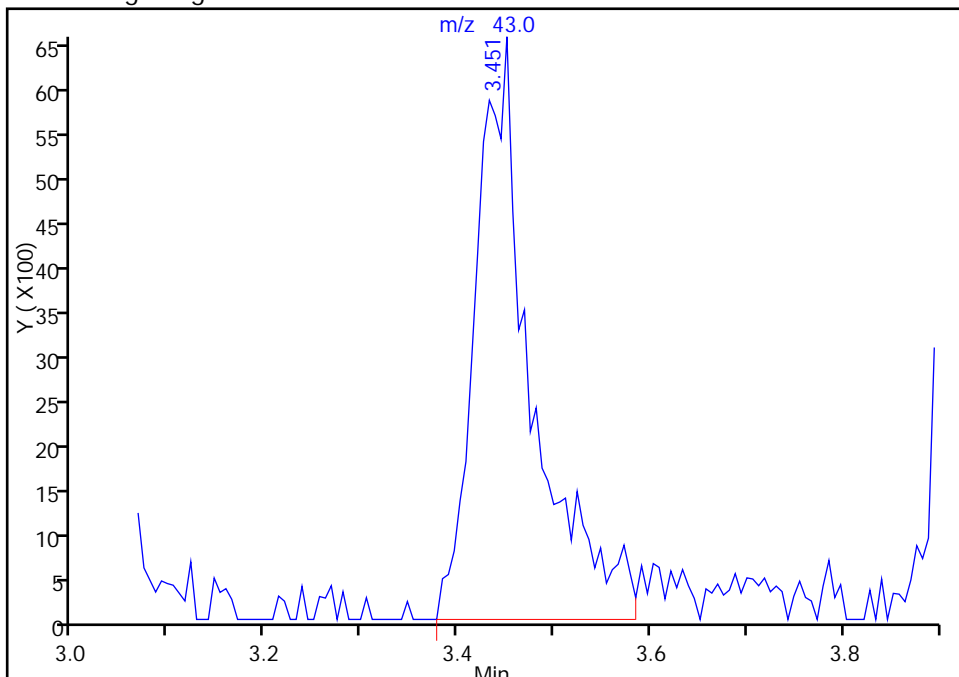
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826006.D  
Injection Date: 26-Aug-2015 15:04:30 Instrument ID: CHHP5  
Lims ID: IC VSTD1  
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

24 Acetone, CAS: 67-64-1

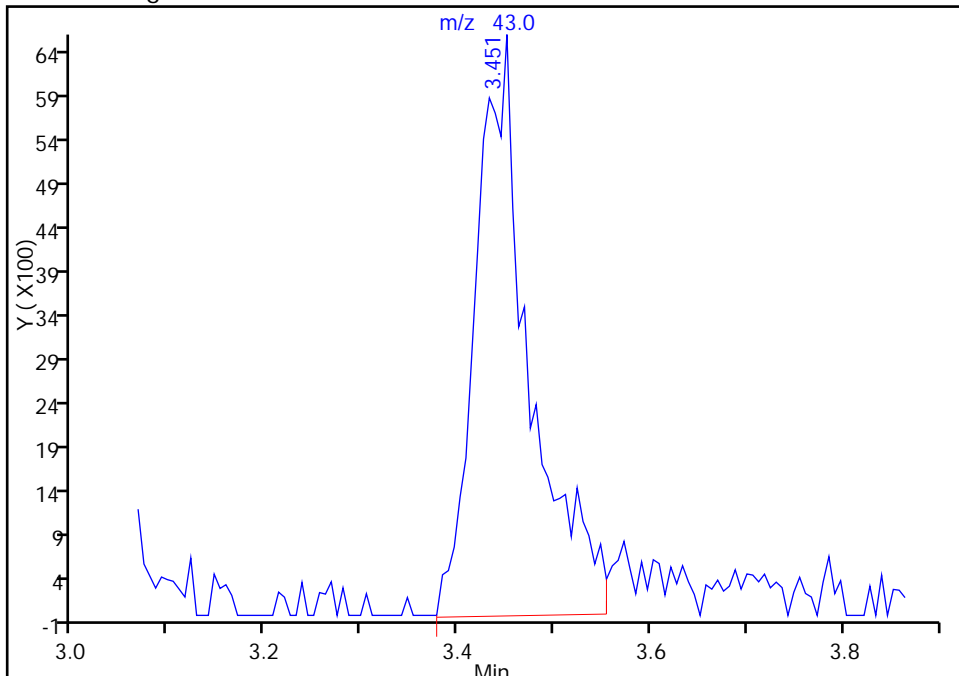
RT: 3.45  
Area: 26617  
Amount: 32.323853  
Amount Units: ng

Processing Integration Results



RT: 3.45  
Area: 25628  
Amount: 31.310834  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 27-Aug-2015 10:07:27  
Audit Action: Manually Integrated  
Audit Reason: Peak Tail

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826008.D  
 Lims ID: IC VSTD5  
 Client ID:  
 Sample Type: IC Calib Level: 2  
 Inject. Date: 26-Aug-2015 15:28:30 ALS Bottle#: 7 Worklist Smp#: 8  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD5  
 Misc. Info.: 180-0008300-008  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub4  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 27-Aug-2015 11:47:16 Calib Date: 26-Aug-2015 17:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK048

First Level Reviewer: fergusond

Date: 27-Aug-2015 10:07:55

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.260	4.267	-0.007	0	150907	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	97	426232	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.387	-0.001	89	101235	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.729	-0.001	96	159073	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.566	6.560	0.006	92	54310	25.0	25.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.931	0.000	0	75876	25.0	26.4	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.939	-0.001	95	209810	25.0	26.9	
\$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.573	-0.001	85	76038	25.0	25.8	
11 Dichlorodifluoromethane	85	1.608	1.614	-0.006	99	63359	25.0	26.3	
12 Chloromethane	50	1.760	1.766	-0.006	99	96975	25.0	27.4	
13 Vinyl chloride	62	1.893	1.894	-0.001	97	84746	25.0	27.0	
14 Butadiene	39	1.930	1.937	-0.007	97	101243	25.0	27.3	
15 Bromomethane	94	2.234	2.247	-0.013	88	33586	25.0	26.3	
16 Chloroethane	64	2.386	2.387	-0.001	99	50718	25.0	26.8	
17 Dichlorofluoromethane	67	2.660	2.661	-0.001	97	111107	25.0	27.7	
18 Trichlorofluoromethane	101	2.690	2.667	0.023	87	81291	25.0	27.1	
20 Ethyl ether	59	3.043	3.050	-0.007	93	70836	25.0	25.5	
21 Acrolein	56	3.226	3.232	-0.006	99	52087	125.0	125.6	
22 1,1-Dichloroethene	96	3.347	3.348	-0.001	93	60024	25.0	25.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.414	3.403	0.011	94	67283	25.0	26.7	
24 Acetone	43	3.451	3.445	0.006	100	51703	50.0	60.1	
25 Iodomethane	142	3.536	3.543	-0.007	98	89056	25.0	25.2	
26 Carbon disulfide	76	3.627	3.628	-0.001	100	126552	25.0	23.0	
28 3-Chloro-1-propene	76	3.913	3.920	-0.007	86	31974	25.0	23.8	
30 Methyl acetate	43	3.938	3.938	0.000	99	347746	125.0	135.3	
31 Methylene Chloride	84	4.144	4.139	0.005	97	79338	25.0	25.8	
32 2-Methyl-2-propanol	59	4.400	4.407	-0.007	87	39038	250.0	229.8	
33 Acrylonitrile	53	4.522	4.522	0.000	100	329204	250.0	264.0	
34 trans-1,2-Dichloroethene	96	4.564	4.565	-0.001	97	66301	25.0	25.7	
35 Methyl tert-butyl ether	73	4.576	4.577	-0.001	95	147150	25.0	24.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.990	4.997	-0.007	95	109198	25.0	25.2	
37 1,1-Dichloroethane	63	5.203	5.204	-0.001	96	128072	25.0	25.2	
38 Vinyl acetate	43	5.252	5.252	0.000	97	92081	25.0	24.2	
45 cis-1,2-Dichloroethene	96	5.951	5.952	-0.001	86	69819	25.0	25.4	
44 2,2-Dichloropropane	77	5.945	5.952	-0.007	58	48880	25.0	24.0	
46 2-Butanone (MEK)	43	5.957	5.964	-0.007	66	68384	50.0	52.9	
49 Chlorobromomethane	128	6.237	6.238	-0.001	91	31931	25.0	26.4	
51 Tetrahydrofuran	42	6.255	6.250	0.005	91	51589	50.0	49.8	
52 Chloroform	83	6.377	6.384	-0.007	96	113670	25.0	25.9	
53 1,1,1-Trichloroethane	97	6.541	6.542	-0.001	95	81030	25.0	25.0	
54 Cyclohexane	56	6.614	6.615	-0.001	96	134937	25.0	24.9	
56 Carbon tetrachloride	117	6.712	6.718	-0.006	95	69375	25.0	25.1	
55 1,1-Dichloropropene	75	6.730	6.730	0.000	91	91438	25.0	25.5	
57 Isobutyl alcohol	41	6.925	6.925	-0.001	78	48239	625.0	594.3	
58 Benzene	78	6.943	6.943	0.000	98	287091	25.0	27.3	
59 1,2-Dichloroethane	62	7.022	7.022	0.000	96	95482	25.0	26.3	
62 n-Heptane	43	7.308	7.308	0.000	93	97699	25.0	24.9	
64 Trichloroethene	130	7.673	7.679	-0.006	96	64418	25.0	25.1	
66 Methylcyclohexane	83	7.916	7.917	-0.001	96	97305	25.0	24.0	
67 1,2-Dichloropropane	63	7.953	7.947	0.006	94	67479	25.0	24.5	
70 1,4-Dioxane	88	8.032	8.026	0.006	40	9374	500.0	493.0	
68 Dibromomethane	93	8.038	8.038	0.000	94	37187	25.0	26.6	
71 Dichlorobromomethane	83	8.232	8.233	-0.001	97	67441	25.0	24.4	
74 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	88	70847	25.0	21.8	
75 4-Methyl-2-pentanone (MIBK)	43	8.829	8.829	0.000	99	122590	50.0	49.1	
76 Toluene	91	9.005	9.006	-0.001	98	281285	25.0	28.1	
77 trans-1,3-Dichloropropene	75	9.248	9.249	-0.001	99	61867	25.0	23.7	
78 Ethyl methacrylate	69	9.309	9.310	-0.001	91	57962	25.0	22.9	
79 1,1,2-Trichloroethane	97	9.443	9.444	-0.001	94	55277	25.0	29.0	
80 Tetrachloroethene	164	9.516	9.517	-0.001	96	53495	25.0	27.5	
81 1,3-Dichloropropane	76	9.601	9.602	-0.001	98	95569	25.0	27.0	
82 2-Hexanone	43	9.656	9.657	-0.001	98	91984	50.0	51.1	
84 Chlorodibromomethane	129	9.814	9.815	-0.001	91	38492	25.0	23.3	
85 Ethylene Dibromide	107	9.930	9.930	0.000	95	49971	25.0	27.2	
86 3-Chlorobenzotrifluoride	180	10.386	10.387	-0.001	69	87568	25.0	27.2	
87 Chlorobenzene	112	10.416	10.417	-0.001	94	177451	25.0	27.5	
88 4-Chlorobenzotrifluoride	180	10.477	10.478	-0.001	96	83430	25.0	27.4	
89 1,1,1,2-Tetrachloroethane	131	10.508	10.508	0.000	89	55507	25.0	26.4	
90 Ethylbenzene	106	10.514	10.514	0.000	99	88753	25.0	25.9	
91 m-Xylene & p-Xylene	106	10.648	10.648	0.000	0	107918	25.0	25.7	
92 o-Xylene	106	11.031	11.025	0.006	98	99302	25.0	24.9	
93 Styrene	104	11.049	11.050	-0.001	94	173558	25.0	26.3	
94 Bromoform	173	11.232	11.232	0.000	95	21829	25.0	23.2	
96 2-Chlorobenzotrifluoride	180	11.299	11.299	0.000	97	88525	25.0	27.9	
97 Isopropylbenzene	105	11.396	11.396	0.000	97	258721	25.0	26.5	
100 Bromobenzene	156	11.712	11.707	0.005	96	66130	25.0	24.2	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.707	-0.001	78	70831	25.0	27.5	
102 trans-1,4-Dichloro-2-buten	53	11.743	11.743	0.000	69	22318	25.0	22.6	
101 1,2,3-Trichloropropane	110	11.761	11.762	-0.001	87	23273	25.0	25.8	
103 N-Propylbenzene	120	11.810	11.810	0.000	99	74204	25.0	23.7	
104 2-Chlorotoluene	126	11.895	11.901	-0.006	95	65813	25.0	24.8	
105 3-Chlorotoluene	126	11.962	11.968	-0.006	95	68954	25.0	25.3	

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	11.992	11.993	-0.001	95	229921	25.0	26.0	
107 4-Chlorotoluene	126	12.022	12.023	-0.001	98	77519	25.0	26.5	
108 tert-Butylbenzene	119	12.308	12.309	-0.001	95	173217	25.0	24.1	
110 1,2,4-Trimethylbenzene	105	12.369	12.370	-0.001	98	227690	25.0	25.7	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.412	0.000	98	61289	25.0	24.8	
112 sec-Butylbenzene	105	12.533	12.534	-0.001	95	258745	25.0	25.5	
113 1,3-Dichlorobenzene	146	12.649	12.650	-0.001	96	127273	25.0	26.2	
114 4-Isopropyltoluene	119	12.692	12.692	0.000	97	215293	25.0	25.1	
115 1,4-Dichlorobenzene	146	12.752	12.753	-0.001	95	133066	25.0	26.3	
116 2,4-Dichloro-1-(trifluorom	214	12.777	12.777	0.000	93	59316	25.0	25.9	
118 2,5-Dichlorobenzotrifluori	214	12.819	12.820	-0.001	0	61489	25.0	24.9	
120 n-Butylbenzene	91	13.099	13.100	-0.001	98	181007	25.0	24.7	
121 1,2-Dichlorobenzene	146	13.111	13.112	-0.001	95	119403	25.0	26.3	
122 1,2-Dibromo-3-Chloropropan	75	13.902	13.897	0.005	70	9637	25.0	25.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.042	14.049	-0.007	0	187206	75.0	72.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.462	14.463	-0.001	0	120746	50.0	48.8	
126 1,2,4-Trichlorobenzene	180	14.730	14.724	0.006	92	45439	25.0	25.7	
127 Hexachlorobutadiene	225	14.870	14.870	0.000	95	23516	25.0	27.6	
128 Naphthalene	128	14.991	14.992	-0.001	98	101055	25.0	22.2	
129 1,2,3-Trichlorobenzene	180	15.210	15.217	-0.007	93	35802	25.0	25.0	
131 2,4,5-Trichlorotoluene	159	15.995	15.990	0.005	0	11540	25.0	22.3	
130 2,3,6-Trichlorotoluene	159	16.092	16.093	-0.001	92	10524	25.0	22.1	
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	50.6	
S 134 1,2-Dichloroethene, Total	96				0		50.0	51.1	
S 135 1,3-Dichloropropene, Total	1				0		50.0	45.5	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

#### Reagents:

VOA8260SURR_00040	Amount Added: 1.00	Units: uL	
VOA8260VOAPRI_00139	Amount Added: 1.00	Units: uL	
voaWEE1stRest_00001	Amount Added: 1.00	Units: uL	
voaWKet1 Rest_00001	Amount Added: 1.00	Units: uL	
VOAACROLEINPR_00006	Amount Added: 5.00	Units: uL	
VOAVAPRI_00006	Amount Added: 1.00	Units: uL	
VOA8260INT_00040	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826008.D

Injection Date: 26-Aug-2015 15:28:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD5

Worklist Smp#: 8

Client ID:

Purge Vol: 5.000 mL

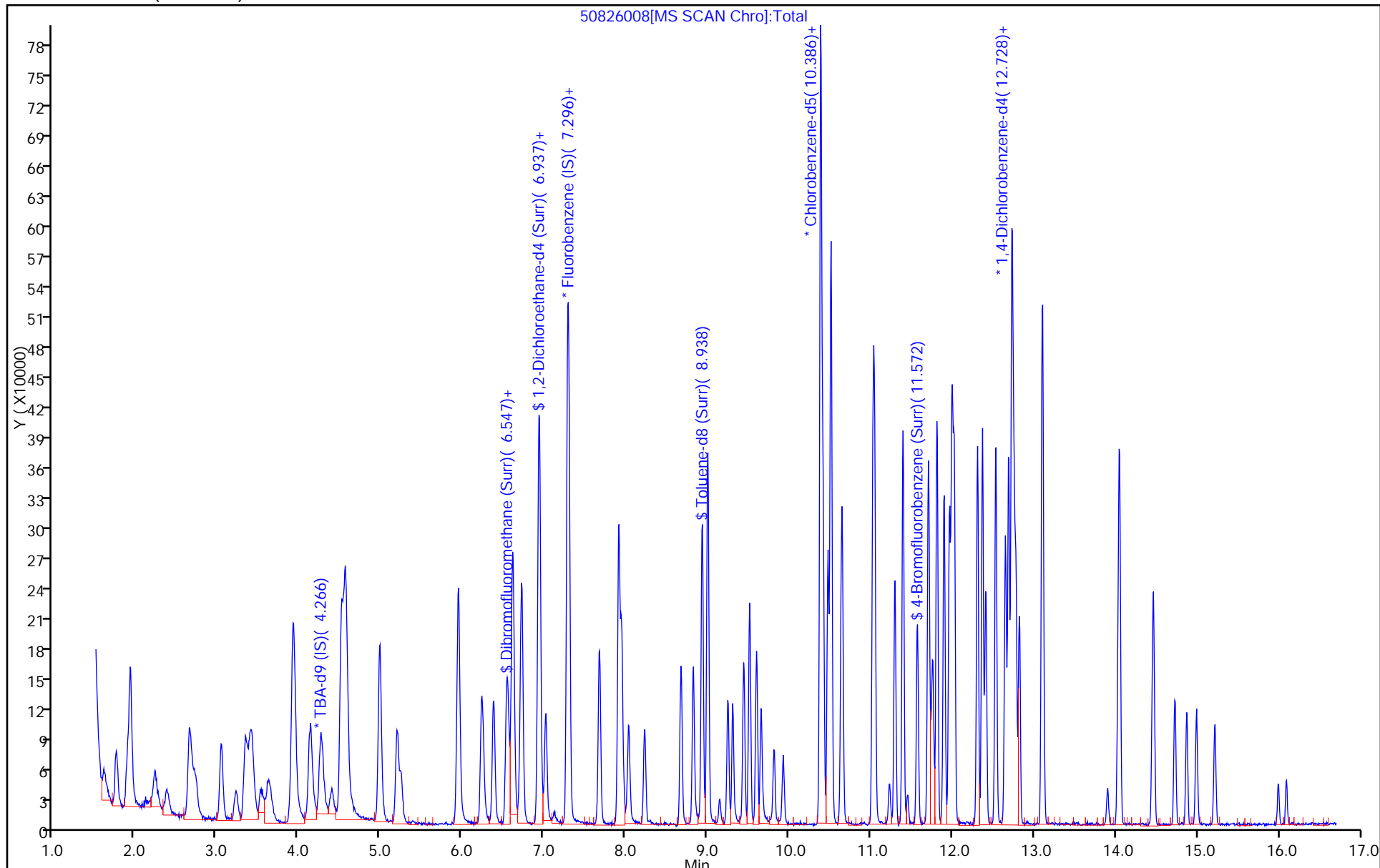
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826009.D  
 Lims ID: ICIS VSTD10  
 Client ID:  
 Sample Type: ICIS Calib Level: 3  
 Inject. Date: 26-Aug-2015 15:52:30 ALS Bottle#: 8 Worklist Smp#: 9  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: ICIS VSTD10  
 Misc. Info.: 180-0008300-009  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub4  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 27-Aug-2015 12:15:57 Calib Date: 26-Aug-2015 17:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK048

First Level Reviewer: fergusond

Date: 27-Aug-2015 08:52:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.274	4.274	0.000	0	157569	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.291	7.291	0.000	98	461146	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.387	10.387	0.000	88	108412	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.730	0.000	96	172635	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.567	6.567	0.000	94	112824	50.0	49.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.938	6.938	0.000	0	155346	50.0	49.9	
\$ 7 Toluene-d8 (Surr)	98	8.933	8.933	0.000	94	471382	50.0	56.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.574	11.574	0.000	86	171548	50.0	54.4	
11 Dichlorodifluoromethane	85	1.627	1.627	0.000	99	139988	50.0	53.7	
12 Chloromethane	50	1.761	1.761	0.000	100	189967	50.0	49.7	
13 Vinyl chloride	62	1.901	1.901	0.000	97	181809	50.0	53.6	
14 Butadiene	39	1.931	1.931	0.000	97	213171	50.0	53.2	
15 Bromomethane	94	2.236	2.236	0.000	92	58568	50.0	42.4	
16 Chloroethane	64	2.376	2.376	0.000	99	99329	50.0	48.5	
17 Dichlorofluoromethane	67	2.661	2.661	0.000	97	232009	50.0	53.4	
18 Trichlorofluoromethane	101	2.661	2.661	0.000	43	174036	50.0	53.6	
20 Ethyl ether	59	3.051	3.051	0.000	97	145899	50.0	48.5	
21 Acrolein	56	3.233	3.233	0.000	98	66358	150.0	147.9	
22 1,1-Dichloroethene	96	3.355	3.355	0.000	95	132602	50.0	51.6	
23 1,1,2-Trichloro-1,2,2-trif	101	3.416	3.416	0.000	94	141996	50.0	52.2	
24 Acetone	43	3.452	3.452	0.000	99	88342	100.0	94.9	
25 Iodomethane	142	3.556	3.556	0.000	98	190440	50.0	49.8	
26 Carbon disulfide	76	3.635	3.635	0.000	100	288788	50.0	48.4	
28 3-Chloro-1-propene	76	3.921	3.921	0.000	88	70192	50.0	48.3	
30 Methyl acetate	43	3.945	3.945	0.000	99	664608	250.0	239.0	
31 Methylene Chloride	84	4.152	4.152	0.000	97	150258	50.0	49.8	
32 2-Methyl-2-propanol	59	4.413	4.413	0.000	87	81932	500.0	462.0	
33 Acrylonitrile	53	4.517	4.517	0.000	99	693478	500.0	514.1	
34 trans-1,2-Dichloroethene	96	4.566	4.566	0.000	96	141577	50.0	50.8	
35 Methyl tert-butyl ether	73	4.584	4.584	0.000	95	302403	50.0	46.8	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.991	4.991	0.000	95	237492	50.0	50.7	
37 1,1-Dichloroethane	63	5.198	5.198	0.000	96	273423	50.0	49.8	
38 Vinyl acetate	43	5.253	5.253	0.000	97	191017	50.0	46.3	
45 cis-1,2-Dichloroethene	96	5.953	5.953	0.000	86	146208	50.0	49.1	
44 2,2-Dichloropropane	77	5.946	5.946	0.000	60	109416	50.0	49.7	
46 2-Butanone (MEK)	43	5.959	5.959	0.000	73	136667	100.0	97.8	
49 Chlorobromomethane	128	6.238	6.238	0.000	91	62915	50.0	48.1	
51 Tetrahydrofuran	42	6.257	6.257	0.000	94	107444	100.0	95.8	
52 Chloroform	83	6.385	6.385	0.000	96	232542	50.0	49.0	
53 1,1,1-Trichloroethane	97	6.549	6.549	0.000	96	178131	50.0	50.8	
54 Cyclohexane	56	6.616	6.616	0.000	96	302702	50.0	51.5	
56 Carbon tetrachloride	117	6.719	6.719	0.000	95	148991	50.0	49.9	
55 1,1-Dichloropropene	75	6.731	6.731	0.000	91	198075	50.0	51.0	
57 Isobutyl alcohol	41	6.926	6.926	0.000	79	113924	1250.0	1297.3	
58 Benzene	78	6.944	6.944	0.000	98	580241	50.0	51.0	
59 1,2-Dichloroethane	62	7.023	7.023	0.000	96	191991	50.0	48.8	
62 n-Heptane	43	7.309	7.309	0.000	96	215218	50.0	50.6	
64 Trichloroethene	130	7.674	7.674	0.000	97	138404	50.0	49.8	
66 Methylcyclohexane	83	7.918	7.918	0.000	96	222858	50.0	50.8	
67 1,2-Dichloropropane	63	7.954	7.954	0.000	95	144895	50.0	48.6	
70 1,4-Dioxane	88	8.027	8.027	0.000	48	20164	1000.0	980.3	
68 Dibromomethane	93	8.039	8.039	0.000	96	74626	50.0	49.3	
71 Dichlorobromomethane	83	8.234	8.234	0.000	98	141423	50.0	47.2	
74 cis-1,3-Dichloropropene	75	8.678	8.678	0.000	90	159644	50.0	45.5	
75 4-Methyl-2-pentanone (MIBK)	43	8.830	8.830	0.000	99	267134	100.0	100.0	
76 Toluene	91	9.006	9.006	0.000	98	594334	50.0	55.4	
77 trans-1,3-Dichloropropene	75	9.250	9.250	0.000	98	136231	50.0	48.6	
78 Ethyl methacrylate	69	9.311	9.311	0.000	94	132749	50.0	49.0	
79 1,1,2-Trichloroethane	97	9.444	9.444	0.000	94	105440	50.0	51.6	
80 Tetrachloroethene	164	9.517	9.517	0.000	95	111146	50.0	53.3	
81 1,3-Dichloropropane	76	9.603	9.603	0.000	98	194887	50.0	51.4	
82 2-Hexanone	43	9.657	9.657	0.000	99	195734	100.0	101.5	
84 Chlorodibromomethane	129	9.816	9.816	0.000	89	89414	50.0	50.6	
85 Ethylene Dibromide	107	9.931	9.931	0.000	100	100600	50.0	51.1	
86 3-Chlorobenzotrifluoride	180	10.387	10.387	0.000	86	189078	50.0	54.8	
87 Chlorobenzene	112	10.418	10.418	0.000	93	364174	50.0	52.7	
88 4-Chlorobenzotrifluoride	180	10.479	10.479	0.000	96	177807	50.0	54.5	
89 1,1,1,2-Tetrachloroethane	131	10.509	10.509	0.000	91	112884	50.0	50.1	
90 Ethylbenzene	106	10.515	10.515	0.000	99	199030	50.0	54.3	
91 m-Xylene & p-Xylene	106	10.649	10.649	0.000	0	244588	50.0	54.5	
92 o-Xylene	106	11.026	11.026	0.000	97	235252	50.0	55.1	
93 Styrene	104	11.051	11.051	0.000	95	381888	50.0	54.0	
94 Bromoform	173	11.233	11.233	0.000	96	48771	50.0	48.4	
96 2-Chlorobenzotrifluoride	180	11.294	11.294	0.000	96	184654	50.0	54.4	
97 Isopropylbenzene	105	11.397	11.397	0.000	97	601591	50.0	57.5	
100 Bromobenzene	156	11.708	11.708	0.000	94	144660	50.0	48.8	
99 1,1,2,2-Tetrachloroethane	83	11.708	11.708	0.000	77	148796	50.0	54.0	
102 trans-1,4-Dichloro-2-buten	53	11.744	11.744	0.000	79	49630	50.0	46.3	
101 1,2,3-Trichloropropane	110	11.762	11.762	0.000	88	46443	50.0	47.5	
103 N-Propylbenzene	120	11.811	11.811	0.000	99	174426	50.0	51.4	
104 2-Chlorotoluene	126	11.902	11.902	0.000	96	147328	50.0	51.1	
105 3-Chlorotoluene	126	11.963	11.963	0.000	96	151211	50.0	51.0	



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	11.993	11.993	0.000	95	517168	50.0	54.0	
107 4-Chlorotoluene	126	12.024	12.024	0.000	98	159410	50.0	50.2	
108 tert-Butylbenzene	119	12.310	12.310	0.000	95	406052	50.0	52.1	
110 1,2,4-Trimethylbenzene	105	12.371	12.371	0.000	98	515539	50.0	53.7	
111 1,2-dichloro-4-(trifluorom	214	12.413	12.413	0.000	98	140073	50.0	52.3	
112 sec-Butylbenzene	105	12.535	12.535	0.000	95	604638	50.0	55.0	
113 1,3-Dichlorobenzene	146	12.650	12.650	0.000	98	273757	50.0	51.9	
114 4-Isopropyltoluene	119	12.687	12.687	0.000	97	504672	50.0	54.2	
115 1,4-Dichlorobenzene	146	12.754	12.754	0.000	93	277292	50.0	50.5	
116 2,4-Dichloro-1-(trifluorom	214	12.778	12.778	0.000	96	134729	50.0	54.3	
118 2,5-Dichlorobenzotrifluori	214	12.821	12.821	0.000	0	138171	50.0	51.5	
120 n-Butylbenzene	91	13.101	13.101	0.000	98	432555	50.0	54.3	
121 1,2-Dichlorobenzene	146	13.113	13.113	0.000	95	257985	50.0	52.3	
122 1,2-Dibromo-3-Chloropropan	75	13.904	13.904	0.000	76	20608	50.0	50.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.044	14.044	0.000	0	495585	150.0	176.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.463	14.463	0.000	0	328345	100.0	122.3	
126 1,2,4-Trichlorobenzene	180	14.725	14.725	0.000	93	119069	50.0	62.1	
127 Hexachlorobutadiene	225	14.871	14.871	0.000	97	58574	50.0	63.4	
128 Naphthalene	128	14.993	14.993	0.000	97	301738	50.0	61.2	
129 1,2,3-Trichlorobenzene	180	15.218	15.218	0.000	95	100055	50.0	64.4	
131 2,4,5-Trichlorotoluene	159	15.990	15.990	0.000	0	37716	50.0	67.3	
130 2,3,6-Trichlorotoluene	159	16.094	16.094	0.000	94	36592	50.0	70.8	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	109.6	
S 134 1,2-Dichloroethene, Total	96				0		100.0	99.8	
S 135 1,3-Dichloropropene, Total	1				0		100.0	94.1	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOAACROLEINPR_00006	Amount Added: 6.00	Units: uL	
VOAVAPRI_00006	Amount Added: 2.00	Units: uL	
VOA8260SURR_00040	Amount Added: 2.00	Units: uL	
VOA8260VOAPRI_00139	Amount Added: 2.00	Units: uL	
voaWEE1stRest_00001	Amount Added: 2.00	Units: uL	
voaWKet1 Rest_00001	Amount Added: 2.00	Units: uL	
VOA8260INT_00040	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826009.D

Injection Date: 26-Aug-2015 15:52:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: ICIS VSTD10

Worklist Smp#: 9

Client ID:

Purge Vol: 5.000 mL

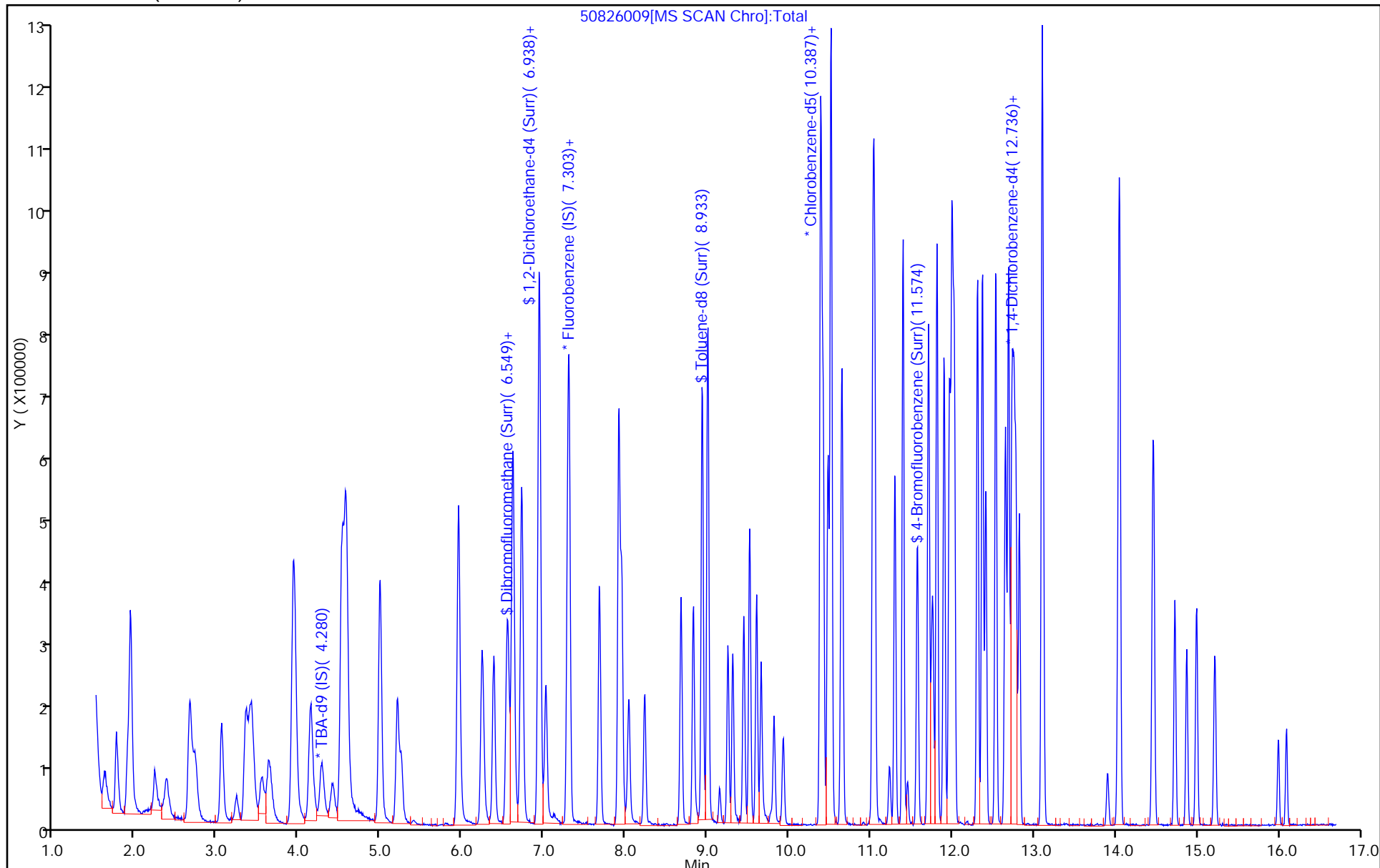
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826010.D  
 Lims ID: IC VSTD15  
 Client ID:  
 Sample Type: IC Calib Level: 4  
 Inject. Date: 26-Aug-2015 16:16:30 ALS Bottle#: 9 Worklist Smp#: 10  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD15  
 Misc. Info.: 180-0008300-010  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub4  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 27-Aug-2015 11:49:37 Calib Date: 26-Aug-2015 17:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK048

First Level Reviewer: fergusond

Date: 27-Aug-2015 10:26:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.267	4.267	0.000	0	149384	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	98	491519	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.387	10.387	0.000	87	118747	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.729	12.729	0.000	96	175441	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.560	6.560	0.000	93	168602	75.0	69.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.931	0.000	0	228530	75.0	68.9	
\$ 7 Toluene-d8 (Surr)	98	8.939	8.939	0.000	95	679876	75.0	74.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.573	11.573	0.000	87	257596	75.0	74.5	
11 Dichlorodifluoromethane	85	1.614	1.614	0.000	99	195493	75.0	70.4	
12 Chloromethane	50	1.766	1.766	0.000	99	279657	75.0	68.6	
13 Vinyl chloride	62	1.894	1.894	0.000	98	253941	75.0	70.2	
14 Butadiene	39	1.937	1.937	0.000	95	291582	75.0	68.3	
15 Bromomethane	94	2.247	2.247	0.000	90	118541	75.0	80.5	
16 Chloroethane	64	2.387	2.387	0.000	99	155578	75.0	71.3	
17 Dichlorofluoromethane	67	2.661	2.661	0.000	99	318608	75.0	68.8	
18 Trichlorofluoromethane	101	2.667	2.667	0.000	59	241309	75.0	69.7	
20 Ethyl ether	59	3.050	3.050	0.000	98	219194	75.0	68.3	
21 Acrolein	56	3.232	3.232	0.000	99	75936	175.0	158.8	
22 1,1-Dichloroethene	96	3.348	3.348	0.000	94	192998	75.0	70.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.403	3.403	0.000	94	204297	75.0	70.4	
24 Acetone	43	3.445	3.445	0.000	98	125942	150.0	127.0	
25 Iodomethane	142	3.543	3.543	0.000	99	284793	75.0	69.8	
26 Carbon disulfide	76	3.628	3.628	0.000	100	436105	75.0	68.6	
28 3-Chloro-1-propene	76	3.920	3.920	0.000	88	108440	75.0	69.9	
30 Methyl acetate	43	3.938	3.938	0.000	99	1027560	375.0	346.7	
31 Methylene Chloride	84	4.139	4.139	0.000	97	225319	75.0	72.5	
32 2-Methyl-2-propanol	59	4.407	4.407	0.000	87	122262	750.0	727.2	
33 Acrylonitrile	53	4.522	4.522	0.000	98	978697	750.0	680.6	
34 trans-1,2-Dichloroethene	96	4.565	4.565	0.000	95	204201	75.0	68.7	
35 Methyl tert-butyl ether	73	4.577	4.577	0.000	96	477236	75.0	69.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.997	4.997	0.000	96	347025	75.0	69.5	
37 1,1-Dichloroethane	63	5.204	5.204	0.000	97	407919	75.0	69.7	
38 Vinyl acetate	43	5.252	5.252	0.000	97	303320	75.0	69.0	
45 cis-1,2-Dichloroethene	96	5.952	5.952	0.000	84	223289	75.0	70.3	
44 2,2-Dichloropropane	77	5.952	5.952	0.000	58	164171	75.0	70.0	
46 2-Butanone (MEK)	43	5.964	5.964	0.000	78	210830	150.0	141.5	
49 Chlorobromomethane	128	6.238	6.238	0.000	92	99282	75.0	71.2	
51 Tetrahydrofuran	42	6.250	6.250	0.000	91	153971	150.0	128.8	
52 Chloroform	83	6.384	6.384	0.000	97	359318	75.0	71.0	
53 1,1,1-Trichloroethane	97	6.542	6.542	0.000	96	264507	75.0	70.7	
54 Cyclohexane	56	6.615	6.615	0.000	97	451893	75.0	72.2	
56 Carbon tetrachloride	117	6.718	6.718	0.000	96	226405	75.0	71.1	
55 1,1-Dichloropropene	75	6.730	6.730	0.000	92	295676	75.0	71.5	
57 Isobutyl alcohol	41	6.925	6.925	0.000	92	149085	1875.0	1592.8	
58 Benzene	78	6.943	6.943	0.000	98	874781	75.0	72.2	
59 1,2-Dichloroethane	62	7.022	7.022	0.000	97	296218	75.0	70.7	
62 n-Heptane	43	7.308	7.308	0.000	96	319252	75.0	70.4	
64 Trichloroethene	130	7.679	7.679	0.000	97	207852	75.0	70.1	
66 Methylcyclohexane	83	7.917	7.917	0.000	96	336831	75.0	72.1	
67 1,2-Dichloropropane	63	7.947	7.947	0.000	94	218947	75.0	68.8	
70 1,4-Dioxane	88	8.026	8.026	0.000	39	31691	1500.0	1445.4	
68 Dibromomethane	93	8.038	8.038	0.000	96	114083	75.0	70.7	
71 Dichlorobromomethane	83	8.233	8.233	0.000	98	226806	75.0	71.0	
74 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	91	264451	75.0	70.7	
75 4-Methyl-2-pentanone (MIBK)	43	8.829	8.829	0.000	99	434749	150.0	148.6	
76 Toluene	91	9.006	9.006	0.000	98	874948	75.0	74.4	
77 trans-1,3-Dichloropropene	75	9.249	9.249	0.000	99	224205	75.0	73.1	
78 Ethyl methacrylate	69	9.310	9.310	0.000	93	225233	75.0	75.9	
79 1,1,2-Trichloroethane	97	9.444	9.444	0.000	94	163298	75.0	73.0	
80 Tetrachloroethene	164	9.517	9.517	0.000	95	165929	75.0	72.7	
81 1,3-Dichloropropane	76	9.602	9.602	0.000	98	303582	75.0	73.1	
82 2-Hexanone	43	9.657	9.657	0.000	99	310969	150.0	147.2	
84 Chlorodibromomethane	129	9.815	9.815	0.000	91	143257	75.0	74.0	
85 Ethylene Dibromide	107	9.930	9.930	0.000	99	155041	75.0	71.9	
86 3-Chlorobenzotrifluoride	180	10.387	10.387	0.000	91	277802	75.0	73.5	
87 Chlorobenzene	112	10.417	10.417	0.000	93	551865	75.0	72.9	
88 4-Chlorobenzotrifluoride	180	10.478	10.478	0.000	95	267607	75.0	74.9	
89 1,1,1,2-Tetrachloroethane	131	10.508	10.508	0.000	92	179137	75.0	72.6	
90 Ethylbenzene	106	10.514	10.514	0.000	99	302122	75.0	75.3	
91 m-Xylene & p-Xylene	106	10.648	10.648	0.000	0	371799	75.0	75.6	
92 o-Xylene	106	11.025	11.025	0.000	97	359461	75.0	76.9	
93 Styrene	104	11.050	11.050	0.000	95	603962	75.0	78.0	
94 Bromoform	173	11.232	11.232	0.000	96	77411	75.0	70.1	
96 2-Chlorobenzotrifluoride	180	11.299	11.299	0.000	96	279773	75.0	75.3	
97 Isopropylbenzene	105	11.396	11.396	0.000	97	886244	75.0	77.4	
100 Bromobenzene	156	11.707	11.707	0.000	95	218069	75.0	72.4	
99 1,1,2,2-Tetrachloroethane	83	11.707	11.707	0.000	76	217578	75.0	72.1	
102 trans-1,4-Dichloro-2-buten	53	11.743	11.743	0.000	72	78865	75.0	72.4	
101 1,2,3-Trichloropropane	110	11.762	11.762	0.000	88	70373	75.0	70.8	
103 N-Propylbenzene	120	11.810	11.810	0.000	99	256762	75.0	74.5	
104 2-Chlorotoluene	126	11.901	11.901	0.000	96	218909	75.0	74.7	
105 3-Chlorotoluene	126	11.968	11.968	0.000	96	225916	75.0	75.0	

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	11.993	11.993	0.000	94	741712	75.0	76.1	
107 4-Chlorotoluene	126	12.023	12.023	0.000	98	235437	75.0	73.0	
108 tert-Butylbenzene	119	12.309	12.309	0.000	94	598804	75.0	75.6	
110 1,2,4-Trimethylbenzene	105	12.370	12.370	0.000	98	753282	75.0	77.2	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.412	0.000	98	196559	75.0	72.2	
112 sec-Butylbenzene	105	12.534	12.534	0.000	95	839536	75.0	75.1	
113 1,3-Dichlorobenzene	146	12.650	12.650	0.000	97	386149	75.0	72.0	
114 4-Isopropyltoluene	119	12.692	12.692	0.000	97	724310	75.0	76.6	
115 1,4-Dichlorobenzene	146	12.753	12.753	0.000	93	396239	75.0	71.0	
116 2,4-Dichloro-1-(trifluorom	214	12.777	12.777	0.000	96	183967	75.0	73.0	
118 2,5-Dichlorobenzotrifluori	214	12.820	12.820	0.000	0	196358	75.0	72.1	
120 n-Butylbenzene	91	13.100	13.100	0.000	98	598297	75.0	73.9	
121 1,2-Dichlorobenzene	146	13.112	13.112	0.000	95	354012	75.0	70.6	
122 1,2-Dibromo-3-Chloropropan	75	13.897	13.897	0.000	77	27203	75.0	66.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.049	14.049	0.000	0	616649	225.0	215.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.463	14.463	0.000	0	378630	150.0	138.7	
126 1,2,4-Trichlorobenzene	180	14.724	14.724	0.000	95	127381	75.0	65.3	
127 Hexachlorobutadiene	225	14.870	14.870	0.000	96	62268	75.0	66.3	
128 Naphthalene	128	14.992	14.992	0.000	98	327683	75.0	65.4	
129 1,2,3-Trichlorobenzene	180	15.217	15.217	0.000	94	100749	75.0	63.8	
131 2,4,5-Trichlorotoluene	159	15.990	15.990	0.000	0	32434	75.0	57.0	
130 2,3,6-Trichlorotoluene	159	16.093	16.093	0.000	92	30574	75.0	58.2	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		150.0	139.0	
S 133 Xylenes, Total	106				0		150.0	152.4	
S 135 1,3-Dichloropropene, Total	1				0		150.0	143.7	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOAVAPRI_00006	Amount Added: 3.00	Units: uL	
voaWKet1 Rest_00001	Amount Added: 3.00	Units: uL	
voaWEE1stRest_00001	Amount Added: 3.00	Units: uL	
VOA8260VOAPRI_00139	Amount Added: 3.00	Units: uL	
VOA8260SURR_00040	Amount Added: 3.00	Units: uL	
VOAACROLEINPR_00006	Amount Added: 7.00	Units: uL	
VOA8260INT_00040	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826010.D

Injection Date: 26-Aug-2015 16:16:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD15

Worklist Smp#: 10

Client ID:

Purge Vol: 5.000 mL

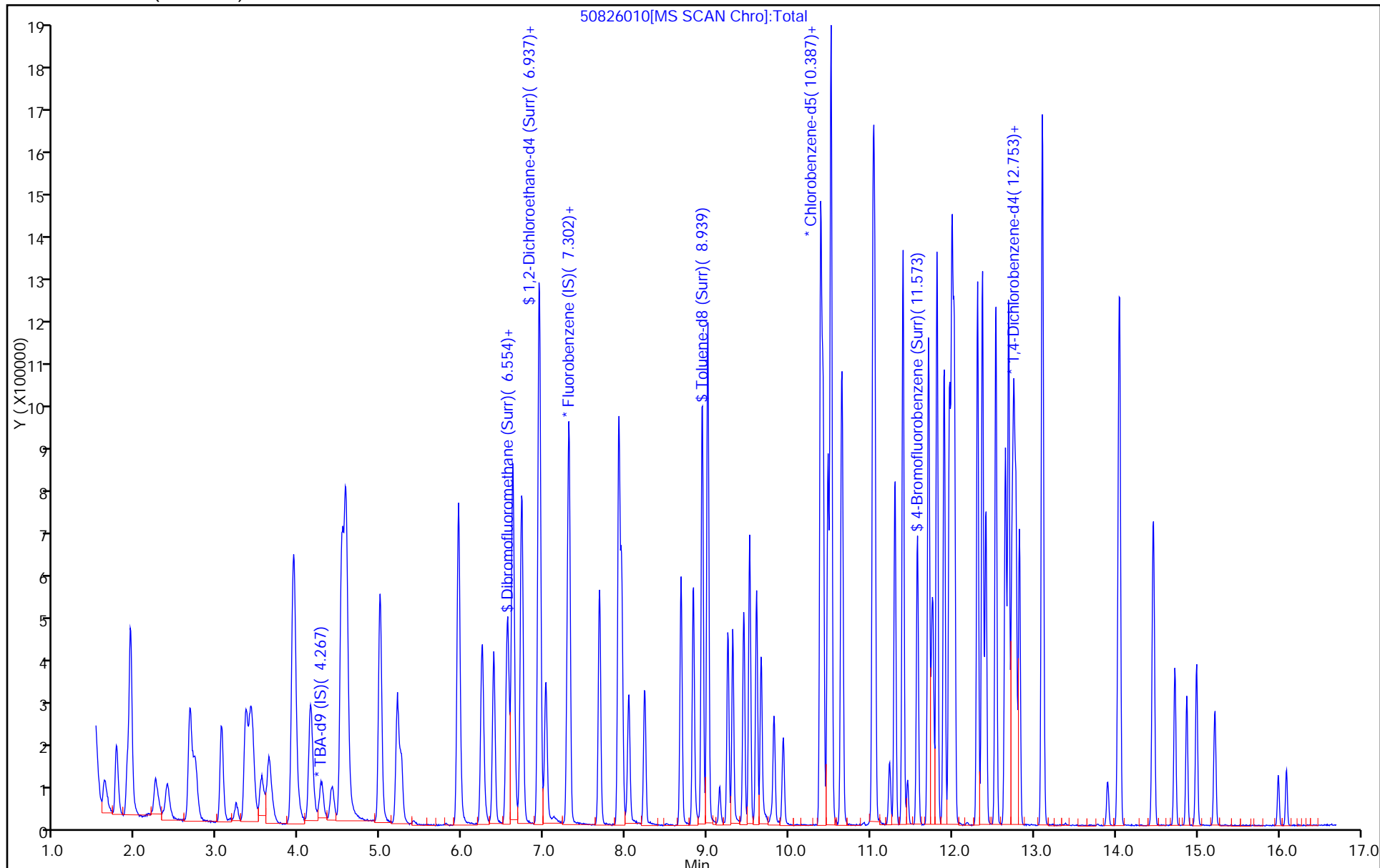
Dil. Factor: 1.0000

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: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826011.D  
 Lims ID: IC VSTD20  
 Client ID:  
 Sample Type: IC Calib Level: 5  
 Inject. Date: 26-Aug-2015 16:40:30 ALS Bottle#: 10 Worklist Smp#: 11  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD20  
 Misc. Info.: 180-0008300-011  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub4  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 27-Aug-2015 11:44:05 Calib Date: 26-Aug-2015 17:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK048

First Level Reviewer: fergusond

Date: 27-Aug-2015 10:30:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.272	4.267	0.005	0	167321	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.290	-0.001	98	500323	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.387	-0.001	85	122904	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.729	-0.001	95	178343	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.566	6.560	0.006	94	230039	100.0	93.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.931	0.006	0	306020	100.0	90.7	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.939	-0.001	95	918031	100.0	96.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.573	-0.001	86	339508	100.0	94.9	
11 Dichlorodifluoromethane	85	1.614	1.614	0.000	99	268740	100.0	95.1	
12 Chloromethane	50	1.766	1.766	0.000	99	386017	100.0	93.0	
13 Vinyl chloride	62	1.900	1.894	0.006	98	356745	100.0	96.9	
14 Butadiene	39	1.936	1.937	-0.001	97	411077	100.0	94.5	
15 Bromomethane	94	2.240	2.247	-0.007	90	149495	100.0	99.8	
16 Chloroethane	64	2.386	2.387	-0.001	99	207155	100.0	93.3	
17 Dichlorofluoromethane	67	2.666	2.661	0.005	97	435665	100.0	92.4	
18 Trichlorofluoromethane	101	2.715	2.667	0.048	97	334740	100.0	95.0	
20 Ethyl ether	59	3.049	3.050	-0.001	97	295395	100.0	90.4	
21 Acrolein	56	3.226	3.232	-0.006	98	92519	200.0	190.1	
22 1,1-Dichloroethene	96	3.353	3.348	0.005	95	273818	100.0	98.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.414	3.403	0.011	93	284081	100.0	96.2	
24 Acetone	43	3.439	3.445	-0.006	99	173687	200.0	172.0	
25 Iodomethane	142	3.536	3.543	-0.007	98	394076	100.0	94.9	
26 Carbon disulfide	76	3.627	3.628	-0.001	100	636866	100.0	98.4	
28 3-Chloro-1-propene	76	3.925	3.920	0.005	88	156677	100.0	99.3	
30 Methyl acetate	43	3.938	3.938	0.000	99	1419018	500.0	470.4	
31 Methylene Chloride	84	4.138	4.139	-0.001	97	291271	100.0	93.8	
32 2-Methyl-2-propanol	59	4.406	4.407	-0.001	90	185374	1000.0	984.3	
33 Acrylonitrile	53	4.522	4.522	0.000	99	1347643	1000.0	920.7	
34 trans-1,2-Dichloroethene	96	4.564	4.565	-0.001	95	289331	100.0	95.6	
35 Methyl tert-butyl ether	73	4.582	4.577	0.005	96	664089	100.0	94.8	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.990	4.997	-0.007	97	493203	100.0	97.1	
37 1,1-Dichloroethane	63	5.203	5.204	-0.001	96	564450	100.0	94.7	
38 Vinyl acetate	43	5.252	5.252	0.000	97	437799	100.0	97.9	
44 2,2-Dichloropropane	77	5.945	5.952	-0.007	78	234514	100.0	98.2	
45 cis-1,2-Dichloroethene	96	5.951	5.952	-0.001	85	302874	100.0	93.7	
46 2-Butanone (MEK)	43	5.957	5.964	-0.007	62	269779	200.0	177.9	
49 Chlorobromomethane	128	6.237	6.238	-0.001	92	133128	100.0	93.8	
51 Tetrahydrofuran	42	6.249	6.250	-0.001	91	207145	200.0	170.2	
52 Chloroform	83	6.383	6.384	-0.001	96	482795	100.0	93.8	
53 1,1,1-Trichloroethane	97	6.541	6.542	-0.001	97	366328	100.0	96.2	
54 Cyclohexane	56	6.614	6.615	-0.001	96	637776	100.0	100.1	
56 Carbon tetrachloride	117	6.718	6.718	0.000	94	319309	100.0	98.5	
55 1,1-Dichloropropene	75	6.730	6.730	0.000	91	417880	100.0	99.2	
57 Isobutyl alcohol	41	6.924	6.925	-0.001	92	224262	2500.0	2353.8	
58 Benzene	78	6.943	6.943	0.000	98	1175215	100.0	95.3	
59 1,2-Dichloroethane	62	7.022	7.022	0.000	96	399895	100.0	93.7	
62 n-Heptane	43	7.308	7.308	0.000	97	444901	100.0	96.4	
64 Trichloroethene	130	7.679	7.679	0.000	96	285365	100.0	94.6	
66 Methylcyclohexane	83	7.916	7.917	-0.001	96	484430	100.0	101.8	
67 1,2-Dichloropropane	63	7.947	7.947	-0.001	94	304322	100.0	94.0	
70 1,4-Dioxane	88	8.026	8.026	0.000	40	44562	2000.0	1996.7	
68 Dibromomethane	93	8.038	8.038	0.000	97	152946	100.0	93.1	
71 Dichlorobromomethane	83	8.232	8.233	-0.001	97	310676	100.0	95.6	
74 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	90	374197	100.0	98.2	
75 4-Methyl-2-pentanone (MIBK)	43	8.829	8.829	0.000	99	614019	200.0	202.8	
76 Toluene	91	9.005	9.006	-0.001	98	1201786	100.0	98.8	
77 trans-1,3-Dichloropropene	75	9.254	9.249	0.005	99	323125	100.0	101.8	
78 Ethyl methacrylate	69	9.309	9.310	-0.001	94	316812	100.0	103.2	
79 1,1,2-Trichloroethane	97	9.443	9.444	-0.001	94	224541	100.0	97.0	
80 Tetrachloroethene	164	9.516	9.517	-0.001	95	230665	100.0	97.7	
81 1,3-Dichloropropane	76	9.601	9.602	-0.001	98	408560	100.0	95.1	
82 2-Hexanone	43	9.656	9.657	-0.001	99	430988	200.0	197.2	
84 Chlorodibromomethane	129	9.820	9.815	0.005	89	202349	100.0	101.0	
85 Ethylene Dibromide	107	9.930	9.930	0.000	100	212653	100.0	95.3	
86 3-Chlorobenzotrifluoride	180	10.386	10.387	-0.001	91	368187	100.0	94.2	
87 Chlorobenzene	112	10.416	10.417	-0.001	93	752971	100.0	96.1	
88 4-Chlorobenzotrifluoride	180	10.477	10.478	-0.001	96	350243	100.0	94.7	
89 1,1,1,2-Tetrachloroethane	131	10.508	10.508	0.000	91	247335	100.0	96.9	
90 Ethylbenzene	106	10.520	10.514	0.006	99	417206	100.0	100.5	
91 m-Xylene & p-Xylene	106	10.648	10.648	0.000	0	516778	100.0	101.5	
92 o-Xylene	106	11.031	11.025	0.006	97	488783	100.0	101.0	
93 Styrene	104	11.049	11.050	-0.001	95	812783	100.0	101.4	
94 Bromoform	173	11.232	11.232	0.000	96	109983	100.0	96.2	
96 2-Chlorobenzotrifluoride	180	11.299	11.299	-0.001	95	362334	100.0	94.2	
97 Isopropylbenzene	105	11.396	11.396	0.000	97	1229067	100.0	103.7	
100 Bromobenzene	156	11.706	11.707	-0.001	95	300450	100.0	98.1	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.707	-0.001	76	290248	100.0	93.0	
102 trans-1,4-Dichloro-2-buten	53	11.743	11.743	0.000	75	107372	100.0	97.0	
101 1,2,3-Trichloropropane	110	11.767	11.762	0.005	84	94129	100.0	93.2	
103 N-Propylbenzene	120	11.816	11.810	0.006	99	351814	100.0	100.4	
104 2-Chlorotoluene	126	11.901	11.901	0.000	96	301246	100.0	101.1	
105 3-Chlorotoluene	126	11.968	11.968	0.000	95	297767	100.0	97.3	



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	11.992	11.993	-0.001	94	1014826	100.0	102.5	
107 4-Chlorotoluene	126	12.022	12.023	-0.001	98	324433	100.0	99.0	
108 tert-Butylbenzene	119	12.308	12.309	-0.001	94	836893	100.0	104.0	
110 1,2,4-Trimethylbenzene	105	12.369	12.370	-0.001	98	1013032	100.0	102.1	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.412	0.000	98	258438	100.0	93.4	
112 sec-Butylbenzene	105	12.533	12.534	-0.001	95	1168492	100.0	102.8	
113 1,3-Dichlorobenzene	146	12.649	12.650	-0.001	97	523315	100.0	96.0	
114 4-Isopropyltoluene	119	12.692	12.692	0.000	96	987448	100.0	102.7	
115 1,4-Dichlorobenzene	146	12.752	12.753	-0.001	94	532103	100.0	93.9	
116 2,4-Dichloro-1-(trifluorom	214	12.777	12.777	0.000	95	235991	100.0	92.1	
118 2,5-Dichlorobenzotrifluori	214	12.819	12.820	-0.001	0	254571	100.0	91.9	
120 n-Butylbenzene	91	13.099	13.100	-0.001	98	841574	100.0	102.3	
121 1,2-Dichlorobenzene	146	13.111	13.112	-0.001	94	474503	100.0	93.1	
122 1,2-Dibromo-3-Chloropropan	75	13.902	13.897	0.005	77	39315	100.0	94.0	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.042	14.049	-0.007	0	827426	300.0	284.4	
125 2,3- & 3,4- Dichlorotoluen	125	14.462	14.463	-0.001	0	510138	200.0	183.9	
126 1,2,4-Trichlorobenzene	180	14.723	14.724	-0.001	94	175776	100.0	88.7	
127 Hexachlorobutadiene	225	14.869	14.870	-0.001	97	83392	100.0	87.3	
128 Naphthalene	128	14.991	14.992	-0.001	98	463258	100.0	90.9	
129 1,2,3-Trichlorobenzene	180	15.210	15.217	-0.007	96	137103	100.0	85.4	
131 2,4,5-Trichlorotoluene	159	15.995	15.990	0.005	0	45065	100.0	77.8	
130 2,3,6-Trichlorotoluene	159	16.092	16.093	-0.001	97	45128	100.0	84.5	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		200.0	189.3	
S 133 Xylenes, Total	106				0		200.0	202.5	
S 135 1,3-Dichloropropene, Total	1				0		200.0	200.0	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOAACROLEINPR_00006	Amount Added: 8.00	Units: uL	
VOAVAPRI_00006	Amount Added: 4.00	Units: uL	
voaWKet1 Rest_00001	Amount Added: 4.00	Units: uL	
voaWEE1stRest_00001	Amount Added: 4.00	Units: uL	
VOA8260VOAPRI_00139	Amount Added: 4.00	Units: uL	
VOA8260SURR_00040	Amount Added: 4.00	Units: uL	
VOA8260INT_00040	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826011.D

Injection Date: 26-Aug-2015 16:40:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD20

Worklist Smp#: 11

Client ID:

Purge Vol: 5.000 mL

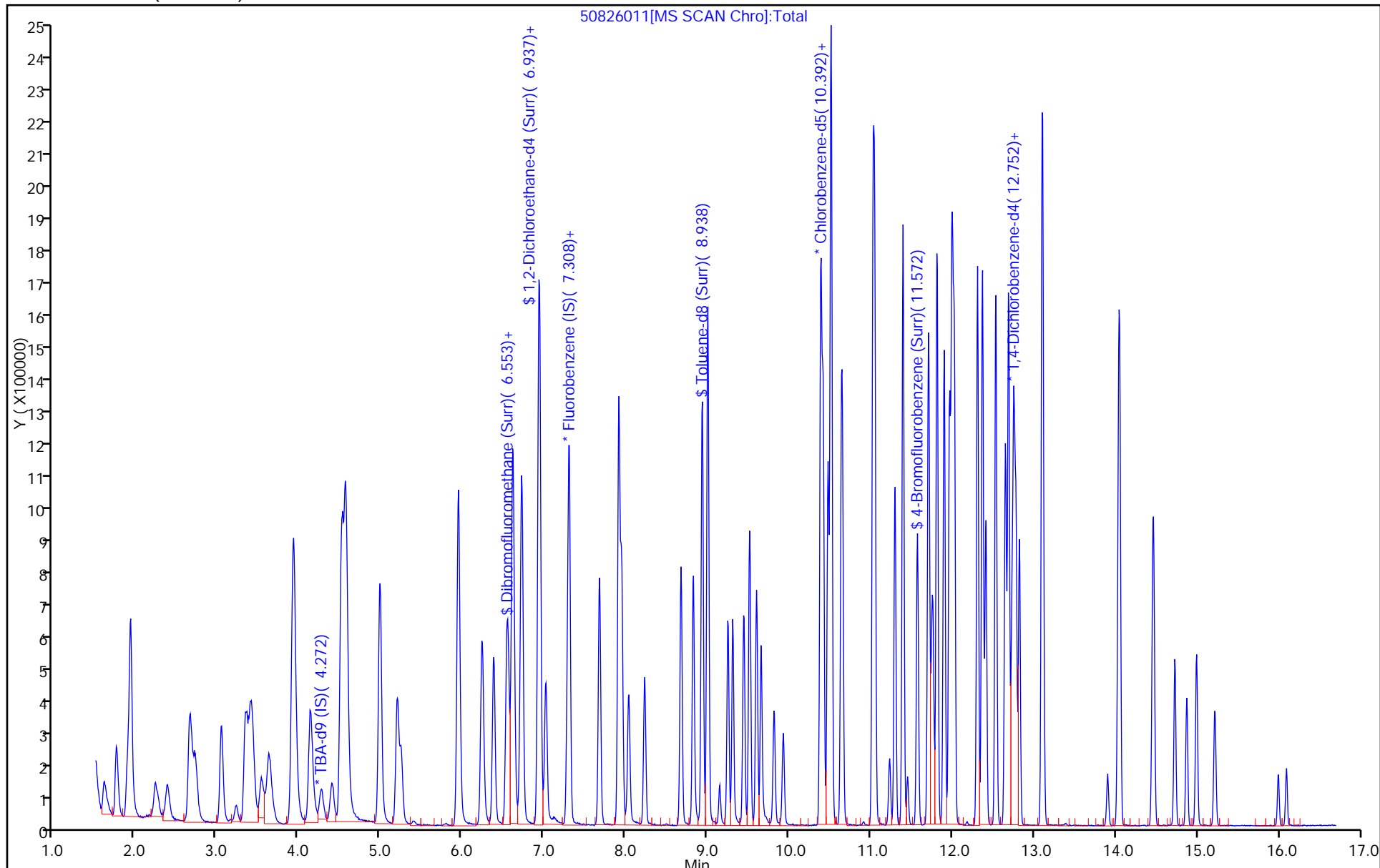
Dil. Factor: 1.0000

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: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826012.D  
 Lims ID: IC VSTD35  
 Client ID:  
 Sample Type: IC Calib Level: 6  
 Inject. Date: 26-Aug-2015 17:04:30 ALS Bottle#: 11 Worklist Smp#: 12  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD35  
 Misc. Info.: 180-0008300-012  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub4  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 27-Aug-2015 11:50:05 Calib Date: 26-Aug-2015 17:52:30  
 Integrator: RTE ID Type: RT Order ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK048

First Level Reviewer: fergusond

Date: 27-Aug-2015 11:50:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.278	4.267	0.011	0	175358	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.290	-0.001	98	502256	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.387	-0.002	63	129614	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.727	12.729	-0.002	95	181323	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.559	6.560	-0.001	93	399678	175.0	162.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.931	-0.001	0	544829	175.0	160.8	
\$ 7 Toluene-d8 (Surr)	98	8.937	8.939	-0.002	94	1580158	175.0	158.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.573	-0.001	87	617045	175.0	163.6	
11 Dichlorodifluoromethane	85	1.619	1.614	0.005	99	461015	175.0	162.5	
12 Chloromethane	50	1.765	1.766	-0.001	99	669660	175.0	160.7	
13 Vinyl chloride	62	1.905	1.894	0.011	98	603655	175.0	163.3	
14 Butadiene	39	1.935	1.937	-0.002	94	700624	175.0	160.5	
15 Bromomethane	94	2.233	2.247	-0.014	90	267454	175.0	177.8	
16 Chloroethane	64	2.379	2.387	-0.008	99	358728	175.0	160.9	
17 Dichlorofluoromethane	67	2.659	2.661	-0.002	98	748877	175.0	158.3	
18 Trichlorofluoromethane	101	2.708	2.667	0.041	98	579992	175.0	163.9	
20 Ethyl ether	59	3.049	3.050	-0.001	97	521056	175.0	158.9	
21 Acrolein	56	3.231	3.232	-0.001	99	108307	225.0	221.7	
22 1,1-Dichloroethene	96	3.347	3.348	-0.001	95	473565	175.0	169.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.408	3.403	0.005	94	488054	175.0	164.7	
24 Acetone	43	3.438	3.445	-0.007	98	332039	350.0	327.6	
25 Iodomethane	142	3.547	3.543	0.004	98	696716	175.0	167.1	
26 Carbon disulfide	76	3.633	3.628	0.005	100	1177201	175.0	181.2	
28 3-Chloro-1-propene	76	3.919	3.920	-0.001	89	285911	175.0	180.5	
30 Methyl acetate	43	3.937	3.938	-0.001	99	2539904	875.0	838.7	
31 Methylene Chloride	84	4.138	4.139	-0.001	97	510471	175.0	168.4	
32 2-Methyl-2-propanol	59	4.411	4.407	0.004	90	352268	1750.0	1784.8	
33 Acrylonitrile	53	4.521	4.522	-0.001	99	2452551	1750.0	1669.2	
34 trans-1,2-Dichloroethene	96	4.570	4.565	0.005	95	510637	175.0	168.1	
35 Methyl tert-butyl ether	73	4.582	4.577	0.005	97	1204325	175.0	171.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.989	4.997	-0.008	96	889892	175.0	174.5	
37 1,1-Dichloroethane	63	5.202	5.204	-0.002	96	998105	175.0	166.8	
38 Vinyl acetate	43	5.251	5.252	-0.001	97	801339	175.0	178.5	
44 2,2-Dichloropropane	77	5.944	5.952	-0.008	79	413686	175.0	172.5	
45 cis-1,2-Dichloroethene	96	5.950	5.952	-0.002	86	550789	175.0	169.7	
46 2-Butanone (MEK)	43	5.957	5.964	-0.007	98	514894	350.0	338.2	
49 Chlorobromomethane	128	6.236	6.238	-0.002	92	234034	175.0	164.3	
51 Tetrahydrofuran	42	6.249	6.250	-0.001	91	417684	350.0	342.0	
52 Chloroform	83	6.382	6.384	-0.002	96	838419	175.0	162.2	
53 1,1,1-Trichloroethane	97	6.541	6.542	-0.001	97	661680	175.0	173.1	
54 Cyclohexane	56	6.614	6.615	-0.001	96	1115710	175.0	174.4	
56 Carbon tetrachloride	117	6.717	6.718	-0.001	96	566329	175.0	174.0	
55 1,1-Dichloropropene	75	6.729	6.730	-0.001	91	734207	175.0	173.7	
57 Isobutyl alcohol	41	6.924	6.925	-0.001	94	417725	4375.0	4367.4	
58 Benzene	78	6.942	6.943	-0.001	98	2000326	175.0	161.5	
59 1,2-Dichloroethane	62	7.021	7.022	-0.001	97	709743	175.0	165.7	
62 n-Heptane	43	7.307	7.308	-0.001	96	819932	175.0	177.0	
64 Trichloroethene	130	7.678	7.679	-0.001	97	506964	175.0	167.3	
66 Methylcyclohexane	83	7.915	7.917	-0.002	96	866758	175.0	181.5	
67 1,2-Dichloropropane	63	7.946	7.947	-0.001	94	547361	175.0	168.4	
70 1,4-Dioxane	88	8.025	8.026	-0.001	46	82622	3500.0	3687.8	M
68 Dibromomethane	93	8.037	8.038	-0.001	96	277699	175.0	168.4	
71 Dichlorobromomethane	83	8.232	8.233	-0.001	98	576102	175.0	176.5	
74 cis-1,3-Dichloropropene	75	8.676	8.677	-0.001	90	714562	175.0	186.9	
75 4-Methyl-2-pentanone (MIBK)	43	8.828	8.829	-0.001	98	1157588	350.0	362.5	
76 Toluene	91	9.004	9.006	-0.002	97	2050607	175.0	159.8	
77 trans-1,3-Dichloropropene	75	9.248	9.249	-0.001	98	619485	175.0	185.0	
78 Ethyl methacrylate	69	9.309	9.310	-0.001	94	602921	175.0	186.2	
79 1,1,2-Trichloroethane	97	9.442	9.444	-0.002	93	403722	175.0	165.4	
80 Tetrachloroethene	164	9.515	9.517	-0.002	95	401915	175.0	161.4	
81 1,3-Dichloropropane	76	9.601	9.602	-0.001	98	743698	175.0	164.1	
82 2-Hexanone	43	9.655	9.657	-0.002	99	820858	350.0	356.1	
84 Chlorodibromomethane	129	9.813	9.815	-0.002	91	377032	175.0	178.4	
85 Ethylene Dibromide	107	9.929	9.930	-0.001	99	390862	175.0	166.2	
86 3-Chlorobenzotrifluoride	180	10.385	10.387	-0.002	92	686777	175.0	166.5	
87 Chlorobenzene	112	10.416	10.417	-0.001	91	1331912	175.0	161.2	
88 4-Chlorobenzotrifluoride	180	10.477	10.478	-0.001	96	642626	175.0	164.8	
89 1,1,1,2-Tetrachloroethane	131	10.507	10.508	-0.001	93	453483	175.0	168.4	
90 Ethylbenzene	106	10.513	10.514	-0.001	98	756322	175.0	172.7	
91 m-Xylene & p-Xylene	106	10.647	10.648	-0.001	0	934055	175.0	173.9	
92 o-Xylene	106	11.030	11.025	0.005	95	890574	175.0	174.5	
93 Styrene	104	11.048	11.050	-0.002	95	1460286	175.0	172.7	
94 Bromoform	173	11.231	11.232	-0.001	96	217546	175.0	180.4	
96 2-Chlorobenzotrifluoride	180	11.298	11.299	-0.001	95	670799	175.0	165.3	
97 Isopropylbenzene	105	11.395	11.396	-0.001	97	2113845	175.0	169.1	
100 Bromobenzene	156	11.712	11.707	0.005	95	543146	175.0	174.5	
99 1,1,2,2-Tetrachloroethane	83	11.705	11.707	-0.002	77	530728	175.0	161.2	
102 trans-1,4-Dichloro-2-buten	53	11.742	11.743	-0.001	78	209384	175.0	186.1	
101 1,2,3-Trichloropropane	110	11.760	11.762	-0.002	87	177490	175.0	172.9	
103 N-Propylbenzene	120	11.815	11.810	0.005	97	636587	175.0	178.7	
104 2-Chlorotoluene	126	11.900	11.901	-0.001	95	529736	175.0	174.9	
105 3-Chlorotoluene	126	11.967	11.968	-0.001	95	552058	175.0	177.4	

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	11.997	11.993	0.004	95	1760059	175.0	174.8	
107 4-Chlorotoluene	126	12.022	12.023	-0.001	98	582109	175.0	174.7	
108 tert-Butylbenzene	119	12.308	12.309	-0.001	94	1486960	175.0	181.7	
110 1,2,4-Trimethylbenzene	105	12.369	12.370	-0.001	98	1772230	175.0	175.7	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.412	-0.001	98	484133	175.0	172.2	
112 sec-Butylbenzene	105	12.533	12.534	-0.001	96	2029430	175.0	175.6	
113 1,3-Dichlorobenzene	146	12.648	12.650	-0.002	97	937539	175.0	169.2	
114 4-Isopropyltoluene	119	12.691	12.692	-0.001	96	1738859	175.0	177.9	
115 1,4-Dichlorobenzene	146	12.752	12.753	-0.001	93	949324	175.0	164.7	
116 2,4-Dichloro-1-(trifluorom	214	12.782	12.777	0.005	95	453275	175.0	174.0	
118 2,5-Dichlorobenzotrifluori	214	12.819	12.820	-0.001	0	486163	175.0	172.6	
120 n-Butylbenzene	91	13.099	13.100	-0.001	97	1504673	175.0	179.9	
121 1,2-Dichlorobenzene	146	13.111	13.112	-0.001	96	849612	175.0	164.0	
122 1,2-Dibromo-3-Chloropropan	75	13.902	13.897	0.005	79	75555	175.0	177.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.048	14.049	-0.001	0	1576122	525.0	532.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.461	14.463	-0.002	0	994231	350.0	352.5	
126 1,2,4-Trichlorobenzene	180	14.723	14.724	-0.001	94	339446	175.0	168.4	
127 Hexachlorobutadiene	225	14.869	14.870	-0.001	97	160392	175.0	165.2	
128 Naphthalene	128	14.990	14.992	-0.002	98	934428	175.0	180.4	
129 1,2,3-Trichlorobenzene	180	15.216	15.217	-0.001	94	261711	175.0	160.4	
131 2,4,5-Trichlorotoluene	159	15.988	15.990	-0.002	0	100325	175.0	170.5	
130 2,3,6-Trichlorotoluene	159	16.092	16.093	-0.001	94	99793	175.0	185.2	
148 2,3-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	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		350.0	348.4	
S 134 1,2-Dichloroethene, Total	96				0		350.0	337.9	
S 135 1,3-Dichloropropene, Total	1				0		350.0	371.9	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260SURR_00040	Amount Added: 7.00	Units: uL	
VOA8260VOAPRI_00139	Amount Added: 7.00	Units: uL	
voaWEE1stRest_00001	Amount Added: 7.00	Units: uL	
voaWKet1 Rest_00001	Amount Added: 7.00	Units: uL	
VOAVAPRI_00006	Amount Added: 7.00	Units: uL	
VOAACROLEINPR_00006	Amount Added: 9.00	Units: uL	
VOA8260INT_00040	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826012.D

Injection Date: 26-Aug-2015 17:04:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD35

Worklist Smp#: 12

Client ID:

Purge Vol: 5.000 mL

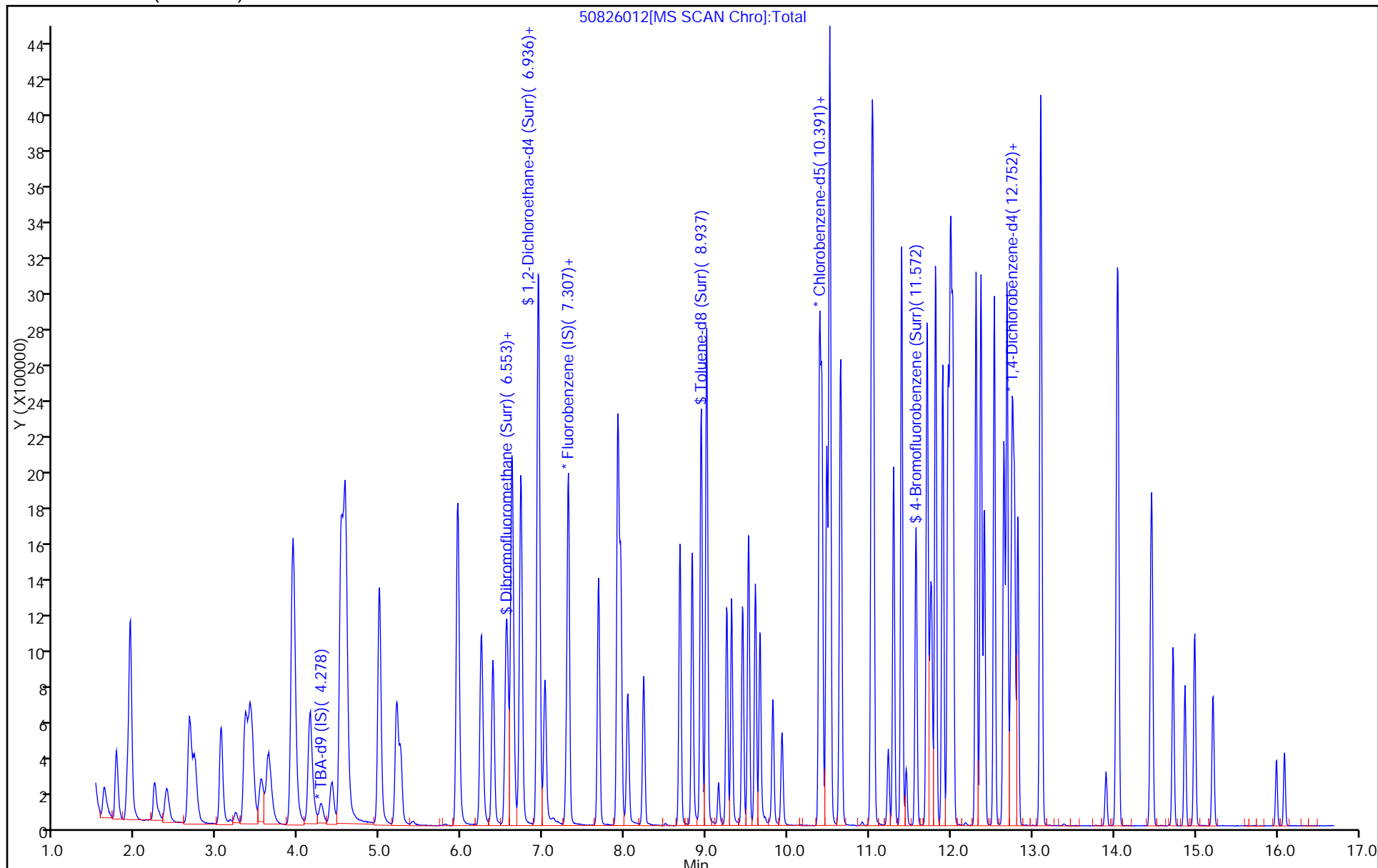
Dil. Factor: 1.0000

ALS Bottle#: 11

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



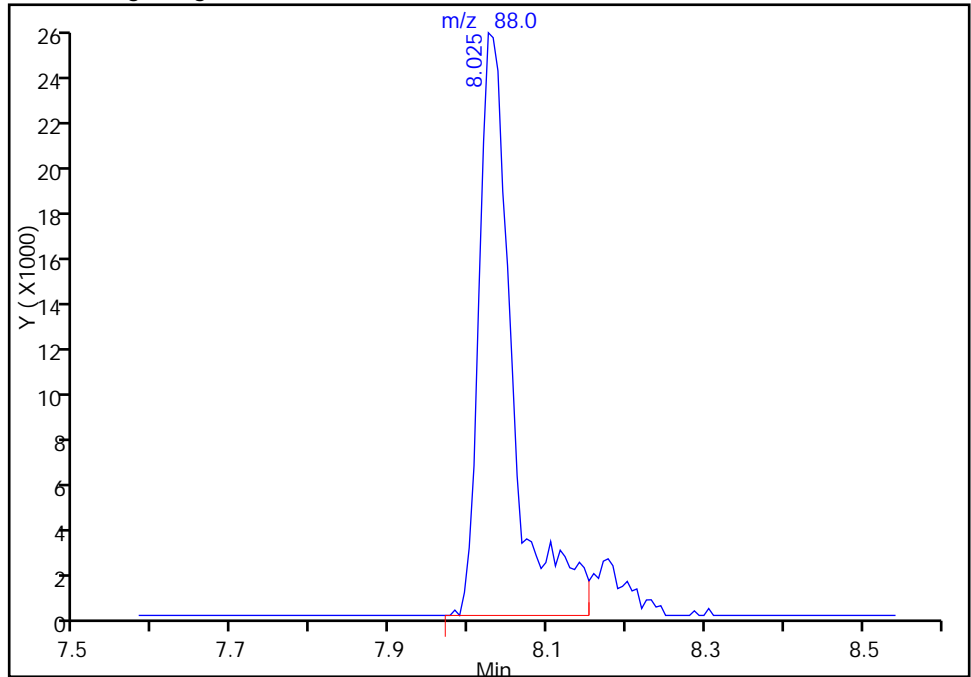
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826012.D  
Injection Date: 26-Aug-2015 17:04:30 Instrument ID: CHHP5  
Lims ID: IC VSTD35  
Client ID:  
Operator ID: 001562 ALS Bottle#: 11 Worklist Smp#: 12  
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

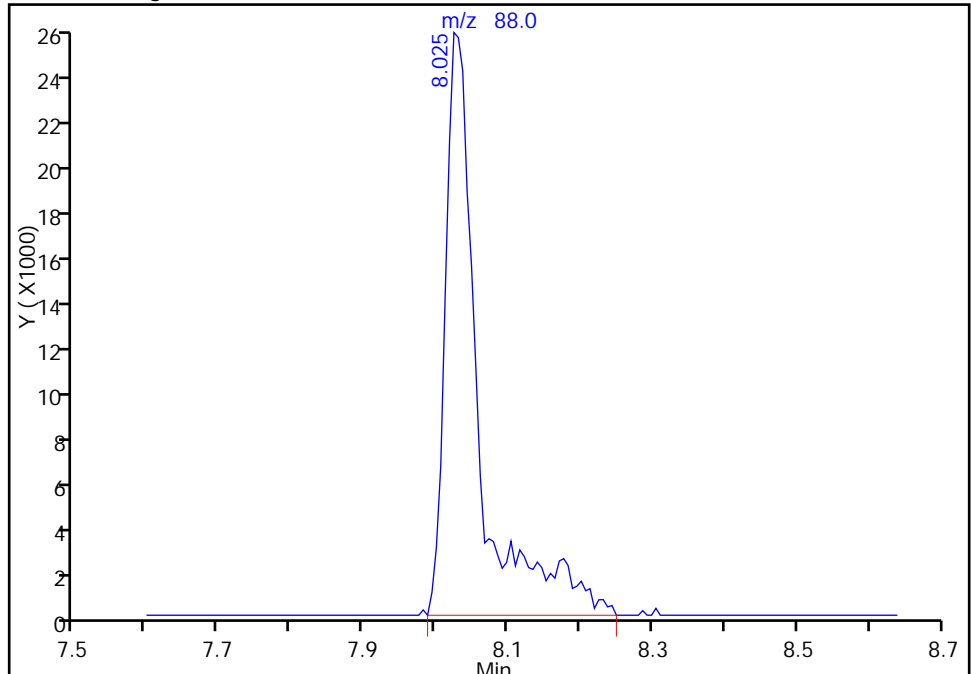
RT: 8.02  
Area: 75762  
Amount: 3419.0350  
Amount Units: ng

Processing Integration Results



RT: 8.02  
Area: 82622  
Amount: 3687.8427  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 27-Aug-2015 10:34:42  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826013.D  
 Lims ID: IC VSTD40  
 Client ID:  
 Sample Type: IC Calib Level: 7  
 Inject. Date: 26-Aug-2015 17:28:30 ALS Bottle#: 12 Worklist Smp#: 13  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD40  
 Misc. Info.: 180-0008300-013  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub4  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 27-Aug-2015 11:50:23 Calib Date: 26-Aug-2015 17:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK048

First Level Reviewer: fergusond

Date: 27-Aug-2015 10:38:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.274	4.267	0.007	0	190633	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.285	7.290	-0.005	98	491948	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.387	0.001	59	135336	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.729	0.001	94	186041	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.562	6.560	0.002	94	438908	200.0	181.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.931	0.002	0	597233	200.0	180.0	
\$ 7 Toluene-d8 (Surr)	98	8.934	8.939	-0.005	94	1727014	200.0	165.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.568	11.573	-0.005	86	697446	200.0	177.1	
11 Dichlorodifluoromethane	85	1.616	1.614	0.002	98	506611	200.0	182.3	
12 Chloromethane	50	1.762	1.766	-0.004	99	733518	200.0	179.7	
13 Vinyl chloride	62	1.902	1.894	0.008	98	663498	200.0	183.3	
14 Butadiene	39	1.938	1.937	0.001	95	762590	200.0	178.4	
15 Bromomethane	94	2.230	2.247	-0.017	91	244127	200.0	165.7	
16 Chloroethane	64	2.382	2.387	-0.005	99	395735	200.0	181.2	
17 Dichlorofluoromethane	67	2.662	2.661	0.001	98	843233	200.0	182.0	
18 Trichlorofluoromethane	101	2.711	2.667	0.044	98	636269	200.0	183.6	
20 Ethyl ether	59	3.045	3.050	-0.005	97	582513	200.0	181.3	
21 Acrolein	56	3.228	3.232	-0.004	99	117496	250.0	245.5	
22 1,1-Dichloroethene	96	3.343	3.348	-0.005	94	516257	200.0	188.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.410	3.403	0.007	93	532678	200.0	183.5	
24 Acetone	43	3.435	3.445	-0.010	99	349354	400.0	351.9	
25 Iodomethane	142	3.538	3.543	-0.005	98	765249	200.0	187.4	
26 Carbon disulfide	76	3.629	3.628	0.001	100	1297173	200.0	203.9	
28 3-Chloro-1-propene	76	3.921	3.920	0.001	89	325399	200.0	209.7	
30 Methyl acetate	43	3.940	3.938	0.002	99	2811173	1000.0	947.8	
31 Methylene Chloride	84	4.134	4.139	-0.005	97	573290	200.0	194.0	
32 2-Methyl-2-propanol	59	4.408	4.407	0.001	90	410928	2000.0	1915.2	
33 Acrylonitrile	53	4.517	4.522	-0.005	98	2730347	2000.0	1897.2	
34 trans-1,2-Dichloroethene	96	4.560	4.565	-0.005	95	552053	200.0	185.6	
35 Methyl tert-butyl ether	73	4.578	4.577	0.001	97	1367672	200.0	198.6	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.986	4.997	-0.011	97	948868	200.0	190.0	
37 1,1-Dichloroethane	63	5.199	5.204	-0.005	97	1104940	200.0	188.5	
38 Vinyl acetate	43	5.247	5.252	-0.005	97	887283	200.0	201.8	
45 cis-1,2-Dichloroethene	96	5.947	5.952	-0.005	84	600559	200.0	188.9	
44 2,2-Dichloropropane	77	5.947	5.952	-0.005	84	451339	200.0	192.2	
46 2-Butanone (MEK)	43	5.953	5.964	-0.011	90	569128	400.0	381.6	
49 Chlorobromomethane	128	6.239	6.238	0.001	92	262832	200.0	188.3	
51 Tetrahydrofuran	42	6.245	6.250	-0.005	95	461621	400.0	385.8	
52 Chloroform	83	6.379	6.384	-0.005	95	922240	200.0	182.1	
53 1,1,1-Trichloroethane	97	6.543	6.542	0.001	96	710348	200.0	189.7	
54 Cyclohexane	56	6.610	6.615	-0.005	96	1210903	200.0	193.3	
56 Carbon tetrachloride	117	6.714	6.718	-0.004	95	616016	200.0	193.2	
55 1,1-Dichloropropene	75	6.726	6.730	-0.004	93	785333	200.0	189.7	
57 Isobutyl alcohol	41	6.927	6.925	0.002	94	492768	5000.0	5259.9	
58 Benzene	78	6.939	6.943	-0.004	98	2197241	200.0	181.1	
59 1,2-Dichloroethane	62	7.018	7.022	-0.004	96	788760	200.0	188.0	
62 n-Heptane	43	7.310	7.308	0.002	96	859948	200.0	189.6	
64 Trichloroethene	130	7.675	7.679	-0.004	96	556980	200.0	187.7	
66 Methylcyclohexane	83	7.912	7.917	-0.005	96	937977	200.0	200.6	
67 1,2-Dichloropropane	63	7.949	7.947	0.002	94	594824	200.0	186.9	
70 1,4-Dioxane	88	8.034	8.026	0.008	41	91547	4000.0	4171.8	
68 Dibromomethane	93	8.034	8.038	-0.004	97	307857	200.0	190.6	
71 Dichlorobromomethane	83	8.228	8.233	-0.005	98	644471	200.0	201.6	
74 cis-1,3-Dichloropropene	75	8.672	8.677	-0.005	91	812298	200.0	216.9	
75 4-Methyl-2-pentanone (MIBK)	43	8.825	8.829	-0.004	98	1320471	400.0	396.0	
76 Toluene	91	9.001	9.006	-0.005	97	2228576	200.0	166.3	
77 trans-1,3-Dichloropropene	75	9.250	9.249	0.001	98	704918	200.0	201.6	
78 Ethyl methacrylate	69	9.311	9.310	0.001	94	687101	200.0	203.2	
79 1,1,2-Trichloroethane	97	9.445	9.444	0.001	94	441190	200.0	173.1	
80 Tetrachloroethene	164	9.518	9.517	0.001	95	438898	200.0	168.8	
81 1,3-Dichloropropane	76	9.603	9.602	0.001	98	840507	200.0	177.6	
82 2-Hexanone	43	9.658	9.657	0.001	98	943138	400.0	391.8	
84 Chlorodibromomethane	129	9.816	9.815	0.001	91	427847	200.0	193.9	
85 Ethylene Dibromide	107	9.926	9.930	-0.004	98	449617	200.0	183.1	
86 3-Chlorobenzotrifluoride	180	10.388	10.387	0.001	93	749898	200.0	174.2	
87 Chlorobenzene	112	10.412	10.417	-0.005	92	1491257	200.0	172.9	
88 4-Chlorobenzotrifluoride	180	10.473	10.478	-0.005	96	709487	200.0	174.3	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.508	0.002	94	513686	200.0	182.7	
90 Ethylbenzene	106	10.516	10.514	0.002	98	837593	200.0	183.2	
91 m-Xylene & p-Xylene	106	10.650	10.648	0.002	0	1021032	200.0	182.1	
92 o-Xylene	106	11.027	11.025	0.002	97	984811	200.0	184.8	
93 Styrene	104	11.051	11.050	0.001	94	1627751	200.0	184.4	
94 Bromoform	173	11.234	11.232	0.002	96	254607	200.0	202.2	
96 2-Chlorobenzotrifluoride	180	11.294	11.299	-0.005	95	748529	200.0	176.7	
97 Isopropylbenzene	105	11.392	11.396	-0.004	97	2317406	200.0	177.6	
100 Bromobenzene	156	11.708	11.707	0.001	95	609774	200.0	190.9	
99 1,1,2,2-Tetrachloroethane	83	11.708	11.707	0.001	78	605346	200.0	176.1	
102 trans-1,4-Dichloro-2-buten	53	11.745	11.743	0.002	43	238659	200.0	206.7	
101 1,2,3-Trichloropropane	110	11.763	11.762	0.001	86	200908	200.0	190.7	
103 N-Propylbenzene	120	11.812	11.810	0.002	97	717909	200.0	196.4	
104 2-Chlorotoluene	126	11.897	11.901	-0.004	96	608876	200.0	195.9	
105 3-Chlorotoluene	126	11.964	11.968	-0.004	95	621607	200.0	194.6	

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	11.994	11.993	0.001	95	1952122	200.0	189.0	
107 4-Chlorotoluene	126	12.024	12.023	0.001	98	649501	200.0	189.9	
108 tert-Butylbenzene	119	12.310	12.309	0.001	94	1642231	200.0	195.6	
110 1,2,4-Trimethylbenzene	105	12.365	12.370	-0.005	98	1973541	200.0	190.7	
111 1,2-dichloro-4-(trifluorom	214	12.408	12.412	-0.004	97	529814	200.0	183.6	
112 sec-Butylbenzene	105	12.529	12.534	-0.005	96	2244027	200.0	189.3	
113 1,3-Dichlorobenzene	146	12.651	12.650	0.001	96	1071203	200.0	188.4	
114 4-Isopropyltoluene	119	12.688	12.692	-0.004	97	1944911	200.0	193.9	
115 1,4-Dichlorobenzene	146	12.754	12.753	0.001	94	1084086	200.0	183.3	
116 2,4-Dichloro-1-(trifluorom	214	12.779	12.777	0.002	95	483618	200.0	180.9	
118 2,5-Dichlorobenzotrifluori	214	12.821	12.820	0.001	0	571654	200.0	197.9	
120 n-Butylbenzene	91	13.095	13.100	-0.005	98	1691227	200.0	197.0	
121 1,2-Dichlorobenzene	146	13.107	13.112	-0.005	94	988861	200.0	186.1	
122 1,2-Dibromo-3-Chloropropan	75	13.904	13.897	0.007	78	91242	200.0	209.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.044	14.049	-0.005	0	1875036	600.0	617.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.458	14.463	-0.005	0	1204899	400.0	416.3	
126 1,2,4-Trichlorobenzene	180	14.726	14.724	0.002	94	424061	200.0	205.1	
127 Hexachlorobutadiene	225	14.872	14.870	0.002	97	188644	200.0	189.4	
128 Naphthalene	128	14.987	14.992	-0.005	98	1180622	200.0	222.2	
129 1,2,3-Trichlorobenzene	180	15.212	15.217	-0.005	95	333363	200.0	199.2	
131 2,4,5-Trichlorotoluene	159	15.991	15.990	0.001	0	135933	200.0	225.1	
130 2,3,6-Trichlorotoluene	159	16.088	16.093	-0.005	95	131306	200.0	242.0	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		400.0	374.5	
S 133 Xylenes, Total	106				0		400.0	366.9	
S 135 1,3-Dichloropropene, Total	1				0		400.0	418.5	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOAACROLEINPR_00006	Amount Added: 10.00	Units: uL	
VOAVAPRI_00006	Amount Added: 8.00	Units: uL	
voaWKet1 Rest_00001	Amount Added: 8.00	Units: uL	
voaWEE1stRest_00001	Amount Added: 8.00	Units: uL	
VOA8260VOAPRI_00139	Amount Added: 8.00	Units: uL	
VOA8260SURR_00040	Amount Added: 8.00	Units: uL	
VOA8260INT_00040	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826013.D

Injection Date: 26-Aug-2015 17:28:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD40

Worklist Smp#: 13

Client ID:

Purge Vol: 5.000 mL

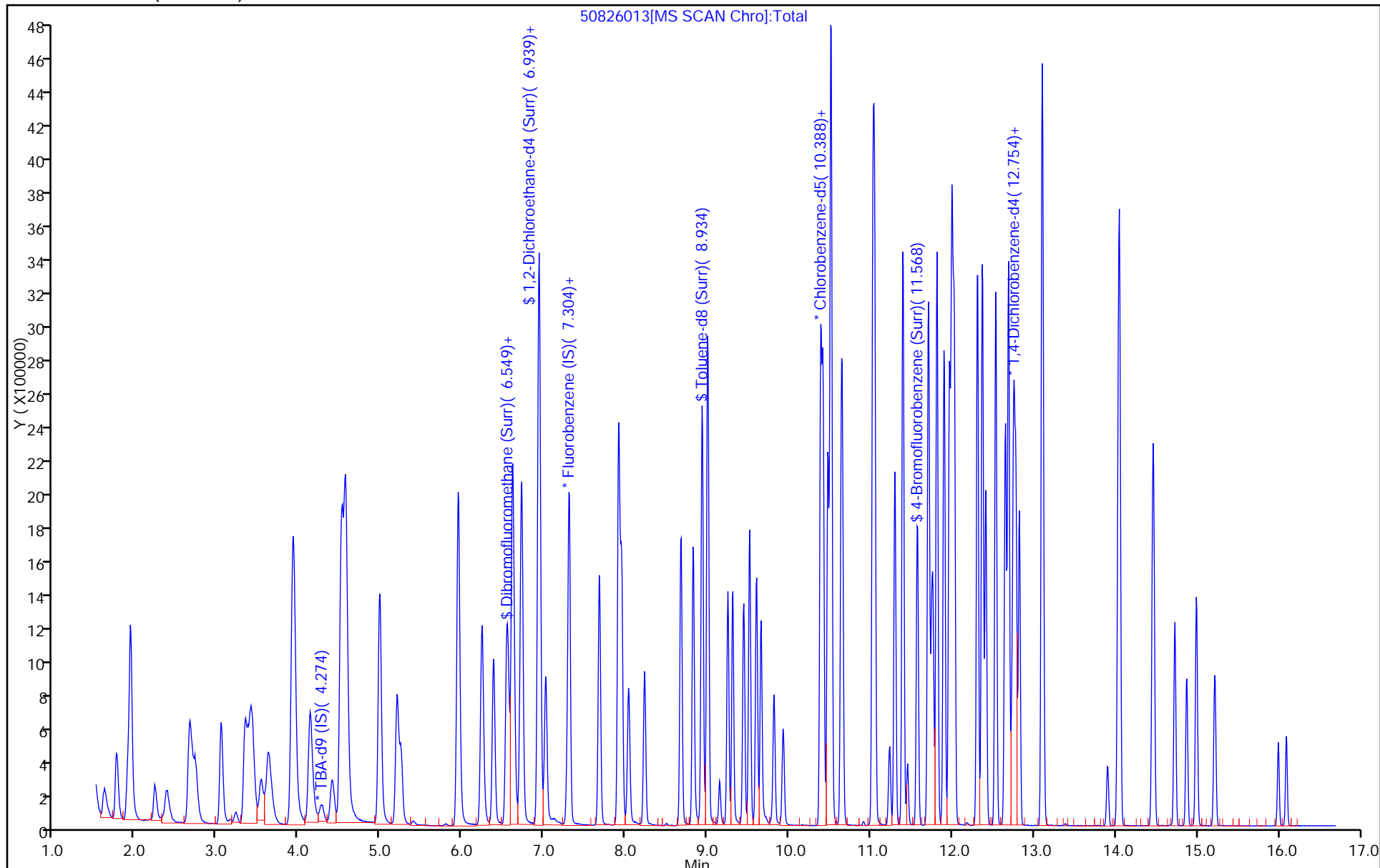
Dil. Factor: 1.0000

ALS Bottle#: 12

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D  
 Lims ID: IC VSTD50  
 Client ID:  
 Sample Type: IC Calib Level: 8  
 Inject. Date: 26-Aug-2015 17:52:30 ALS Bottle#: 13 Worklist Smp#: 14  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD50  
 Misc. Info.: 180-0008300-014  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub4  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 27-Aug-2015 11:50:43 Calib Date: 26-Aug-2015 17:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK048

First Level Reviewer: fergusond

Date: 27-Aug-2015 10:43:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.271	4.267	0.004	0	178553	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.290	-0.001	98	422908	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.387	-0.002	56	117789	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.729	-0.001	92	156354	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.559	6.560	-0.001	93	562879	250.0	271.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.931	0.005	0	751925	250.0	263.6	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.939	-0.001	94	2103482	250.0	231.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.573	-0.001	86	854277	250.0	249.2	
11 Dichlorodifluoromethane	85	1.619	1.614	0.005	99	585297	250.0	245.0	
12 Chloromethane	50	1.765	1.766	-0.001	99	886889	250.0	252.8	
13 Vinyl chloride	62	1.905	1.894	0.011	99	782206	250.0	251.3	
14 Butadiene	39	1.935	1.937	-0.002	96	893578	250.0	243.1	
15 Bromomethane	94	2.234	2.247	-0.013	90	333317	250.0	263.2	
16 Chloroethane	64	2.380	2.387	-0.007	99	465079	250.0	247.7	
17 Dichlorofluoromethane	67	2.665	2.661	0.004	98	986298	250.0	247.6	
18 Trichlorofluoromethane	101	2.702	2.667	0.035	96	739174	250.0	248.1	M
20 Ethyl ether	59	3.043	3.050	-0.007	97	750491	250.0	271.8	
21 Acrolein	56	3.225	3.232	-0.007	99	127965	275.0	311.1	
22 1,1-Dichloroethene	96	3.341	3.348	-0.007	95	627614	250.0	266.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.408	3.403	0.005	93	629046	250.0	252.1	
24 Acetone	43	3.438	3.445	-0.007	99	457819	500.0	536.5	
25 Iodomethane	142	3.535	3.543	-0.008	99	963985	250.0	274.6	
26 Carbon disulfide	76	3.627	3.628	-0.001	100	1607306	250.0	293.9	
28 3-Chloro-1-propene	76	3.913	3.920	-0.007	89	399041	250.0	299.1	
30 Methyl acetate	43	3.937	3.938	-0.001	98	3450277	1250.0	1353.2	
31 Methylene Chloride	84	4.132	4.139	-0.007	98	715184	250.0	284.3	
32 2-Methyl-2-propanol	59	4.405	4.407	-0.002	91	514360	2500.0	2559.4	
33 Acrylonitrile	53	4.521	4.522	-0.001	97	3337347	2500.0	2697.5	
34 trans-1,2-Dichloroethene	96	4.563	4.565	-0.002	95	687878	250.0	269.0	
35 Methyl tert-butyl ether	73	4.576	4.577	-0.001	98	1750025	250.0	295.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.989	4.997	-0.008	97	1125958	250.0	262.3	
37 1,1-Dichloroethane	63	5.202	5.204	-0.002	96	1377944	250.0	273.5	
38 Vinyl acetate	43	5.245	5.252	-0.007	97	1072494	250.0	283.7	
45 cis-1,2-Dichloroethene	96	5.951	5.952	-0.001	85	760457	250.0	278.3	
44 2,2-Dichloropropane	77	5.944	5.952	-0.008	84	564524	250.0	279.6	
46 2-Butanone (MEK)	43	5.957	5.964	-0.007	99	698551	500.0	544.9	
49 Chlorobromomethane	128	6.236	6.238	-0.002	92	336595	250.0	280.6	
51 Tetrahydrofuran	42	6.249	6.250	-0.001	93	561739	500.0	546.2	
52 Chloroform	83	6.382	6.384	-0.002	96	1166838	250.0	268.1	
53 1,1,1-Trichloroethane	97	6.541	6.542	-0.001	97	898258	250.0	279.1	
54 Cyclohexane	56	6.614	6.615	-0.001	96	1451032	250.0	269.4	
56 Carbon tetrachloride	117	6.711	6.718	-0.007	95	764597	250.0	279.0	
55 1,1-Dichloropropene	75	6.729	6.730	-0.001	91	975802	250.0	274.2	
57 Isobutyl alcohol	41	6.924	6.925	-0.001	94	588608	6250.0	7308.6	
58 Benzene	78	6.942	6.943	-0.001	99	2707324	250.0	259.6	
59 1,2-Dichloroethane	62	7.021	7.022	-0.001	96	987010	250.0	273.7	
62 n-Heptane	43	7.307	7.308	-0.001	96	1040377	250.0	266.8	
64 Trichloroethene	130	7.678	7.679	-0.001	97	693909	250.0	272.0	
66 Methylcyclohexane	83	7.915	7.917	-0.002	95	1114866	250.0	277.3	
67 1,2-Dichloropropane	63	7.946	7.947	-0.001	94	765352	250.0	279.7	
70 1,4-Dioxane	88	8.031	8.026	0.005	42	111802	5000.0	5926.6	
68 Dibromomethane	93	8.037	8.038	-0.001	97	386058	250.0	278.0	
71 Dichlorobromomethane	83	8.232	8.233	-0.001	98	812136	250.0	295.5	
74 cis-1,3-Dichloropropene	75	8.676	8.677	-0.001	91	1033255	250.0	320.9	
75 4-Methyl-2-pentanone (MIBK)	43	8.828	8.829	-0.001	98	1599371	500.0	551.1	
76 Toluene	91	9.004	9.006	-0.002	96	2681762	250.0	230.0	
77 trans-1,3-Dichloropropene	75	9.248	9.249	-0.001	99	891401	250.0	292.9	
78 Ethyl methacrylate	69	9.309	9.310	-0.001	94	862044	250.0	292.9	
79 1,1,2-Trichloroethane	97	9.442	9.444	-0.002	94	557982	250.0	251.6	
80 Tetrachloroethene	164	9.515	9.517	-0.002	94	530215	250.0	234.2	
81 1,3-Dichloropropane	76	9.601	9.602	-0.001	98	1030200	250.0	250.2	
82 2-Hexanone	43	9.655	9.657	-0.002	98	1123041	500.0	536.1	
84 Chlorodibromomethane	129	9.814	9.815	-0.001	91	542940	250.0	282.7	
85 Ethylene Dibromide	107	9.929	9.930	-0.001	98	553588	250.0	259.0	
86 3-Chlorobenzotrifluoride	180	10.391	10.387	0.004	92	813323	250.0	217.0	
87 Chlorobenzene	112	10.416	10.417	-0.001	91	1793475	250.0	238.9	
88 4-Chlorobenzotrifluoride	180	10.477	10.478	-0.001	96	781989	250.0	220.7	
89 1,1,1,2-Tetrachloroethane	131	10.507	10.508	-0.001	93	642159	250.0	262.4	
90 Ethylbenzene	106	10.519	10.514	0.005	97	1001210	250.0	251.5	
91 m-Xylene & p-Xylene	106	10.647	10.648	-0.001	0	1238884	250.0	253.8	
92 o-Xylene	106	11.030	11.025	0.005	97	1203666	250.0	259.5	
93 Styrene	104	11.048	11.050	-0.002	94	1948876	250.0	253.6	
94 Bromoform	173	11.231	11.232	-0.001	95	317730	250.0	289.9	
96 2-Chlorobenzotrifluoride	180	11.298	11.299	-0.001	94	809757	250.0	219.6	
97 Isopropylbenzene	105	11.395	11.396	-0.001	98	2727755	250.0	240.1	
100 Bromobenzene	156	11.705	11.707	-0.002	95	743219	250.0	276.9	
99 1,1,2,2-Tetrachloroethane	83	11.705	11.707	-0.002	77	725938	250.0	242.6	
102 trans-1,4-Dichloro-2-buten	53	11.742	11.743	-0.001	77	290130	250.0	299.0	
101 1,2,3-Trichloropropane	110	11.766	11.762	0.004	87	246872	250.0	278.9	
103 N-Propylbenzene	120	11.809	11.810	-0.001	97	850210	250.0	276.7	
104 2-Chlorotoluene	126	11.900	11.901	-0.001	95	726063	250.0	278.0	
105 3-Chlorotoluene	126	11.967	11.968	-0.001	95	702342	250.0	261.7	

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	11.997	11.993	0.004	95	2264532	250.0	260.9	
107 4-Chlorotoluene	126	12.022	12.023	-0.001	98	778860	250.0	271.0	
108 tert-Butylbenzene	119	12.308	12.309	-0.001	94	1938716	250.0	274.7	
110 1,2,4-Trimethylbenzene	105	12.369	12.370	-0.001	98	2303042	250.0	264.8	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.412	-0.001	97	580120	250.0	239.2	
112 sec-Butylbenzene	105	12.533	12.534	-0.001	96	2563359	250.0	257.3	
113 1,3-Dichlorobenzene	146	12.648	12.650	-0.002	96	1263925	250.0	264.5	
114 4-Isopropyltoluene	119	12.691	12.692	-0.001	95	2238219	250.0	265.5	
115 1,4-Dichlorobenzene	146	12.758	12.753	0.005	91	1287906	250.0	259.1	
116 2,4-Dichloro-1-(trifluorom	214	12.782	12.777	0.005	96	531698	250.0	236.7	
118 2,5-Dichlorobenzotrifluori	214	12.819	12.820	-0.001	0	585601	250.0	241.2	
120 n-Butylbenzene	91	13.099	13.100	-0.001	96	1909580	250.0	264.7	
121 1,2-Dichlorobenzene	146	13.111	13.112	-0.001	94	1135542	250.0	254.3	
122 1,2-Dibromo-3-Chloropropan	75	13.902	13.897	0.005	92	105625	250.0	288.0	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.048	14.049	-0.001	0	1891413	750.0	741.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.461	14.463	-0.002	0	1220209	500.0	501.7	
126 1,2,4-Trichlorobenzene	180	14.723	14.724	-0.001	94	445017	250.0	256.1	
127 Hexachlorobutadiene	225	14.869	14.870	-0.001	98	196056	250.0	234.2	
128 Naphthalene	128	14.991	14.992	-0.001	98	1235965	250.0	276.7	
129 1,2,3-Trichlorobenzene	180	15.216	15.217	-0.001	94	351787	250.0	250.1	
131 2,4,5-Trichlorotoluene	159	15.994	15.990	0.004	0	136778	250.0	269.5	
130 2,3,6-Trichlorotoluene	159	16.092	16.093	-0.001	96	133555	250.0	291.3	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		500.0	513.3	
S 134 1,2-Dichloroethene, Total	96				0		500.0	547.3	
S 135 1,3-Dichloropropene, Total	1				0		500.0	613.8	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260SURR_00040	Amount Added: 10.00	Units: uL	
VOA8260VOAPRI_00139	Amount Added: 10.00	Units: uL	
voaWEE1stRest_00001	Amount Added: 10.00	Units: uL	
voaWKet1 Rest_00001	Amount Added: 10.00	Units: uL	
VOAVAPRI_00006	Amount Added: 10.00	Units: uL	
VOAACROLEINPR_00006	Amount Added: 11.00	Units: uL	
VOA8260INT_00040	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D

Injection Date: 26-Aug-2015 17:52:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD50

Worklist Smp#: 14

Client ID:

Purge Vol: 5.000 mL

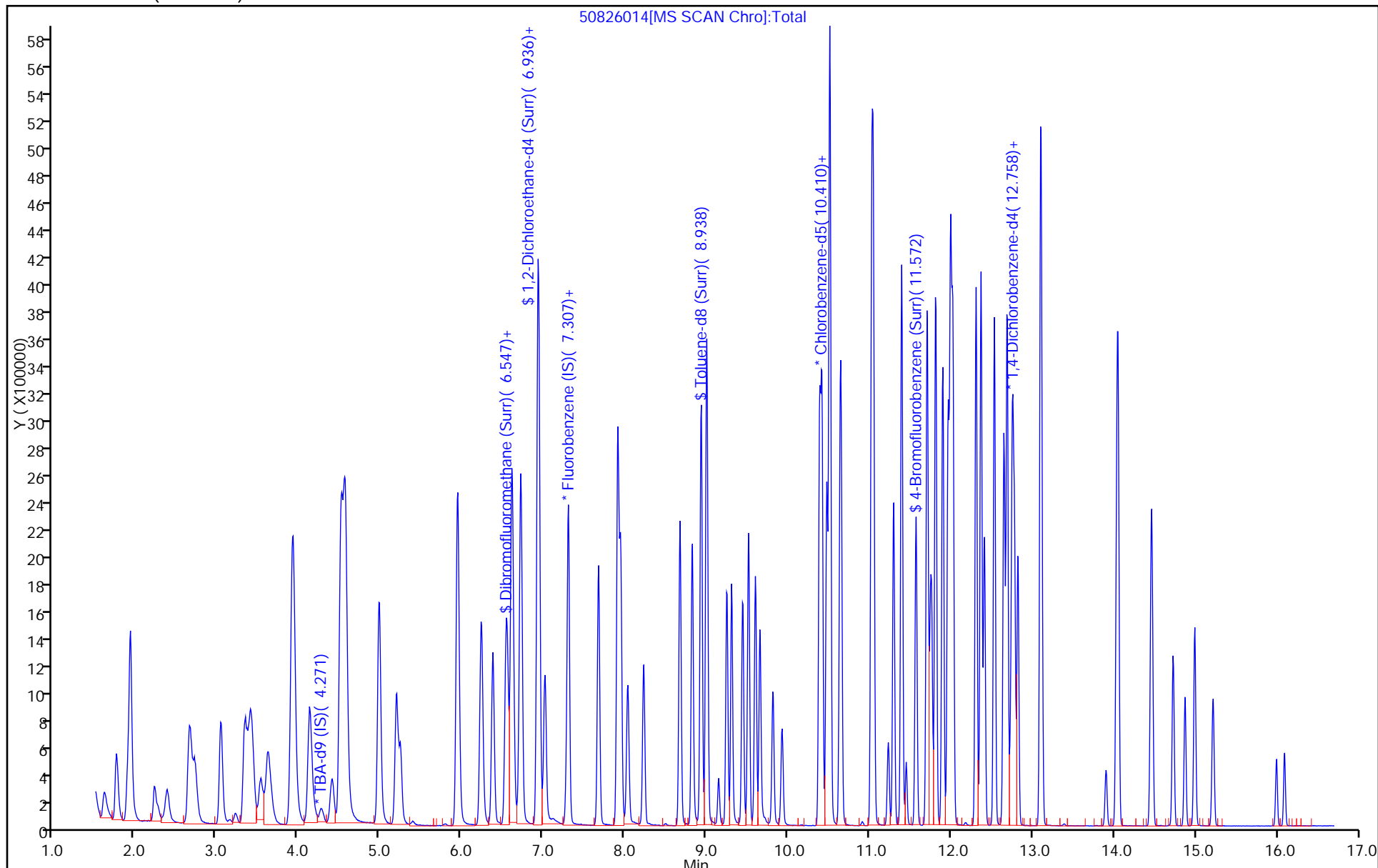
Dil. Factor: 1.0000

ALS Bottle#: 13

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





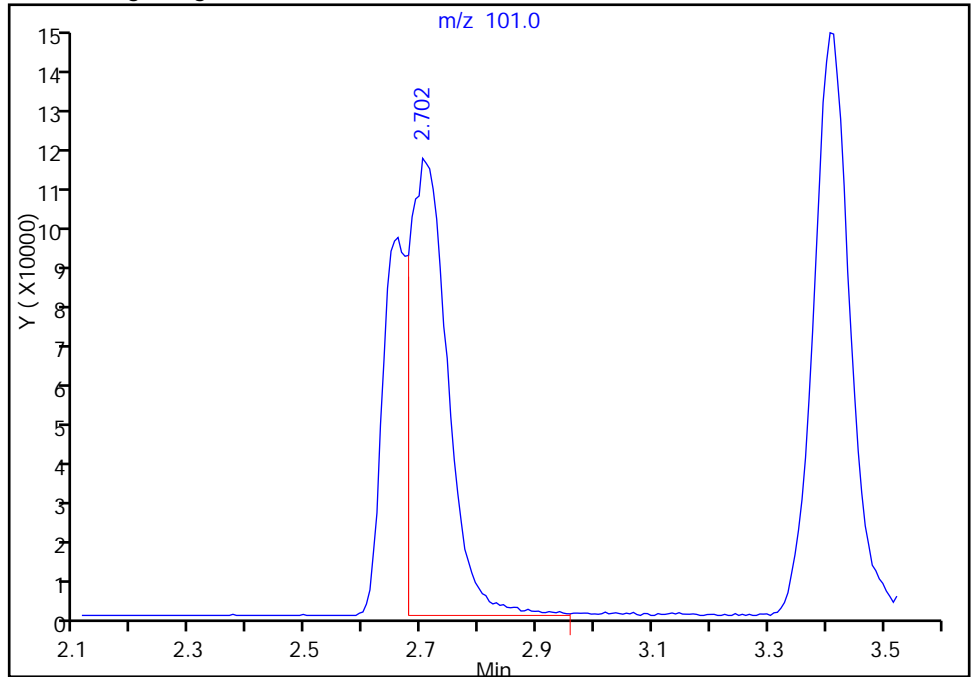
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D  
Injection Date: 26-Aug-2015 17:52:30 Instrument ID: CHHP5  
Lims ID: IC VSTD50  
Client ID:  
Operator ID: 001562 ALS Bottle#: 13 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

18 Trichlorofluoromethane, CAS: 75-69-4

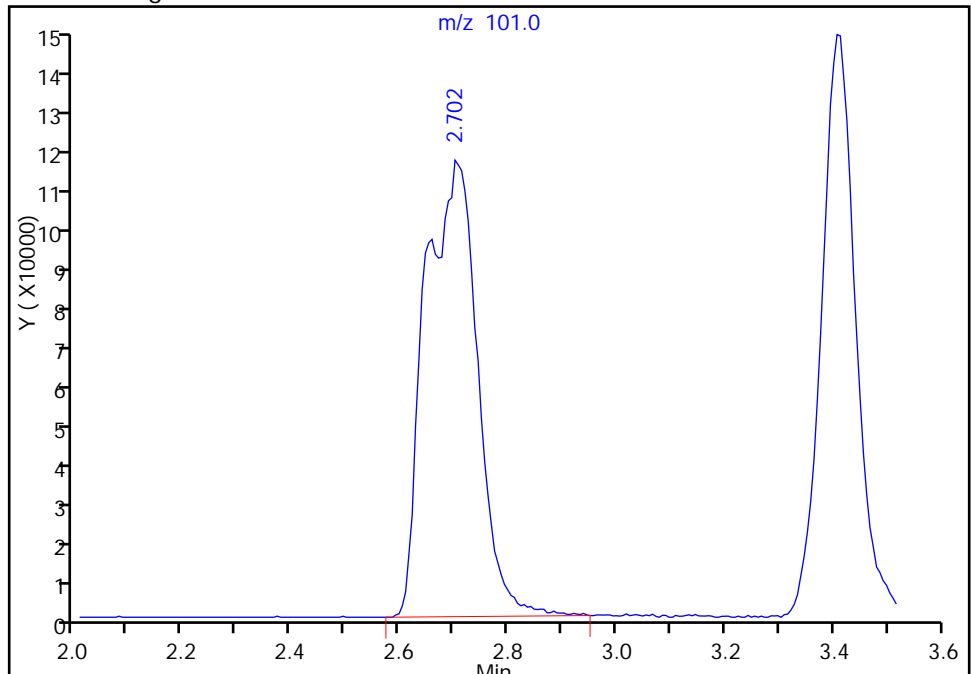
RT: 2.70  
Area: 496107  
Amount: 173.5779  
Amount Units: ng

Processing Integration Results



RT: 2.70  
Area: 739174  
Amount: 248.0735  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 27-Aug-2015 10:43:05  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration



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

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1 Analy Batch No.: 149469

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

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

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-149469/14	60731014.D
Level 2	IC 180-149469/4	60731004.D
Level 3	ICIS 180-149469/5	60731005.D
Level 4	IC 180-149469/6	60731006.D
Level 5	IC 180-149469/7	60731007.D
Level 6	IC 180-149469/8	60731008.D
Level 7	IC 180-149469/9	60731009.D
Level 8	IC 180-149469/10	60731010.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	0.3784 0.3460	0.3285 0.3562	0.3421 0.3286	0.3615	0.3285	Ave		0.3462			0.1000	5.3	20.0				
Chloromethane	0.3392 0.2834	0.3040 0.2926	0.3038 0.2799	0.2953	0.2891	Ave		0.2984			0.1000	6.2	20.0				
Vinyl chloride	0.3459 0.3113	0.3263 0.3277	0.3180 0.3087	0.3307	0.3028	Ave		0.3214			0.1000	4.4	20.0				
1,3-Butadiene	0.3349 0.2908	0.3110 0.3014	0.3020 0.2828	0.3029	0.2847	Ave		0.3013			0.0100	5.5	20.0				
Bromomethane	0.2086 0.1495	0.1854 0.1475	0.1846 ++++	0.1749	0.1644	Ave		0.1735			0.0500	12.5	20.0				
Chloroethane	0.2173 0.2164	0.2251 0.2256	0.2291 0.2095	0.2259	0.2061	Ave		0.2194			0.0500	3.8	20.0				
Dichlorofluoromethane	0.5463 0.4931	0.5444 0.5038	0.5165 0.4737	0.5267	0.4802	Ave		0.5106			0.0100	5.4	20.0				
Trichlorofluoromethane	0.4247 0.4001	0.4150 0.4067	0.4245 0.3867	0.4197	0.3805	Ave		0.4072			0.1000	4.2	20.0				
Ethyl ether	0.3195 0.2756	0.2914 0.2931	0.2819 0.2818	0.2864	0.2793	Ave		0.2886			0.0100	4.8	20.0				
Acrolein	0.0310 0.0318	0.0309 0.0342	0.0297 0.0340	0.0320	0.0281	Ave		0.0315			0.0100	6.5	20.0				
1,1-Dichloroethene	0.2600 0.2474	0.2411 0.2670	0.2447 0.2555	0.2551	0.2426	Ave		0.2517			0.1000	3.7	20.0				
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2893 0.2688	0.2611 0.2694	0.2602 0.2595	0.2670	0.2502	Ave		0.2657			0.1000	4.3	20.0				
Acetone	0.0973 0.0856	0.0931 0.0888	0.0785 0.0945	0.0834	0.0864	Ave		0.0885			0.0500	7.1	20.0				
Iodomethane	0.3086 0.3409	0.3325 0.3671	0.3285 0.3511	0.3438	0.3304	Ave		0.3379			0.0100	5.1	20.0				

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

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

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

Analy Batch No.: 149469

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

Instrument ID: CHHP6

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00

Calibration End Date: 07/31/2015 18:02

Calibration ID: 24897

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 5													
Carbon disulfide	0.5727 0.6930	0.5928 0.7451	0.6074 0.7142	0.6519	0.6407	Ave		0.6522			0.1000	9.4	20.0				
Allyl chloride	0.1218 0.1547	0.1181 0.1646	0.1364 0.1606	0.1388	0.1402	Ave		0.1419			0.0100	12.0	20.0				
Methyl acetate	0.2192 0.2022	0.2017 0.2144	0.2047 0.2065	0.2072	0.2036	Ave		0.2074			0.1000	3.0	20.0				
Methylene Chloride	0.6631 0.3174	0.3874 0.3424	0.3361 0.3218	0.3366	0.3254	Lin2	1.7443	0.3138			0.1000			0.9990		0.9900	
tert-Butyl alcohol	1.2140 1.0554	1.0995 1.1213	1.1428 1.0861	1.1107	1.1728	Ave		1.1253			0.0100	4.5	20.0				
Acrylonitrile	0.1067 0.1050	0.1002 0.1099	0.1033 0.1041	0.1042	0.1030	Ave		0.1046			0.0100	2.7	20.0				
trans-1,2-Dichloroethene	0.2889 0.2884	0.2883 0.3069	0.2879 0.2909	0.2950	0.2774	Ave		0.2905			0.1000	2.9	20.0				
Methyl tert-butyl ether	0.8998 0.8761	0.8047 0.9451	0.8127 0.8903	0.8782	0.8559	Ave		0.8703			0.1000	5.3	20.0				
Hexane	0.4211 0.4030	0.3676 0.4125	0.3850 0.3998	0.3938	0.3659	Ave		0.3936			0.0100	5.0	20.0				
1,1-Dichloroethane	0.5075 0.5187	0.5138 0.5491	0.5187 0.5191	0.5246	0.5085	Ave		0.5200			0.2000	2.5	20.0				
Vinyl acetate	0.3814 0.4481	0.3469 0.4857	0.3831 0.4671	0.4180	0.4276	Ave		0.4197			0.0100	11.2	20.0				
2,2-Dichloropropane	0.2106 0.2916	0.2324 0.2998	0.2516 0.2938	0.2636	0.2601	Ave		0.2629			0.0100	12.0	20.0				
cis-1,2-Dichloroethene	0.3288 0.3134	0.2997 0.3336	0.3121 0.3178	0.3154	0.3061	Ave		0.3158			0.1000	3.5	20.0				
2-Butanone (MEK)	0.1157 0.1241	0.1112 0.1317	0.1112 0.1244	0.1274	0.1201	Ave		0.1207			0.0500	6.2	20.0				
Bromochloromethane	0.1341 0.1264	0.1227 0.1349	0.1194 0.1303	0.1248	0.1226	Ave		0.1269			0.0100	4.5	20.0				
Tetrahydrofuran	0.0899 0.0835	0.0679 0.0856	0.0729 0.0875	0.0830	0.0802	Ave		0.0813			0.0100	9.2	20.0				
Chloroform	0.5240 0.5101	0.5110 0.5372	0.5156 0.5057	0.5231	0.5023	Ave		0.5161			0.2000	2.2	20.0				
1,1,1-Trichloroethane	0.3298 0.3969	0.3454 0.4238	0.3768 0.4049	0.3936	0.3797	Ave		0.3814			0.1000	8.1	20.0				
Cyclohexane	0.4970 0.5019	0.4468 0.5151	0.4891 0.4904	0.5075	0.4613	Ave		0.4886			0.1000	4.8	20.0				
Carbon tetrachloride	0.2286 0.2886	0.2478 0.3002	0.2596 0.2920	0.2763	0.2618	Ave		0.2694			0.1000	9.1	20.0				

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1 Analy Batch No.: 149469

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

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

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

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	0.3926 0.4066	0.3932 0.4288	0.4179 0.4097	0.4260	0.4065	Ave		0.4102			0.0100	3.3	20.0				
Isobutyl alcohol	0.0064 0.0079	0.0060 0.0084	0.0067 0.0082	0.0069	0.0074	Ave		0.0072		*	0.0100	12.0	20.0				
Benzene	1.3108 1.1051	1.1747 1.1573	1.1838 1.0686	1.1862	1.1360	Ave		1.1653			0.5000	6.1	20.0				
1,2-Dichloroethane	0.5170 0.4491	0.4680 0.4788	0.4635 0.4465	0.4749	0.4571	Ave		0.4694			0.1000	4.8	20.0				
n-Heptane	0.3283 0.3166	0.2930 0.3296	0.3187 0.3201	0.3273	0.3009	Ave		0.3168			0.0100	4.2	20.0				
Trichloroethene	0.2495 0.2439	0.2242 0.2580	0.2340 0.2443	0.2514	0.2390	Ave		0.2430			0.2000	4.4	20.0				
Methylcyclohexane	0.4988 0.5022	0.4670 0.5125	0.4962 0.4944	0.5026	0.4718	Ave		0.4932			0.1000	3.2	20.0				
1,2-Dichloropropane	0.3004 0.2740	0.2605 0.2918	0.2603 0.2810	0.2821	0.2771	Ave		0.2784			0.1000	5.0	20.0				
1,4-Dioxane	0.0025 0.0030	0.0022 0.0032	0.0027 0.0030	0.0026	0.0028	Ave		0.0027		*	0.0100	11.1	20.0				
Dibromomethane	0.1697 0.1704	0.1570 0.1809	0.1594 0.1730	0.1722	0.1697	Ave		0.1690			0.0100	4.5	20.0				
Bromodichloromethane	0.2616 0.3321	0.2926 0.3618	0.2967 0.3476	0.3256	0.3231	Ave		0.3176			0.2000	10.2	20.0				
cis-1,3-Dichloropropene	0.2584 0.3913	0.2782 0.4177	0.3074 0.4064	0.3604	0.3717	Ave		0.3489			0.2000	17.3	20.0				
4-Methyl-2-pentanone (MIBK)	0.8987 1.0658	0.9802 1.1445	0.9985 1.0527	1.0544	1.0284	Ave		1.0279			0.1000	7.0	20.0				
Toluene	5.9056 4.7537	5.5995 4.8374	5.4167 4.3396	5.4012	5.0191	Ave		5.1591			0.4000	9.9	20.0				
trans-1,3-Dichloropropene	0.8702 1.4914	1.1099 1.5454	1.1917 1.4764	1.4148	1.3777	Ave		1.3097			0.1000	17.8	20.0				
Ethyl methacrylate	1.0584 1.5306	1.1597 1.6211	1.2934 1.5074	1.4730	1.4851	Ave		1.3911			0.0100	14.3	20.0				
1,1,2-Trichloroethane	1.1649 1.0331	1.0986 1.0808	1.0395 0.9995	1.0976	1.0221	Ave		1.0670			0.1000	5.0	20.0				
Tetrachloroethene	0.9697 0.8437	0.9092 0.8645	0.8932 0.8142	0.9113	0.8341	Ave		0.8800			0.2000	5.8	20.0				
1,3-Dichloropropane	2.1051 1.8922	2.0770 1.9466	1.9733 1.8014	2.0412	1.9340	Ave		1.9713			0.0100	5.1	20.0				
2-Hexanone	0.5961 0.7048	0.6359 0.7303	0.6480 0.6962	0.7009	0.6879	Ave		0.6750			0.1000	6.6	20.0				

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1 Analy Batch No.: 149469

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

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

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

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	0.4970 0.7956	0.6594 0.8501	0.6992 0.7965	0.7868	0.7414	Ave		0.7283			0.1000	15.3	20.0				
1,2-Dibromoethane (EDB)	0.9377 0.9584	0.9062 1.0009	0.8845 0.9279	0.9777	0.9601	Ave		0.9442			0.1000	4.0	20.0				
3-Chlorobenzotrifluoride	1.9346 1.5843	1.7960 1.5900	1.7022 1.3868	1.6742	1.5483	Ave		1.6520			0.0100	10.1	20.0				
Chlorobenzene	3.5287 3.0123	3.3662 3.0694	3.2495 2.7949	3.2738	3.0742	Ave		3.1711			0.5000	7.2	20.0				
4-Chlorobenzotrifluoride	1.6752 1.5041	1.6791 1.5135	1.5757 1.3040	1.5621	1.4356	Ave		1.5312			0.0100	8.1	20.0				
1,1,1,2-Tetrachloroethane	0.6900 0.9213	0.8149 0.9909	0.8845 0.9158	0.8859	0.8746	Ave		0.8691			0.0100	10.2	20.0				
Ethylbenzene	1.8948 1.7498	1.7825 1.8007	1.8382 1.6637	1.8404	1.7406	Ave		1.7888			0.1000	4.0	20.0				
m-Xylene & p-Xylene	2.2690 2.1710	2.2783 2.2282	2.2514 2.0794	2.2987	2.1836	Ave		2.2200			0.1000	3.3	20.0				
o-Xylene	2.1401 2.1982	2.2838 2.2768	2.2497 2.0945	2.3260	2.1995	Ave		2.2211			0.3000	3.5	20.0				
Styrene	3.0262 3.3999	3.5063 3.5053	3.5865 3.2169	3.6244	3.4204	Ave		3.4107			0.3000	5.9	20.0				
Bromoform	0.2774 0.4245	0.3854 0.4551	0.3553 0.4390	0.3847	0.3885	Ave		0.3887			0.1000	14.3	20.0				
2-Chlorobenzotrifluoride	1.7789 1.6566	1.8882 1.6800	1.7229 1.4654	1.7518	1.5913	Ave		1.6919			0.0100	7.5	20.0				
Isopropylbenzene	5.2778 5.0660	5.7181 5.1776	5.7365 4.6086	5.7208	5.2098	Ave		5.3144			0.1000	7.4	20.0				
1,1,2,2-Tetrachloroethane	1.4524 1.4044	1.5283 1.4375	1.4123 1.3480	1.4533	1.3845	Ave		1.4276			0.3000	3.8	20.0				
Bromobenzene	0.8149 0.7981	0.7780 0.8354	0.7958 0.7913	0.8100	0.8070	Ave		0.8038			0.0100	2.1	20.0				
trans-1,4-Dichloro-2-butene	0.2183 0.2782	0.2316 0.2872	0.2398 0.2842	0.2451	0.2549	Ave		0.2549			0.0100	10.1	20.0				
1,2,3-Trichloropropane	0.3115 0.3095	0.3103 0.3168	0.2929 0.3057	0.3005	0.2983	Ave		0.3057			0.0100	2.6	20.0				
N-Propylbenzene	0.8326 0.9631	0.8814 0.9609	0.9454 0.9440	0.9506	0.9278	Ave		0.9257			0.0100	4.9	20.0				
2-Chlorotoluene	0.7094 0.7751	0.7465 0.7992	0.7798 0.7755	0.7871	0.7761	Ave		0.7686			0.0100	3.7	20.0				
3-Chlorotoluene	0.7543 0.8420	0.8134 0.8337	0.8056 0.7727	0.8118	0.8241	Ave		0.8072			0.0100	3.7	20.0				

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1 Analy Batch No.: 149469

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

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

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

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	2.7736 3.0025	3.0962 3.0472	3.1690 2.8036	3.1761	3.0091	Ave		3.0097			0.0100	5.0	20.0				
4-Chlorotoluene	0.7667 0.8064	0.7905 0.8463	0.8267 0.8136	0.8328	0.8125	Ave		0.8119			0.0100	3.1	20.0				
tert-Butylbenzene	2.1654 2.4390	2.2766 2.4763	2.4320 2.3179	2.5249	2.3935	Ave		2.3782			0.0100	5.0	20.0				
1,2,4-Trimethylbenzene	2.6641 3.0999	3.1580 3.1389	3.2410 2.8935	3.2855	3.1393	Ave		3.0775			0.0100	6.6	20.0				
3,4-Dichlorobenzotrifluoride	0.9506 0.8837	0.9051 0.8812	0.8433 0.8086	0.8848	0.8177	Ave		0.8719			0.0100	5.4	20.0				
sec-Butylbenzene	3.1858 3.5384	3.7184 3.5357	3.7627 3.2573	3.8203	3.5793	Ave		3.5497			0.0100	6.4	20.0				
1,3-Dichlorobenzene	1.6112 1.5388	1.6196 1.5936	1.5650 1.5066	1.5844	1.5419	Ave		1.5701			0.6000	2.5	20.0				
4-Isopropyltoluene	2.5478 3.0138	2.9539 3.0592	3.1574 2.8450	3.2053	3.0463	Ave		2.9786			0.0100	6.9	20.0				
1,4-Dichlorobenzene	1.6477 1.5662	1.6451 1.6298	1.6095 1.5306	1.6252	1.5856	Ave		1.6050			0.5000	2.6	20.0				
2,4-Dichlorobenzotrifluoride	0.8809 0.9283	0.9010 0.9168	0.8399 0.7625	0.8415	0.8683	Ave		0.8674			0.0100	6.1	20.0				
2,5-Dichlorobenzotrifluoride	1.1148 0.9323	0.9613 0.9470	0.9883 0.9297	0.9952	0.8812	Ave		0.9687			0.0100	7.1	20.0				
n-Butylbenzene	2.7413 3.0098	2.9731 3.0263	3.1192 2.7966	3.1553	2.9714	Ave		2.9741			0.0100	4.8	20.0				
1,2-Dichlorobenzene	1.7344 1.5614	1.6042 1.5872	1.5781 1.4856	1.5970	1.5347	Ave		1.5853			0.4000	4.5	20.0				
1,2-Dibromo-3-Chloropropane	0.1041 0.1673	0.1254 0.1741	0.1287 0.1752	0.1449	0.1432	Ave		0.1454			0.0500	17.6	20.0				
2,4- & 2,5- & 2,6- Dichlorotoluene	1.3659 1.3828	1.4490 1.3691	1.4643 1.2123	1.4309	1.3634	Ave		1.3797			0.0100	5.7	20.0				
2,3- & 3,4- Dichlorotoluene	1.4220 1.5594	1.5913 1.5578	1.5507 1.4014	1.5802	1.5161	Ave		1.5224			0.0100	4.7	20.0				
1,2,4-Trichlorobenzene	1.1743 1.2613	1.2132 1.2999	1.2170 1.2151	1.2351	1.2123	Ave		1.2285			0.2000	3.1	20.0				
Hexachlorobutadiene	0.4483 0.5040	0.4710 0.5079	0.4894 0.4926	0.4879	0.4705	Ave		0.4839			0.0100	4.1	20.0				
Naphthalene	1.9638 2.6901	2.2408 2.7319	2.4855 2.5560	2.6099	2.5577	Ave		2.4795			0.0100	10.3	20.0				
1,2,3-Trichlorobenzene	1.1813 1.1689	1.1348 1.2045	1.1056 1.1331	1.1438	1.1242	Ave		1.1495			0.0100	2.8	20.0				

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1 Analy Batch No.: 149469

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

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

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
2,4,5-Trichlorotoluene	0.6523 0.8517	0.6908 0.8911	0.7114 0.8098	0.7914	0.7765	Ave		0.7719			0.0100	10.6		20.0			
2,3,6-Trichlorotoluene	0.6747 0.7987	0.6373 0.8256	0.7048 0.7502	0.7418	0.7252	Ave		0.7323			0.0100	8.4		20.0			
Dibromofluoromethane (Surr)	0.2580 0.2278	0.2120 0.2401	0.2284 0.2160	0.2307	0.2293	Ave		0.2303				6.2		20.0			
1,2-Dichloroethane-d4 (Surr)	0.4370 0.3580	0.3544 0.3741	0.3729 0.3410	0.3684	0.3665	Ave		0.3715				7.7		20.0			
Toluene-d8 (Surr)	4.4422 3.7317	4.0733 3.7760	4.2664 3.2298	4.1020	3.9291	Ave		3.9438				9.5		20.0			
4-Bromofluorobenzene (Surr)	2.0841 1.7019	1.7074 1.7446	1.7653 1.5225	1.7965	1.6857	Ave		1.7510				9.0		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1 Analy Batch No.: 149469

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

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

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-149469/14	60731014.D
Level 2	IC 180-149469/4	60731004.D
Level 3	ICIS 180-149469/5	60731005.D
Level 4	IC 180-149469/6	60731006.D
Level 5	IC 180-149469/7	60731007.D
Level 6	IC 180-149469/8	60731008.D
Level 7	IC 180-149469/9	60731009.D
Level 8	IC 180-149469/10	60731010.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	17276 575043	76046 636192	166146 776950	255750	316945	5.00 175	25.0 200	50.0 250	75.0	100
Chloromethane	FB	Ave	15485 470953	70391 522516	147560 661756	208858	278884	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl chloride	FB	Ave	15792 517410	75541 585198	154423 729853	233901	292173	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Butadiene	FB	Ave	15290 483297	72002 538199	146675 668636	214248	274693	5.00 175	25.0 200	50.0 250	75.0	100
Bromomethane	FB	Ave	9521 248522	42916 263364	89628 +++++	123705	158589	5.00 175	25.0 200	50.0 +++++	75.0	100
Chloroethane	FB	Ave	9922 359701	52119 402907	111283 495382	159781	198857	5.00 175	25.0 200	50.0 250	75.0	100
Dichlorofluoromethane	FB	Ave	24941 819476	126043 899692	250823 1120159	372545	463283	5.00 175	25.0 200	50.0 250	75.0	100
Trichlorofluoromethane	FB	Ave	19389 664854	96092 726249	206141 914267	296881	367084	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl ether	FB	Ave	14586 458021	67458 523507	136903 666334	202583	269465	5.00 175	25.0 200	50.0 250	75.0	100
Acrolein	FB	Ave	28320 68050	35802 76429	43327 88331	52894	54177	100 225	125 250	150 275	175	200
1,1-Dichloroethene	FB	Ave	11872 411177	55817 476887	118856 604031	180424	234083	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	13209 446711	60462 481169	126375 613669	188852	241359	5.00 175	25.0 200	50.0 250	75.0	100
Acetone	FB	Ave	22203 284563	43121 317270	76252 446823	117975	166807	25.0 350	50.0 400	100 500	150	200
Iodomethane	FB	Ave	14090 566533	76980 655616	159542 830188	243211	318736	5.00 175	25.0 200	50.0 250	75.0	100
Carbon disulfide	FB	Ave	26146 1151644	137245 1330649	294989 1688724	461167	618168	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

Analy Batch No.: 149469

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

Instrument ID: CHHP6

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00

Calibration End Date: 07/31/2015 18:02

Calibration ID: 24897

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	5562 257112	27346 293887	66228 379717	98190	135273	5.00 175	25.0 200	50.0 250	75.0	100
Methyl acetate	FB	Ave	50033 1680300	233460 1914014	497011 2441128	732698	982363	25.0 875	125 1000	250 1250	375	500
Methylene Chloride	FB	Lin2	30274 527474	89699 611401	163213 760977	238130	313904	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butyl alcohol	TBA	Ave	9874 354063	43837 426462	91997 559063	141735	198055	50.0 1750	250 2000	500 2500	750	1000
Acrylonitrile	FB	Ave	48723 1745686	231943 1961872	501701 2461613	737397	994141	50.0 1750	250 2000	500 2500	750	1000
trans-1,2-Dichloroethene	FB	Ave	13191 479327	66744 548086	139824 687783	208665	267617	5.00 175	25.0 200	50.0 250	75.0	100
Methyl tert-butyl ether	FB	Ave	41079 1455878	186303 1687770	394698 2105039	621185	825760	5.00 175	25.0 200	50.0 250	75.0	100
Hexane	FB	Ave	19223 669795	85113 736641	186977 945322	278592	352983	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethane	FB	Ave	23168 861981	118950 980644	251887 1227440	371113	490563	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl acetate	FB	Ave	17413 744628	80307 867464	186047 1104555	295714	412541	5.00 175	25.0 200	50.0 250	75.0	100
2,2-Dichloropropane	FB	Ave	9613 484574	53806 535345	122189 694588	186450	250901	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,2-Dichloroethene	FB	Ave	15010 520777	69383 595718	151575 751398	223081	295290	5.00 175	25.0 200	50.0 250	75.0	100
2-Butanone (MEK)	FB	Ave	26408 412307	51510 470276	108037 588377	180292	231667	25.0 350	50.0 400	100 500	150	200
Bromochloromethane	FB	Ave	6120 209995	28403 240962	58005 308059	88252	118290	5.00 175	25.0 200	50.0 250	75.0	100
Tetrahydrofuran	FB	Ave	8204 277489	31436 305718	70787 413888	117489	154776	10.0 350	50.0 400	100 500	150	200
Chloroform	FB	Ave	23924 847765	118313 959266	250393 1195678	370042	484585	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1-Trichloroethane	FB	Ave	15055 659562	79977 756837	182973 957300	278390	366376	5.00 175	25.0 200	50.0 250	75.0	100
Cyclohexane	FB	Ave	22688 834057	103455 919827	237539 1159567	359010	445084	5.00 175	25.0 200	50.0 250	75.0	100
Carbon tetrachloride	FB	Ave	10435 479558	57375 536127	126096 690480	195436	252588	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloropropene	FB	Ave	17924 675711	91039 765806	202951 968671	301319	392146	5.00 175	25.0 200	50.0 250	75.0	100
Isobutyl alcohol	FB	Ave	7317 326401	34707 375937	81470 482886	122452	178080	125 4375	625 5000	1250 6250	1875	2500



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

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

Analy Batch No.: 149469

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

Instrument ID: CHHP6

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00

Calibration End Date: 07/31/2015 18:02

Calibration ID: 24897

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	59844 1836424	271972 2066671	574901 2526807	839117	1096030	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane	FB	Ave	23604 746328	108353 855052	225116 1055651	335915	440984	5.00 175	25.0 200	50.0 250	75.0	100
n-Heptane	FB	Ave	14990 526126	67835 588643	154761 756814	231524	290327	5.00 175	25.0 200	50.0 250	75.0	100
Trichloroethene	FB	Ave	11389 405251	51907 460676	113666 577638	177868	230554	5.00 175	25.0 200	50.0 250	75.0	100
Methylcyclohexane	FB	Ave	22772 834543	108113 915285	240977 1169092	355558	455180	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloropropane	FB	Ave	13712 455391	60301 521174	126414 664355	199527	267345	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dioxane	FB	Ave	2321 98136	10219 114196	26388 139772	36545	54577	100 3500	500 4000	1000 5000	1500	2000
Dibromomethane	FB	Ave	7749 283101	36346 323060	77394 409028	121844	163719	5.00 175	25.0 200	50.0 250	75.0	100
Bromodichloromethane	FB	Ave	11941 551929	67754 646107	144075 821950	230314	311750	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,3-Dichloropropene	FB	Ave	11797 650196	64404 745866	149301 960857	254907	358605	5.00 175	25.0 200	50.0 250	75.0	100
4-Methyl-2-pentanone (MIBK)	CBZ	Ave	42150 808342	90891 947711	208546 1194590	330779	452681	25.0 350	50.0 400	100 500	150	200
Toluene	CBZ	Ave	55394 1802740	259618 2002822	565645 2462377	847209	1104648	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,3-Dichloropropene	CBZ	Ave	8162 565592	51458 639831	124444 837722	221914	303226	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl methacrylate	CBZ	Ave	9928 580427	53768 671187	135064 855316	231048	326852	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloroethane	CBZ	Ave	10927 391776	50938 447467	108552 567107	172158	224945	5.00 175	25.0 200	50.0 250	75.0	100
Tetrachloroethene	CBZ	Ave	9096 319955	42156 357911	93269 461983	142949	183568	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichloropropane	CBZ	Ave	19746 717566	96298 805963	206060 1022129	320167	425660	5.00 175	25.0 200	50.0 250	75.0	100
2-Hexanone	CBZ	Ave	27957 534519	58962 604727	135329 790089	219895	302805	25.0 350	50.0 400	100 500	150	200
Dibromochloromethane	CBZ	Ave	4662 301710	30573 351983	73014 451973	123420	163175	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromoethane (EDB)	CBZ	Ave	8796 363449	42016 414395	92363 526477	153351	211303	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorobenzotrifluoride	CBZ	Ave	18146 600793	83271 658293	177755 786880	262608	340769	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

Analy Batch No.: 149469

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

Instrument ID: CHHP6

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00

Calibration End Date: 07/31/2015 18:02

Calibration ID: 24897

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	33099 1142353	156070 1270819	339330 1585885	513514	676590	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorobenzotrifluoride	CBZ	Ave	15713 570403	77852 626628	164547 739908	245021	315960	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1,2-Tetrachloroethane	CBZ	Ave	6472 349368	37781 410261	89710 519653	138964	192497	5.00 175	25.0 200	50.0 250	75.0	100
Ethylbenzene	CBZ	Ave	17773 663577	82647 745552	191951 943999	288675	383099	5.00 175	25.0 200	50.0 250	75.0	100
m-Xylene & p-Xylene	CBZ	Ave	21283 823294	105633 922542	235109 1179895	360561	480587	5.00 175	25.0 200	50.0 250	75.0	100
o-Xylene	CBZ	Ave	20074 833629	105888 942660	234926 1188451	364838	484093	5.00 175	25.0 200	50.0 250	75.0	100
Styrene	CBZ	Ave	28385 1289309	162570 1451301	374525 1825312	568513	752806	5.00 175	25.0 200	50.0 250	75.0	100
Bromoform	CBZ	Ave	2602 160966	17870 188413	37102 249108	60348	85498	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorobenzotrifluoride	CBZ	Ave	16686 628216	87545 695569	179913 831476	274773	350232	5.00 175	25.0 200	50.0 250	75.0	100
Isopropylbenzene	CBZ	Ave	49505 1921153	265117 2143689	599038 2614965	897341	1146617	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2,2-Tetrachloroethane	CBZ	Ave	13623 532593	70858 595171	147479 764885	227964	304710	5.00 175	25.0 200	50.0 250	75.0	100
Bromobenzene	DCB	Ave	12814 459843	61847 533334	136094 665597	203181	276525	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,4-Dichloro-2-butene	DCB	Ave	3433 160304	18413 183338	41001 239026	61474	87362	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichloropropane	DCB	Ave	4898 178317	24668 202262	50085 257089	75371	102213	5.00 175	25.0 200	50.0 250	75.0	100
N-Propylbenzene	DCB	Ave	13092 554932	70063 613443	161671 793964	238465	317924	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorotoluene	DCB	Ave	11155 446590	59338 510216	133354 652311	197431	265955	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorotoluene	DCB	Ave	11861 485130	64658 532252	137766 649907	203636	282386	5.00 175	25.0 200	50.0 250	75.0	100
1,3,5-Trimethylbenzene	DCB	Ave	43612 1730016	246129 1945327	541915 2358116	796704	1031152	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorotoluene	DCB	Ave	12056 464650	62837 540303	141377 684319	208897	278435	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butylbenzene	DCB	Ave	34048 1405341	180978 1580824	415895 1949627	633351	820194	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trimethylbenzene	DCB	Ave	41890 1786151	251042 2003823	554224 2433681	824147	1075766	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh

Job No.: 180-48399-1

Analy Batch No.: 149469

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

Instrument ID: CHHP6

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00

Calibration End Date: 07/31/2015 18:02

Calibration ID: 24897

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	14947 509173	71946 562570	144215 680073	221955	280215	5.00 175	25.0 200	50.0 250	75.0	100
sec-Butylbenzene	DCB	Ave	50094 2038837	295586 2257148	643438 2739728	958306	1226548	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichlorobenzene	DCB	Ave	25334 886632	128745 1017363	267626 1267194	397446	528372	5.00 175	25.0 200	50.0 250	75.0	100
4-Isopropyltoluene	DCB	Ave	40061 1736569	234813 1952987	539941 2392925	804039	1043904	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dichlorobenzene	DCB	Ave	25908 902441	130776 1040432	275229 1287354	407678	543357	5.00 175	25.0 200	50.0 250	75.0	100
2,4-Dichlorobenzotrifluoride	DCB	Ave	13852 534909	71623 585295	143623 641375	211084	297534	5.00 175	25.0 200	50.0 250	75.0	100
2,5-Dichlorobenzotrifluoride	DCB	Ave	17529 537191	76420 604585	169006 781945	249633	301973	5.00 175	25.0 200	50.0 250	75.0	100
n-Butylbenzene	DCB	Ave	43104 1734264	236342 1931969	533401 2352259	791496	1018212	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichlorobenzene	DCB	Ave	27271 899668	127520 1013269	269873 1249514	400593	525918	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromo-3-Chloropropane	DCB	Ave	1637 96376	9971 111156	22010 147337	36339	49062	5.00 175	25.0 200	50.0 250	75.0	100
2,4- & 2,5- & 2,6- Dichlorotoluene	DCB	Ave	64430 2390336	345570 2621988	751227 3058923	1076776	1401616	15.0 525	75.0 600	150 750	225	300
2,3- & 3,4- Dichlorotoluene	DCB	Ave	44720 1797097	252992 1989024	530353 2357462	792789	1039069	10.0 350	50.0 400	100 500	150	200
1,2,4-Trichlorobenzene	DCB	Ave	18465 726756	96442 829845	208112 1022001	309817	415442	5.00 175	25.0 200	50.0 250	75.0	100
Hexachlorobutadiene	DCB	Ave	7049 290426	37440 324236	83692 414314	122376	161228	5.00 175	25.0 200	50.0 250	75.0	100
Naphthalene	DCB	Ave	30879 1550041	178131 1744010	425036 2149836	654694	876449	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichlorobenzene	DCB	Ave	18575 673533	90206 768952	189066 953082	286920	385220	5.00 175	25.0 200	50.0 250	75.0	100
2,4,5-Trichlorotoluene	DCB	Ave	10257 490754	54916 568870	121646 681135	198517	266093	5.00 175	25.0 200	50.0 250	75.0	100
2,3,6-Trichlorotoluene	DCB	Ave	10609 460224	50658 527070	120523 630961	186087	248497	5.00 175	25.0 200	50.0 250	75.0	100
Dibromofluoromethane (Surr)	FB	Ave	11777 378487	49079 428779	110929 510673	163209	221245	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	19952 595019	82044 668015	181120 806396	260570	353626	5.00 175	25.0 200	50.0 250	75.0	100
Toluene-d8 (Surr)	CBZ	Ave	41667 1415164	188855 1563368	445521 1832665	643420	864751	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1 Analy Batch No.: 149469

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

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

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8			LVL 6	LVL 7	LVL 8		
4-Bromofluorobenzene (Surr)	CBZ	Ave	19549 645419	79163 722308	184340 863895	281797	371000	5.00 175	25.0 200	50.0 250	75.0	100

Curve Type Legend:

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1 Analy Batch No.: 149469

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

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

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-149469/14	60731014.D
Level 2	IC 180-149469/4	60731004.D
Level 3	ICIS 180-149469/5	60731005.D
Level 4	IC 180-149469/6	60731006.D
Level 5	IC 180-149469/7	60731007.D
Level 6	IC 180-149469/8	60731008.D
Level 7	IC 180-149469/9	60731009.D
Level 8	IC 180-149469/10	60731010.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
Methylene Chloride	0.2	1.2	-4.0	-0.1	-1.9	-2.0	40	40	40	40	40	40
	6.3	0.3					40	40				

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731004.D  
 Lims ID: IC VSTD5  
 Client ID:  
 Sample Type: IC Calib Level: 2  
 Inject. Date: 31-Jul-2015 14:00:30 ALS Bottle#: 4 Worklist Smp#: 4  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD5  
 Misc. Info.: 180-0007999-004  
 Operator ID: 001562 Instrument ID: CHHP6  
 Sublist: chrom-MSVOA\_LL\_CHHP6\*sub5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 03-Aug-2015 12:15:33 Calib Date: 31-Jul-2015 18:02:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK049

First Level Reviewer: fergusond

Date: 31-Jul-2015 16:26:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.245	4.248	-0.003	91	159479	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.286	7.284	0.002	98	463046	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.395	10.398	-0.003	92	92729	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.743	12.747	-0.004	97	158987	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.556	6.554	0.002	68	49079	25.0	23.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.934	6.931	0.003	54	82044	25.0	23.8	
\$ 7 Toluene-d8 (Surr)	98	8.941	8.938	0.003	93	188855	25.0	25.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.587	11.585	0.002	81	79163	25.0	24.4	
11 Dichlorodifluoromethane	85	1.611	1.608	0.002	99	76046	25.0	23.7	
12 Chloromethane	50	1.757	1.754	0.003	100	70391	25.0	25.5	
13 Vinyl chloride	62	1.884	1.888	-0.004	98	75541	25.0	25.4	
14 Butadiene	39	1.933	1.930	0.003	92	72002	25.0	25.8	
15 Bromomethane	94	2.231	2.228	0.003	91	42916	25.0	26.7	M
16 Chloroethane	64	2.377	2.368	0.009	98	52119	25.0	25.7	
17 Dichlorofluoromethane	67	2.651	2.648	0.003	97	126043	25.0	26.7	
18 Trichlorofluoromethane	101	2.669	2.660	0.009	85	96092	25.0	25.5	
20 Ethyl ether	59	3.046	3.049	-0.003	88	67458	25.0	25.2	
21 Acrolein	56	3.223	3.220	0.003	97	35802	125.0	122.8	
22 1,1-Dichloroethene	96	3.338	3.341	-0.003	95	55817	25.0	23.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.393	3.390	0.003	94	60462	25.0	24.6	
24 Acetone	43	3.429	3.421	0.008	99	43121	50.0	52.6	
25 Iodomethane	142	3.539	3.536	0.003	97	76980	25.0	24.6	
26 Carbon disulfide	76	3.636	3.627	0.009	100	137245	25.0	22.7	
29 3-Chloro-1-propene	76	3.922	3.919	0.003	61	27346	25.0	20.8	
30 Methyl acetate	43	3.934	3.926	0.008	97	233460	125.0	121.5	
31 Methylene Chloride	84	4.135	4.132	0.003	92	89699	25.0	25.3	
32 2-Methyl-2-propanol	59	4.366	4.370	-0.004	93	43837	250.0	244.3	
33 Acrylonitrile	53	4.500	4.503	-0.003	100	231943	250.0	239.5	
34 trans-1,2-Dichloroethene	96	4.555	4.564	-0.009	95	66744	25.0	24.8	
35 Methyl tert-butyl ether	73	4.573	4.576	-0.003	97	186303	25.0	23.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.987	4.990	-0.003	94	85113	25.0	23.4	
37 1,1-Dichloroethane	63	5.206	5.197	0.009	97	118950	25.0	24.7	
38 Vinyl acetate	43	5.236	5.240	-0.004	97	80307	25.0	20.7	
43 cis-1,2-Dichloroethene	96	5.948	5.939	0.009	84	69383	25.0	23.7	
44 2-Butanone (MEK)	43	5.948	5.945	0.003	56	51510	50.0	46.1	
42 2,2-Dichloropropane	77	5.942	5.945	-0.003	59	53806	25.0	22.1	
48 Chlorobromomethane	128	6.228	6.231	-0.003	94	28403	25.0	24.2	
49 Tetrahydrofuran	42	6.240	6.249	-0.009	81	31436	50.0	41.7	
50 Chloroform	83	6.368	6.371	-0.003	93	118313	25.0	24.8	
51 1,1,1-Trichloroethane	97	6.538	6.541	-0.003	96	79977	25.0	22.6	
52 Cyclohexane	56	6.611	6.620	-0.009	93	103455	25.0	22.9	
53 Carbon tetrachloride	117	6.708	6.718	-0.010	98	57375	25.0	23.0	
54 1,1-Dichloropropene	75	6.727	6.724	0.003	94	91039	25.0	24.0	
55 Isobutyl alcohol	41	6.903	6.900	0.003	95	34707	625.0	518.1	
56 Benzene	78	6.940	6.943	-0.003	97	271972	25.0	25.2	
57 1,2-Dichloroethane	62	7.019	7.016	0.003	98	108353	25.0	24.9	
59 n-Heptane	43	7.311	7.308	0.003	89	67835	25.0	23.1	
61 Trichloroethene	130	7.676	7.679	-0.003	92	51907	25.0	23.1	
63 Methylcyclohexane	83	7.925	7.922	0.003	91	108113	25.0	23.7	
64 1,2-Dichloropropane	63	7.949	7.953	-0.004	95	60301	25.0	23.4	
65 1,4-Dioxane	88	8.029	8.032	-0.003	40	10219	500.0	401.6	M
67 Dibromomethane	93	8.035	8.038	-0.003	91	36346	25.0	23.2	
68 Dichlorobromomethane	83	8.235	8.227	0.008	98	67754	25.0	23.0	
71 cis-1,3-Dichloropropene	75	8.673	8.677	-0.004	92	64404	25.0	19.9	
72 4-Methyl-2-pentanone (MIBK)	43	8.826	8.823	0.003	95	90891	50.0	47.7	
73 Toluene	91	9.008	9.011	-0.003	97	259618	25.0	27.1	
74 trans-1,3-Dichloropropene	75	9.257	9.255	0.002	97	51458	25.0	21.2	
75 Ethyl methacrylate	69	9.312	9.315	-0.003	86	53768	25.0	20.8	
76 1,1,2-Trichloroethane	97	9.446	9.449	-0.003	96	50938	25.0	25.7	
77 Tetrachloroethene	164	9.525	9.522	0.003	92	42156	25.0	25.8	
78 1,3-Dichloropropane	76	9.604	9.607	-0.003	92	96298	25.0	26.3	
79 2-Hexanone	43	9.659	9.656	0.003	97	58962	50.0	47.1	
81 Chlorodibromomethane	129	9.817	9.826	-0.009	92	30573	25.0	22.6	
82 Ethylene Dibromide	107	9.939	9.942	-0.003	97	42016	25.0	24.0	
83 3-Chlorobenzotrifluoride	180	10.395	10.392	0.003	89	83271	25.0	27.2	
84 Chlorobenzene	112	10.425	10.429	-0.004	91	156070	25.0	26.5	
85 4-Chlorobenzotrifluoride	180	10.480	10.483	-0.003	95	77852	25.0	27.4	
86 1,1,1,2-Tetrachloroethane	131	10.523	10.520	0.003	87	37781	25.0	23.4	
87 Ethylbenzene	106	10.529	10.526	0.003	99	82647	25.0	24.9	
88 m-Xylene & p-Xylene	106	10.657	10.660	-0.003	99	105633	25.0	25.7	
89 o-Xylene	106	11.040	11.043	-0.003	98	105888	25.0	25.7	
90 Styrene	104	11.058	11.061	-0.003	94	162570	25.0	25.7	
91 Bromoform	173	11.241	11.244	-0.003	94	17870	25.0	24.8	
92 2-Chlorobenzotrifluoride	180	11.308	11.305	0.003	95	87545	25.0	27.9	
93 Isopropylbenzene	105	11.405	11.408	-0.003	97	265117	25.0	26.9	
96 1,1,2,2-Tetrachloroethane	83	11.715	11.712	0.003	94	70858	25.0	26.8	
95 Bromobenzene	156	11.721	11.725	-0.004	97	61847	25.0	24.2	
97 trans-1,4-Dichloro-2-buten	53	11.752	11.749	0.003	66	18413	25.0	22.7	
98 1,2,3-Trichloropropane	110	11.770	11.767	0.003	86	24668	25.0	25.4	
99 N-Propylbenzene	120	11.825	11.828	-0.003	99	70063	25.0	23.8	
100 2-Chlorotoluene	126	11.916	11.913	0.003	94	59338	25.0	24.3	
101 3-Chlorotoluene	126	11.977	11.980	-0.003	97	64658	25.0	25.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.007	12.010	-0.003	92	246129	25.0	25.7	
103 4-Chlorotoluene	126	12.038	12.041	-0.003	98	62837	25.0	24.3	
104 tert-Butylbenzene	119	12.323	12.321	0.002	90	180978	25.0	23.9	
106 1,2,4-Trimethylbenzene	105	12.384	12.382	0.002	97	251042	25.0	25.7	
107 1,2-dichloro-4-(trifluorom	214	12.421	12.418	0.003	95	71946	25.0	26.0	
108 sec-Butylbenzene	105	12.549	12.546	0.003	96	295586	25.0	26.2	
109 1,3-Dichlorobenzene	146	12.664	12.667	-0.003	93	128745	25.0	25.8	
110 4-Isopropyltoluene	119	12.707	12.704	0.003	96	234813	25.0	24.8	
111 1,4-Dichlorobenzene	146	12.768	12.771	-0.003	89	130776	25.0	25.6	
113 2,4-Dichloro-1-(trifluorom	214	12.792	12.789	0.003	94	71623	25.0	26.0	
114 2,5-Dichlorobenzotrifluori	214	12.828	12.832	-0.004	96	76420	25.0	24.8	
116 n-Butylbenzene	91	13.114	13.112	0.002	98	236342	25.0	25.0	
117 1,2-Dichlorobenzene	146	13.120	13.124	-0.004	91	127520	25.0	25.3	
118 1,2-Dibromo-3-Chloropropan	75	13.911	13.921	-0.010	62	9971	25.0	21.6	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.063	14.061	0.002	98	345570	75.0	78.8	
121 2,3- & 3,4- Dichlorotoluen	125	14.471	14.474	-0.003	99	252992	50.0	52.3	
122 1,2,4-Trichlorobenzene	180	14.745	14.736	0.009	92	96442	25.0	24.7	
123 Hexachlorobutadiene	225	14.891	14.888	0.003	96	37440	25.0	24.3	
124 Naphthalene	128	15.006	15.004	0.002	98	178131	25.0	22.6	
125 1,2,3-Trichlorobenzene	180	15.231	15.229	0.002	95	90206	25.0	24.7	
126 2,4,5-Trichlorotoluene	159	16.004	16.007	-0.003	0	54916	25.0	22.4	
127 2,3,6-Trichlorotoluene	159	16.107	16.111	-0.004	91	50658	25.0	21.8	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		50.0	48.5	
S 131 Xylenes, Total	106				0		50.0	51.4	
S 132 1,3-Dichloropropene, Total	1				0		50.0	41.1	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260SURR_00039	Amount Added: 1.00	Units: uL	
voaWket1Reste_00001	Amount Added: 1.00	Units: uL	
voaWeemix1Res_00001	Amount Added: 1.00	Units: uL	
voaWVA1st Res_00003	Amount Added: 1.00	Units: uL	
VOA8260VOAPRI_00134	Amount Added: 1.00	Units: uL	
voaWAcro2nd R_00006	Amount Added: 5.00	Units: uL	
VOA8260INT_00039	Amount Added: 2.00	Units: uL	Run Reagent



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731004.D

Injection Date: 31-Jul-2015 14:00:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: IC VSTD5

Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL

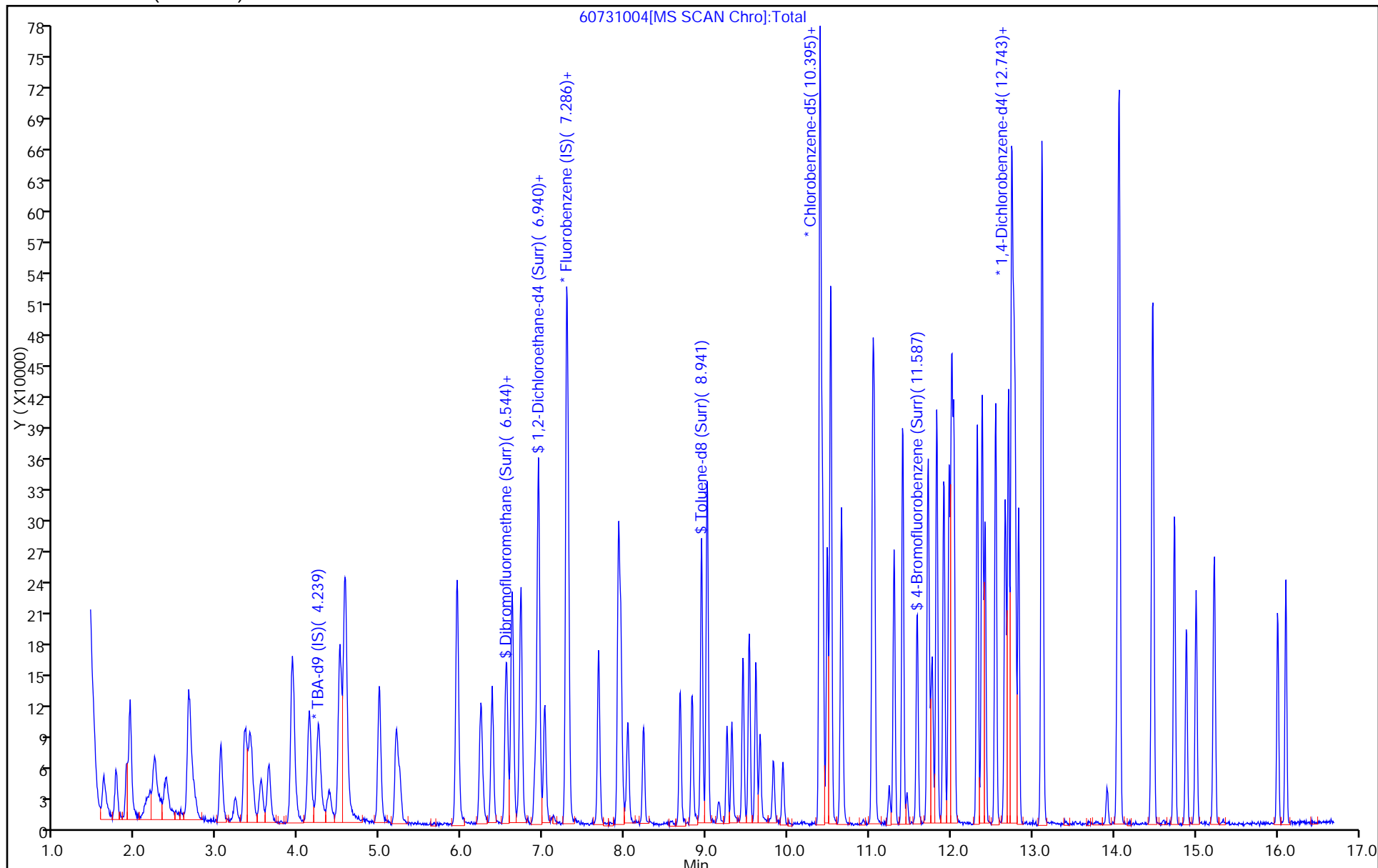
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



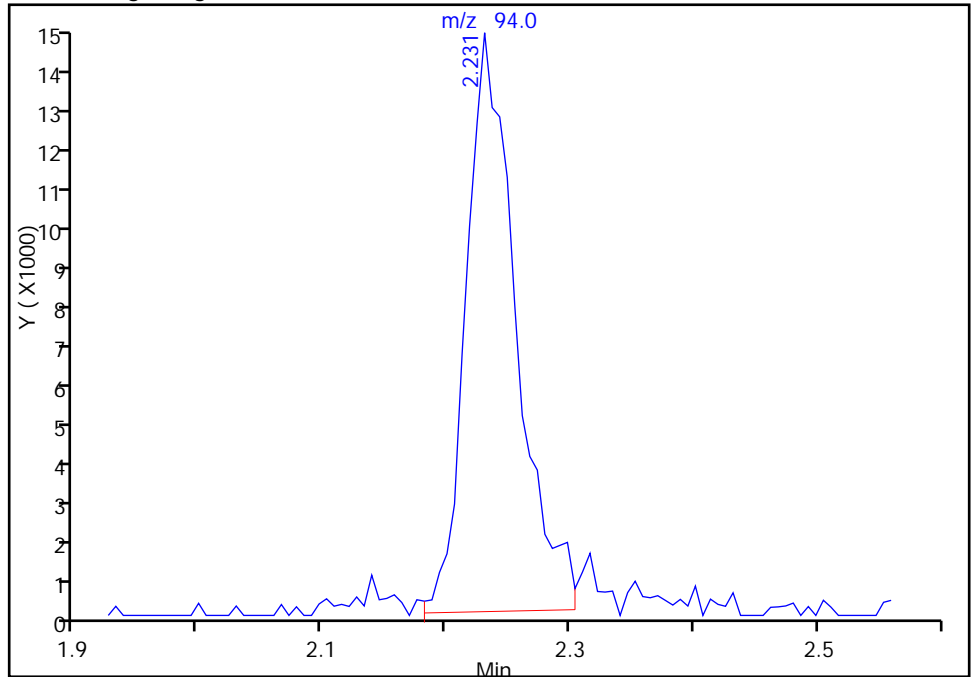
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731004.D  
Injection Date: 31-Jul-2015 14:00:30 Instrument ID: CHHP6  
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\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

15 Bromomethane, CAS: 74-83-9

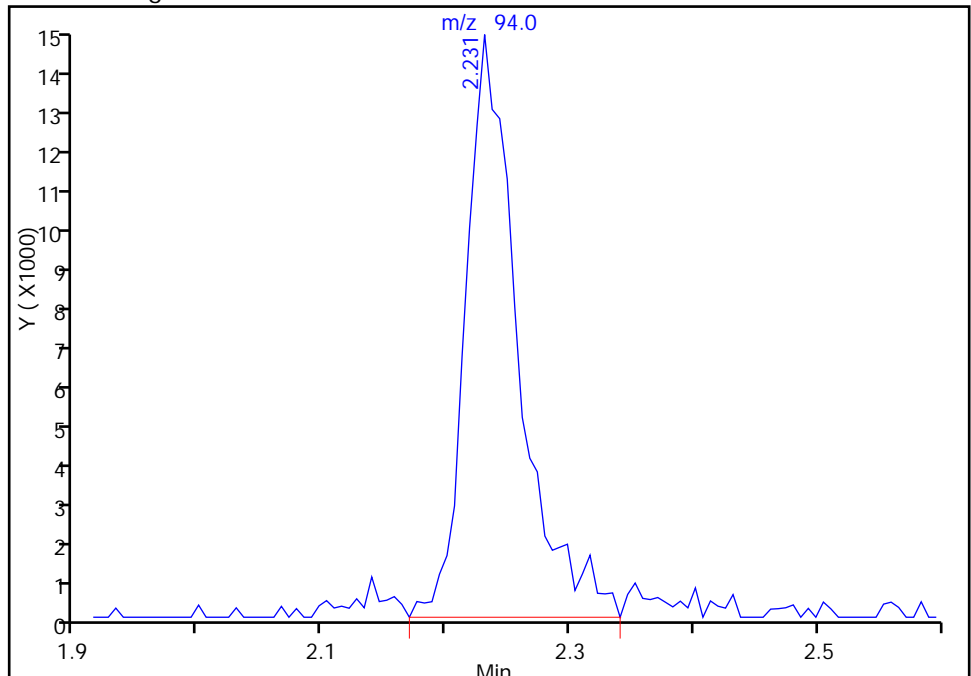
RT: 2.23  
Area: 40394  
Amount: 23.319863  
Amount Units: ng

Processing Integration Results



RT: 2.23  
Area: 42916  
Amount: 26.704234  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 10:46:01  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

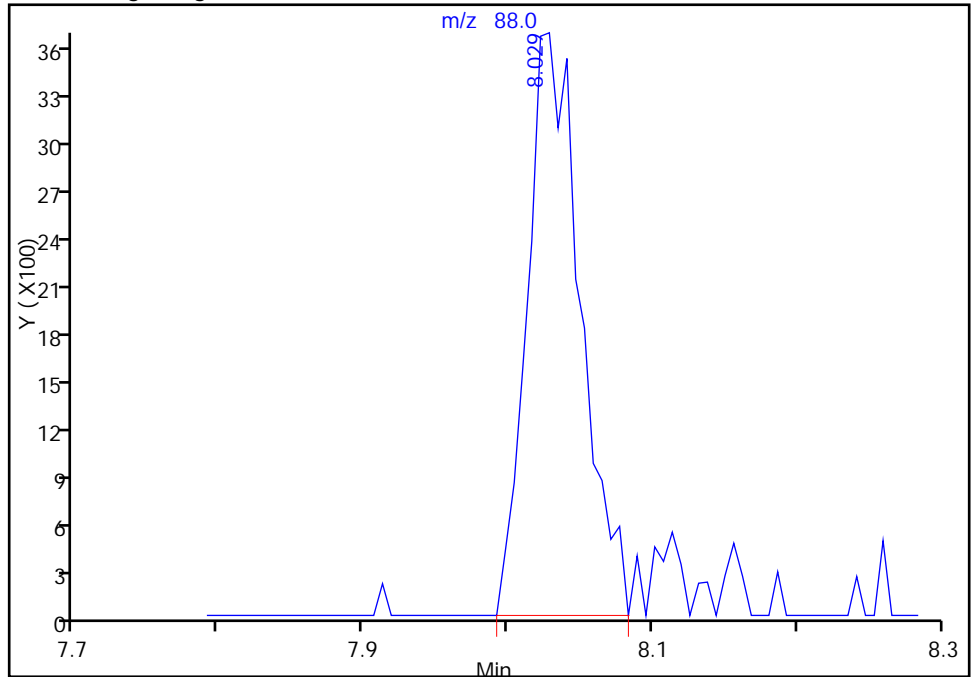
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731004.D  
Injection Date: 31-Jul-2015 14:00:30 Instrument ID: CHHP6  
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\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

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

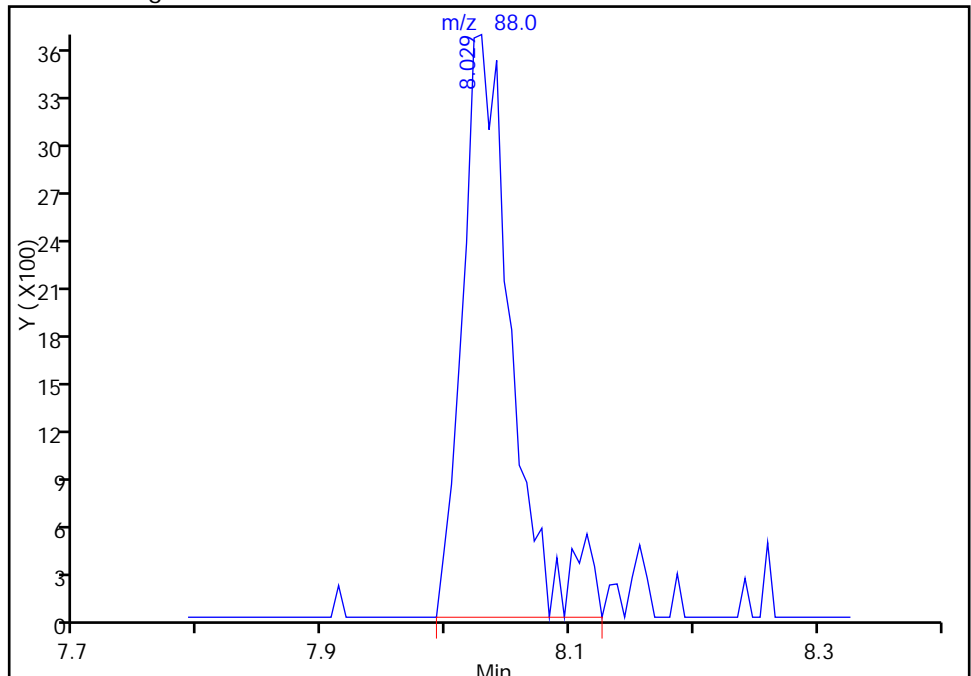
RT: 8.03  
Area: 9488  
Amount: 365.3313  
Amount Units: ng

Processing Integration Results



RT: 8.03  
Area: 10219  
Amount: 401.5715  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 10:46:01  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731005.D  
 Lims ID: ICIS VSTD10  
 Client ID:  
 Sample Type: ICIS Calib Level: 3  
 Inject. Date: 31-Jul-2015 14:24:30 ALS Bottle#: 5 Worklist Smp#: 5  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: ICIS VSTD10  
 Misc. Info.: 180-0007999-005  
 Operator ID: 001562 Instrument ID: CHHP6  
 Sublist: chrom-MSVOA\_LL\_CHHP6\*sub5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 03-Aug-2015 12:56:50 Calib Date: 31-Jul-2015 18:02:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK049

First Level Reviewer: fergusond

Date: 03-Aug-2015 12:15:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.248	4.248	0.000	92	161009	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.284	7.284	0.000	98	485657	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	91	104426	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.747	0.000	94	171006	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.554	6.554	0.000	92	110929	50.0	49.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.931	0.000	71	181120	50.0	50.2	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	445521	50.0	54.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.585	0.000	80	184340	50.0	50.4	
11 Dichlorodifluoromethane	85	1.608	1.608	0.000	99	166146	50.0	49.4	
12 Chloromethane	50	1.754	1.754	0.000	100	147560	50.0	50.9	
13 Vinyl chloride	62	1.888	1.888	0.000	99	154423	50.0	49.5	
14 Butadiene	39	1.930	1.930	0.000	90	146675	50.0	50.1	
15 Bromomethane	94	2.228	2.228	0.000	90	89628	50.0	53.2	
16 Chloroethane	64	2.368	2.368	0.000	99	111283	50.0	52.2	
17 Dichlorofluoromethane	67	2.648	2.648	0.000	96	250823	50.0	50.6	
18 Trichlorofluoromethane	101	2.660	2.660	0.000	73	206141	50.0	52.1	
20 Ethyl ether	59	3.049	3.049	0.000	90	136903	50.0	48.8	
21 Acrolein	56	3.220	3.220	0.000	97	43327	150.0	141.7	
22 1,1-Dichloroethene	96	3.341	3.341	0.000	96	118856	50.0	48.6	
23 1,1,2-Trichloro-1,2,2-trif	101	3.390	3.390	0.000	95	126375	50.0	49.0	
24 Acetone	43	3.421	3.421	0.000	98	76252	100.0	88.7	
25 Iodomethane	142	3.536	3.536	0.000	98	159542	50.0	48.6	
26 Carbon disulfide	76	3.627	3.627	0.000	100	294989	50.0	46.6	
29 3-Chloro-1-propene	76	3.919	3.919	0.000	61	66228	50.0	48.1	
30 Methyl acetate	43	3.926	3.926	0.000	96	497011	250.0	246.7	
31 Methylene Chloride	84	4.132	4.132	0.000	93	163213	50.0	48.0	
32 2-Methyl-2-propanol	59	4.370	4.370	0.000	93	91997	500.0	507.7	
33 Acrylonitrile	53	4.503	4.503	0.000	98	501701	500.0	494.0	
34 trans-1,2-Dichloroethene	96	4.564	4.564	0.000	96	139824	50.0	49.6	
35 Methyl tert-butyl ether	73	4.576	4.576	0.000	97	394698	50.0	46.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.990	4.990	0.000	93	186977	50.0	48.9	
37 1,1-Dichloroethane	63	5.197	5.197	0.000	97	251887	50.0	49.9	
38 Vinyl acetate	43	5.240	5.240	0.000	98	186047	50.0	45.6	
43 cis-1,2-Dichloroethene	96	5.939	5.939	0.000	85	151575	50.0	49.4	
44 2-Butanone (MEK)	43	5.945	5.945	0.000	60	108037	100.0	92.1	
42 2,2-Dichloropropane	77	5.945	5.945	0.000	61	122189	50.0	47.8	
48 Chlorobromomethane	128	6.231	6.231	0.000	96	58005	50.0	47.1	
49 Tetrahydrofuran	42	6.249	6.249	0.000	87	70787	100.0	89.6	
50 Chloroform	83	6.371	6.371	0.000	94	250393	50.0	49.9	
51 1,1,1-Trichloroethane	97	6.541	6.541	0.000	97	182973	50.0	49.4	
52 Cyclohexane	56	6.620	6.620	0.000	93	237539	50.0	50.0	
53 Carbon tetrachloride	117	6.718	6.718	0.000	95	126096	50.0	48.2	
54 1,1-Dichloropropene	75	6.724	6.724	0.000	95	202951	50.0	50.9	
55 Isobutyl alcohol	41	6.900	6.900	0.000	88	81470	1250.0	1159.5	
56 Benzene	78	6.943	6.943	0.000	97	574901	50.0	50.8	
57 1,2-Dichloroethane	62	7.016	7.016	0.000	99	225116	50.0	49.4	
59 n-Heptane	43	7.308	7.308	0.000	88	154761	50.0	50.3	
61 Trichloroethene	130	7.679	7.679	0.000	92	113666	50.0	48.2	
63 Methylcyclohexane	83	7.922	7.922	0.000	92	240977	50.0	50.3	
64 1,2-Dichloropropane	63	7.953	7.953	0.000	87	126414	50.0	46.8	
65 1,4-Dioxane	88	8.032	8.032	0.000	44	26388	1000.0	988.7	M
67 Dibromomethane	93	8.038	8.038	0.000	94	77394	50.0	47.1	
68 Dichlorobromomethane	83	8.227	8.227	0.000	98	144075	50.0	46.7	
71 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	92	149301	50.0	44.1	
72 4-Methyl-2-pentanone (MIBK)	43	8.823	8.823	0.000	96	208546	100.0	97.1	
73 Toluene	91	9.011	9.011	0.000	98	565645	50.0	52.5	
74 trans-1,3-Dichloropropene	75	9.255	9.255	0.000	95	124444	50.0	45.5	
75 Ethyl methacrylate	69	9.315	9.315	0.000	88	135064	50.0	46.5	
76 1,1,2-Trichloroethane	97	9.449	9.449	0.000	94	108552	50.0	48.7	
77 Tetrachloroethene	164	9.522	9.522	0.000	93	93269	50.0	50.7	
78 1,3-Dichloropropane	76	9.607	9.607	0.000	91	206060	50.0	50.0	
79 2-Hexanone	43	9.656	9.656	0.000	95	135329	100.0	96.0	
81 Chlorodibromomethane	129	9.826	9.826	0.000	91	73014	50.0	48.0	
82 Ethylene Dibromide	107	9.942	9.942	0.000	97	92363	50.0	46.8	
83 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	87	177755	50.0	51.5	
84 Chlorobenzene	112	10.429	10.429	0.000	91	339330	50.0	51.2	
85 4-Chlorobenzotrifluoride	180	10.483	10.483	0.000	96	164547	50.0	51.5	
86 1,1,1,2-Tetrachloroethane	131	10.520	10.520	0.000	85	89710	50.0	49.4	
87 Ethylbenzene	106	10.526	10.526	0.000	99	191951	50.0	51.4	
88 m-Xylene & p-Xylene	106	10.660	10.660	0.000	99	235109	50.0	50.7	
89 o-Xylene	106	11.043	11.043	0.000	98	234926	50.0	50.6	
90 Styrene	104	11.061	11.061	0.000	94	374525	50.0	52.6	
91 Bromoform	173	11.244	11.244	0.000	92	37102	50.0	45.7	
92 2-Chlorobenzotrifluoride	180	11.305	11.305	0.000	94	179913	50.0	50.9	
93 Isopropylbenzene	105	11.408	11.408	0.000	98	599038	50.0	54.0	
96 1,1,2,2-Tetrachloroethane	83	11.712	11.712	0.000	95	147479	50.0	49.5	
95 Bromobenzene	156	11.725	11.725	0.000	96	136094	50.0	49.5	
97 trans-1,4-Dichloro-2-buten	53	11.749	11.749	0.000	77	41001	50.0	47.0	
98 1,2,3-Trichloropropane	110	11.767	11.767	0.000	87	50085	50.0	47.9	
99 N-Propylbenzene	120	11.828	11.828	0.000	99	161671	50.0	51.1	
100 2-Chlorotoluene	126	11.913	11.913	0.000	93	133354	50.0	50.7	
101 3-Chlorotoluene	126	11.980	11.980	0.000	97	137766	50.0	49.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.010	12.010	0.000	95	541915	50.0	52.6	
103 4-Chlorotoluene	126	12.041	12.041	0.000	98	141377	50.0	50.9	
104 tert-Butylbenzene	119	12.321	12.321	0.000	91	415895	50.0	51.1	
106 1,2,4-Trimethylbenzene	105	12.382	12.382	0.000	99	554224	50.0	52.7	
107 1,2-dichloro-4-(trifluorom	214	12.418	12.418	0.000	96	144215	50.0	48.4	
108 sec-Butylbenzene	105	12.546	12.546	0.000	96	643438	50.0	53.0	
109 1,3-Dichlorobenzene	146	12.667	12.667	0.000	93	267626	50.0	49.8	
110 4-Isopropyltoluene	119	12.704	12.704	0.000	96	539941	50.0	53.0	
111 1,4-Dichlorobenzene	146	12.771	12.771	0.000	88	275229	50.0	50.1	
113 2,4-Dichloro-1-(trifluorom	214	12.789	12.789	0.000	95	143623	50.0	48.4	
114 2,5-Dichlorobenzotrifluori	214	12.832	12.832	0.000	98	169006	50.0	51.0	
116 n-Butylbenzene	91	13.112	13.112	0.000	99	533401	50.0	52.4	
117 1,2-Dichlorobenzene	146	13.124	13.124	0.000	91	269873	50.0	49.8	
118 1,2-Dibromo-3-Chloropropan	75	13.915	13.921	-0.006	68	22010	50.0	44.3	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.061	14.061	0.000	98	751227	150.0	159.2	
121 2,3- & 3,4- Dichlorotoluen	125	14.474	14.474	0.000	99	530353	100.0	101.9	
122 1,2,4-Trichlorobenzene	180	14.736	14.736	0.000	92	208112	50.0	49.5	
123 Hexachlorobutadiene	225	14.888	14.888	0.000	95	83692	50.0	50.6	
124 Naphthalene	128	15.004	15.004	0.000	99	425036	50.0	50.1	
125 1,2,3-Trichlorobenzene	180	15.229	15.229	0.000	91	189066	50.0	48.1	
126 2,4,5-Trichlorotoluene	159	16.007	16.007	0.000	0	121646	50.0	46.1	
127 2,3,6-Trichlorotoluene	159	16.111	16.111	0.000	92	120523	50.0	48.1	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	99.0	
S 131 Xylenes, Total	106				0		100.0	101.4	
S 132 1,3-Dichloropropene, Total	1				0		100.0	89.5	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260SURR_00039	Amount Added: 2.00	Units: uL	
voaWket1Reste_00001	Amount Added: 2.00	Units: uL	
voaWeemix1Res_00001	Amount Added: 2.00	Units: uL	
VOA8260VOAPRI_00134	Amount Added: 2.00	Units: uL	
voaWVA1st Res_00003	Amount Added: 2.00	Units: uL	
voaWAcro2nd R_00006	Amount Added: 6.00	Units: uL	
VOA8260INT_00039	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731005.D

Injection Date: 31-Jul-2015 14:24:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: ICIS VSTD10

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

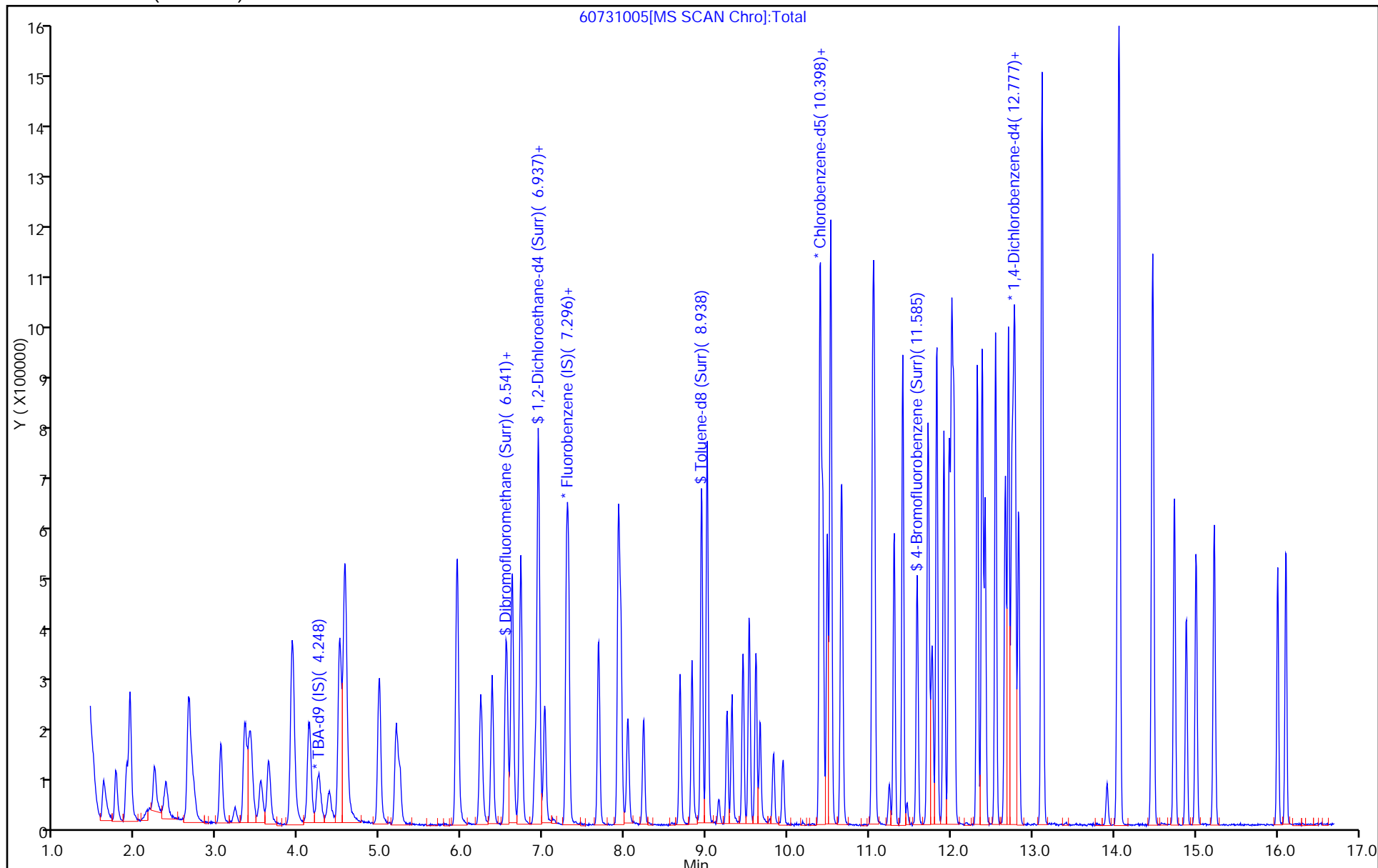
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



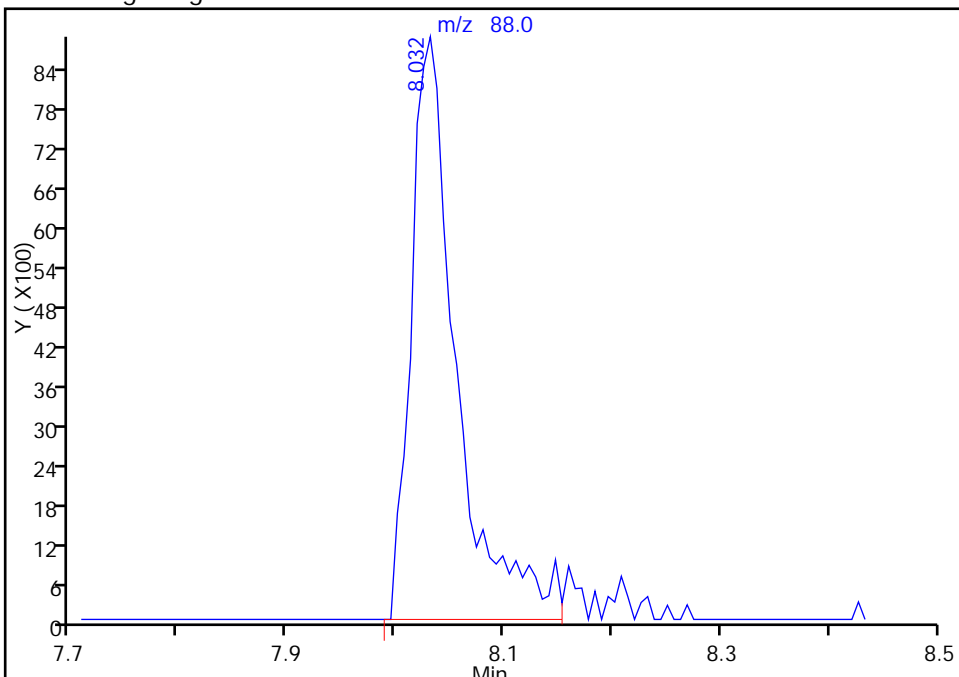
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731005.D  
Injection Date: 31-Jul-2015 14:24:30 Instrument ID: CHHP6  
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\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

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

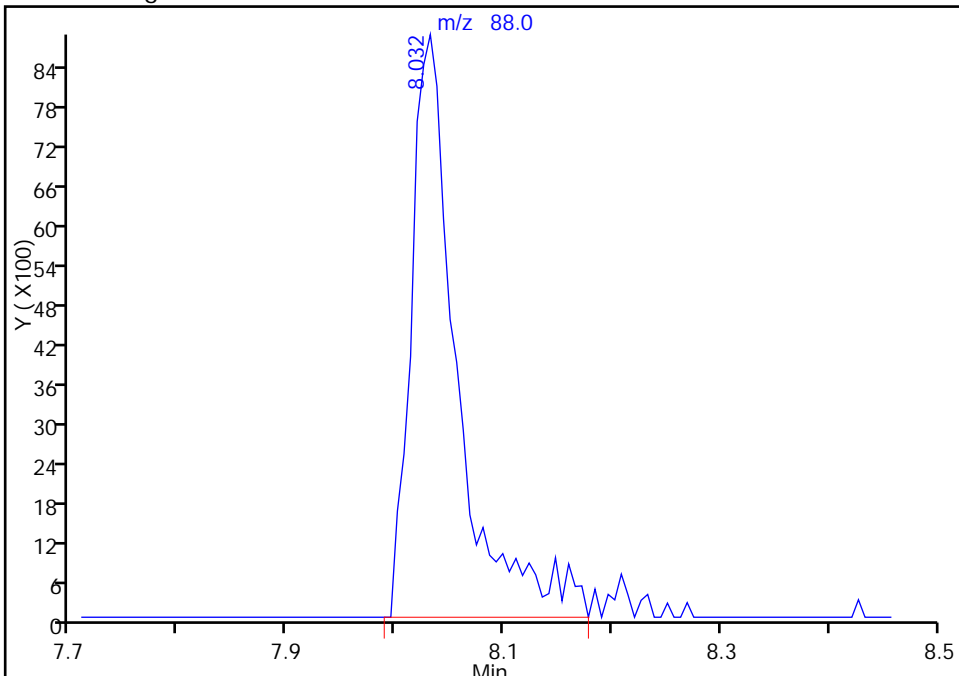
RT: 8.03  
Area: 25747  
Amount: 938.6160  
Amount Units: ng

Processing Integration Results



RT: 8.03  
Area: 26388  
Amount: 988.6792  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 10:47:28  
Audit Action: Manually Integrated  
Audit Reason: Peak Tail



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731006.D  
 Lims ID: IC VSTD15  
 Client ID:  
 Sample Type: IC Calib Level: 4  
 Inject. Date: 31-Jul-2015 14:49:30 ALS Bottle#: 6 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD15  
 Misc. Info.: 180-0007999-006  
 Operator ID: 001562 Instrument ID: CHHP6  
 Sublist: chrom-MSVOA\_LL\_CHHP6\*sub5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 03-Aug-2015 12:15:42 Calib Date: 31-Jul-2015 18:02:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK049

First Level Reviewer: fergusond

Date: 03-Aug-2015 10:29:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.247	4.247	0.000	90	170149	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	98	471581	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	92	104570	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	95	167231	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.553	6.553	0.000	92	163209	75.0	75.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.930	0.000	71	260570	75.0	74.4	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	643420	75.0	78.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.584	0.000	80	281797	75.0	77.0	
11 Dichlorodifluoromethane	85	1.607	1.607	0.000	98	255750	75.0	78.3	
12 Chloromethane	50	1.759	1.759	0.000	99	208858	75.0	74.2	
13 Vinyl chloride	62	1.893	1.893	0.000	84	233901	75.0	77.2	
14 Butadiene	39	1.930	1.930	0.000	90	214248	75.0	75.4	
15 Bromomethane	94	2.228	2.228	0.000	89	123705	75.0	75.6	
16 Chloroethane	64	2.374	2.374	0.000	99	159781	75.0	77.2	
17 Dichlorofluoromethane	67	2.654	2.654	0.000	99	372545	75.0	77.4	
18 Trichlorofluoromethane	101	2.678	2.678	0.000	84	296881	75.0	77.3	
20 Ethyl ether	59	3.043	3.043	0.000	89	202583	75.0	74.4	
21 Acrolein	56	3.213	3.213	0.000	99	52894	175.0	178.1	
22 1,1-Dichloroethene	96	3.341	3.341	0.000	96	180424	75.0	76.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.402	3.402	0.000	96	188852	75.0	75.4	
24 Acetone	43	3.432	3.432	0.000	99	117975	150.0	141.4	
25 Iodomethane	142	3.530	3.530	0.000	99	243211	75.0	76.3	
26 Carbon disulfide	76	3.633	3.633	0.000	100	461167	75.0	75.0	
29 3-Chloro-1-propene	76	3.913	3.913	0.000	89	98190	75.0	73.4	
30 Methyl acetate	43	3.925	3.925	0.000	97	732698	375.0	374.5	
31 Methylene Chloride	84	4.132	4.132	0.000	93	238130	75.0	74.9	
32 2-Methyl-2-propanol	59	4.369	4.369	0.000	92	141735	750.0	740.2	
33 Acrylonitrile	53	4.497	4.497	0.000	99	737397	750.0	747.7	
34 trans-1,2-Dichloroethene	96	4.564	4.564	0.000	71	208665	75.0	76.2	
35 Methyl tert-butyl ether	73	4.576	4.576	0.000	97	621185	75.0	75.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.990	4.990	0.000	94	278592	75.0	75.0	
37 1,1-Dichloroethane	63	5.196	5.196	0.000	97	371113	75.0	75.7	
38 Vinyl acetate	43	5.239	5.239	0.000	98	295714	75.0	74.7	
43 cis-1,2-Dichloroethene	96	5.939	5.939	0.000	85	223081	75.0	74.9	
44 2-Butanone (MEK)	43	5.945	5.945	0.000	61	180292	150.0	158.3	
42 2,2-Dichloropropane	77	5.945	5.945	0.000	61	186450	75.0	75.2	
48 Chlorobromomethane	128	6.225	6.225	0.000	97	88252	75.0	73.7	
49 Tetrahydrofuran	42	6.237	6.237	0.000	85	117489	150.0	153.2	
50 Chloroform	83	6.371	6.371	0.000	96	370042	75.0	76.0	
51 1,1,1-Trichloroethane	97	6.541	6.541	0.000	97	278390	75.0	77.4	
52 Cyclohexane	56	6.620	6.620	0.000	91	359010	75.0	77.9	
53 Carbon tetrachloride	117	6.717	6.717	0.000	97	195436	75.0	76.9	
54 1,1-Dichloropropene	75	6.730	6.730	0.000	95	301319	75.0	77.9	
55 Isobutyl alcohol	41	6.900	6.900	0.000	90	122452	1875.0	1794.8	
56 Benzene	78	6.942	6.942	0.000	97	839117	75.0	76.3	
57 1,2-Dichloroethane	62	7.015	7.015	0.000	99	335915	75.0	75.9	
59 n-Heptane	43	7.307	7.307	0.000	88	231524	75.0	77.5	
61 Trichloroethene	130	7.679	7.679	0.000	92	177868	75.0	77.6	
63 Methylcyclohexane	83	7.922	7.922	0.000	91	355558	75.0	76.4	
64 1,2-Dichloropropane	63	7.952	7.952	0.000	94	199527	75.0	76.0	
65 1,4-Dioxane	88	8.031	8.031	0.000	40	36545	1500.0	1410.1	
67 Dibromomethane	93	8.037	8.037	0.000	90	121844	75.0	76.4	
68 Dichlorobromomethane	83	8.226	8.226	0.000	98	230314	75.0	76.9	
71 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	93	254907	75.0	77.5	
72 4-Methyl-2-pentanone (MIBK)	43	8.822	8.822	0.000	94	330779	150.0	153.9	
73 Toluene	91	9.011	9.011	0.000	98	847209	75.0	78.5	
74 trans-1,3-Dichloropropene	75	9.254	9.254	0.000	97	221914	75.0	81.0	
75 Ethyl methacrylate	69	9.315	9.315	0.000	88	231048	75.0	79.4	
76 1,1,2-Trichloroethane	97	9.449	9.449	0.000	95	172158	75.0	77.1	
77 Tetrachloroethene	164	9.528	9.528	0.000	94	142949	75.0	77.7	
78 1,3-Dichloropropane	76	9.607	9.607	0.000	92	320167	75.0	77.7	
79 2-Hexanone	43	9.656	9.656	0.000	96	219895	150.0	155.8	
81 Chlorodibromomethane	129	9.826	9.826	0.000	89	123420	75.0	81.0	
82 Ethylene Dibromide	107	9.936	9.936	0.000	97	153351	75.0	77.7	
83 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	91	262608	75.0	76.0	
84 Chlorobenzene	112	10.428	10.428	0.000	91	513514	75.0	77.4	
85 4-Chlorobenzotrifluoride	180	10.483	10.483	0.000	96	245021	75.0	76.5	
86 1,1,1,2-Tetrachloroethane	131	10.520	10.520	0.000	87	138964	75.0	76.5	
87 Ethylbenzene	106	10.526	10.526	0.000	99	288675	75.0	77.2	
88 m-Xylene & p-Xylene	106	10.659	10.659	0.000	99	360561	75.0	77.7	
89 o-Xylene	106	11.037	11.037	0.000	98	364838	75.0	78.5	
90 Styrene	104	11.061	11.061	0.000	94	568513	75.0	79.7	
91 Bromoform	173	11.243	11.243	0.000	93	60348	75.0	74.2	
92 2-Chlorobenzotrifluoride	180	11.304	11.304	0.000	96	274773	75.0	77.7	
93 Isopropylbenzene	105	11.408	11.408	0.000	98	897341	75.0	80.7	
96 1,1,2,2-Tetrachloroethane	83	11.712	11.712	0.000	97	227964	75.0	76.4	
95 Bromobenzene	156	11.724	11.724	0.000	97	203181	75.0	75.6	
97 trans-1,4-Dichloro-2-buten	53	11.748	11.748	0.000	68	61474	75.0	72.1	
98 1,2,3-Trichloropropane	110	11.773	11.773	0.000	86	75371	75.0	73.7	
99 N-Propylbenzene	120	11.827	11.827	0.000	99	238465	75.0	77.0	
100 2-Chlorotoluene	126	11.913	11.913	0.000	93	197431	75.0	76.8	
101 3-Chlorotoluene	126	11.980	11.980	0.000	97	203636	75.0	75.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.010	12.010	0.000	92	796704	75.0	79.1	
103 4-Chlorotoluene	126	12.034	12.034	0.000	99	208897	75.0	76.9	
104 tert-Butylbenzene	119	12.320	12.320	0.000	91	633351	75.0	79.6	
106 1,2,4-Trimethylbenzene	105	12.381	12.381	0.000	99	824147	75.0	80.1	
107 1,2-dichloro-4-(trifluorom	214	12.418	12.418	0.000	96	221955	75.0	76.1	
108 sec-Butylbenzene	105	12.545	12.545	0.000	96	958306	75.0	80.7	
109 1,3-Dichlorobenzene	146	12.667	12.667	0.000	93	397446	75.0	75.7	
110 4-Isopropyltoluene	119	12.703	12.703	0.000	96	804039	75.0	80.7	
111 1,4-Dichlorobenzene	146	12.770	12.770	0.000	92	407678	75.0	75.9	
113 2,4-Dichloro-1-(trifluorom	214	12.789	12.789	0.000	95	211084	75.0	72.8	
114 2,5-Dichlorobenzotrifluori	214	12.831	12.831	0.000	99	249633	75.0	77.0	
116 n-Butylbenzene	91	13.111	13.111	0.000	98	791496	75.0	79.6	
117 1,2-Dichlorobenzene	146	13.123	13.123	0.000	90	400593	75.0	75.6	
118 1,2-Dibromo-3-Chloropropan	75	13.914	13.920	-0.006	70	36339	75.0	74.7	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.060	14.060	0.000	98	1076776	225.0	233.3	
121 2,3- & 3,4- Dichlorotoluen	125	14.474	14.474	0.000	98	792789	150.0	155.7	
122 1,2,4-Trichlorobenzene	180	14.741	14.741	0.000	92	309817	75.0	75.4	
123 Hexachlorobutadiene	225	14.887	14.887	0.000	96	122376	75.0	75.6	
124 Naphthalene	128	15.003	15.003	0.000	99	654694	75.0	78.9	
125 1,2,3-Trichlorobenzene	180	15.228	15.228	0.000	93	286920	75.0	74.6	
126 2,4,5-Trichlorotoluene	159	16.007	16.007	0.000	0	198517	75.0	76.9	
127 2,3,6-Trichlorotoluene	159	16.110	16.110	0.000	93	186087	75.0	76.0	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		150.0	151.1	
S 131 Xylenes, Total	106				0		150.0	156.2	
S 132 1,3-Dichloropropene, Total	1				0		150.0	158.5	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOA8260SURR_00039	Amount Added: 3.00	Units: uL	
voaWket1Reste_00001	Amount Added: 3.00	Units: uL	
voaWeemix1Res_00001	Amount Added: 3.00	Units: uL	
voaWVA1st Res_00003	Amount Added: 3.00	Units: uL	
VOA8260VOAPRI_00134	Amount Added: 3.00	Units: uL	
voaWAcro2nd R_00006	Amount Added: 7.00	Units: uL	
VOA8260INT_00039	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731006.D

Injection Date: 31-Jul-2015 14:49:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: IC VSTD15

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

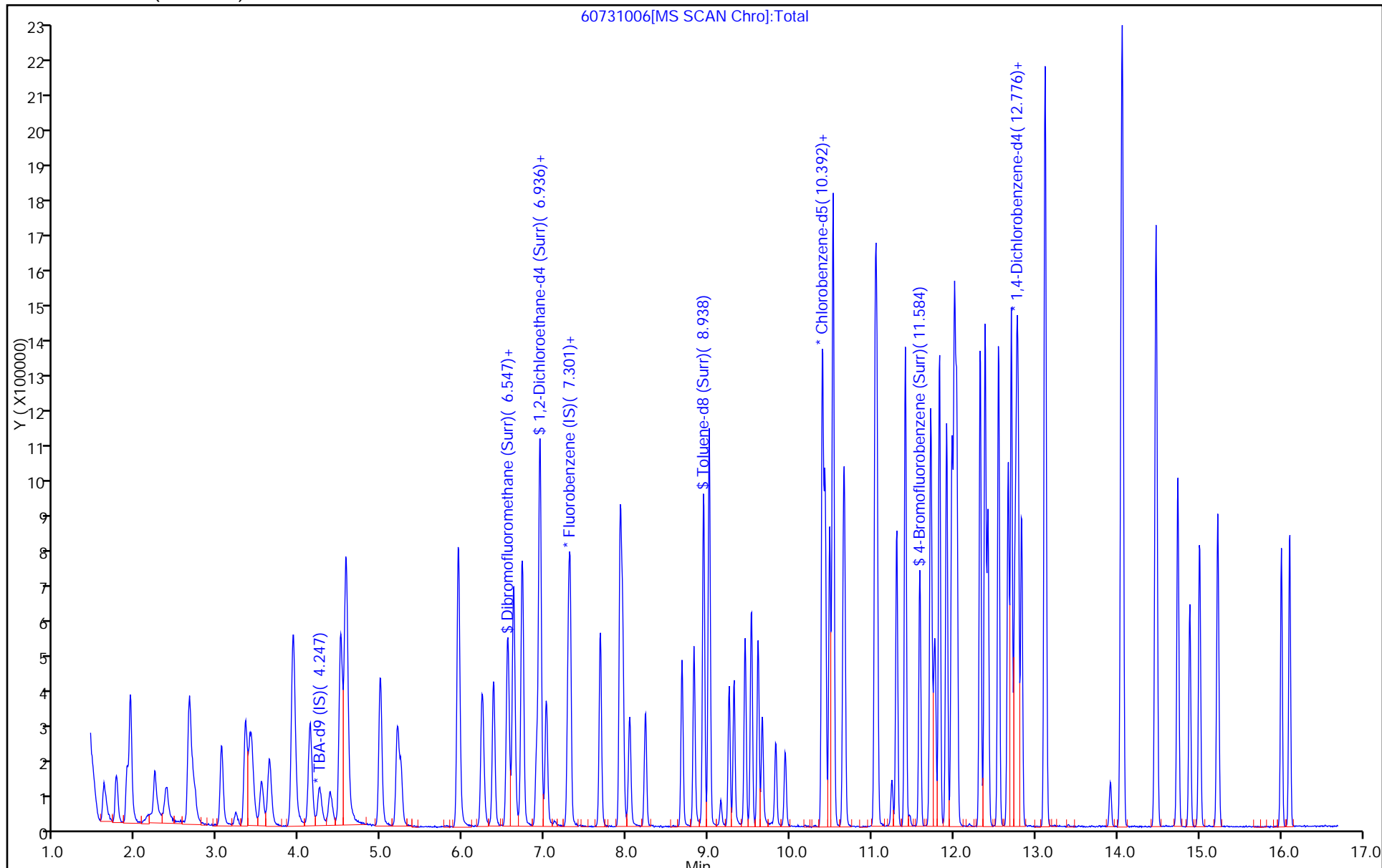
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731007.D  
 Lims ID: IC VSTD20  
 Client ID:  
 Sample Type: IC Calib Level: 5  
 Inject. Date: 31-Jul-2015 15:13:30 ALS Bottle#: 7 Worklist Smp#: 7  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD20  
 Misc. Info.: 180-0007999-007  
 Operator ID: 001562 Instrument ID: CHHP6  
 Sublist: chrom-MSVOA\_LL\_CHHP6\*sub5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 03-Aug-2015 12:15:51 Calib Date: 31-Jul-2015 18:02:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK049

First Level Reviewer: fergusond

Date: 03-Aug-2015 10:27:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.241	4.247	-0.006	92	168874	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.283	7.289	-0.006	98	482403	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	91	110045	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	94	171338	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.553	6.553	0.000	93	221245	100.0	99.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.930	0.000	70	353626	100.0	98.6	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	95	864751	100.0	99.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.584	0.000	81	371000	100.0	96.3	
11 Dichlorodifluoromethane	85	1.607	1.607	0.000	100	316945	100.0	94.9	
12 Chloromethane	50	1.759	1.759	0.000	99	278884	100.0	96.9	
13 Vinyl chloride	62	1.887	1.893	-0.006	99	292173	100.0	94.2	
14 Butadiene	39	1.930	1.930	0.000	90	274693	100.0	94.5	
15 Bromomethane	94	2.234	2.228	0.006	91	158589	100.0	94.7	
16 Chloroethane	64	2.368	2.374	-0.006	99	198857	100.0	93.9	
17 Dichlorofluoromethane	67	2.647	2.654	-0.007	98	463283	100.0	94.0	
18 Trichlorofluoromethane	101	2.672	2.678	-0.006	99	367084	100.0	93.4	
20 Ethyl ether	59	3.043	3.043	0.000	90	269465	100.0	96.8	
21 Acrolein	56	3.219	3.213	0.006	98	54177	200.0	178.4	
22 1,1-Dichloroethene	96	3.335	3.341	-0.006	96	234083	100.0	96.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.396	3.402	-0.006	96	241359	100.0	94.2	
24 Acetone	43	3.426	3.432	-0.006	99	166807	200.0	195.5	
25 Iodomethane	142	3.536	3.530	0.006	98	318736	100.0	97.8	
26 Carbon disulfide	76	3.633	3.633	0.000	100	618168	100.0	98.2	
29 3-Chloro-1-propene	76	3.907	3.913	-0.006	88	135273	100.0	98.8	
30 Methyl acetate	43	3.925	3.925	0.000	97	982363	500.0	490.9	
31 Methylene Chloride	84	4.132	4.132	0.000	92	313904	100.0	98.1	
32 2-Methyl-2-propanol	59	4.369	4.369	0.000	92	198055	1000.0	1042.2	
33 Acrylonitrile	53	4.503	4.497	0.006	99	994141	1000.0	985.4	
34 trans-1,2-Dichloroethene	96	4.564	4.564	0.000	97	267617	100.0	95.5	
35 Methyl tert-butyl ether	73	4.576	4.576	0.000	97	825760	100.0	98.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.983	4.990	-0.007	93	352983	100.0	93.0	
37 1,1-Dichloroethane	63	5.196	5.196	0.000	97	490563	100.0	97.8	
38 Vinyl acetate	43	5.239	5.239	0.000	97	412541	100.0	101.9	
43 cis-1,2-Dichloroethene	96	5.945	5.939	0.006	85	295290	100.0	96.9	
44 2-Butanone (MEK)	43	5.945	5.945	0.000	60	231667	200.0	198.9	
42 2,2-Dichloropropane	77	5.945	5.945	0.000	62	250901	100.0	98.9	
48 Chlorobromomethane	128	6.231	6.225	0.006	97	118290	100.0	96.6	
49 Tetrahydrofuran	42	6.249	6.237	0.012	85	154776	200.0	197.3	
50 Chloroform	83	6.370	6.371	-0.001	96	484585	100.0	97.3	
51 1,1,1-Trichloroethane	97	6.535	6.541	-0.006	98	366376	100.0	99.6	
52 Cyclohexane	56	6.614	6.620	-0.006	92	445084	100.0	94.4	
53 Carbon tetrachloride	117	6.717	6.717	0.000	98	252588	100.0	97.2	
54 1,1-Dichloropropene	75	6.729	6.730	-0.001	94	392146	100.0	99.1	
55 Isobutyl alcohol	41	6.900	6.900	0.000	92	178080	2500.0	2551.6	
56 Benzene	78	6.942	6.942	0.000	98	1096030	100.0	97.5	
57 1,2-Dichloroethane	62	7.015	7.015	0.000	99	440984	100.0	97.4	
59 n-Heptane	43	7.307	7.307	0.000	85	290327	100.0	95.0	
61 Trichloroethene	130	7.678	7.679	-0.001	93	230554	100.0	98.3	
63 Methylcyclohexane	83	7.922	7.922	0.000	91	455180	100.0	95.7	
64 1,2-Dichloropropane	63	7.952	7.952	0.000	94	267345	100.0	99.5	
65 1,4-Dioxane	88	8.031	8.031	0.000	41	54577	2000.0	2058.6	M
67 Dibromomethane	93	8.037	8.037	0.000	92	163719	100.0	100.4	
68 Dichlorobromomethane	83	8.232	8.226	0.006	99	311750	100.0	101.7	
71 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	93	358605	100.0	106.5	
72 4-Methyl-2-pentanone (MIBK)	43	8.822	8.822	0.000	95	452681	200.0	200.1	
73 Toluene	91	9.011	9.011	0.000	98	1104648	100.0	97.3	
74 trans-1,3-Dichloropropene	75	9.254	9.254	0.000	97	303226	100.0	105.2	
75 Ethyl methacrylate	69	9.315	9.315	0.000	88	326852	100.0	106.8	
76 1,1,2-Trichloroethane	97	9.449	9.449	0.000	95	224945	100.0	95.8	
77 Tetrachloroethene	164	9.528	9.528	0.000	94	183568	100.0	94.8	
78 1,3-Dichloropropane	76	9.607	9.607	0.000	92	425660	100.0	98.1	
79 2-Hexanone	43	9.656	9.656	0.000	95	302805	200.0	203.8	
81 Chlorodibromomethane	129	9.826	9.826	0.000	90	163175	100.0	101.8	
82 Ethylene Dibromide	107	9.941	9.936	0.005	96	211303	100.0	101.7	
83 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	91	340769	100.0	93.7	
84 Chlorobenzene	112	10.428	10.428	0.000	91	676590	100.0	96.9	
85 4-Chlorobenzotrifluoride	180	10.483	10.483	0.000	96	315960	100.0	93.8	
86 1,1,1,2-Tetrachloroethane	131	10.525	10.520	0.005	88	192497	100.0	100.6	
87 Ethylbenzene	106	10.525	10.526	-0.001	99	383099	100.0	97.3	
88 m-Xylene & p-Xylene	106	10.659	10.659	0.000	100	480587	100.0	98.4	
89 o-Xylene	106	11.036	11.037	-0.001	98	484093	100.0	99.0	
90 Styrene	104	11.061	11.061	0.000	94	752806	100.0	100.3	
91 Bromoform	173	11.243	11.243	0.000	93	85498	100.0	99.9	
92 2-Chlorobenzotrifluoride	180	11.304	11.304	0.000	93	350232	100.0	94.1	
93 Isopropylbenzene	105	11.408	11.408	0.000	98	1146617	100.0	98.0	
96 1,1,2,2-Tetrachloroethane	83	11.718	11.712	0.006	96	304710	100.0	97.0	
95 Bromobenzene	156	11.724	11.724	0.000	97	276525	100.0	100.4	
97 trans-1,4-Dichloro-2-buten	53	11.748	11.748	0.000	80	87362	100.0	100.0	
98 1,2,3-Trichloropropane	110	11.773	11.773	0.000	86	102213	100.0	97.6	
99 N-Propylbenzene	120	11.827	11.827	0.000	98	317924	100.0	100.2	
100 2-Chlorotoluene	126	11.913	11.913	-0.001	93	265955	100.0	101.0	
101 3-Chlorotoluene	126	11.979	11.980	-0.001	97	282386	100.0	102.1	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.010	12.010	0.000	94	1031152	100.0	100.0	
103 4-Chlorotoluene	126	12.034	12.034	0.000	100	278435	100.0	100.1	
104 tert-Butylbenzene	119	12.326	12.320	0.006	91	820194	100.0	100.6	
106 1,2,4-Trimethylbenzene	105	12.381	12.381	0.000	99	1075766	100.0	102.0	
107 1,2-dichloro-4-(trifluorom	214	12.417	12.418	-0.001	95	280215	100.0	93.8	
108 sec-Butylbenzene	105	12.545	12.545	0.000	97	1226548	100.0	100.8	
109 1,3-Dichlorobenzene	146	12.667	12.667	0.000	93	528372	100.0	98.2	
110 4-Isopropyltoluene	119	12.703	12.703	0.000	95	1043904	100.0	102.3	
111 1,4-Dichlorobenzene	146	12.770	12.770	0.000	90	543357	100.0	98.8	
113 2,4-Dichloro-1-(trifluorom	214	12.789	12.789	0.000	97	297534	100.0	100.1	
114 2,5-Dichlorobenzotrifluori	214	12.831	12.831	0.000	98	301973	100.0	91.0	
116 n-Butylbenzene	91	13.111	13.111	0.000	97	1018212	100.0	99.9	
117 1,2-Dichlorobenzene	146	13.123	13.123	0.000	92	525918	100.0	96.8	
118 1,2-Dibromo-3-Chloropropan	75	13.914	13.920	-0.006	68	49062	100.0	98.5	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.060	14.060	0.000	98	1401616	300.0	296.5	
121 2,3- & 3,4- Dichlorotoluen	125	14.474	14.474	0.000	98	1039069	200.0	199.2	
122 1,2,4-Trichlorobenzene	180	14.741	14.741	0.000	92	415442	100.0	98.7	
123 Hexachlorobutadiene	225	14.887	14.887	0.000	97	161228	100.0	97.2	
124 Naphthalene	128	15.003	15.003	0.000	99	876449	100.0	103.2	
125 1,2,3-Trichlorobenzene	180	15.228	15.228	0.000	92	385220	100.0	97.8	
126 2,4,5-Trichlorotoluene	159	16.007	16.007	0.000	0	266093	100.0	100.6	
127 2,3,6-Trichlorotoluene	159	16.110	16.110	0.000	93	248497	100.0	99.0	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		200.0	192.4	
S 131 Xylenes, Total	106				0		200.0	197.4	
S 132 1,3-Dichloropropene, Total	1				0		200.0	211.7	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260SURR_00039	Amount Added: 4.00	Units: uL	
voaWket1Reste_00001	Amount Added: 4.00	Units: uL	
voaWeemix1Res_00001	Amount Added: 4.00	Units: uL	
voaWVA1st Res_00003	Amount Added: 4.00	Units: uL	
VOA8260VOAPRI_00134	Amount Added: 4.00	Units: uL	
voaWAcro2nd R_00006	Amount Added: 8.00	Units: uL	
VOA8260INT_00039	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731007.D

Injection Date: 31-Jul-2015 15:13:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: IC VSTD20

Worklist Smp#: 7

Client ID:

Purge Vol: 5.000 mL

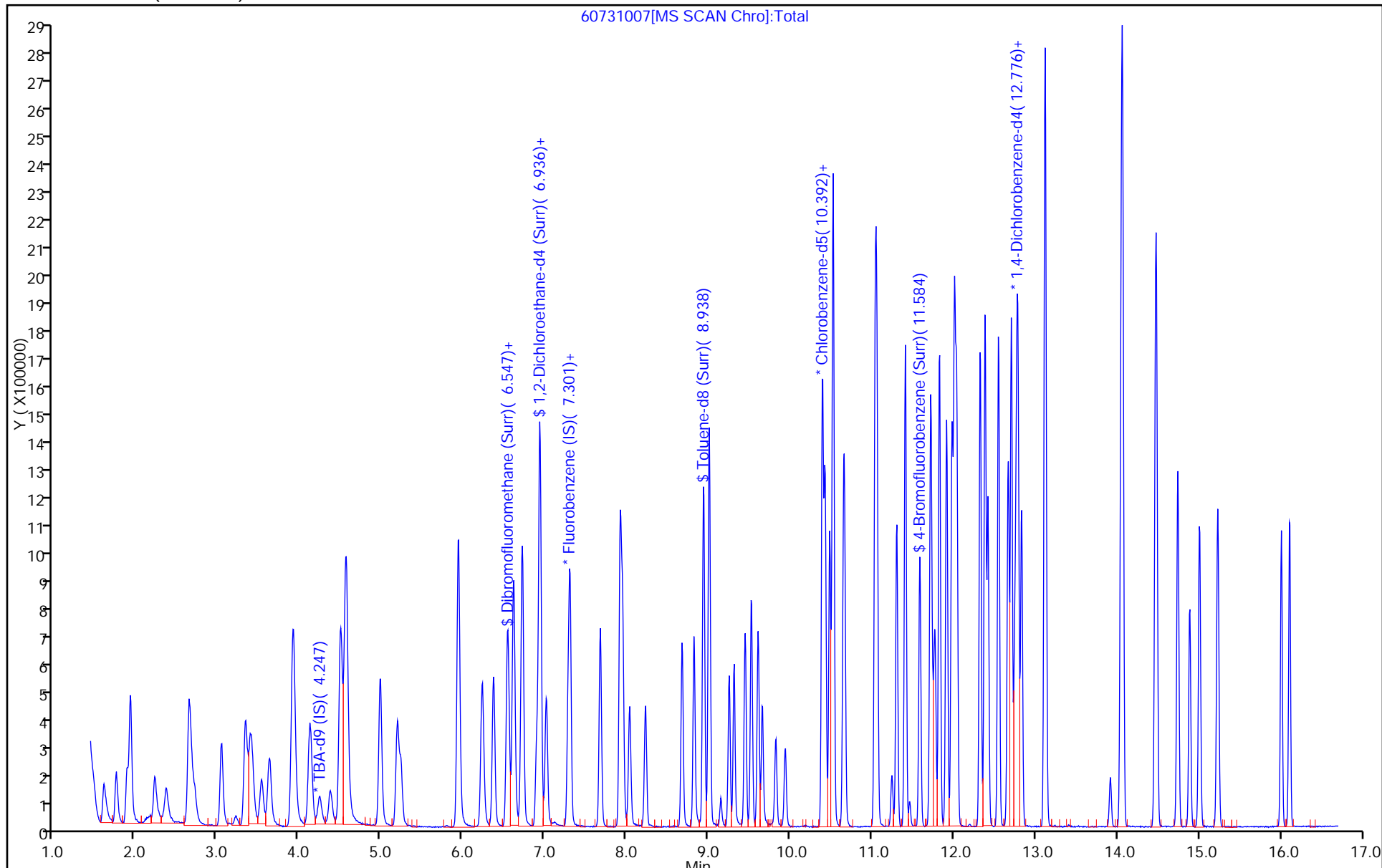
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





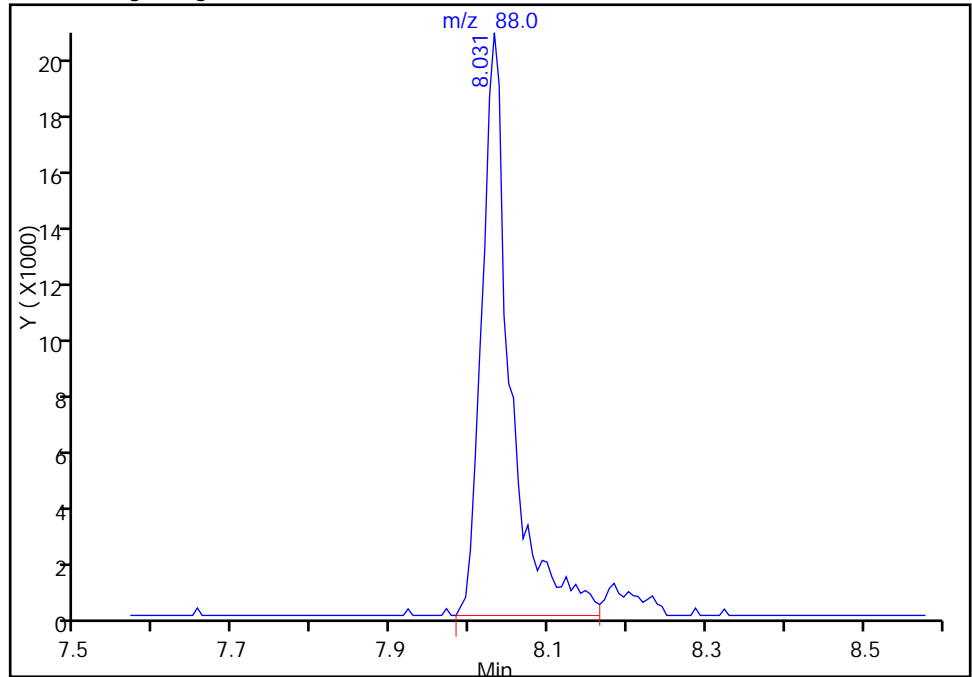
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731007.D  
Injection Date: 31-Jul-2015 15:13:30 Instrument ID: CHHP6  
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\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

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

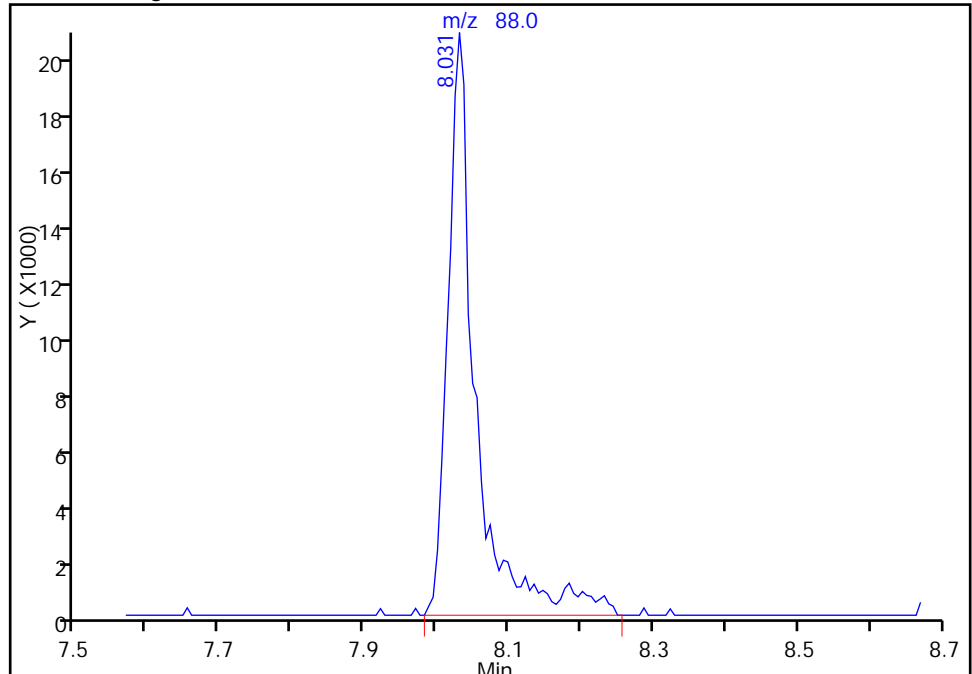
RT: 8.03  
Area: 51451  
Amount: 1915.4354  
Amount Units: ng

Processing Integration Results



RT: 8.03  
Area: 54577  
Amount: 2058.6297  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 10:27:52  
Audit Action: Manually Integrated  
Audit Reason: Peak Tail

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731008.D  
 Lims ID: IC VSTD35  
 Client ID:  
 Sample Type: IC Calib Level: 6  
 Inject. Date: 31-Jul-2015 15:37:30 ALS Bottle#: 8 Worklist Smp#: 8  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD35  
 Misc. Info.: 180-0007999-008  
 Operator ID: 001562 Instrument ID: CHHP6  
 Sublist: chrom-MSVOA\_LL\_CHHP6\*sub5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 03-Aug-2015 12:16:01 Calib Date: 31-Jul-2015 18:02:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK049

First Level Reviewer: fergusond

Date: 31-Jul-2015 16:23:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.254	4.247	0.007	92	191694	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.283	7.289	-0.006	98	474812	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	91	108350	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	96	164628	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.553	6.553	0.000	92	378487	175.0	173.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.930	0.001	71	595019	175.0	168.6	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	1415164	175.0	165.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.584	0.000	80	645419	175.0	170.1	
11 Dichlorodifluoromethane	85	1.601	1.607	-0.006	99	575043	175.0	174.9	
12 Chloromethane	50	1.754	1.759	-0.005	99	470953	175.0	166.2	
13 Vinyl chloride	62	1.887	1.893	-0.006	99	517410	175.0	169.5	
14 Butadiene	39	1.924	1.930	-0.006	90	483297	175.0	168.9	
15 Bromomethane	94	2.222	2.228	-0.006	90	248522	175.0	150.8	
16 Chloroethane	64	2.356	2.374	-0.018	99	359701	175.0	172.7	
17 Dichlorofluoromethane	67	2.642	2.654	-0.012	97	819476	175.0	169.0	
18 Trichlorofluoromethane	101	2.654	2.678	-0.024	76	664854	175.0	171.9	
20 Ethyl ether	59	3.043	3.043	0.000	89	458021	175.0	167.1	
21 Acrolein	56	3.220	3.213	0.007	99	68050	225.0	227.6	
22 1,1-Dichloroethene	96	3.335	3.341	-0.006	96	411177	175.0	172.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.390	3.402	-0.012	95	446711	175.0	177.0	
24 Acetone	43	3.426	3.432	-0.006	100	284563	350.0	338.8	
25 Iodomethane	142	3.536	3.530	0.006	99	566533	175.0	176.6	
26 Carbon disulfide	76	3.627	3.633	-0.006	100	1151644	175.0	185.9	
29 3-Chloro-1-propene	76	3.913	3.913	0.000	89	257112	175.0	190.8	
30 Methyl acetate	43	3.925	3.925	0.000	96	1680300	875.0	853.1	
31 Methylene Chloride	84	4.132	4.132	0.000	91	527474	175.0	171.5	
32 2-Methyl-2-propanol	59	4.382	4.369	0.013	93	354063	1750.0	1641.3	
33 Acrylonitrile	53	4.503	4.497	0.006	98	1745686	1750.0	1758.1	
34 trans-1,2-Dichloroethene	96	4.558	4.564	-0.006	98	479327	175.0	173.8	
35 Methyl tert-butyl ether	73	4.570	4.576	-0.006	97	1455878	175.0	176.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.984	4.990	-0.006	92	669795	175.0	179.2	
37 1,1-Dichloroethane	63	5.191	5.196	-0.005	97	861981	175.0	174.6	
38 Vinyl acetate	43	5.239	5.239	0.000	97	744628	175.0	186.8	
43 cis-1,2-Dichloroethene	96	5.939	5.939	0.000	87	520777	175.0	173.6	
44 2-Butanone (MEK)	43	5.945	5.945	0.000	87	412307	350.0	359.6	
42 2,2-Dichloropropane	77	5.945	5.945	0.000	79	484574	175.0	194.1	
48 Chlorobromomethane	128	6.231	6.225	0.006	97	209995	175.0	174.3	
49 Tetrahydrofuran	42	6.249	6.237	0.012	86	277489	350.0	359.4	
50 Chloroform	83	6.371	6.371	0.000	94	847765	175.0	173.0	
51 1,1,1-Trichloroethane	97	6.535	6.541	-0.006	97	659562	175.0	182.1	
52 Cyclohexane	56	6.614	6.620	-0.006	92	834057	175.0	179.7	
53 Carbon tetrachloride	117	6.718	6.717	0.001	97	479558	175.0	187.5	
54 1,1-Dichloropropene	75	6.724	6.730	-0.006	95	675711	175.0	173.5	
55 Isobutyl alcohol	41	6.900	6.900	0.000	89	326401	4375.0	4751.5	
56 Benzene	78	6.943	6.942	0.001	98	1836424	175.0	166.0	
57 1,2-Dichloroethane	62	7.016	7.015	0.001	98	746328	175.0	167.4	
59 n-Heptane	43	7.308	7.307	0.001	86	526126	175.0	174.9	
61 Trichloroethene	130	7.679	7.679	0.000	93	405251	175.0	175.6	
63 Methylcyclohexane	83	7.922	7.922	0.000	91	834543	175.0	178.2	
64 1,2-Dichloropropane	63	7.953	7.952	0.001	86	455391	175.0	172.3	
65 1,4-Dioxane	88	8.032	8.031	0.001	47	98136	3500.0	3760.8	M
67 Dibromomethane	93	8.038	8.037	0.001	92	283101	175.0	176.4	
68 Dichlorobromomethane	83	8.226	8.226	0.000	98	551929	175.0	183.0	
71 cis-1,3-Dichloropropene	75	8.677	8.676	0.001	93	650196	175.0	196.2	
72 4-Methyl-2-pentanone (MIBK)	43	8.823	8.822	0.001	93	808342	350.0	362.9	
73 Toluene	91	9.011	9.011	0.000	98	1802740	175.0	161.2	
74 trans-1,3-Dichloropropene	75	9.254	9.254	0.000	96	565592	175.0	199.3	
75 Ethyl methacrylate	69	9.315	9.315	0.000	87	580427	175.0	192.5	
76 1,1,2-Trichloroethane	97	9.449	9.449	0.000	94	391776	175.0	169.4	
77 Tetrachloroethene	164	9.528	9.528	0.000	95	319955	175.0	167.8	
78 1,3-Dichloropropane	76	9.607	9.607	0.000	93	717566	175.0	168.0	
79 2-Hexanone	43	9.656	9.656	0.000	94	534519	350.0	365.4	
81 Chlorodibromomethane	129	9.820	9.826	-0.006	90	301710	175.0	191.2	
82 Ethylene Dibromide	107	9.936	9.936	0.000	97	363449	175.0	177.6	
83 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	92	600793	175.0	167.8	
84 Chlorobenzene	112	10.429	10.428	0.001	89	1142353	175.0	166.2	
85 4-Chlorobenzotrifluoride	180	10.483	10.483	0.000	96	570403	175.0	171.9	
86 1,1,1,2-Tetrachloroethane	131	10.520	10.520	0.000	89	349368	175.0	185.5	
87 Ethylbenzene	106	10.526	10.526	0.000	98	663577	175.0	171.2	
88 m-Xylene & p-Xylene	106	10.660	10.659	0.001	99	823294	175.0	171.1	
89 o-Xylene	106	11.037	11.037	0.000	96	833629	175.0	173.2	
90 Styrene	104	11.061	11.061	0.000	92	1289309	175.0	174.4	
91 Bromoform	173	11.244	11.243	0.001	93	160966	175.0	191.1	
92 2-Chlorobenzotrifluoride	180	11.305	11.304	0.001	94	628216	175.0	171.3	
93 Isopropylbenzene	105	11.408	11.408	0.000	99	1921153	175.0	166.8	
96 1,1,2,2-Tetrachloroethane	83	11.712	11.712	0.000	96	532593	175.0	172.2	
95 Bromobenzene	156	11.724	11.724	0.000	98	459843	175.0	173.7	
97 trans-1,4-Dichloro-2-buten	53	11.749	11.748	0.001	80	160304	175.0	191.0	
98 1,2,3-Trichloropropane	110	11.773	11.773	0.000	84	178317	175.0	177.2	
99 N-Propylbenzene	120	11.828	11.827	0.001	98	554932	175.0	182.1	
100 2-Chlorotoluene	126	11.913	11.913	0.000	93	446590	175.0	176.5	
101 3-Chlorotoluene	126	11.980	11.980	0.000	96	485130	175.0	182.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.010	12.010	0.000	93	1730016	175.0	174.6	
103 4-Chlorotoluene	126	12.041	12.034	0.007	100	464650	175.0	173.8	
104 tert-Butylbenzene	119	12.327	12.320	0.007	90	1405341	175.0	179.5	
106 1,2,4-Trimethylbenzene	105	12.381	12.381	0.000	98	1786151	175.0	176.3	
107 1,2-dichloro-4-(trifluorom	214	12.418	12.418	0.000	95	509173	175.0	177.4	
108 sec-Butylbenzene	105	12.546	12.545	0.001	97	2038837	175.0	174.4	
109 1,3-Dichlorobenzene	146	12.667	12.667	0.000	92	886632	175.0	171.5	
110 4-Isopropyltoluene	119	12.704	12.703	0.001	94	1736569	175.0	177.1	
111 1,4-Dichlorobenzene	146	12.771	12.770	0.001	92	902441	175.0	170.8	
113 2,4-Dichloro-1-(trifluorom	214	12.789	12.789	0.000	94	534909	175.0	187.3	
114 2,5-Dichlorobenzotrifluori	214	12.832	12.831	0.001	96	537191	175.0	168.4	
116 n-Butylbenzene	91	13.111	13.111	0.000	97	1734264	175.0	177.1	
117 1,2-Dichlorobenzene	146	13.124	13.123	0.001	89	899668	175.0	172.4	
118 1,2-Dibromo-3-Chloropropan	75	13.914	13.920	-0.006	71	96376	175.0	201.4	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.060	14.060	0.000	95	2390336	525.0	526.2	
121 2,3- & 3,4- Dichlorotoluen	125	14.474	14.474	0.000	97	1797097	350.0	358.5	
122 1,2,4-Trichlorobenzene	180	14.742	14.741	0.001	92	726756	175.0	179.7	
123 Hexachlorobutadiene	225	14.888	14.887	0.001	97	290426	175.0	182.3	
124 Naphthalene	128	15.003	15.003	0.000	99	1550041	175.0	189.9	
125 1,2,3-Trichlorobenzene	180	15.228	15.228	0.000	93	673533	175.0	178.0	
126 2,4,5-Trichlorotoluene	159	16.007	16.007	0.000	0	490754	175.0	193.1	
127 2,3,6-Trichlorotoluene	159	16.111	16.110	0.000	94	460224	175.0	190.9	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		350.0	347.4	
S 131 Xylenes, Total	106				0		350.0	344.3	
S 132 1,3-Dichloropropene, Total	1				0		350.0	395.5	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260SURR_00039	Amount Added: 7.00	Units: uL	
voaWket1Reste_00001	Amount Added: 7.00	Units: uL	
voaWeemix1Res_00001	Amount Added: 7.00	Units: uL	
VOA8260VOAPRI_00134	Amount Added: 7.00	Units: uL	
voaWVA1st Res_00003	Amount Added: 7.00	Units: uL	
voaWAcro2nd R_00006	Amount Added: 9.00	Units: uL	
VOA8260INT_00039	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731008.D

Injection Date: 31-Jul-2015 15:37:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: IC VSTD35

Worklist Smp#: 8

Client ID:

Purge Vol: 5.000 mL

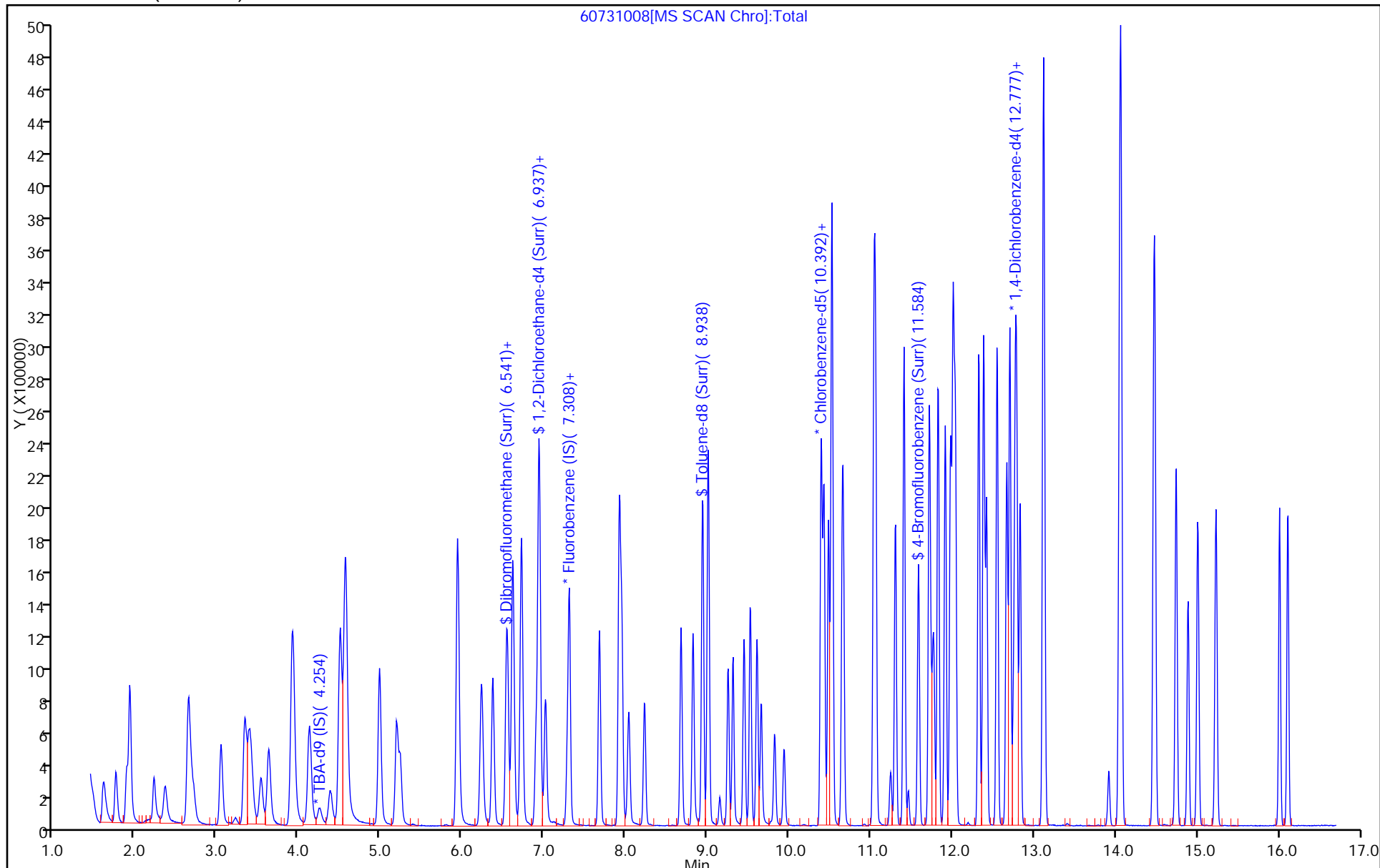
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



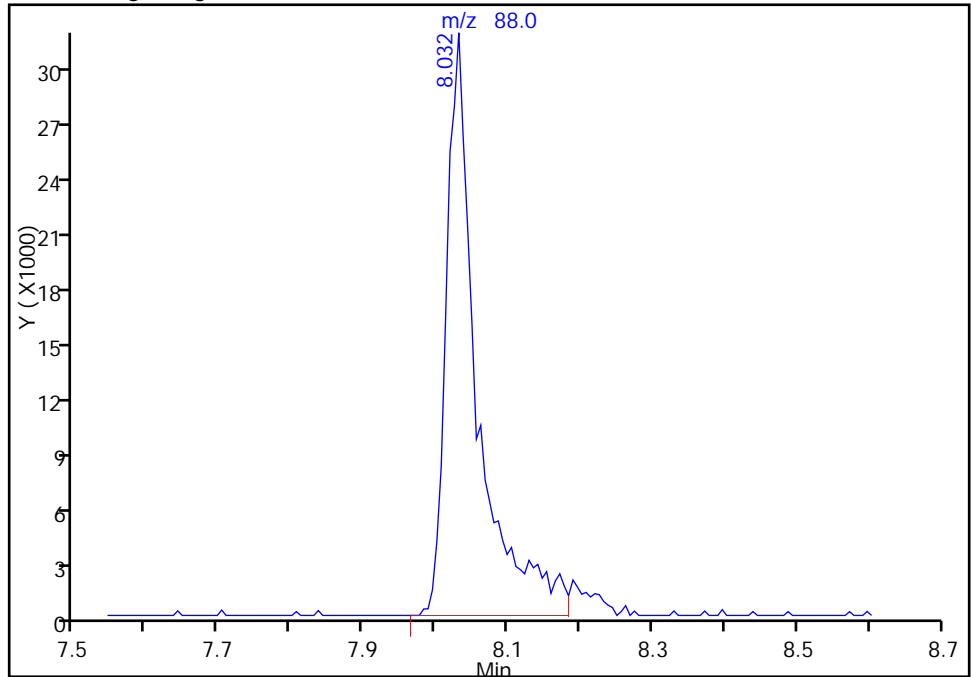
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731008.D  
Injection Date: 31-Jul-2015 15:37:30 Instrument ID: CHHP6  
Lims ID: IC VSTD35  
Client ID:  
Operator ID: 001562 ALS Bottle#: 8 Worklist Smp#: 8  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

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

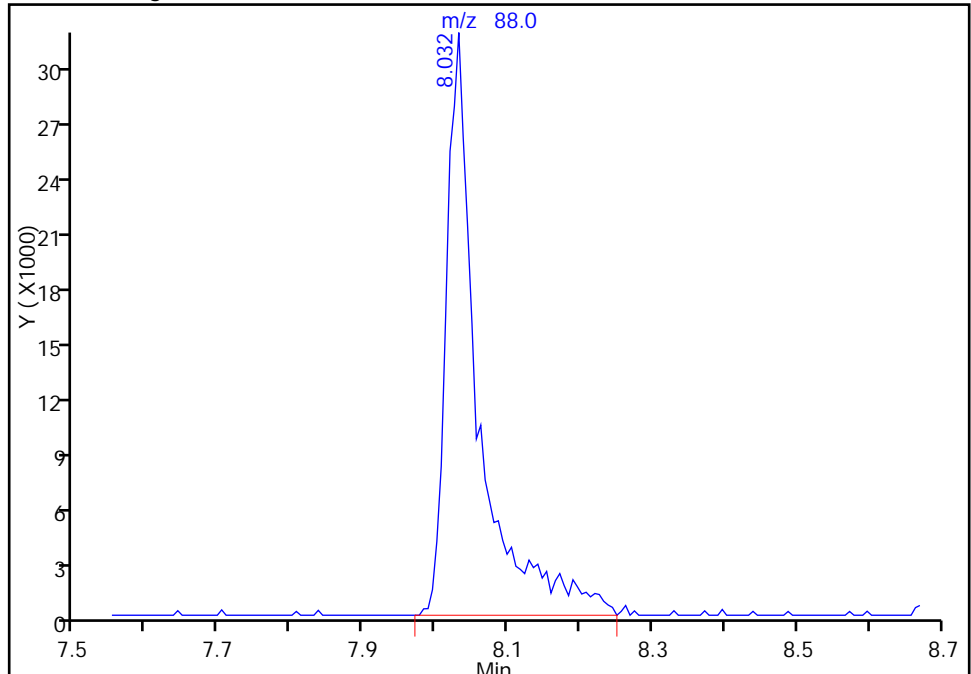
RT: 8.03  
Area: 94184  
Amount: 3581.4908  
Amount Units: ng

Processing Integration Results



RT: 8.03  
Area: 98136  
Amount: 3760.8433  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 10:13:21  
Audit Action: Manually Integrated  
Audit Reason: Peak Tail

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731009.D  
 Lims ID: IC VSTD40  
 Client ID:  
 Sample Type: IC Calib Level: 7  
 Inject. Date: 31-Jul-2015 16:01:30 ALS Bottle#: 9 Worklist Smp#: 9  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD40  
 Misc. Info.: 180-0007999-009  
 Operator ID: 001562 Instrument ID: CHHP6  
 Sublist: chrom-MSVOA\_LL\_CHHP6\*sub5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 03-Aug-2015 12:16:10 Calib Date: 31-Jul-2015 18:02:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK049

First Level Reviewer: fergusond

Date: 03-Aug-2015 10:06:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.253	4.247	0.006	92	190170	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	98	446456	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	89	103508	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	95	159598	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.553	6.553	0.000	92	428779	200.0	208.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.930	0.000	72	668015	200.0	201.4	
\$ 7 Toluene-d8 (Surr)	98	8.944	8.938	0.006	94	1563368	200.0	191.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.584	0.000	81	722308	200.0	199.3	
11 Dichlorodifluoromethane	85	1.613	1.607	0.006	99	636192	200.0	205.8	
12 Chloromethane	50	1.759	1.759	0.000	99	522516	200.0	196.1	
13 Vinyl chloride	62	1.893	1.893	0.000	98	585198	200.0	203.9	
14 Butadiene	39	1.935	1.930	0.005	92	538199	200.0	200.0	
15 Bromomethane	94	2.233	2.228	0.005	91	263364	200.0	170.0	
16 Chloroethane	64	2.373	2.374	-0.001	99	402907	200.0	205.7	
17 Dichlorofluoromethane	67	2.647	2.654	-0.007	98	899692	200.0	197.3	
18 Trichlorofluoromethane	101	2.672	2.678	-0.006	99	726249	200.0	199.7	
20 Ethyl ether	59	3.049	3.043	0.006	89	523507	200.0	203.1	
21 Acrolein	56	3.225	3.213	0.012	96	76429	250.0	271.9	
22 1,1-Dichloroethene	96	3.341	3.341	0.000	99	476887	200.0	212.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.395	3.402	-0.007	95	481169	200.0	202.8	
24 Acetone	43	3.432	3.432	0.000	100	317270	400.0	401.7	
25 Iodomethane	142	3.529	3.530	-0.001	99	655616	200.0	217.3	
26 Carbon disulfide	76	3.627	3.633	-0.006	100	1330649	200.0	228.5	
29 3-Chloro-1-propene	76	3.906	3.913	-0.007	88	293887	200.0	231.9	
30 Methyl acetate	43	3.925	3.925	0.000	96	1914014	1000.0	1033.4	
31 Methylene Chloride	84	4.125	4.132	-0.007	91	611401	200.0	212.7	
32 2-Methyl-2-propanol	59	4.381	4.369	0.012	93	426462	2000.0	1992.8	
33 Acrylonitrile	53	4.503	4.497	0.006	97	1961872	2000.0	2101.3	
34 trans-1,2-Dichloroethene	96	4.563	4.564	-0.001	97	548086	200.0	211.3	
35 Methyl tert-butyl ether	73	4.576	4.576	0.000	98	1687770	200.0	217.2	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.989	4.990	-0.001	91	736641	200.0	209.6	
37 1,1-Dichloroethane	63	5.196	5.196	0.000	97	980644	200.0	211.2	
38 Vinyl acetate	43	5.239	5.239	0.000	97	867464	200.0	231.4	
43 cis-1,2-Dichloroethene	96	5.944	5.939	0.005	85	595718	200.0	211.2	
44 2-Butanone (MEK)	43	5.944	5.945	-0.001	98	470276	400.0	436.3	
42 2,2-Dichloropropane	77	5.944	5.945	-0.001	66	535345	200.0	228.0	
48 Chlorobromomethane	128	6.230	6.225	0.005	97	240962	200.0	212.7	
49 Tetrahydrofuran	42	6.243	6.237	0.005	83	305718	400.0	421.1	
50 Chloroform	83	6.376	6.371	0.005	94	959266	200.0	208.2	
51 1,1,1-Trichloroethane	97	6.541	6.541	0.000	98	756837	200.0	222.3	
52 Cyclohexane	56	6.620	6.620	0.000	92	919827	200.0	210.8	
53 Carbon tetrachloride	117	6.717	6.717	0.000	97	536127	200.0	222.9	
54 1,1-Dichloropropene	75	6.729	6.730	-0.001	94	765806	200.0	209.1	
55 Isobutyl alcohol	41	6.906	6.900	0.006	92	375937	5000.0	5820.2	
56 Benzene	78	6.942	6.942	0.000	99	2066671	200.0	198.6	
57 1,2-Dichloroethane	62	7.015	7.015	0.000	98	855052	200.0	204.0	
59 n-Heptane	43	7.307	7.307	0.000	87	588643	200.0	208.1	
61 Trichloroethene	130	7.678	7.679	-0.001	92	460676	200.0	212.3	
63 Methylcyclohexane	83	7.922	7.922	0.000	91	915285	200.0	207.8	
64 1,2-Dichloropropane	63	7.952	7.952	0.000	84	521174	200.0	209.7	
65 1,4-Dioxane	88	8.031	8.031	0.000	44	114196	4000.0	4654.3	M
67 Dibromomethane	93	8.037	8.037	0.000	92	323060	200.0	214.0	
68 Dichlorobromomethane	83	8.232	8.226	0.006	99	646107	200.0	227.8	
71 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	94	745866	200.0	239.4	
72 4-Methyl-2-pentanone (MIBK)	43	8.822	8.822	0.000	93	947711	400.0	445.4	
73 Toluene	91	9.010	9.011	-0.001	97	2002822	200.0	187.5	
74 trans-1,3-Dichloropropene	75	9.254	9.254	0.000	96	639831	200.0	236.0	
75 Ethyl methacrylate	69	9.315	9.315	0.000	88	671187	200.0	233.1	
76 1,1,2-Trichloroethane	97	9.448	9.449	-0.001	94	447467	200.0	202.6	
77 Tetrachloroethene	164	9.528	9.528	0.000	93	357911	200.0	196.5	
78 1,3-Dichloropropane	76	9.607	9.607	0.000	93	805963	200.0	197.5	
79 2-Hexanone	43	9.655	9.656	-0.001	95	604727	400.0	432.8	
81 Chlorodibromomethane	129	9.826	9.826	0.000	91	351983	200.0	233.5	
82 Ethylene Dibromide	107	9.941	9.936	0.005	98	414395	200.0	212.0	
83 3-Chlorobenzotrifluoride	180	10.398	10.392	0.006	93	658293	200.0	192.5	
84 Chlorobenzene	112	10.428	10.428	0.000	90	1270819	200.0	193.6	
85 4-Chlorobenzotrifluoride	180	10.483	10.483	0.000	96	626628	200.0	197.7	
86 1,1,1,2-Tetrachloroethane	131	10.519	10.520	-0.001	90	410261	200.0	228.0	
87 Ethylbenzene	106	10.525	10.526	-0.001	98	745552	200.0	201.3	
88 m-Xylene & p-Xylene	106	10.659	10.659	0.000	99	922542	200.0	200.7	
89 o-Xylene	106	11.042	11.037	0.005	96	942660	200.0	205.0	
90 Styrene	104	11.061	11.061	0.000	91	1451301	200.0	205.5	
91 Bromoform	173	11.243	11.243	0.000	93	188413	200.0	234.1	
92 2-Chlorobenzotrifluoride	180	11.304	11.304	0.000	94	695569	200.0	198.6	
93 Isopropylbenzene	105	11.407	11.408	-0.001	99	2143689	200.0	194.9	
96 1,1,2,2-Tetrachloroethane	83	11.712	11.712	0.000	97	595171	200.0	201.4	
95 Bromobenzene	156	11.724	11.724	0.000	98	533334	200.0	207.9	
97 trans-1,4-Dichloro-2-buten	53	11.754	11.748	0.006	78	183338	200.0	225.3	
98 1,2,3-Trichloropropane	110	11.772	11.773	-0.001	84	202262	200.0	207.3	
99 N-Propylbenzene	120	11.827	11.827	0.000	98	613443	200.0	207.6	
100 2-Chlorotoluene	126	11.912	11.913	-0.001	93	510216	200.0	208.0	
101 3-Chlorotoluene	126	11.979	11.980	-0.001	97	532252	200.0	206.6	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.010	12.010	0.000	94	1945327	200.0	202.5	
103 4-Chlorotoluene	126	12.040	12.034	0.006	100	540303	200.0	208.5	
104 tert-Butylbenzene	119	12.326	12.320	0.006	90	1580824	200.0	208.2	
106 1,2,4-Trimethylbenzene	105	12.381	12.381	0.000	98	2003823	200.0	204.0	
107 1,2-dichloro-4-(trifluorom	214	12.423	12.418	0.005	96	562570	200.0	202.1	
108 sec-Butylbenzene	105	12.551	12.545	0.006	97	2257148	200.0	199.2	
109 1,3-Dichlorobenzene	146	12.667	12.667	0.000	92	1017363	200.0	203.0	
110 4-Isopropyltoluene	119	12.703	12.703	0.000	94	1952987	200.0	205.4	
111 1,4-Dichlorobenzene	146	12.770	12.770	0.000	91	1040432	200.0	203.1	
113 2,4-Dichloro-1-(trifluorom	214	12.788	12.789	-0.001	93	585295	200.0	211.4	
114 2,5-Dichlorobenzotrifluori	214	12.831	12.831	0.000	97	604585	200.0	195.5	
116 n-Butylbenzene	91	13.111	13.111	0.000	96	1931969	200.0	203.5	
117 1,2-Dichlorobenzene	146	13.123	13.123	0.000	93	1013269	200.0	200.2	
118 1,2-Dibromo-3-Chloropropan	75	13.914	13.920	-0.006	74	111156	200.0	239.6	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.060	14.060	0.000	95	2621988	600.0	595.4	
121 2,3- & 3,4- Dichlorotoluen	125	14.473	14.474	-0.001	96	1989024	400.0	409.3	
122 1,2,4-Trichlorobenzene	180	14.741	14.741	0.000	92	829845	200.0	211.6	
123 Hexachlorobutadiene	225	14.887	14.887	0.000	97	324236	200.0	209.9	
124 Naphthalene	128	15.009	15.003	0.006	99	1744010	200.0	220.4	
125 1,2,3-Trichlorobenzene	180	15.228	15.228	0.000	92	768952	200.0	209.6	
126 2,4,5-Trichlorotoluene	159	16.006	16.007	-0.001	0	568870	200.0	230.9	
127 2,3,6-Trichlorotoluene	159	16.110	16.110	0.000	94	527070	200.0	225.5	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		400.0	422.6	
S 131 Xylenes, Total	106				0		400.0	405.8	
S 132 1,3-Dichloropropene, Total	1				0		400.0	475.4	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260SURR_00039	Amount Added: 8.00	Units: uL	
voaWAcro2nd R_00006	Amount Added: 10.00	Units: uL	
voaWket1Reste_00001	Amount Added: 8.00	Units: uL	
voaWeemix1Res_00001	Amount Added: 8.00	Units: uL	
voaWVA1st Res_00003	Amount Added: 8.00	Units: uL	
VOA8260VOAPRI_00134	Amount Added: 8.00	Units: uL	
VOA8260INT_00039	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731009.D

Injection Date: 31-Jul-2015 16:01:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: IC VSTD40

Worklist Smp#: 9

Client ID:

Purge Vol: 5.000 mL

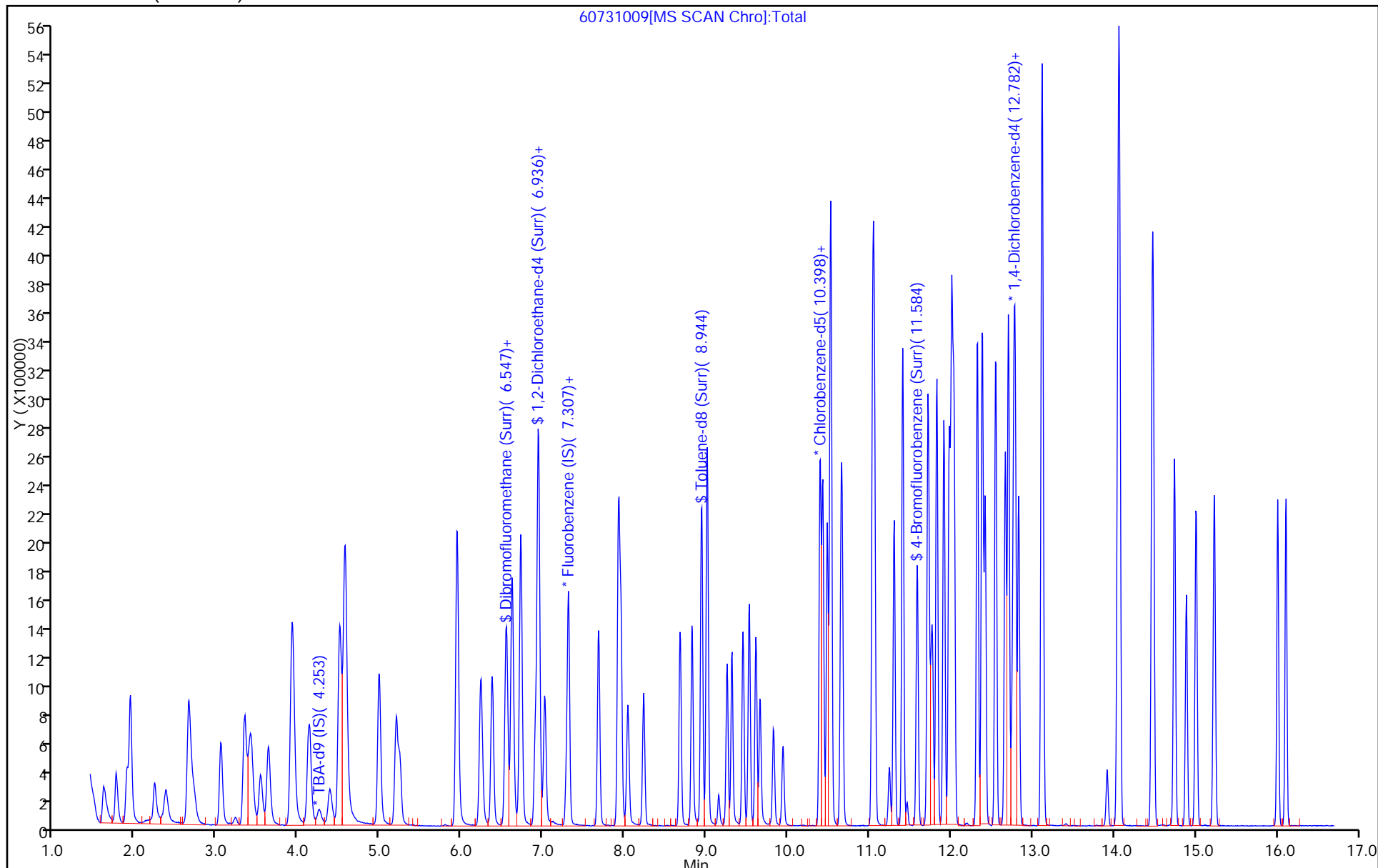
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



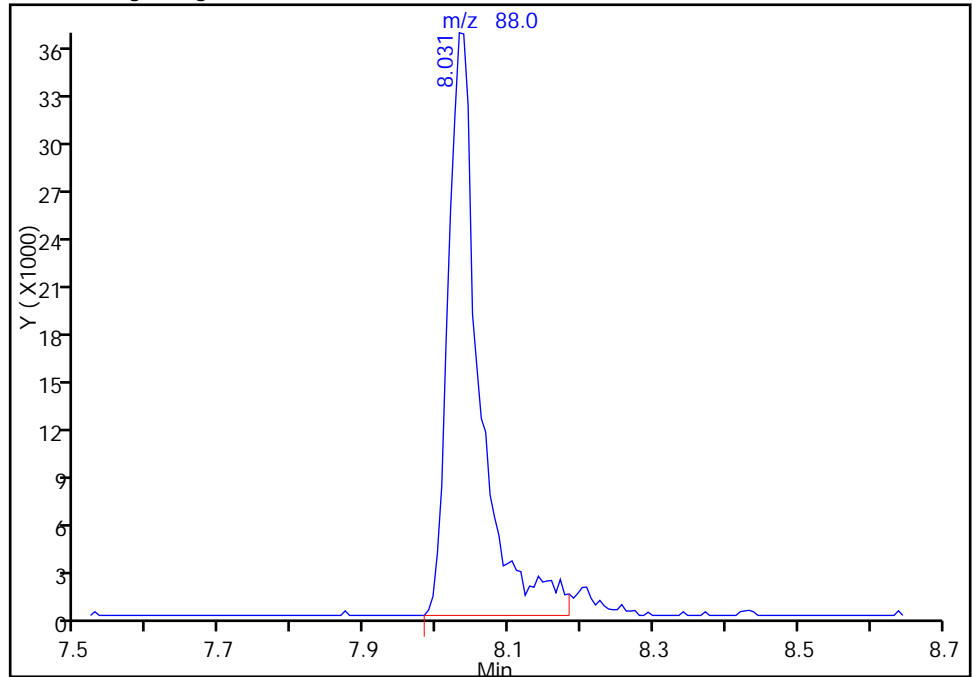
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731009.D  
Injection Date: 31-Jul-2015 16:01:30 Instrument ID: CHHP6  
Lims ID: IC VSTD40  
Client ID:  
Operator ID: 001562 ALS Bottle#: 9 Worklist Smp#: 9  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

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

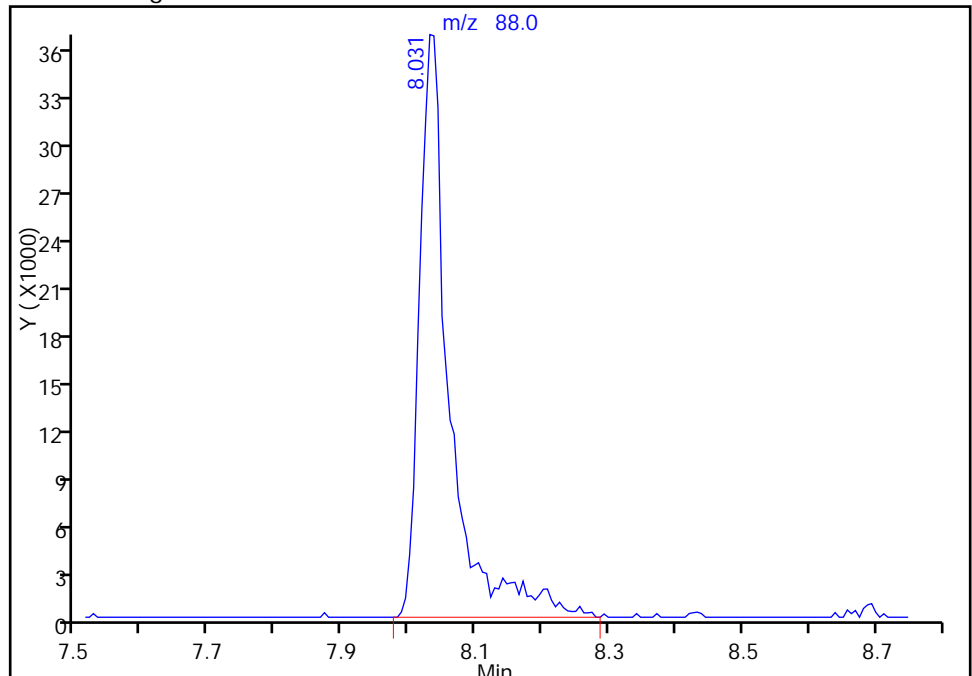
RT: 8.03  
Area: 109899  
Amount: 4509.0182  
Amount Units: ng

Processing Integration Results



RT: 8.03  
Area: 114196  
Amount: 4654.2617  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 10:06:32  
Audit Action: Manually Integrated  
Audit Reason: Peak Tail

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731010.D  
 Lims ID: IC VSTD50  
 Client ID:  
 Sample Type: IC Calib Level: 8  
 Inject. Date: 31-Jul-2015 16:25:30 ALS Bottle#: 10 Worklist Smp#: 10  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD50  
 Misc. Info.: 180-0007999-010  
 Operator ID: 001562 Instrument ID: CHHP6  
 Sublist: chrom-MSVOA\_LL\_CHHP6\*sub5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 03-Aug-2015 12:16:19 Calib Date: 31-Jul-2015 18:02:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK049

First Level Reviewer: fergusond

Date: 03-Aug-2015 10:08:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.266	4.247	0.019	94	205888	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.283	7.289	-0.006	98	472902	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	91	113483	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	92	168220	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.553	6.553	0.000	92	510673	250.0	234.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.930	0.000	73	806396	250.0	229.5	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	1832665	250.0	204.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.584	0.000	80	863895	250.0	217.4	
11 Dichlorodifluoromethane	85	1.607	1.607	0.000	100	776950	250.0	237.3	
12 Chloromethane	50	1.759	1.759	0.000	99	661756	250.0	234.5	
13 Vinyl chloride	62	1.893	1.893	0.000	99	729853	250.0	240.1	
14 Butadiene	39	1.936	1.930	0.006	90	668636	250.0	234.6	
15 Bromomethane	94	2.228	2.228	0.000	91	301175	250.0	183.5	
16 Chloroethane	64	2.362	2.374	-0.012	98	495382	250.0	238.7	
17 Dichlorofluoromethane	67	2.647	2.654	-0.007	97	1120159	250.0	232.0	
18 Trichlorofluoromethane	101	2.660	2.678	-0.018	74	914267	250.0	237.4	
20 Ethyl ether	59	3.043	3.043	0.000	89	666334	250.0	244.1	
21 Acrolein	56	3.225	3.213	0.012	98	88331	275.0	296.7	
22 1,1-Dichloroethene	96	3.335	3.341	-0.006	98	604031	250.0	253.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.396	3.402	-0.006	95	613669	250.0	244.2	
24 Acetone	43	3.432	3.432	0.000	100	446823	500.0	534.1	
25 Iodomethane	142	3.530	3.530	0.000	99	830188	250.0	259.8	
26 Carbon disulfide	76	3.627	3.633	-0.006	100	1688724	250.0	273.8	
29 3-Chloro-1-propene	76	3.913	3.913	0.000	87	379717	250.0	282.9	
30 Methyl acetate	43	3.925	3.925	0.000	96	2441128	1250.0	1244.3	
31 Methylene Chloride	84	4.126	4.132	-0.006	90	760977	250.0	250.8	
32 2-Methyl-2-propanol	59	4.387	4.369	0.018	93	559063	2500.0	2413.0	
33 Acrylonitrile	53	4.503	4.497	0.006	97	2461613	2500.0	2489.1	
34 trans-1,2-Dichloroethene	96	4.564	4.564	0.000	97	687783	250.0	250.4	
35 Methyl tert-butyl ether	73	4.576	4.576	0.000	98	2105039	250.0	255.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.984	4.990	-0.006	92	945322	250.0	253.9	
37 1,1-Dichloroethane	63	5.196	5.196	0.000	96	1227440	250.0	249.6	
38 Vinyl acetate	43	5.239	5.239	0.000	97	1104555	250.0	278.2	
43 cis-1,2-Dichloroethene	96	5.945	5.939	0.006	83	751398	250.0	251.5	
44 2-Butanone (MEK)	43	5.945	5.945	0.000	98	588377	500.0	515.3	
42 2,2-Dichloropropane	77	5.939	5.945	-0.006	66	694588	250.0	279.3	
48 Chlorobromomethane	128	6.225	6.225	0.000	97	308059	250.0	256.7	
49 Tetrahydrofuran	42	6.243	6.237	0.006	83	413888	500.0	538.2	
50 Chloroform	83	6.371	6.371	0.000	95	1195678	250.0	244.9	
51 1,1,1-Trichloroethane	97	6.535	6.541	-0.006	98	957300	250.0	265.4	
52 Cyclohexane	56	6.614	6.620	-0.006	91	1159567	250.0	250.9	
53 Carbon tetrachloride	117	6.717	6.717	0.000	89	690480	250.0	271.0	
54 1,1-Dichloropropene	75	6.729	6.730	-0.001	93	968671	250.0	249.7	
55 Isobutyl alcohol	41	6.900	6.900	0.000	91	482886	6250.0	7057.9	
56 Benzene	78	6.942	6.942	0.000	99	2526807	250.0	229.3	
57 1,2-Dichloroethane	62	7.015	7.015	0.000	98	1055651	250.0	237.8	
59 n-Heptane	43	7.307	7.307	0.000	87	756814	250.0	252.6	
61 Trichloroethene	130	7.678	7.679	-0.001	93	577638	250.0	251.3	
63 Methylcyclohexane	83	7.922	7.922	0.000	91	1169092	250.0	250.6	
64 1,2-Dichloropropane	63	7.952	7.952	0.000	86	664355	250.0	252.3	
65 1,4-Dioxane	88	8.031	8.031	0.000	44	139772	5000.0	5378.1	M
67 Dibromomethane	93	8.037	8.037	0.000	93	409028	250.0	255.8	
68 Dichlorobromomethane	83	8.232	8.226	0.006	99	821950	250.0	273.6	
71 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	93	960857	250.0	291.2	
72 4-Methyl-2-pentanone (MIBK)	43	8.822	8.822	0.000	93	1194590	500.0	512.0	
73 Toluene	91	9.011	9.011	0.000	97	2462377	250.0	210.3	
74 trans-1,3-Dichloropropene	75	9.254	9.254	0.000	96	837722	250.0	281.8	
75 Ethyl methacrylate	69	9.315	9.315	0.000	88	855316	250.0	270.9	
76 1,1,2-Trichloroethane	97	9.449	9.449	0.000	93	567107	250.0	234.2	
77 Tetrachloroethene	164	9.522	9.528	-0.006	92	461983	250.0	231.3	
78 1,3-Dichloropropane	76	9.607	9.607	0.000	92	1022129	250.0	228.4	
79 2-Hexanone	43	9.656	9.656	0.000	93	790089	500.0	515.7	
81 Chlorodibromomethane	129	9.820	9.826	-0.006	90	451973	250.0	273.4	
82 Ethylene Dibromide	107	9.942	9.936	0.006	98	526477	250.0	245.7	
83 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	92	786880	250.0	209.9	
84 Chlorobenzene	112	10.428	10.428	0.000	89	1585885	250.0	220.3	
85 4-Chlorobenzotrifluoride	180	10.483	10.483	0.000	96	739908	250.0	212.9	
86 1,1,1,2-Tetrachloroethane	131	10.519	10.520	-0.001	49	519653	250.0	263.5	
87 Ethylbenzene	106	10.526	10.526	0.000	97	943999	250.0	232.5	
88 m-Xylene & p-Xylene	106	10.659	10.659	0.000	97	1179895	250.0	234.2	
89 o-Xylene	106	11.043	11.037	0.006	96	1188451	250.0	235.8	
90 Styrene	104	11.061	11.061	0.000	93	1825312	250.0	235.8	
91 Bromoform	173	11.243	11.243	0.000	93	249108	250.0	282.3	
92 2-Chlorobenzotrifluoride	180	11.304	11.304	0.000	94	831476	250.0	216.5	
93 Isopropylbenzene	105	11.408	11.408	0.000	99	2614965	250.0	216.8	
96 1,1,2,2-Tetrachloroethane	83	11.712	11.712	0.000	97	764885	250.0	236.1	
95 Bromobenzene	156	11.724	11.724	0.000	98	665597	250.0	246.1	
97 trans-1,4-Dichloro-2-buten	53	11.754	11.748	0.006	83	239026	250.0	278.7	
98 1,2,3-Trichloropropane	110	11.773	11.773	0.000	85	257089	250.0	250.0	
99 N-Propylbenzene	120	11.827	11.827	0.000	96	793964	250.0	254.9	
100 2-Chlorotoluene	126	11.913	11.913	0.000	93	652311	250.0	252.3	
101 3-Chlorotoluene	126	11.979	11.980	-0.001	96	649907	250.0	239.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.010	12.010	0.000	96	2358116	250.0	232.9	
103 4-Chlorotoluene	126	12.034	12.034	0.000	99	684319	250.0	250.5	
104 tert-Butylbenzene	119	12.326	12.320	0.006	90	1949627	250.0	243.7	
106 1,2,4-Trimethylbenzene	105	12.381	12.381	0.000	97	2433681	250.0	235.0	
107 1,2-dichloro-4-(trifluorom	214	12.418	12.418	0.000	95	680073	250.0	231.8	
108 sec-Butylbenzene	105	12.545	12.545	0.000	96	2739728	250.0	229.4	
109 1,3-Dichlorobenzene	146	12.667	12.667	0.000	92	1267194	250.0	239.9	
110 4-Isopropyltoluene	119	12.703	12.703	0.000	93	2392925	250.0	238.8	
111 1,4-Dichlorobenzene	146	12.770	12.770	0.000	92	1287354	250.0	238.4	
113 2,4-Dichloro-1-(trifluorom	214	12.789	12.789	0.000	96	641375	250.0	219.8	
114 2,5-Dichlorobenzotrifluori	214	12.831	12.831	0.000	97	781945	250.0	239.9	
116 n-Butylbenzene	91	13.111	13.111	0.000	95	2352259	250.0	235.1	
117 1,2-Dichlorobenzene	146	13.123	13.123	0.000	95	1249514	250.0	234.3	
118 1,2-Dibromo-3-Chloropropan	75	13.914	13.920	-0.006	73	147337	250.0	301.3	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.060	14.060	0.000	93	3058923	750.0	659.0	
121 2,3- & 3,4- Dichlorotoluen	125	14.474	14.474	0.000	95	2357462	500.0	460.3	
122 1,2,4-Trichlorobenzene	180	14.741	14.741	0.000	92	1022001	250.0	247.3	
123 Hexachlorobutadiene	225	14.887	14.887	0.000	97	414314	250.0	254.5	
124 Naphthalene	128	15.003	15.003	0.000	98	2149836	250.0	257.7	
125 1,2,3-Trichlorobenzene	180	15.228	15.228	0.000	92	953082	250.0	246.4	
126 2,4,5-Trichlorotoluene	159	16.007	16.007	0.000	0	681135	250.0	262.3	
127 2,3,6-Trichlorotoluene	159	16.110	16.110	0.000	93	630961	250.0	256.1	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		500.0	501.9	
S 131 Xylenes, Total	106				0		500.0	469.9	
S 132 1,3-Dichloropropene, Total	1				0		500.0	573.0	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260SURR_00039	Amount Added: 10.00	Units: uL	
voaWVA1st Res_00003	Amount Added: 10.00	Units: uL	
voaWket1Reste_00001	Amount Added: 10.00	Units: uL	
voaWeemix1Res_00001	Amount Added: 10.00	Units: uL	
VOA8260VOAPRI_00134	Amount Added: 10.00	Units: uL	
voaWAcro2nd R_00006	Amount Added: 11.00	Units: uL	
VOA8260INT_00039	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731010.D

Injection Date: 31-Jul-2015 16:25:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: IC VSTD50

Worklist Smp#: 10

Client ID:

Purge Vol: 5.000 mL

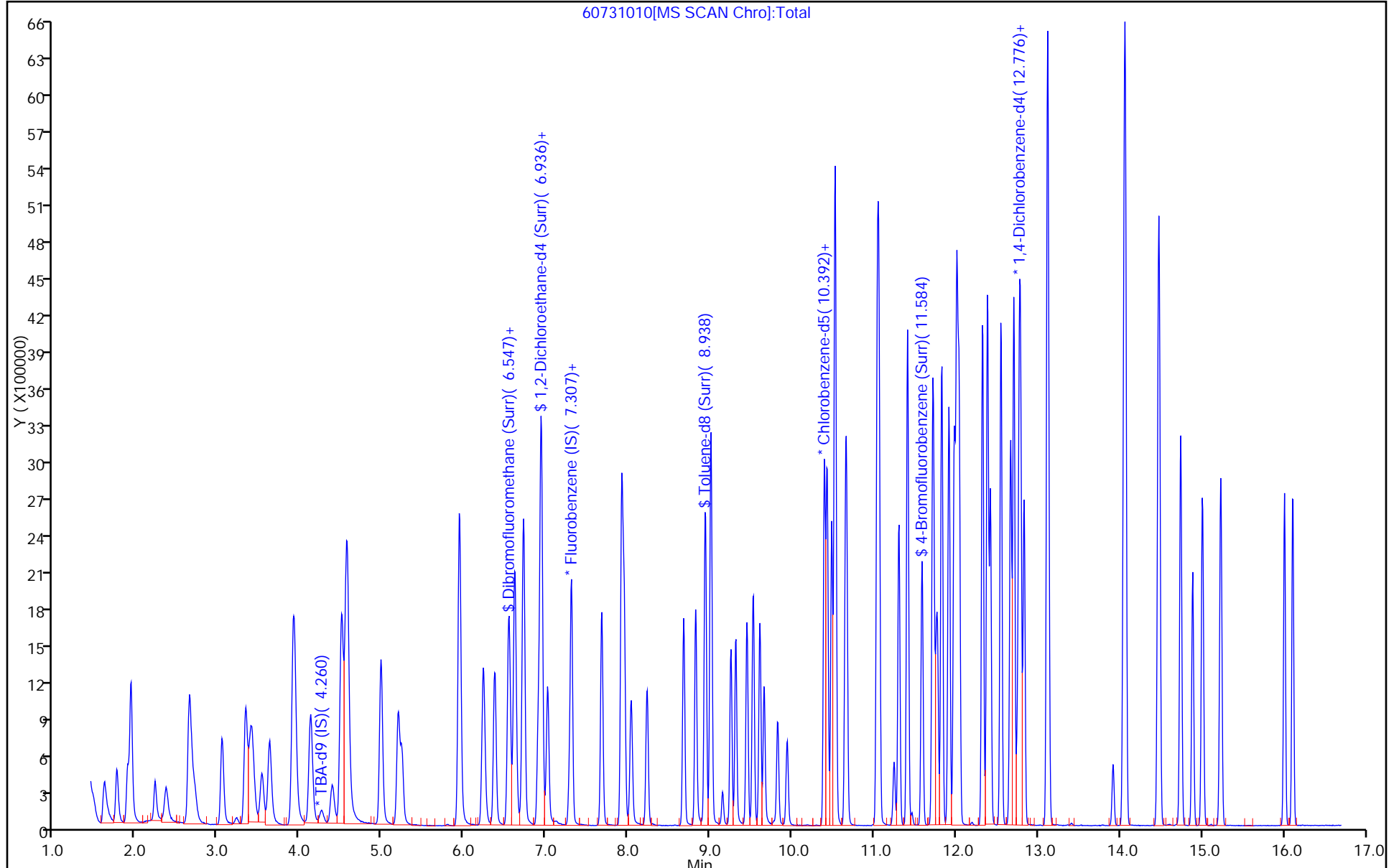
Dil. Factor: 1.0000

ALS Bottle#: 10

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



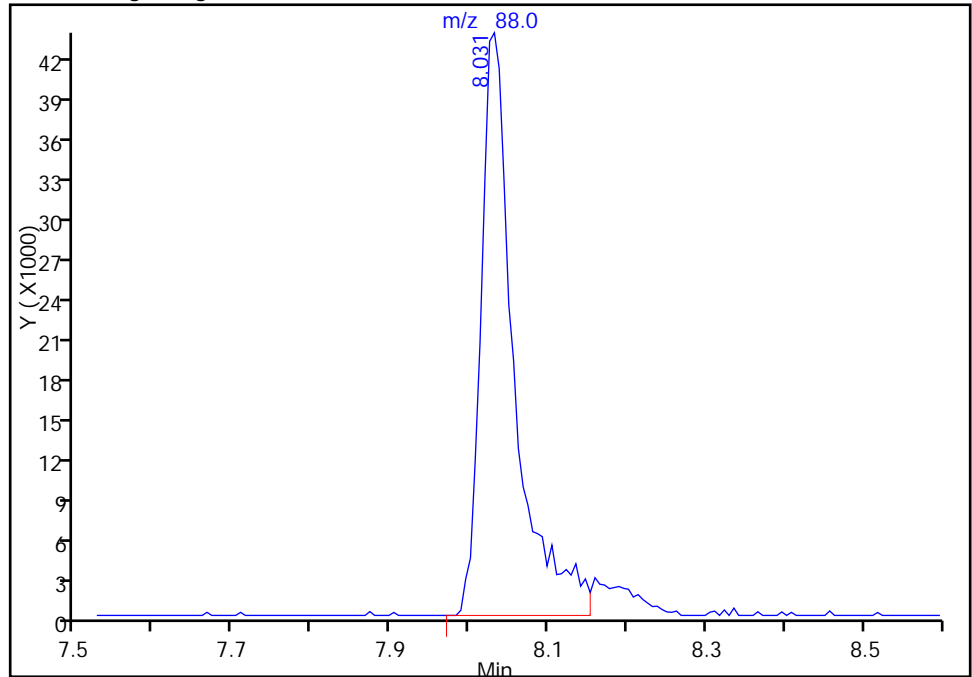
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731010.D  
Injection Date: 31-Jul-2015 16:25:30 Instrument ID: CHHP6  
Lims ID: IC VSTD50  
Client ID:  
Operator ID: 001562 ALS Bottle#: 10 Worklist Smp#: 10  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

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

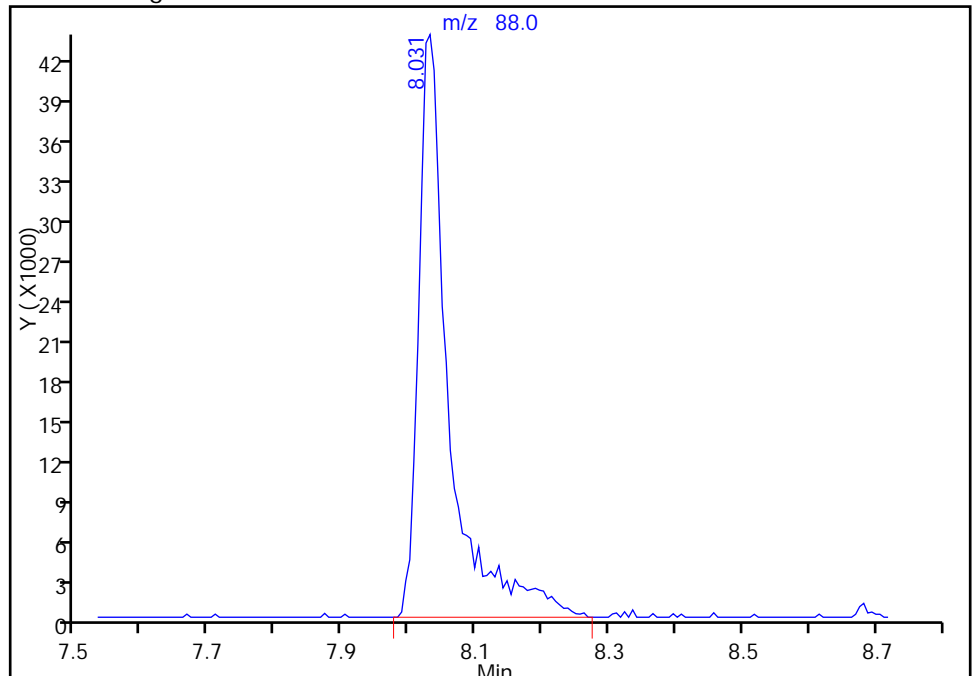
RT: 8.03  
Area: 130472  
Amount: 5026.0517  
Amount Units: ng

Processing Integration Results



RT: 8.03  
Area: 139772  
Amount: 5378.0842  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 10:08:16  
Audit Action: Manually Integrated  
Audit Reason: Peak Tail



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D  
 Lims ID: IC VSTD1  
 Client ID:  
 Sample Type: IC Calib Level: 1  
 Inject. Date: 31-Jul-2015 18:02:30 ALS Bottle#: 14 Worklist Smp#: 14  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD1  
 Misc. Info.: 180-0007999-014  
 Operator ID: 001562 Instrument ID: CHHP6  
 Sublist: chrom-MSVOA\_LL\_CHHP6\*sub5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 03-Aug-2015 12:57:05 Calib Date: 31-Jul-2015 18:02:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK049

First Level Reviewer: fergusond

Date: 03-Aug-2015 11:05:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.242	4.248	-0.006	92	162667	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.284	7.284	0.000	98	456532	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	92	93799	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.747	-0.001	97	157240	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.553	6.554	-0.001	89	11777	5.00	5.60	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.931	0.000	54	19952	5.00	5.88	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	41667	5.00	5.63	
\$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.585	0.000	77	19549	5.00	5.95	
11 Dichlorodifluoromethane	85	1.614	1.608	0.006	97	17276	5.00	5.46	
12 Chloromethane	50	1.754	1.754	0.000	99	15485	5.00	5.68	
13 Vinyl chloride	62	1.887	1.888	-0.001	62	15792	5.00	5.38	
14 Butadiene	39	1.930	1.930	0.000	93	15290	5.00	5.56	
15 Bromomethane	94	2.234	2.228	0.006	96	9521	5.00	6.01	
16 Chloroethane	64	2.356	2.368	-0.012	92	9922	5.00	4.95	
17 Dichlorofluoromethane	67	2.648	2.648	0.000	96	24941	5.00	5.35	
18 Trichlorofluoromethane	101	2.684	2.660	0.024	51	19389	5.00	5.21	M
20 Ethyl ether	59	3.037	3.049	-0.012	90	14586	5.00	5.53	
21 Acrolein	56	3.220	3.220	0.000	99	28320	100.0	98.5	
22 1,1-Dichloroethene	96	3.335	3.341	-0.006	95	11872	5.00	5.17	
23 1,1,2-Trichloro-1,2,2-trif	101	3.396	3.390	0.006	53	13209	5.00	5.44	
24 Acetone	43	3.421	3.421	-0.001	99	22203	25.0	27.5	M
25 Iodomethane	142	3.542	3.536	0.006	81	14090	5.00	4.57	
26 Carbon disulfide	76	3.633	3.627	0.006	99	26146	5.00	4.39	
29 3-Chloro-1-propene	76	3.919	3.919	0.000	86	5562	5.00	4.29	
30 Methyl acetate	43	3.932	3.926	0.006	98	50033	25.0	26.4	
31 Methylene Chloride	84	4.132	4.132	0.000	94	30274	5.00	5.01	
32 2-Methyl-2-propanol	59	4.363	4.370	-0.007	86	9874	50.0	53.9	
33 Acrylonitrile	53	4.509	4.503	0.006	99	48723	50.0	51.0	M
34 trans-1,2-Dichloroethene	96	4.558	4.564	-0.006	70	13191	5.00	4.97	
35 Methyl tert-butyl ether	73	4.564	4.576	-0.012	98	41079	5.00	5.17	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.984	4.990	-0.006	91	19223	5.00	5.35	
37 1,1-Dichloroethane	63	5.197	5.197	0.000	89	23168	5.00	4.88	
38 Vinyl acetate	43	5.246	5.240	0.006	96	17413	5.00	4.54	
43 cis-1,2-Dichloroethene	96	5.951	5.939	0.012	83	15010	5.00	5.20	
44 2-Butanone (MEK)	43	5.945	5.945	0.000	97	26408	25.0	24.0	
42 2,2-Dichloropropane	77	5.939	5.945	-0.006	57	9613	5.00	4.00	
48 Chlorobromomethane	128	6.231	6.231	0.000	95	6120	5.00	5.28	
49 Tetrahydrofuran	42	6.249	6.249	0.000	82	8204	10.0	11.1	
50 Chloroform	83	6.371	6.371	0.000	94	23924	5.00	5.08	
51 1,1,1-Trichloroethane	97	6.547	6.541	0.006	96	15055	5.00	4.32	M
52 Cyclohexane	56	6.608	6.620	-0.012	88	22688	5.00	5.09	
53 Carbon tetrachloride	117	6.712	6.718	-0.006	92	10435	5.00	4.24	
54 1,1-Dichloropropene	75	6.724	6.724	0.000	90	17924	5.00	4.79	
55 Isobutyl alcohol	41	6.900	6.900	0.000	80	7317	125.0	110.8	M
56 Benzene	78	6.943	6.943	0.000	96	59844	5.00	5.62	
57 1,2-Dichloroethane	62	7.016	7.016	0.000	98	23604	5.00	5.51	
59 n-Heptane	43	7.302	7.308	-0.006	86	14990	5.00	5.18	
61 Trichloroethene	130	7.679	7.679	0.000	89	11389	5.00	5.13	
63 Methylcyclohexane	83	7.916	7.922	-0.006	88	22772	5.00	5.06	
64 1,2-Dichloropropane	63	7.947	7.953	-0.006	86	13712	5.00	5.39	
65 1,4-Dioxane	88	8.026	8.032	-0.006	39	2321	100.0	92.5	
67 Dibromomethane	93	8.032	8.038	-0.006	92	7749	5.00	5.02	
68 Dichlorobromomethane	83	8.226	8.227	-0.001	96	11941	5.00	4.12	
71 cis-1,3-Dichloropropene	75	8.683	8.677	0.006	90	11797	5.00	3.70	
72 4-Methyl-2-pentanone (MIBK)	43	8.829	8.823	0.006	96	42150	25.0	21.9	
73 Toluene	91	9.011	9.011	0.000	98	55394	5.00	5.72	
74 trans-1,3-Dichloropropene	75	9.255	9.255	0.000	97	8162	5.00	3.32	
75 Ethyl methacrylate	69	9.315	9.315	0.000	87	9928	5.00	3.80	
76 1,1,2-Trichloroethane	97	9.449	9.449	0.000	91	10927	5.00	5.46	
77 Tetrachloroethene	164	9.528	9.522	0.006	90	9096	5.00	5.51	
78 1,3-Dichloropropane	76	9.607	9.607	0.000	91	19746	5.00	5.34	
79 2-Hexanone	43	9.656	9.656	0.000	96	27957	25.0	22.1	
81 Chlorodibromomethane	129	9.826	9.826	0.000	88	4662	5.00	3.41	
82 Ethylene Dibromide	107	9.942	9.942	0.000	93	8796	5.00	4.97	
83 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	56	18146	5.00	5.86	
84 Chlorobenzene	112	10.429	10.429	0.000	93	33099	5.00	5.56	
85 4-Chlorobenzotrifluoride	180	10.490	10.483	0.007	96	15713	5.00	5.47	
86 1,1,1,2-Tetrachloroethane	131	10.514	10.520	-0.006	40	6472	5.00	3.97	
87 Ethylbenzene	106	10.532	10.526	0.006	98	17773	5.00	5.30	
88 m-Xylene & p-Xylene	106	10.654	10.660	-0.006	97	21283	5.00	5.11	
89 o-Xylene	106	11.037	11.043	-0.006	96	20074	5.00	4.82	
90 Styrene	104	11.061	11.061	0.000	93	28385	5.00	4.44	
91 Bromoform	173	11.244	11.244	0.000	35	2602	5.00	3.57	
92 2-Chlorobenzotrifluoride	180	11.305	11.305	0.000	92	16686	5.00	5.26	
93 Isopropylbenzene	105	11.408	11.408	0.000	96	49505	5.00	4.97	
96 1,1,2,2-Tetrachloroethane	83	11.712	11.712	0.000	73	13623	5.00	5.09	
95 Bromobenzene	156	11.724	11.725	-0.001	96	12814	5.00	5.07	
97 trans-1,4-Dichloro-2-buten	53	11.749	11.749	0.000	51	3433	5.00	4.28	
98 1,2,3-Trichloropropane	110	11.773	11.767	0.006	83	4898	5.00	5.10	
99 N-Propylbenzene	120	11.822	11.828	-0.006	99	13092	5.00	4.50	
100 2-Chlorotoluene	126	11.919	11.913	0.006	93	11155	5.00	4.62	
101 3-Chlorotoluene	126	11.980	11.980	0.000	97	11861	5.00	4.67	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.010	12.010	0.000	93	43612	5.00	4.61	
103 4-Chlorotoluene	126	12.035	12.041	-0.006	98	12056	5.00	4.72	
104 tert-Butylbenzene	119	12.321	12.321	0.000	92	34048	5.00	4.55	
106 1,2,4-Trimethylbenzene	105	12.381	12.382	-0.001	98	41890	5.00	4.33	
107 1,2-dichloro-4-(trifluorom	214	12.418	12.418	0.000	96	14947	5.00	5.45	
108 sec-Butylbenzene	105	12.546	12.546	0.000	96	50094	5.00	4.49	
109 1,3-Dichlorobenzene	146	12.661	12.667	-0.006	88	25334	5.00	5.13	
110 4-Isopropyltoluene	119	12.704	12.704	0.000	95	40061	5.00	4.28	
111 1,4-Dichlorobenzene	146	12.771	12.771	0.000	88	25908	5.00	5.13	
113 2,4-Dichloro-1-(trifluorom	214	12.789	12.789	0.000	92	13852	5.00	5.08	
114 2,5-Dichlorobenzotrifluori	214	12.832	12.832	0.000	94	17529	5.00	5.75	
116 n-Butylbenzene	91	13.111	13.112	-0.001	98	43104	5.00	4.61	
117 1,2-Dichlorobenzene	146	13.130	13.124	0.006	93	27271	5.00	5.47	
118 1,2-Dibromo-3-Chloropropan	75	13.921	13.921	0.000	62	1637	5.00	3.58	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.054	14.061	-0.007	98	64430	15.0	14.8	
121 2,3- & 3,4- Dichlorotoluen	125	14.480	14.474	0.006	97	44720	10.0	9.34	
122 1,2,4-Trichlorobenzene	180	14.742	14.736	0.006	88	18465	5.00	4.78	
123 Hexachlorobutadiene	225	14.888	14.888	0.000	91	7049	5.00	4.63	
124 Naphthalene	128	15.010	15.004	0.006	97	30879	5.00	3.96	
125 1,2,3-Trichlorobenzene	180	15.229	15.229	0.000	92	18575	5.00	5.14	
126 2,4,5-Trichlorotoluene	159	16.013	16.007	0.006	0	10257	5.00	4.23	
127 2,3,6-Trichlorotoluene	159	16.111	16.111	0.000	93	10609	5.00	4.61	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		10.0	10.2	
S 131 Xylenes, Total	106				0		10.0	9.93	
S 132 1,3-Dichloropropene, Total	1				0		10.0	7.03	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260SURR_00039	Amount Added: 0.20	Units: uL	
VOA8260VOAPRI_00134	Amount Added: 0.20	Units: uL	
voaWVA1st Res_00003	Amount Added: 0.20	Units: uL	
voaWeemix1Res_00001	Amount Added: 0.20	Units: uL	
voaWket1Reste_00001	Amount Added: 0.80	Units: uL	
voaWAcro2nd R_00006	Amount Added: 4.00	Units: uL	
VOA8260INT_00039	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D

Injection Date: 31-Jul-2015 18:02:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: IC VSTD1

Worklist Smp#: 14

Client ID:

Purge Vol: 5.000 mL

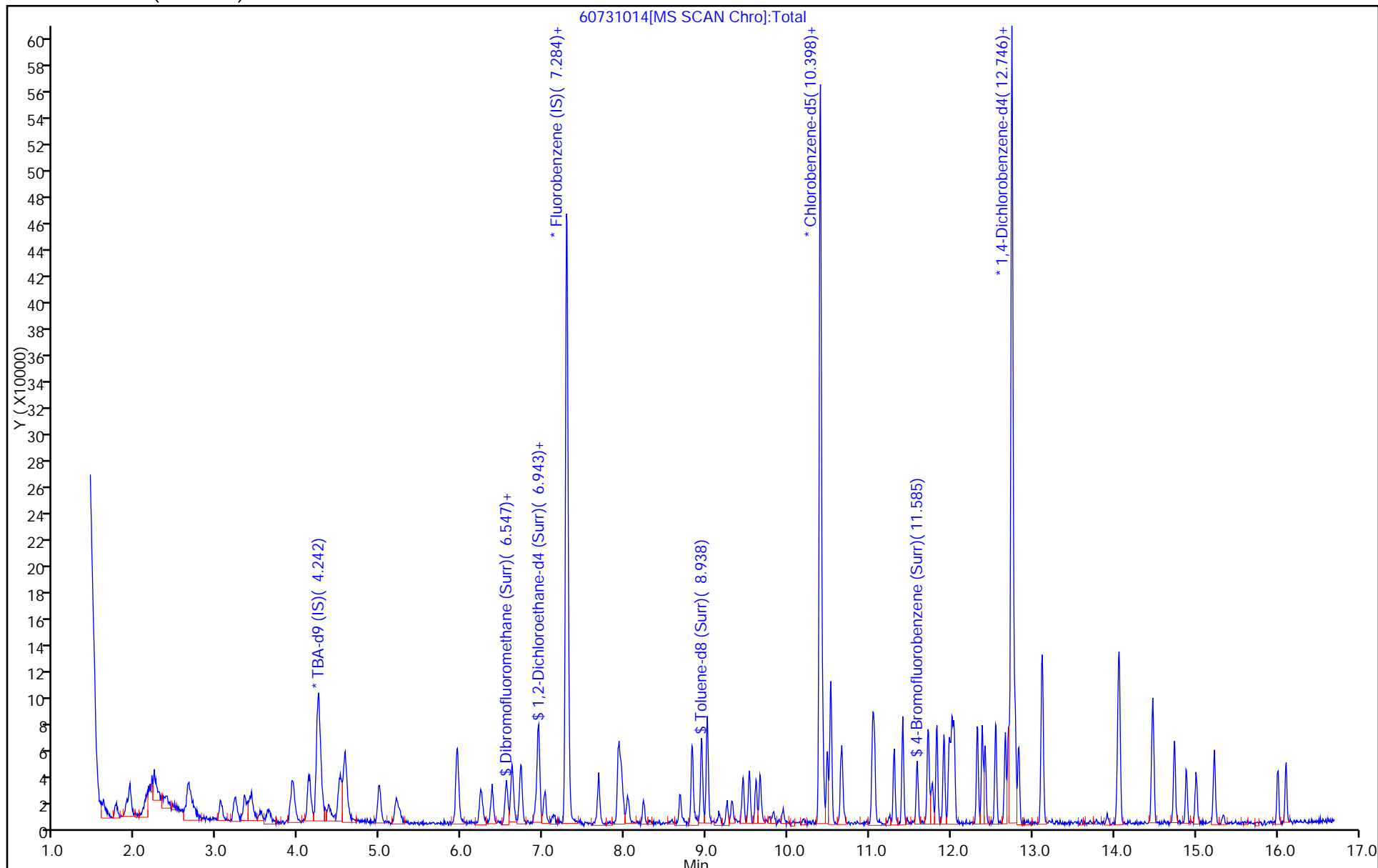
Dil. Factor: 1.0000

ALS Bottle#: 14

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



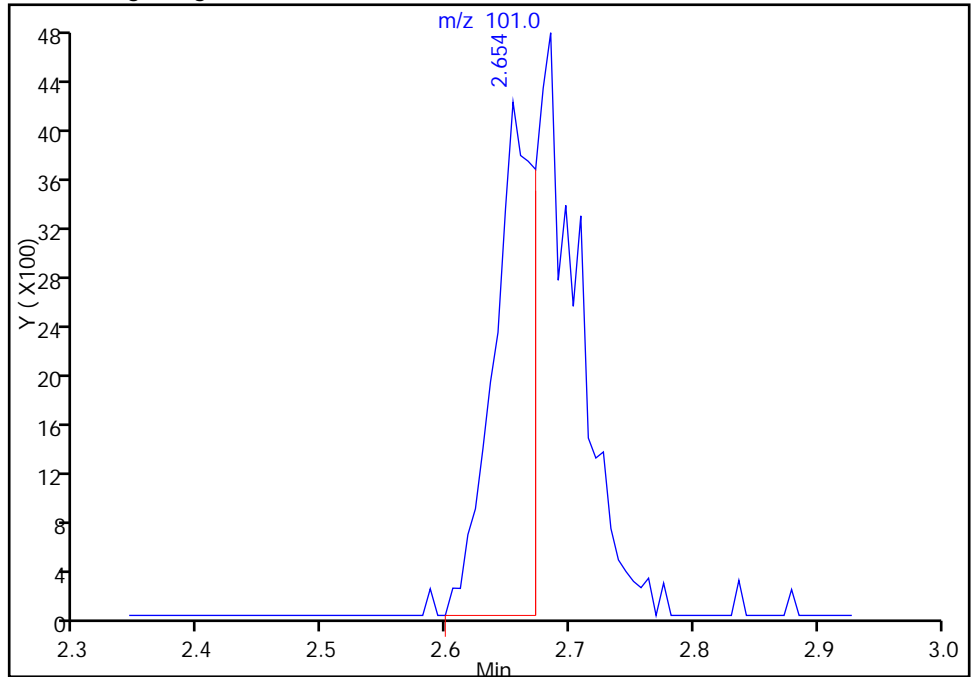
TestAmerica Pittsburgh

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Injection Date: 31-Jul-2015 18:02:30 Instrument ID: CHHP6  
Lims ID: IC VSTD1  
Client ID:  
Operator ID: 001562 ALS Bottle#: 14 Worklist Smp#: 14  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

18 Trichlorofluoromethane, CAS: 75-69-4

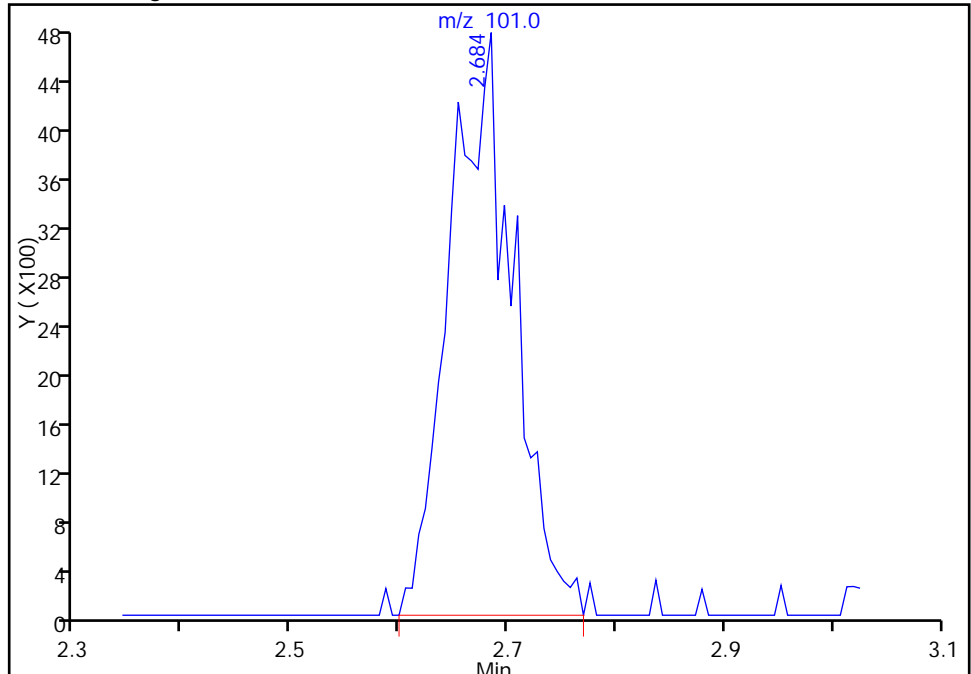
RT: 2.65  
Area: 9483  
Amount: 2.504798  
Amount Units: ng

Processing Integration Results



RT: 2.68  
Area: 19389  
Amount: 5.214616  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 11:05:58  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

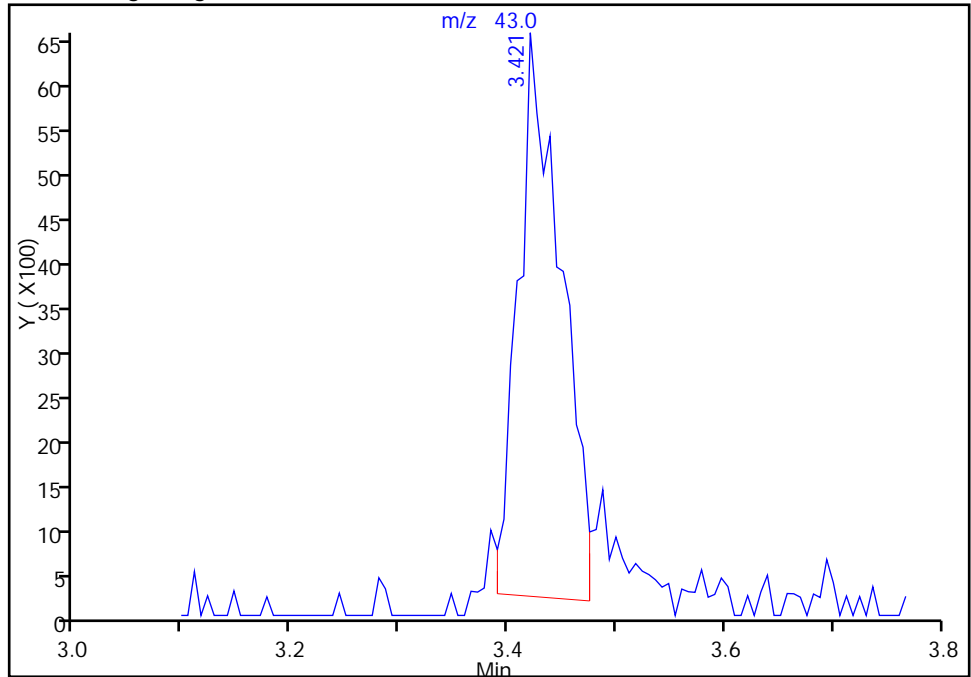
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Injection Date: 31-Jul-2015 18:02:30 Instrument ID: CHHP6  
Lims ID: IC VSTD1  
Client ID:  
Operator ID: 001562 ALS Bottle#: 14 Worklist Smp#: 14  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

24 Acetone, CAS: 67-64-1

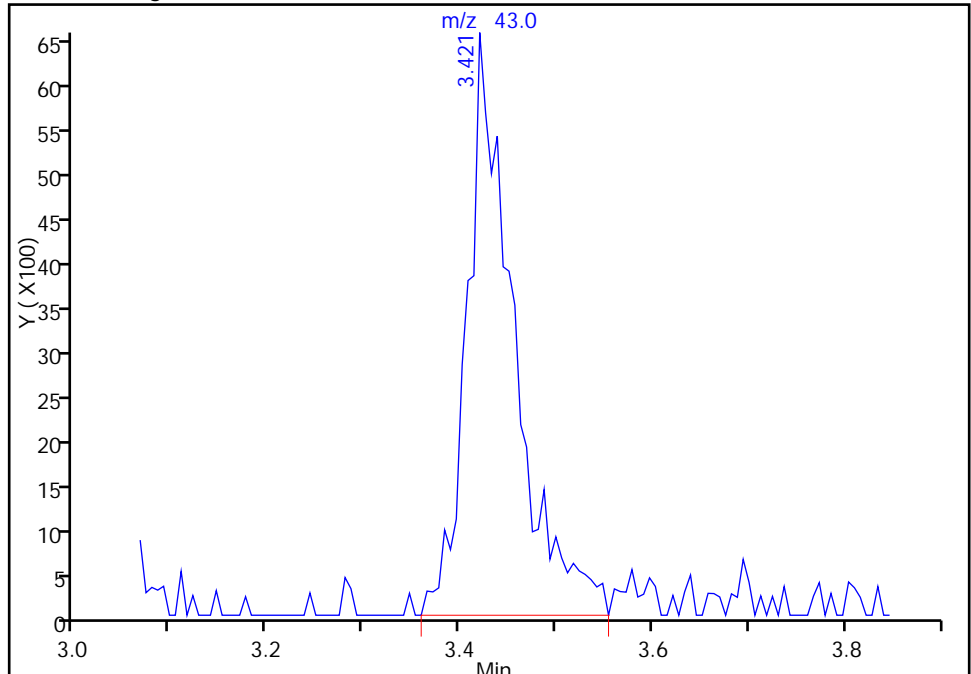
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Area: 17621  
Amount: 21.931508  
Amount Units: ng

Processing Integration Results



RT: 3.42  
Area: 22203  
Amount: 27.489890  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 11:05:58  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

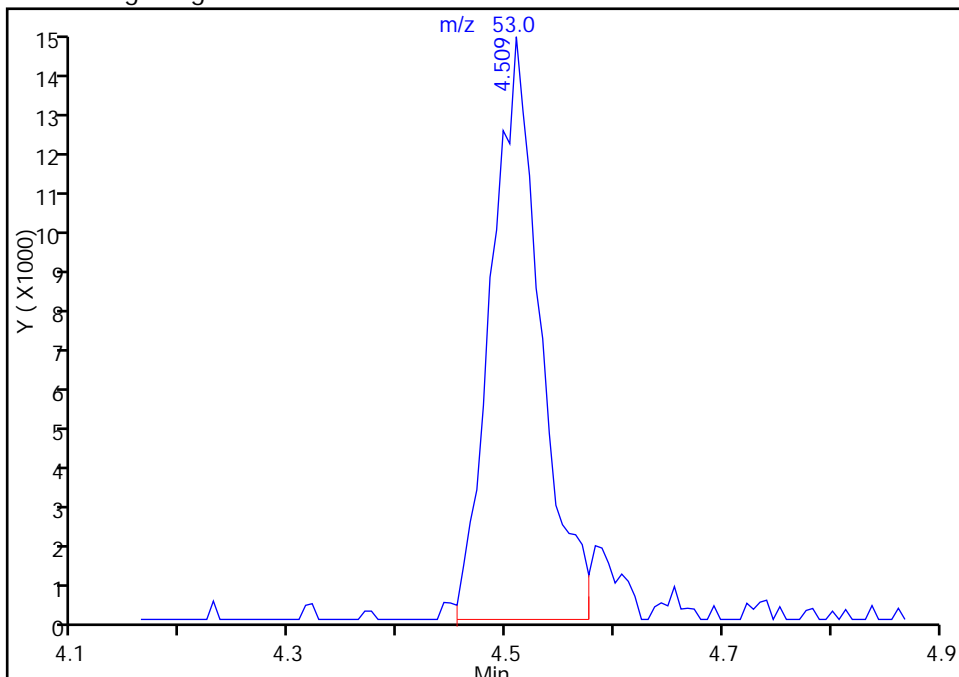
TestAmerica Pittsburgh

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Injection Date: 31-Jul-2015 18:02:30 Instrument ID: CHHP6  
Lims ID: IC VSTD1  
Client ID:  
Operator ID: 001562 ALS Bottle#: 14 Worklist Smp#: 14  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

33 Acrylonitrile, CAS: 107-13-1

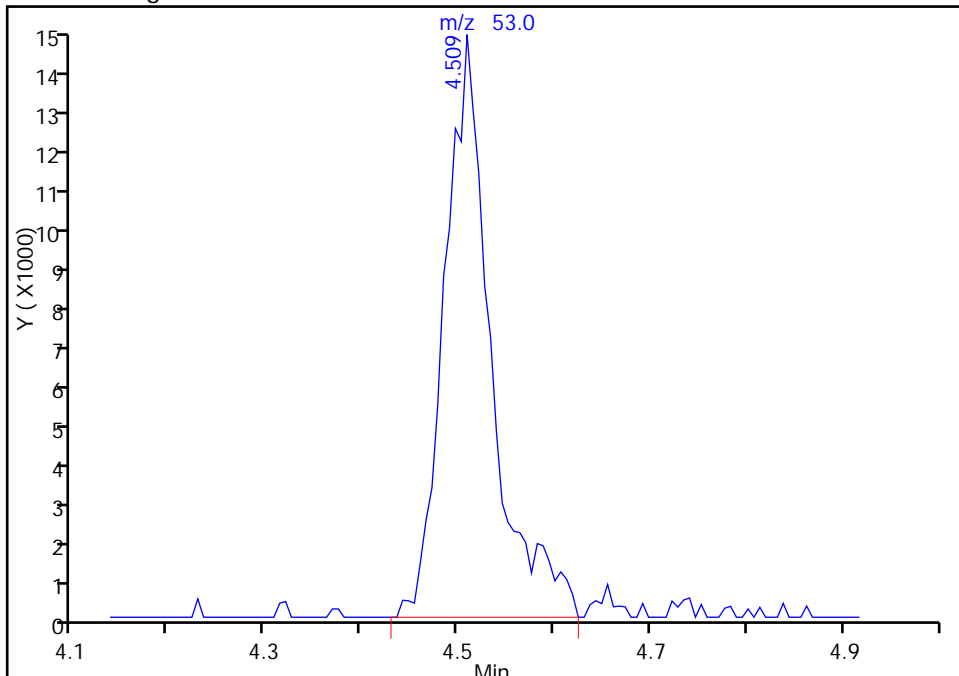
RT: 4.51  
Area: 45326  
Amount: 48.323975  
Amount Units: ng

Processing Integration Results



RT: 4.51  
Area: 48723  
Amount: 51.033411  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 11:05:58  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

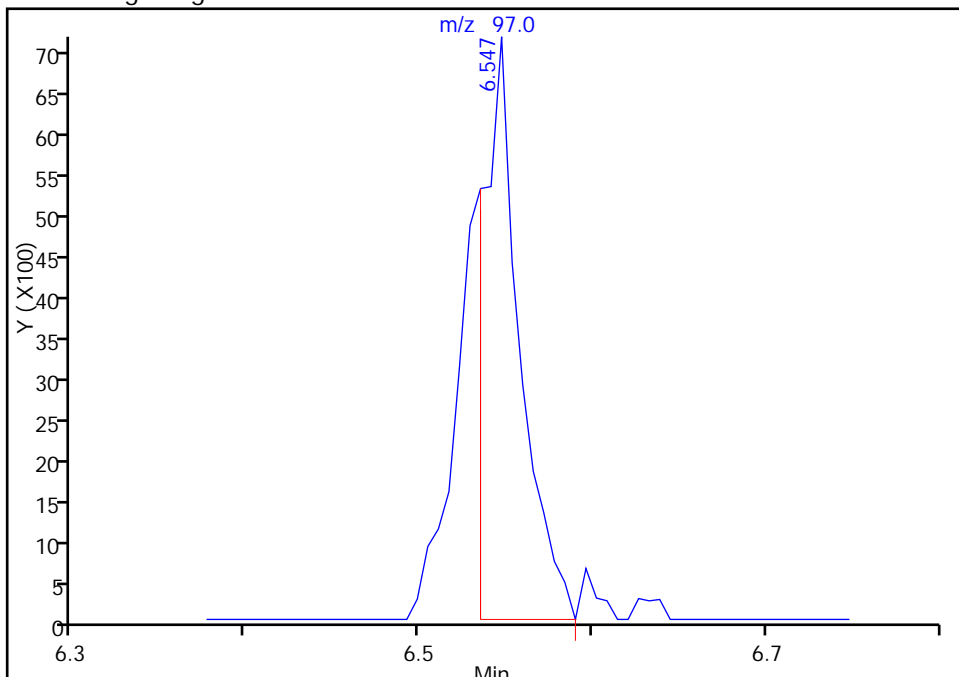
TestAmerica Pittsburgh

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Injection Date: 31-Jul-2015 18:02:30 Instrument ID: CHHP6  
Lims ID: IC VSTD1  
Client ID:  
Operator ID: 001562 ALS Bottle#: 14 Worklist Smp#: 14  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

51 1,1,1-Trichloroethane, CAS: 71-55-6

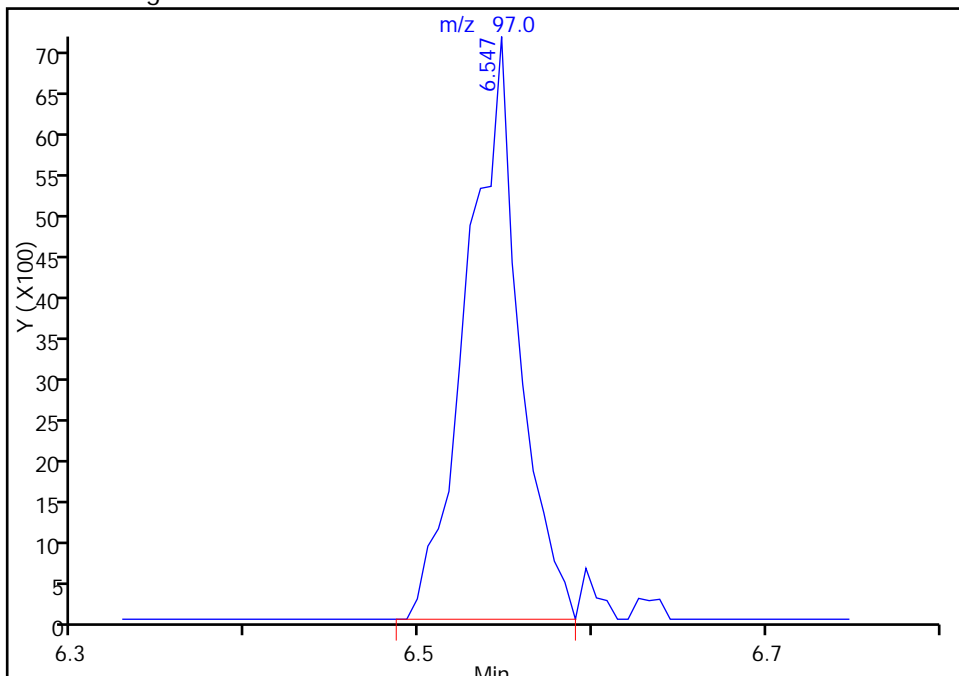
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Area: 10745  
Amount: 3.045023  
Amount Units: ng

Processing Integration Results



RT: 6.55  
Area: 15055  
Amount: 4.323691  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 11:05:58  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography



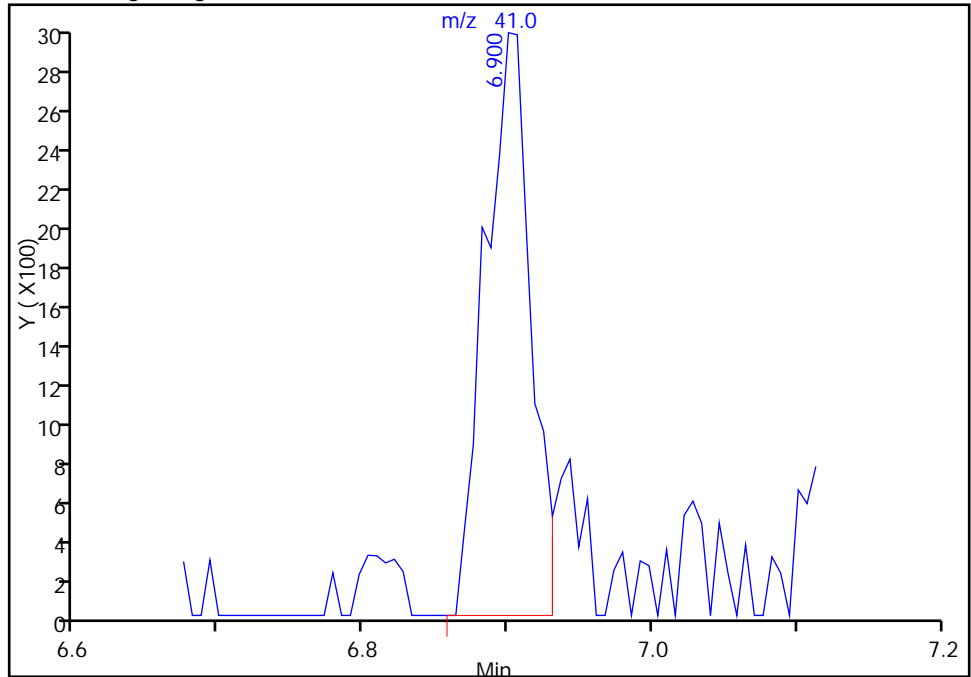
TestAmerica Pittsburgh

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Injection Date: 31-Jul-2015 18:02:30 Instrument ID: CHHP6  
Lims ID: IC VSTD1  
Client ID:  
Operator ID: 001562 ALS Bottle#: 14 Worklist Smp#: 14  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

55 Isobutyl alcohol, CAS: 78-83-1

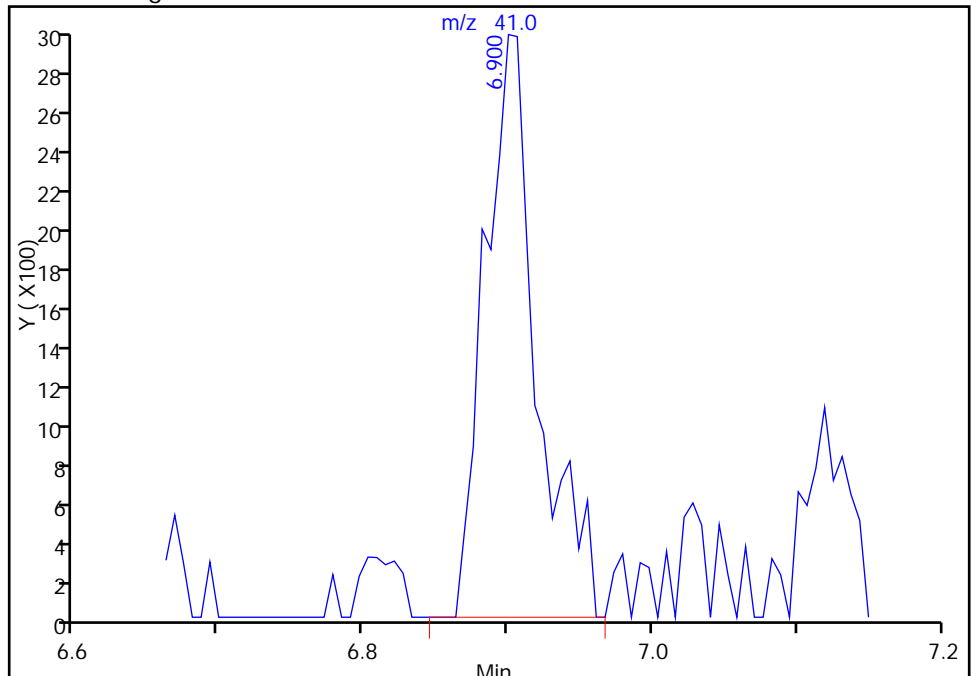
RT: 6.90  
Area: 6443  
Amount: 97.511814  
Amount Units: ng

Processing Integration Results



RT: 6.90  
Area: 7317  
Amount: 110.7809  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 11:05:58  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-156816/6 Calibration Date: 10/13/2015 13:30  
 Instrument ID: CHHP5 Calib Start Date: 08/26/2015 15:04  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 08/26/2015 17:52  
 Lab File ID: 51013006.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	0.2825	0.2923	0.1000	10.3	10.0	3.5	20.0
Chloromethane	Ave	0.4148	0.4604	0.1000	11.1	10.0	11.0	20.0
Vinyl chloride	Ave	0.3679	0.3154	0.1000	8.57	10.0	-14.3	20.0
1,3-Butadiene	Ave	0.4345	0.5577	0.0100	12.8	10.0	28.3*	20.0
Bromomethane	Ave	0.1497	0.1205	0.0500	8.05	10.0	-19.5	20.0
Chloroethane	Ave	0.2220	0.1496	0.0500	6.74	10.0	-32.6*	20.0
Dichlorofluoromethane	Ave	0.4709	0.3697	0.0100	7.85	10.0	-21.5*	20.0
Trichlorofluoromethane	Ave	0.3523	0.2484	0.1000	7.05	10.0	-29.5*	20.0
Ethyl ether	Ave	0.3265	0.3350	0.0100	10.3	10.0	2.6	20.0
Acrolein	Ave	0.0486	0.0556	0.0100	34.3	30.0	14.4	20.0
1,1-Dichloroethene	Ave	0.2785	0.2515	0.1000	9.03	10.0	-9.7	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2951	0.2804	0.1000	9.50	10.0	-5.0	20.0
Acetone	Ave	0.1009	0.1372	0.0500	27.2	20.0	36.0*	20.0
Iodomethane	Ave	0.4150	0.3660	0.0100	8.82	10.0	-11.8	20.0
Carbon disulfide	Ave	0.6466	0.6970	0.1000	10.8	10.0	7.8	20.0
Allyl chloride	Ave	0.1577	0.1372	0.0100	8.70	10.0	-13.0	20.0
Methyl acetate	Ave	0.3015	0.3951	0.1000	65.5	50.0	31.1*	20.0
Methylene Chloride	Lin2		0.3192	0.1000	9.72	10.0	-2.8	20.0
tert-Butyl alcohol	Ave	1.126	1.259	0.0100	112	100	11.9	20.0
Acrylonitrile	Ave	0.1463	0.1868	0.0100	128	100	27.7*	20.0
trans-1,2-Dichloroethene	Ave	0.3024	0.2783	0.1000	9.20	10.0	-8.0	20.0
Methyl tert-butyl ether	Ave	0.6999	0.6900	0.1000	9.86	10.0	-1.4	20.0
Hexane	Ave	0.5076	0.5776	0.0100	11.4	10.0	13.8	20.0
1,1-Dichloroethane	Ave	0.5957	0.6152	0.2000	10.3	10.0	3.3	20.0
Vinyl acetate	Ave	0.4469	0.6028	0.0100	13.5	10.0	34.9*	20.0
2,2-Dichloropropane	Ave	0.2387	0.2256	0.0100	9.45	10.0	-5.5	20.0
cis-1,2-Dichloroethene	Ave	0.3230	0.2946	0.1000	9.12	10.0	-8.8	20.0
2-Butanone (MEK)	Ave	0.1516	0.1969	0.0500	26.0	20.0	29.9*	20.0
Bromochloromethane	Ave	0.1418	0.1235	0.0100	8.71	10.0	-12.9	20.0
Tetrahydrofuran	Ave	0.1216	0.1553	0.0100	25.5	20.0	27.7*	20.0
Chloroform	Ave	0.5146	0.4675	0.2000	9.08	10.0	-9.2	20.0
1,1,1-Trichloroethane	Ave	0.3805	0.3476	0.1000	9.14	10.0	-8.6	20.0
Cyclohexane	Ave	0.6367	0.7258	0.1000	11.4	10.0	14.0	20.0
Carbon tetrachloride	Ave	0.3240	0.2902	0.1000	8.95	10.0	-10.5	20.0
1,1-Dichloropropene	Ave	0.4208	0.3900	0.0100	9.27	10.0	-7.3	20.0
Isobutyl alcohol	Ave	0.0095	0.0163	0.0100	428	250	71.2*	20.0
Benzene	Ave	1.233	1.221	0.5000	9.90	10.0	-1.0	20.0
1,2-Dichloroethane	Ave	0.4264	0.4323	0.1000	10.1	10.0	1.4	20.0
n-Heptane	Ave	0.4611	0.5662	0.0100	12.3	10.0	22.8*	20.0
Trichloroethene	Ave	0.3016	0.2689	0.2000	8.91	10.0	-10.9	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-156816/6 Calibration Date: 10/13/2015 13:30  
 Instrument ID: CHHP5 Calib Start Date: 08/26/2015 15:04  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 08/26/2015 17:52  
 Lab File ID: 51013006.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4753	0.4440	0.1000	9.34	10.0	-6.6	20.0
1,2-Dichloropropane	Ave	0.3235	0.3392	0.1000	10.5	10.0	4.8	20.0
Dibromomethane	Ave	0.1642	0.1466	0.0100	8.93	10.0	-10.7	20.0
1,4-Dioxane	Ave	0.0022	0.0032*	0.0100	289	200	44.6*	20.0
Bromodichloromethane	Ave	0.3249	0.3040	0.2000	9.36	10.0	-6.4	20.0
cis-1,3-Dichloropropene	Ave	0.3807	0.3358	0.2000	8.82	10.0	-11.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.232	1.386	0.1000	22.5	20.0	12.5	20.0
Toluene	Ave	4.950	5.125	0.4000	10.4	10.0	3.5	20.0
trans-1,3-Dichloropropene	Ave	1.292	1.238	0.1000	9.58	10.0	-4.2	20.0
Ethyl methacrylate	Ave	1.249	1.341	0.0100	10.7	10.0	7.4	20.0
1,1,2-Trichloroethane	Ave	0.9416	0.997	0.1000	10.6	10.0	5.8	20.0
Tetrachloroethene	Ave	0.9609	0.9758	0.2000	10.2	10.0	1.6	20.0
1,3-Dichloropropane	Ave	1.748	1.847	0.0100	10.6	10.0	5.6	20.0
2-Hexanone	Ave	0.8893	1.274	0.1000	28.7	20.0	43.3*	20.0
Dibromochloromethane	Ave	0.8152	0.8336	0.1000	10.2	10.0	2.3	20.0
1,2-Dibromoethane (EDB)	Ave	0.9073	0.9582	0.1000	10.6	10.0	5.6	20.0
3-Chlorobenzotrifluoride	Ave	1.591	1.705	0.0100	10.7	10.0	7.2	20.0
Chlorobenzene	Ave	3.187	3.266	0.5000	10.2	10.0	2.5	20.0
4-Chlorobenzotrifluoride	Ave	1.504	1.584	0.0100	10.5	10.0	5.4	20.0
1,1,1,2-Tetrachloroethane	Ave	1.039	1.022	0.0100	9.83	10.0	-1.7	20.0
Ethylbenzene	Ave	1.690	1.836	0.1000	10.9	10.0	8.6	20.0
m-Xylene & p-Xylene	Ave	2.072	2.211	0.1000	10.7	10.0	6.7	20.0
o-Xylene	Ave	1.969	2.115	0.3000	10.7	10.0	7.4	20.0
Styrene	Ave	3.262	3.589	0.3000	11.0	10.0	10.0	20.0
Bromoform	Ave	0.4652	0.4696	0.1000	10.1	10.0	0.9	20.0
2-Chlorobenzotrifluoride	Ave	1.565	1.639	0.0100	10.5	10.0	4.7	20.0
Isopropylbenzene	Ave	4.822	5.250	0.1000	10.9	10.0	8.9	20.0
1,1,2,2-Tetrachloroethane	Ave	1.270	1.388	0.3000	10.9	10.0	9.3	20.0
Bromobenzene	Ave	0.8583	0.8397	0.0100	9.78	10.0	-2.2	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3103	0.0250	0.0100	0.805	10.0	-92.0*	20.0
1,2,3-Trichloropropane	Ave	0.2831	0.3107	0.0100	11.0	10.0	9.7	20.0
N-Propylbenzene	Ave	0.9825	0.9706	0.0100	9.88	10.0	-1.2	20.0
2-Chlorotoluene	Ave	0.8351	0.8296	0.0100	9.93	10.0	-0.7	20.0
3-Chlorotoluene	Ave	0.8583	0.9055	0.0100	10.6	10.0	5.5	20.0
1,3,5-Trimethylbenzene	Ave	2.776	2.988	0.0100	10.8	10.0	7.6	20.0
4-Chlorotoluene	Ave	0.9190	0.9062	0.0100	9.86	10.0	-1.4	20.0
tert-Butylbenzene	Ave	2.257	2.229	0.0100	9.88	10.0	-1.2	20.0
1,2,4-Trimethylbenzene	Ave	2.781	2.995	0.0100	10.8	10.0	7.7	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.7754	0.7667	0.0100	9.89	10.0	-1.1	20.0
sec-Butylbenzene	Ave	3.187	3.417	0.0100	10.7	10.0	7.2	20.0
1,3-Dichlorobenzene	Ave	1.528	1.506	0.6000	9.85	10.0	-1.5	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-156816/6 Calibration Date: 10/13/2015 13:30  
 Instrument ID: CHHP5 Calib Start Date: 08/26/2015 15:04  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 08/26/2015 17:52  
 Lab File ID: 51013006.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	2.696	2.761	0.0100	10.2	10.0	2.4	20.0
1,4-Dichlorobenzene	Ave	1.590	1.585	0.5000	9.97	10.0	-0.3	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7185	0.7151	0.0100	9.95	10.0	-0.5	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.7765	0.8164	0.0100	10.5	10.0	5.1	20.0
n-Butylbenzene	Ave	2.307	2.285	0.0100	9.90	10.0	-1.0	20.0
1,2-Dichlorobenzene	Ave	1.428	1.444	0.4000	10.1	10.0	1.1	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1173	0.1444	0.0500	12.3	10.0	23.1*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	0.8157	0.9019	0.0100	33.2	30.0	10.6	20.0
2,3- & 3,4- Dichlorotoluene	Ave	0.7778	0.8281	0.0100	21.3	20.0	6.5	20.0
1,2,4-Trichlorobenzene	Ave	0.5557	0.5822	0.2000	10.5	10.0	4.8	20.0
Hexachlorobutadiene	Ave	0.2677	0.2844	0.0100	10.6	10.0	6.3	20.0
Naphthalene	Ave	1.428	1.589	0.0100	11.1	10.0	11.3	20.0
1,2,3-Trichlorobenzene	Ave	0.4498	0.4896	0.0100	10.9	10.0	8.8	20.0
2,4,5-Trichlorotoluene	Ave	0.1623	0.1479	0.0100	9.12	10.0	-8.8	20.0
2,3,6-Trichlorotoluene	Ave	0.1496	0.1659	0.0100	11.1	10.0	10.9	20.0
Dibromofluoromethane (Surr)	Ave	0.2455	0.2099		8.55	10.0	-14.5	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3373	0.3108		9.22	10.0	-7.8	20.0
Toluene-d8 (Surr)	Ave	3.857	3.940		10.2	10.0	2.1	20.0
4-Bromofluorobenzene (Surr)	Ave	1.455	1.402		9.63	10.0	-3.7	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151013-8970.b\51013006.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 13-Oct-2015 13:30:30 ALS Bottle#: 4 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: CCVIS  
 Misc. Info.: 180-0008970-006  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub4  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151013-8970.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 13-Oct-2015 14:35:49 Calib Date: 26-Aug-2015 17:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK048

First Level Reviewer: fergusond

Date: 13-Oct-2015 14:13:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.284	4.284	0.000	0	183157	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	97	407870	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.386	0.000	93	92984	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.734	12.734	0.000	96	136578	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.566	6.566	0.000	94	85629	50.0	42.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	126777	50.0	46.1	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	96	366359	50.0	51.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.572	0.000	85	130327	50.0	48.2	
11 Dichlorodifluoromethane	85	1.601	1.601	0.000	97	119209	50.0	51.7	
12 Chloromethane	50	1.772	1.772	0.000	99	187779	50.0	55.5	
13 Vinyl chloride	62	1.918	1.918	0.000	98	128631	50.0	42.9	
14 Butadiene	39	1.942	1.942	0.000	96	227452	50.0	64.2	
15 Bromomethane	94	2.265	2.265	0.000	91	49135	50.0	40.2	
16 Chloroethane	64	2.417	2.417	0.000	95	61010	50.0	33.7	
17 Dichlorofluoromethane	67	2.678	2.678	0.000	96	150787	50.0	39.2	
18 Trichlorofluoromethane	101	2.709	2.709	0.000	98	101318	50.0	35.3	
20 Ethyl ether	59	3.055	3.055	0.000	94	136624	50.0	51.3	
21 Acrolein	56	3.238	3.238	0.000	98	68086	150.0	171.6	
22 1,1-Dichloroethene	96	3.341	3.341	0.000	92	102579	50.0	45.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.426	3.426	0.000	94	114364	50.0	47.5	
24 Acetone	43	3.439	3.439	0.000	90	111887	100.0	136.0	
25 Iodomethane	142	3.536	3.536	0.000	99	149271	50.0	44.1	
26 Carbon disulfide	76	3.633	3.633	0.000	100	284271	50.0	53.9	
28 3-Chloro-1-propene	76	3.919	3.919	0.000	89	55940	50.0	43.5	
30 Methyl acetate	43	3.944	3.944	0.000	100	805696	250.0	327.6	
31 Methylene Chloride	84	4.144	4.144	0.000	92	130172	50.0	48.6	
32 2-Methyl-2-propanol	59	4.412	4.412	0.000	88	115296	500.0	559.3	
33 Acrylonitrile	53	4.521	4.521	0.000	98	761845	500.0	638.5	
34 trans-1,2-Dichloroethene	96	4.570	4.570	0.000	92	113488	50.0	46.0	
35 Methyl tert-butyl ether	73	4.582	4.582	0.000	91	281420	50.0	49.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.996	4.996	0.000	94	235604	50.0	56.9	
37 1,1-Dichloroethane	63	5.209	5.209	0.000	97	250906	50.0	51.6	
38 Vinyl acetate	43	5.251	5.251	0.000	97	245842	50.0	67.4	
45 cis-1,2-Dichloroethene	96	5.951	5.951	0.000	89	120137	50.0	45.6	
44 2,2-Dichloropropane	77	5.951	5.951	0.000	58	91996	50.0	47.2	
46 2-Butanone (MEK)	43	5.963	5.963	0.000	88	160639	100.0	129.9	
49 Chlorobromomethane	128	6.237	6.237	0.000	85	50369	50.0	43.5	
51 Tetrahydrofuran	42	6.255	6.255	0.000	93	126692	100.0	127.7	
52 Chloroform	83	6.383	6.383	0.000	97	190662	50.0	45.4	
53 1,1,1-Trichloroethane	97	6.547	6.547	0.000	94	141783	50.0	45.7	
54 Cyclohexane	56	6.614	6.614	0.000	95	296041	50.0	57.0	
56 Carbon tetrachloride	117	6.718	6.718	0.000	94	118357	50.0	44.8	
55 1,1-Dichloropropene	75	6.730	6.730	0.000	86	159048	50.0	46.3	
57 Isobutyl alcohol	41	6.931	6.931	0.000	95	166236	1250.0	2140.2	
58 Benzene	78	6.949	6.949	0.000	97	498079	50.0	49.5	
59 1,2-Dichloroethane	62	7.022	7.022	0.000	95	176307	50.0	50.7	
62 n-Heptane	43	7.308	7.308	0.000	96	230934	50.0	61.4	
64 Trichloroethene	130	7.685	7.685	0.000	95	109654	50.0	44.6	
66 Methylcyclohexane	83	7.916	7.916	0.000	95	181095	50.0	46.7	
67 1,2-Dichloropropane	63	7.946	7.946	0.000	95	138343	50.0	52.4	
68 Dibromomethane	93	8.038	8.038	0.000	97	59800	50.0	44.6	
70 1,4-Dioxane	88	8.044	8.044	0.000	63	26300	1000.0	1445.6	M
71 Dichlorobromomethane	83	8.232	8.232	0.000	96	123999	50.0	46.8	
74 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	87	136952	50.0	44.1	
75 4-Methyl-2-pentanone (MIBK)	43	8.829	8.829	0.000	98	257796	100.0	112.5	
76 Toluene	91	9.005	9.005	0.000	97	476581	50.0	51.8	
77 trans-1,3-Dichloropropene	75	9.254	9.254	0.000	94	115113	50.0	47.9	
78 Ethyl methacrylate	69	9.315	9.315	0.000	91	124698	50.0	53.7	
79 1,1,2-Trichloroethane	97	9.449	9.449	0.000	94	92671	50.0	52.9	
80 Tetrachloroethene	164	9.522	9.522	0.000	94	90731	50.0	50.8	
81 1,3-Dichloropropane	76	9.607	9.607	0.000	93	171697	50.0	52.8	
82 2-Hexanone	43	9.656	9.656	0.000	96	236935	100.0	143.3	
84 Chlorodibromomethane	129	9.820	9.820	0.000	89	77515	50.0	51.1	
85 Ethylene Dibromide	107	9.936	9.936	0.000	98	89096	50.0	52.8	
86 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	85	158565	50.0	53.6	
87 Chlorobenzene	112	10.416	10.416	0.000	92	303688	50.0	51.2	
88 4-Chlorobenzotrifluoride	180	10.477	10.477	0.000	96	147321	50.0	52.7	
89 1,1,1,2-Tetrachloroethane	131	10.514	10.514	0.000	92	94995	50.0	49.2	
90 Ethylbenzene	106	10.520	10.520	0.000	98	170674	50.0	54.3	
91 m-Xylene & p-Xylene	106	10.648	10.648	0.000	0	205600	50.0	53.4	
92 o-Xylene	106	11.031	11.031	0.000	97	196691	50.0	53.7	
93 Styrene	104	11.049	11.049	0.000	94	333751	50.0	55.0	
94 Bromoform	173	11.238	11.238	0.000	97	43661	50.0	50.5	
96 2-Chlorobenzotrifluoride	180	11.298	11.298	0.000	97	152434	50.0	52.4	
97 Isopropylbenzene	105	11.396	11.396	0.000	97	488195	50.0	54.4	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.706	0.000	79	129062	50.0	54.6	
100 Bromobenzene	156	11.712	11.712	0.000	96	114680	50.0	48.9	
102 trans-1,4-Dichloro-2-buten	53	11.743	11.743	0.000	37	3411	50.0	4.02	
101 1,2,3-Trichloropropane	110	11.761	11.761	0.000	90	42432	50.0	54.9	
103 N-Propylbenzene	120	11.816	11.816	0.000	99	132568	50.0	49.4	
104 2-Chlorotoluene	126	11.901	11.901	0.000	95	113304	50.0	49.7	
105 3-Chlorotoluene	126	11.968	11.968	0.000	96	123675	50.0	52.8	

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	11.998	11.998	0.000	95	408131	50.0	53.8	
107 4-Chlorotoluene	126	12.022	12.022	0.000	98	123770	50.0	49.3	
108 tert-Butylbenzene	119	12.308	12.308	0.000	95	304433	50.0	49.4	
110 1,2,4-Trimethylbenzene	105	12.369	12.369	0.000	99	409070	50.0	53.8	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.412	0.000	95	104713	50.0	49.4	
112 sec-Butylbenzene	105	12.533	12.533	0.000	95	466674	50.0	53.6	
113 1,3-Dichlorobenzene	146	12.649	12.649	0.000	96	205681	50.0	49.3	
114 4-Isopropyltoluene	119	12.692	12.692	0.000	97	377138	50.0	51.2	
115 1,4-Dichlorobenzene	146	12.758	12.758	0.000	93	216425	50.0	49.8	
116 2,4-Dichloro-1-(trifluorom	214	12.783	12.783	0.000	95	97667	50.0	49.8	
118 2,5-Dichlorobenzotrifluori	214	12.825	12.825	0.000	0	111499	50.0	52.6	
120 n-Butylbenzene	91	13.099	13.099	0.000	98	312049	50.0	49.5	
121 1,2-Dichlorobenzene	146	13.111	13.111	0.000	95	197188	50.0	50.5	
122 1,2-Dibromo-3-Chloropropan	75	13.902	13.902	0.000	71	19721	50.0	61.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.048	14.048	0.000	0	369538	150.0	165.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.462	14.462	0.000	0	226196	100.0	106.5	
126 1,2,4-Trichlorobenzene	180	14.730	14.730	0.000	94	79512	50.0	52.4	
127 Hexachlorobutadiene	225	14.869	14.869	0.000	95	38846	50.0	53.1	
128 Naphthalene	128	14.997	14.997	0.000	98	217009	50.0	55.6	
129 1,2,3-Trichlorobenzene	180	15.216	15.216	0.000	95	66873	50.0	54.4	
131 2,4,5-Trichlorotoluene	159	15.995	15.995	0.000	0	20206	50.0	45.6	
130 2,3,6-Trichlorotoluene	159	16.092	16.092	0.000	97	22660	50.0	55.4	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	107.1	
S 134 1,2-Dichloroethene, Total	96				0		100.0	91.6	
S 135 1,3-Dichloropropene, Total	1				0		100.0	92.0	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
voaWKet1stRes_00001	Amount Added: 2.00	Units: uL	
voaWEEpri Res_00006	Amount Added: 2.00	Units: uL	
VOA8260VOAPRI_00148	Amount Added: 2.00	Units: uL	
voaWVA1stRest_00001	Amount Added: 2.00	Units: uL	
VOA8260INT_00043	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00043	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151013-8970.b\51013006.D

Injection Date: 13-Oct-2015 13:30:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

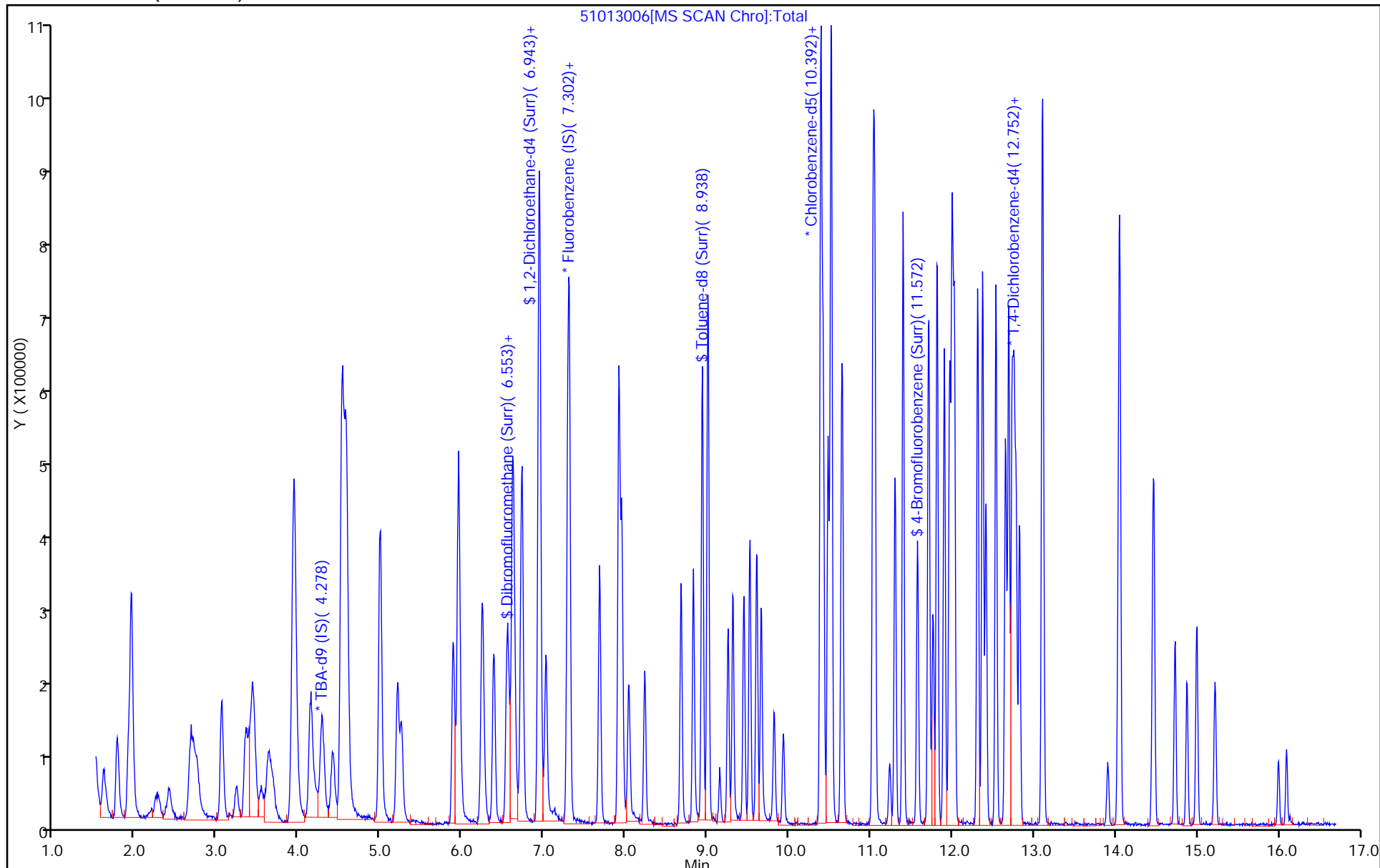
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





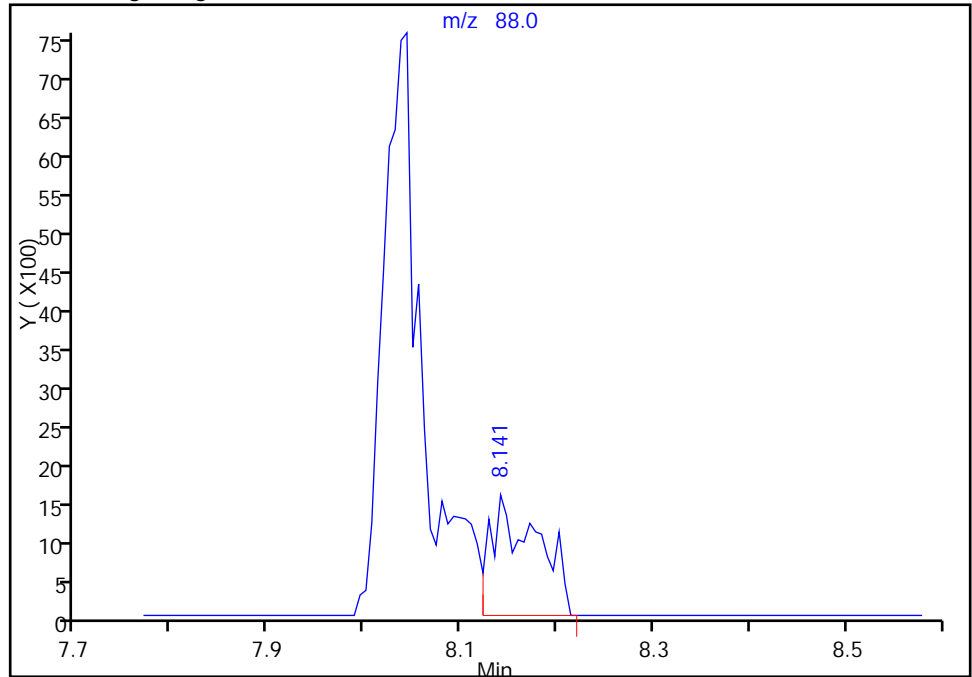
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151013-8970.b\51013006.D  
Injection Date: 13-Oct-2015 13:30:30 Instrument ID: CHHP5  
Lims ID: CCVIS  
Client ID:  
Operator ID: 001562 ALS Bottle#: 4 Worklist Smp#: 6  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

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

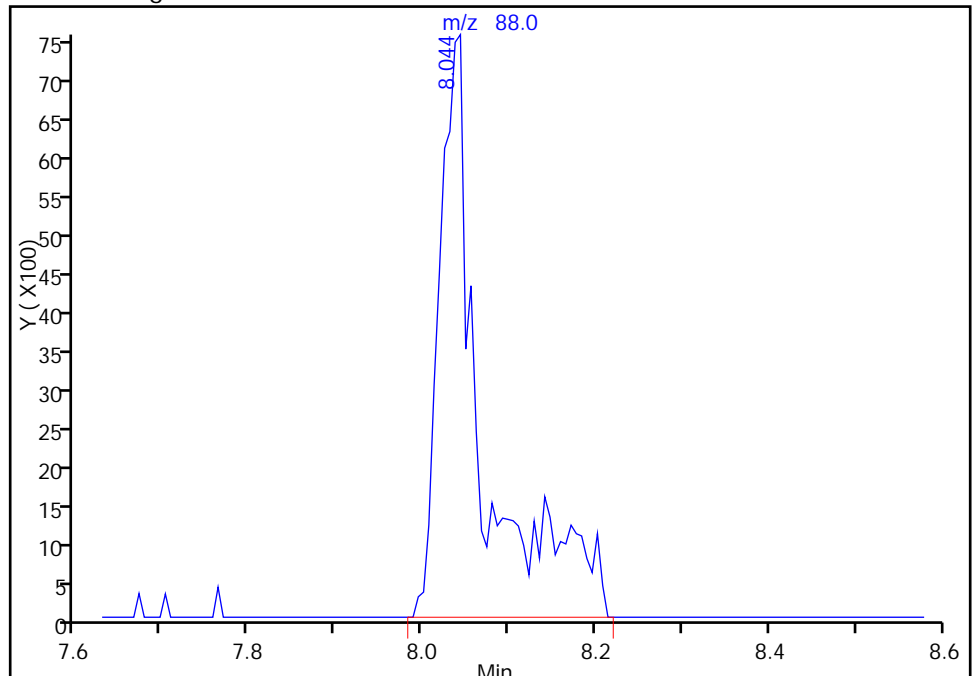
RT: 8.14  
Area: 5249  
Amount: 288.5072  
Amount Units: ng

Processing Integration Results



RT: 8.04  
Area: 26300  
Amount: 1445.5589  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 13-Oct-2015 14:13:36  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-157127/2 Calibration Date: 10/15/2015 12:56  
 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: 51015002.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	0.1567	0.0100	19.0	20.0	-5.1	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015002.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 15-Oct-2015 12:56:30 ALS Bottle#: 2 Worklist Smp#: 2  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: CCVIS  
 Misc. Info.: 180-0009022-002  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub12  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 15-Oct-2015 13:56:13 Calib Date: 26-Aug-2015 17:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK008

First Level Reviewer: fergusond

Date: 15-Oct-2015 13:45:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.273	4.273	0.000	0	155406	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	98	379251	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.386	0.000	89	82633	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.735	12.735	0.000	94	127710	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.554	6.554	0.000	93	81725	50.0	43.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.931	0.000	0	117004	50.0	45.7	
\$ 7 Toluene-d8 (Surr)	98	8.939	8.939	0.000	95	355461	50.0	55.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.573	11.573	0.000	84	126197	50.0	52.5	
11 Dichlorodifluoromethane	85	1.596	1.596	0.000	98	129386	50.0	60.4	
12 Chloromethane	50	1.772	1.772	0.000	99	148687	50.0	47.3	
13 Vinyl chloride	62	1.912	1.912	0.000	98	111416	50.0	39.9	
14 Butadiene	39	1.943	1.943	0.000	98	153207	50.0	46.5	
15 Bromomethane	94	2.241	2.241	0.000	92	37648	50.0	33.2	
16 Chloroethane	64	2.399	2.399	0.000	98	58341	50.0	34.7	
17 Dichlorofluoromethane	67	2.667	2.667	0.000	97	146358	50.0	41.0	
18 Trichlorofluoromethane	101	2.703	2.703	0.000	83	124282	50.0	46.5	M
20 Ethyl ether	59	3.038	3.038	0.000	98	108422	50.0	43.8	
21 Acrolein	56	3.220	3.220	0.000	98	50008	150.0	135.5	
22 1,1-Dichloroethene	96	3.330	3.330	0.000	93	99242	50.0	47.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.415	3.415	0.000	93	107768	50.0	48.2	
24 Acetone	43	3.439	3.439	0.000	99	94511	100.0	123.5	
25 Iodomethane	142	3.537	3.537	0.000	98	135354	50.0	43.0	
26 Carbon disulfide	76	3.640	3.640	0.000	100	247744	50.0	50.5	
28 3-Chloro-1-propene	76	3.914	3.914	0.000	89	58242	50.0	48.7	
30 Methyl acetate	43	3.938	3.938	0.000	100	627408	250.0	274.4	
31 Methylene Chloride	84	4.139	4.139	0.000	95	119062	50.0	47.7	
32 2-Methyl-2-propanol	59	4.394	4.394	0.000	92	100001	500.0	571.7	
33 Acrylonitrile	53	4.522	4.522	0.000	99	583774	500.0	526.2	
34 trans-1,2-Dichloroethene	96	4.559	4.559	0.000	93	105441	50.0	46.0	
35 Methyl tert-butyl ether	73	4.577	4.577	0.000	94	236391	50.0	44.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.984	4.984	0.000	96	206806	50.0	53.7	
37 1,1-Dichloroethane	63	5.197	5.197	0.000	97	212242	50.0	47.0	
38 Vinyl acetate	43	5.246	5.246	0.000	97	173652	50.0	51.2	
44 2,2-Dichloropropane	77	5.946	5.946	0.000	54	83728	50.0	46.2	
45 cis-1,2-Dichloroethene	96	5.946	5.946	0.000	85	112217	50.0	45.8	
46 2-Butanone (MEK)	43	5.952	5.952	0.000	73	131824	100.0	114.7	
49 Chlorobromomethane	128	6.231	6.231	0.000	87	44049	50.0	40.9	
51 Tetrahydrofuran	42	6.250	6.250	0.000	94	100194	100.0	108.6	
52 Chloroform	83	6.377	6.377	0.000	95	176887	50.0	45.3	
53 1,1,1-Trichloroethane	97	6.536	6.536	0.000	94	127859	50.0	44.3	
54 Cyclohexane	56	6.609	6.609	0.000	97	248392	50.0	51.4	
56 Carbon tetrachloride	117	6.718	6.718	0.000	96	105393	50.0	42.9	
55 1,1-Dichloropropene	75	6.724	6.724	0.000	92	157946	50.0	49.5	
57 Isobutyl alcohol	41	6.925	6.925	0.000	67	112236	1250.0	1554.0	
58 Benzene	78	6.943	6.943	0.000	96	458935	50.0	49.1	
59 1,2-Dichloroethane	62	7.016	7.016	0.000	97	150757	50.0	46.6	
62 n-Heptane	43	7.302	7.302	0.000	97	200317	50.0	57.3	
64 Trichloroethene	130	7.673	7.673	0.000	97	98559	50.0	43.1	
66 Methylcyclohexane	83	7.917	7.917	0.000	98	176662	50.0	49.0	
67 1,2-Dichloropropane	63	7.947	7.947	0.000	95	114484	50.0	46.7	
70 1,4-Dioxane	88	8.026	8.026	0.000	50	22603	1000.0	1336.1	M
68 Dibromomethane	93	8.032	8.032	0.000	98	56311	50.0	45.2	
71 Dichlorobromomethane	83	8.233	8.233	0.000	96	113911	50.0	46.2	
73 2-Chloroethyl vinyl ether	63	8.531	8.531	0.000	89	118857	100.0	94.9	
74 cis-1,3-Dichloropropene	75	8.671	8.671	0.000	89	131950	50.0	45.7	
75 4-Methyl-2-pentanone (MIBK)	43	8.823	8.823	0.000	99	202241	100.0	99.3	
76 Toluene	91	9.006	9.006	0.000	98	449632	50.0	55.0	
77 trans-1,3-Dichloropropene	75	9.255	9.255	0.000	98	109574	50.0	51.3	
78 Ethyl methacrylate	69	9.310	9.310	0.000	94	116569	50.0	56.5	
79 1,1,2-Trichloroethane	97	9.444	9.444	0.000	93	80200	50.0	51.5	
80 Tetrachloroethene	164	9.517	9.517	0.000	94	85746	50.0	54.0	
81 1,3-Dichloropropane	76	9.602	9.602	0.000	98	155424	50.0	53.8	
82 2-Hexanone	43	9.663	9.663	0.000	98	165460	100.0	112.6	
84 Chlorodibromomethane	129	9.815	9.815	0.000	93	62302	50.0	46.2	
85 Ethylene Dibromide	107	9.930	9.930	0.000	99	76506	50.0	51.0	
86 3-Chlorobenzotrifluoride	180	10.393	10.393	0.000	85	145014	50.0	55.2	
87 Chlorobenzene	112	10.417	10.417	0.000	91	268779	50.0	51.0	
88 4-Chlorobenzotrifluoride	180	10.478	10.478	0.000	96	132111	50.0	53.2	
89 1,1,1,2-Tetrachloroethane	131	10.514	10.514	0.000	91	78866	50.0	45.9	
90 Ethylbenzene	106	10.520	10.520	0.000	99	149399	50.0	53.5	
91 m-Xylene & p-Xylene	106	10.654	10.654	0.000	0	186929	50.0	54.6	
92 o-Xylene	106	11.031	11.031	0.000	98	175439	50.0	53.9	
93 Styrene	104	11.050	11.050	0.000	95	298841	50.0	55.4	
94 Bromoform	173	11.232	11.232	0.000	94	39720	50.0	51.7	
96 2-Chlorobenzotrifluoride	180	11.299	11.299	0.000	96	139926	50.0	54.1	
97 Isopropylbenzene	105	11.396	11.396	0.000	97	448622	50.0	56.3	
99 1,1,2,2-Tetrachloroethane	83	11.707	11.707	0.000	92	114599	50.0	54.6	
100 Bromobenzene	156	11.707	11.707	0.000	96	101975	50.0	46.5	
102 trans-1,4-Dichloro-2-buten	53	11.743	11.743	0.000	70	26010	50.0	32.8	
101 1,2,3-Trichloropropane	110	11.767	11.767	0.000	88	34781	50.0	48.1	
103 N-Propylbenzene	120	11.816	11.816	0.000	99	126127	50.0	50.3	
104 2-Chlorotoluene	126	11.901	11.901	0.000	95	103376	50.0	48.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.968	11.968	0.000	96	107401	50.0	49.0	
106 1,3,5-Trimethylbenzene	105	11.999	11.999	0.000	94	381085	50.0	53.7	
107 4-Chlorotoluene	126	12.029	12.029	0.000	98	112144	50.0	47.8	
108 tert-Butylbenzene	119	12.309	12.309	0.000	95	292935	50.0	50.8	
110 1,2,4-Trimethylbenzene	105	12.370	12.370	0.000	98	374928	50.0	52.8	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.412	0.000	98	106366	50.0	53.7	
112 sec-Butylbenzene	105	12.534	12.534	0.000	95	451092	50.0	55.4	
113 1,3-Dichlorobenzene	146	12.650	12.650	0.000	96	199555	50.0	51.1	
114 4-Isopropyltoluene	119	12.692	12.692	0.000	97	363709	50.0	52.8	
115 1,4-Dichlorobenzene	146	12.753	12.753	0.000	92	208531	50.0	51.4	
116 2,4-Dichloro-1-(trifluorom	214	12.783	12.783	0.000	96	98210	50.0	53.5	
118 2,5-Dichlorobenzotrifluori	214	12.820	12.820	0.000	0	109394	50.0	55.2	
120 n-Butylbenzene	91	13.100	13.100	0.000	98	329345	50.0	55.9	
121 1,2-Dichlorobenzene	146	13.112	13.112	0.000	95	186793	50.0	51.2	
122 1,2-Dibromo-3-Chloropropan	75	13.903	13.903	0.000	74	15863	50.0	53.0	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.043	14.043	0.000	0	358127	150.0	171.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.469	14.469	0.000	0	223680	100.0	112.6	
126 1,2,4-Trichlorobenzene	180	14.724	14.724	0.000	94	83313	50.0	58.7	
127 Hexachlorobutadiene	225	14.876	14.876	0.000	95	44532	50.0	65.1	
128 Naphthalene	128	14.992	14.992	0.000	98	212098	50.0	58.1	
129 1,2,3-Trichlorobenzene	180	15.217	15.217	0.000	95	69657	50.0	60.6	
131 2,4,5-Trichlorotoluene	159	15.995	15.995	0.000	0	26435	50.0	63.8	
130 2,3,6-Trichlorotoluene	159	16.099	16.099	0.000	89	23832	50.0	62.4	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	108.5	
S 134 1,2-Dichloroethene, Total	96				0		100.0	91.8	
S 135 1,3-Dichloropropene, Total	1				0		100.0	97.0	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

#### Review Flags

M - Manually Integrated

### Reagents:

voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
voaWEEpri Res_00006	Amount Added: 2.00	Units: uL	
VOA8260VOAPRI_00148	Amount Added: 2.00	Units: uL	
voaWVA1stRest_00001	Amount Added: 2.00	Units: uL	
voaW2-Clepri_00003	Amount Added: 2.00	Units: uL	
voaWKetmix2nd_00002	Amount Added: 2.00	Units: uL	
VOA8260INT_00043	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00043	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015002.D

Injection Date: 15-Oct-2015 12:56:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

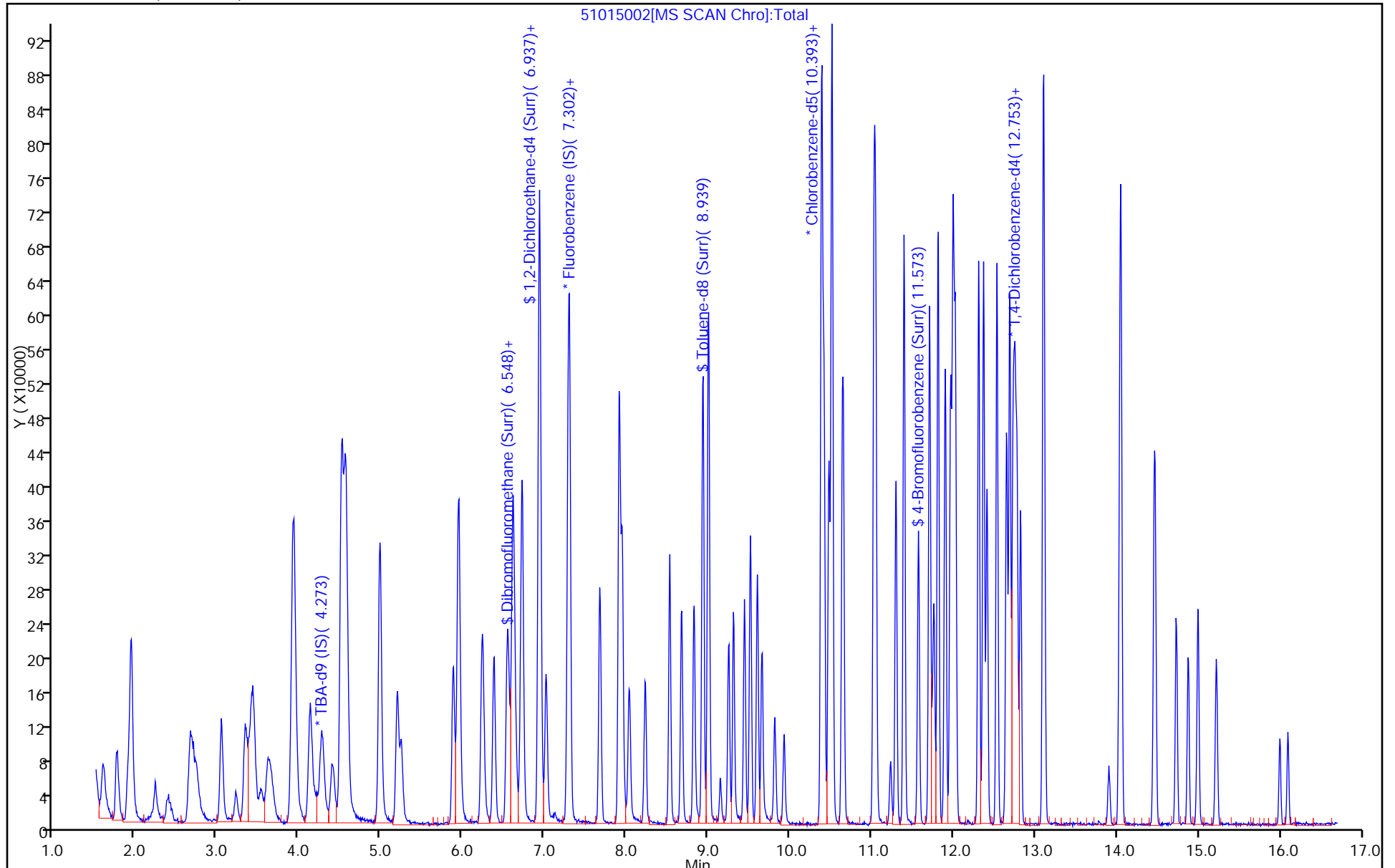
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-157127/2 Calibration Date: 10/15/2015 12:56  
 Instrument ID: CHHP5 Calib Start Date: 08/26/2015 15:04  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 08/26/2015 17:52  
 Lab File ID: 51015002.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	0.2825	0.3412	0.1000	12.1	10.0	20.8*	20.0
Chloromethane	Ave	0.4148	0.3921	0.1000	9.45	10.0	-5.5	20.0
Vinyl chloride	Ave	0.3679	0.2938	0.1000	7.98	10.0	-20.2*	20.0
1,3-Butadiene	Ave	0.4345	0.4040	0.0100	9.30	10.0	-7.0	20.0
Bromomethane	Ave	0.1497	0.0993	0.0500	6.63	10.0	-33.7*	20.0
Chloroethane	Ave	0.2220	0.1538	0.0500	6.93	10.0	-30.7*	20.0
Dichlorofluoromethane	Ave	0.4709	0.3859	0.0100	8.19	10.0	-18.1	20.0
Trichlorofluoromethane	Ave	0.3523	0.3277	0.1000	9.30	10.0	-7.0	20.0
Ethyl ether	Ave	0.3265	0.2859	0.0100	8.76	10.0	-12.4	20.0
Acrolein	Ave	0.0486	0.0440	0.0100	27.1	30.0	-9.6	20.0
1,1-Dichloroethene	Ave	0.2785	0.2617	0.1000	9.40	10.0	-6.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2951	0.2842	0.1000	9.63	10.0	-3.7	20.0
Acetone	Ave	0.1009	0.1246	0.0500	24.7	20.0	23.5*	20.0
Iodomethane	Ave	0.4150	0.3569	0.0100	8.60	10.0	-14.0	20.0
Carbon disulfide	Ave	0.6466	0.6533	0.1000	10.1	10.0	1.0	20.0
Allyl chloride	Ave	0.1577	0.1536	0.0100	9.74	10.0	-2.6	20.0
Methyl acetate	Ave	0.3015	0.3309	0.1000	54.9	50.0	9.8	20.0
Methylene Chloride	Lin2		0.3139	0.1000	9.55	10.0	-4.5	20.0
tert-Butyl alcohol	Ave	1.126	1.287	0.0100	114	100	14.3	20.0
Acrylonitrile	Ave	0.1463	0.1539	0.0100	105	100	5.2	20.0
trans-1,2-Dichloroethene	Ave	0.3024	0.2780	0.1000	9.20	10.0	-8.0	20.0
Methyl tert-butyl ether	Ave	0.6999	0.6233	0.1000	8.91	10.0	-10.9	20.0
Hexane	Ave	0.5076	0.5453	0.0100	10.7	10.0	7.4	20.0
1,1-Dichloroethane	Ave	0.5957	0.5596	0.2000	9.40	10.0	-6.0	20.0
Vinyl acetate	Ave	0.4469	0.4579	0.0100	10.2	10.0	2.5	20.0
2,2-Dichloropropane	Ave	0.2387	0.2208	0.0100	9.25	10.0	-7.5	20.0
cis-1,2-Dichloroethene	Ave	0.3230	0.2959	0.1000	9.16	10.0	-8.4	20.0
2-Butanone (MEK)	Ave	0.1516	0.1738	0.0500	22.9	20.0	14.7	20.0
Bromochloromethane	Ave	0.1418	0.1162	0.0100	8.19	10.0	-18.1	20.0
Tetrahydrofuran	Ave	0.1216	0.1321	0.0100	21.7	20.0	8.6	20.0
Chloroform	Ave	0.5146	0.4664	0.2000	9.06	10.0	-9.4	20.0
1,1,1-Trichloroethane	Ave	0.3805	0.3371	0.1000	8.86	10.0	-11.4	20.0
Cyclohexane	Ave	0.6367	0.6550	0.1000	10.3	10.0	2.9	20.0
Carbon tetrachloride	Ave	0.3240	0.2779	0.1000	8.58	10.0	-14.2	20.0
1,1-Dichloropropene	Ave	0.4208	0.4165	0.0100	9.90	10.0	-1.0	20.0
Isobutyl alcohol	Ave	0.0095	0.0118	0.0100	311	250	24.3*	20.0
Benzene	Ave	1.233	1.210	0.5000	9.82	10.0	-1.8	20.0
1,2-Dichloroethane	Ave	0.4264	0.3975	0.1000	9.32	10.0	-6.8	20.0
n-Heptane	Ave	0.4611	0.5282	0.0100	11.5	10.0	14.6	20.0
Trichloroethene	Ave	0.3016	0.2599	0.2000	8.62	10.0	-13.8	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-157127/2 Calibration Date: 10/15/2015 12:56  
 Instrument ID: CHHP5 Calib Start Date: 08/26/2015 15:04  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 08/26/2015 17:52  
 Lab File ID: 51015002.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4753	0.4658	0.1000	9.80	10.0	-2.0	20.0
1,2-Dichloropropane	Ave	0.3235	0.3019	0.1000	9.33	10.0	-6.7	20.0
1,4-Dioxane	Ave	0.0022	0.0030*	0.0100	267	200	33.6*	20.0
Dibromomethane	Ave	0.1642	0.1485	0.0100	9.04	10.0	-9.6	20.0
Bromodichloromethane	Ave	0.3249	0.3004	0.2000	9.24	10.0	-7.6	20.0
cis-1,3-Dichloropropene	Ave	0.3807	0.3479	0.2000	9.14	10.0	-8.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.232	1.224	0.1000	19.9	20.0	-0.7	20.0
Toluene	Ave	4.950	5.441	0.4000	11.0	10.0	9.9	20.0
trans-1,3-Dichloropropene	Ave	1.292	1.326	0.1000	10.3	10.0	2.6	20.0
Ethyl methacrylate	Ave	1.249	1.411	0.0100	11.3	10.0	12.9	20.0
1,1,2-Trichloroethane	Ave	0.9416	0.9706	0.1000	10.3	10.0	3.1	20.0
Tetrachloroethene	Ave	0.9609	1.038	0.2000	10.8	10.0	8.0	20.0
1,3-Dichloropropane	Ave	1.748	1.881	0.0100	10.8	10.0	7.6	20.0
2-Hexanone	Ave	0.8893	1.001	0.1000	22.5	20.0	12.6	20.0
Dibromochloromethane	Ave	0.8152	0.7540	0.1000	9.25	10.0	-7.5	20.0
1,2-Dibromoethane (EDB)	Ave	0.9073	0.9259	0.1000	10.2	10.0	2.0	20.0
3-Chlorobenzotrifluoride	Ave	1.591	1.755	0.0100	11.0	10.0	10.3	20.0
Chlorobenzene	Ave	3.187	3.253	0.5000	10.2	10.0	2.1	20.0
4-Chlorobenzotrifluoride	Ave	1.504	1.599	0.0100	10.6	10.0	6.3	20.0
1,1,1,2-Tetrachloroethane	Ave	1.039	0.9544	0.0100	9.19	10.0	-8.1	20.0
Ethylbenzene	Ave	1.690	1.808	0.1000	10.7	10.0	7.0	20.0
m-Xylene & p-Xylene	Ave	2.072	2.262	0.1000	10.9	10.0	9.2	20.0
o-Xylene	Ave	1.969	2.123	0.3000	10.8	10.0	7.8	20.0
Styrene	Ave	3.262	3.616	0.3000	11.1	10.0	10.9	20.0
Bromoform	Ave	0.4652	0.4807	0.1000	10.3	10.0	3.3	20.0
2-Chlorobenzotrifluoride	Ave	1.565	1.693	0.0100	10.8	10.0	8.2	20.0
Isopropylbenzene	Ave	4.822	5.429	0.1000	11.3	10.0	12.6	20.0
1,1,2,2-Tetrachloroethane	Ave	1.270	1.387	0.3000	10.9	10.0	9.2	20.0
Bromobenzene	Ave	0.8583	0.7985	0.0100	9.30	10.0	-7.0	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3103	0.2037	0.0100	6.56	10.0	-34.4*	20.0
1,2,3-Trichloropropane	Ave	0.2831	0.2723	0.0100	9.62	10.0	-3.8	20.0
N-Propylbenzene	Ave	0.9825	0.9876	0.0100	10.1	10.0	0.5	20.0
2-Chlorotoluene	Ave	0.8351	0.8095	0.0100	9.69	10.0	-3.1	20.0
3-Chlorotoluene	Ave	0.8583	0.8410	0.0100	9.80	10.0	-2.0	20.0
1,3,5-Trimethylbenzene	Ave	2.776	2.984	0.0100	10.7	10.0	7.5	20.0
4-Chlorotoluene	Ave	0.9190	0.8781	0.0100	9.56	10.0	-4.4	20.0
tert-Butylbenzene	Ave	2.257	2.294	0.0100	10.2	10.0	1.6	20.0
1,2,4-Trimethylbenzene	Ave	2.781	2.936	0.0100	10.6	10.0	5.6	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.7754	0.8329	0.0100	10.7	10.0	7.4	20.0
sec-Butylbenzene	Ave	3.187	3.532	0.0100	11.1	10.0	10.8	20.0
1,3-Dichlorobenzene	Ave	1.528	1.563	0.6000	10.2	10.0	2.2	20.0



FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-157127/2 Calibration Date: 10/15/2015 12:56  
 Instrument ID: CHHP5 Calib Start Date: 08/26/2015 15:04  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 08/26/2015 17:52  
 Lab File ID: 51015002.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	2.696	2.848	0.0100	10.6	10.0	5.6	20.0
1,4-Dichlorobenzene	Ave	1.590	1.633	0.5000	10.3	10.0	2.7	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7185	0.7690	0.0100	10.7	10.0	7.0	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.7765	0.8566	0.0100	11.0	10.0	10.3	20.0
n-Butylbenzene	Ave	2.307	2.579	0.0100	11.2	10.0	11.8	20.0
1,2-Dichlorobenzene	Ave	1.428	1.463	0.4000	10.2	10.0	2.4	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1173	0.1242	0.0500	10.6	10.0	5.9	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	0.8157	0.9347	0.0100	34.4	30.0	14.6	20.0
2,3- & 3,4- Dichlorotoluene	Ave	0.7778	0.8757	0.0100	22.5	20.0	12.6	20.0
1,2,4-Trichlorobenzene	Ave	0.5557	0.6524	0.2000	11.7	10.0	17.4	20.0
Hexachlorobutadiene	Ave	0.2677	0.3487	0.0100	13.0	10.0	30.3*	20.0
Naphthalene	Ave	1.428	1.661	0.0100	11.6	10.0	16.3	20.0
1,2,3-Trichlorobenzene	Ave	0.4498	0.5454	0.0100	12.1	10.0	21.2*	20.0
2,4,5-Trichlorotoluene	Ave	0.1623	0.2070	0.0100	12.8	10.0	27.5*	20.0
2,3,6-Trichlorotoluene	Ave	0.1496	0.1866	0.0100	12.5	10.0	24.7*	20.0
Dibromofluoromethane (Surr)	Ave	0.2455	0.2155		8.78	10.0	-12.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3373	0.3085		9.15	10.0	-8.5	20.0
Toluene-d8 (Surr)	Ave	3.857	4.302		11.2	10.0	11.5	20.0
4-Bromofluorobenzene (Surr)	Ave	1.455	1.527		10.5	10.0	5.0	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015002.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 15-Oct-2015 12:56:30 ALS Bottle#: 2 Worklist Smp#: 2  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: CCVIS  
 Misc. Info.: 180-0009022-002  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub12  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 15-Oct-2015 13:56:13 Calib Date: 26-Aug-2015 17:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK008

First Level Reviewer: fergusond

Date: 15-Oct-2015 13:45:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.273	4.273	0.000	0	155406	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	98	379251	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.386	0.000	89	82633	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.735	12.735	0.000	94	127710	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.554	6.554	0.000	93	81725	50.0	43.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.931	0.000	0	117004	50.0	45.7	
\$ 7 Toluene-d8 (Surr)	98	8.939	8.939	0.000	95	355461	50.0	55.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.573	11.573	0.000	84	126197	50.0	52.5	
11 Dichlorodifluoromethane	85	1.596	1.596	0.000	98	129386	50.0	60.4	
12 Chloromethane	50	1.772	1.772	0.000	99	148687	50.0	47.3	
13 Vinyl chloride	62	1.912	1.912	0.000	98	111416	50.0	39.9	
14 Butadiene	39	1.943	1.943	0.000	98	153207	50.0	46.5	
15 Bromomethane	94	2.241	2.241	0.000	92	37648	50.0	33.2	
16 Chloroethane	64	2.399	2.399	0.000	98	58341	50.0	34.7	
17 Dichlorofluoromethane	67	2.667	2.667	0.000	97	146358	50.0	41.0	
18 Trichlorofluoromethane	101	2.703	2.703	0.000	83	124282	50.0	46.5	M
20 Ethyl ether	59	3.038	3.038	0.000	98	108422	50.0	43.8	
21 Acrolein	56	3.220	3.220	0.000	98	50008	150.0	135.5	
22 1,1-Dichloroethene	96	3.330	3.330	0.000	93	99242	50.0	47.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.415	3.415	0.000	93	107768	50.0	48.2	
24 Acetone	43	3.439	3.439	0.000	99	94511	100.0	123.5	
25 Iodomethane	142	3.537	3.537	0.000	98	135354	50.0	43.0	
26 Carbon disulfide	76	3.640	3.640	0.000	100	247744	50.0	50.5	
28 3-Chloro-1-propene	76	3.914	3.914	0.000	89	58242	50.0	48.7	
30 Methyl acetate	43	3.938	3.938	0.000	100	627408	250.0	274.4	
31 Methylene Chloride	84	4.139	4.139	0.000	95	119062	50.0	47.7	
32 2-Methyl-2-propanol	59	4.394	4.394	0.000	92	100001	500.0	571.7	
33 Acrylonitrile	53	4.522	4.522	0.000	99	583774	500.0	526.2	
34 trans-1,2-Dichloroethene	96	4.559	4.559	0.000	93	105441	50.0	46.0	
35 Methyl tert-butyl ether	73	4.577	4.577	0.000	94	236391	50.0	44.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.984	4.984	0.000	96	206806	50.0	53.7	
37 1,1-Dichloroethane	63	5.197	5.197	0.000	97	212242	50.0	47.0	
38 Vinyl acetate	43	5.246	5.246	0.000	97	173652	50.0	51.2	
44 2,2-Dichloropropane	77	5.946	5.946	0.000	54	83728	50.0	46.2	
45 cis-1,2-Dichloroethene	96	5.946	5.946	0.000	85	112217	50.0	45.8	
46 2-Butanone (MEK)	43	5.952	5.952	0.000	73	131824	100.0	114.7	
49 Chlorobromomethane	128	6.231	6.231	0.000	87	44049	50.0	40.9	
51 Tetrahydrofuran	42	6.250	6.250	0.000	94	100194	100.0	108.6	
52 Chloroform	83	6.377	6.377	0.000	95	176887	50.0	45.3	
53 1,1,1-Trichloroethane	97	6.536	6.536	0.000	94	127859	50.0	44.3	
54 Cyclohexane	56	6.609	6.609	0.000	97	248392	50.0	51.4	
56 Carbon tetrachloride	117	6.718	6.718	0.000	96	105393	50.0	42.9	
55 1,1-Dichloropropene	75	6.724	6.724	0.000	92	157946	50.0	49.5	
57 Isobutyl alcohol	41	6.925	6.925	0.000	67	112236	1250.0	1554.0	
58 Benzene	78	6.943	6.943	0.000	96	458935	50.0	49.1	
59 1,2-Dichloroethane	62	7.016	7.016	0.000	97	150757	50.0	46.6	
62 n-Heptane	43	7.302	7.302	0.000	97	200317	50.0	57.3	
64 Trichloroethene	130	7.673	7.673	0.000	97	98559	50.0	43.1	
66 Methylcyclohexane	83	7.917	7.917	0.000	98	176662	50.0	49.0	
67 1,2-Dichloropropane	63	7.947	7.947	0.000	95	114484	50.0	46.7	
70 1,4-Dioxane	88	8.026	8.026	0.000	50	22603	1000.0	1336.1	M
68 Dibromomethane	93	8.032	8.032	0.000	98	56311	50.0	45.2	
71 Dichlorobromomethane	83	8.233	8.233	0.000	96	113911	50.0	46.2	
73 2-Chloroethyl vinyl ether	63	8.531	8.531	0.000	89	118857	100.0	94.9	
74 cis-1,3-Dichloropropene	75	8.671	8.671	0.000	89	131950	50.0	45.7	
75 4-Methyl-2-pentanone (MIBK)	43	8.823	8.823	0.000	99	202241	100.0	99.3	
76 Toluene	91	9.006	9.006	0.000	98	449632	50.0	55.0	
77 trans-1,3-Dichloropropene	75	9.255	9.255	0.000	98	109574	50.0	51.3	
78 Ethyl methacrylate	69	9.310	9.310	0.000	94	116569	50.0	56.5	
79 1,1,2-Trichloroethane	97	9.444	9.444	0.000	93	80200	50.0	51.5	
80 Tetrachloroethene	164	9.517	9.517	0.000	94	85746	50.0	54.0	
81 1,3-Dichloropropane	76	9.602	9.602	0.000	98	155424	50.0	53.8	
82 2-Hexanone	43	9.663	9.663	0.000	98	165460	100.0	112.6	
84 Chlorodibromomethane	129	9.815	9.815	0.000	93	62302	50.0	46.2	
85 Ethylene Dibromide	107	9.930	9.930	0.000	99	76506	50.0	51.0	
86 3-Chlorobenzotrifluoride	180	10.393	10.393	0.000	85	145014	50.0	55.2	
87 Chlorobenzene	112	10.417	10.417	0.000	91	268779	50.0	51.0	
88 4-Chlorobenzotrifluoride	180	10.478	10.478	0.000	96	132111	50.0	53.2	
89 1,1,1,2-Tetrachloroethane	131	10.514	10.514	0.000	91	78866	50.0	45.9	
90 Ethylbenzene	106	10.520	10.520	0.000	99	149399	50.0	53.5	
91 m-Xylene & p-Xylene	106	10.654	10.654	0.000	0	186929	50.0	54.6	
92 o-Xylene	106	11.031	11.031	0.000	98	175439	50.0	53.9	
93 Styrene	104	11.050	11.050	0.000	95	298841	50.0	55.4	
94 Bromoform	173	11.232	11.232	0.000	94	39720	50.0	51.7	
96 2-Chlorobenzotrifluoride	180	11.299	11.299	0.000	96	139926	50.0	54.1	
97 Isopropylbenzene	105	11.396	11.396	0.000	97	448622	50.0	56.3	
99 1,1,2,2-Tetrachloroethane	83	11.707	11.707	0.000	92	114599	50.0	54.6	
100 Bromobenzene	156	11.707	11.707	0.000	96	101975	50.0	46.5	
102 trans-1,4-Dichloro-2-buten	53	11.743	11.743	0.000	70	26010	50.0	32.8	
101 1,2,3-Trichloropropane	110	11.767	11.767	0.000	88	34781	50.0	48.1	
103 N-Propylbenzene	120	11.816	11.816	0.000	99	126127	50.0	50.3	
104 2-Chlorotoluene	126	11.901	11.901	0.000	95	103376	50.0	48.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.968	11.968	0.000	96	107401	50.0	49.0	
106 1,3,5-Trimethylbenzene	105	11.999	11.999	0.000	94	381085	50.0	53.7	
107 4-Chlorotoluene	126	12.029	12.029	0.000	98	112144	50.0	47.8	
108 tert-Butylbenzene	119	12.309	12.309	0.000	95	292935	50.0	50.8	
110 1,2,4-Trimethylbenzene	105	12.370	12.370	0.000	98	374928	50.0	52.8	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.412	0.000	98	106366	50.0	53.7	
112 sec-Butylbenzene	105	12.534	12.534	0.000	95	451092	50.0	55.4	
113 1,3-Dichlorobenzene	146	12.650	12.650	0.000	96	199555	50.0	51.1	
114 4-Isopropyltoluene	119	12.692	12.692	0.000	97	363709	50.0	52.8	
115 1,4-Dichlorobenzene	146	12.753	12.753	0.000	92	208531	50.0	51.4	
116 2,4-Dichloro-1-(trifluorom	214	12.783	12.783	0.000	96	98210	50.0	53.5	
118 2,5-Dichlorobenzotrifluori	214	12.820	12.820	0.000	0	109394	50.0	55.2	
120 n-Butylbenzene	91	13.100	13.100	0.000	98	329345	50.0	55.9	
121 1,2-Dichlorobenzene	146	13.112	13.112	0.000	95	186793	50.0	51.2	
122 1,2-Dibromo-3-Chloropropan	75	13.903	13.903	0.000	74	15863	50.0	53.0	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.043	14.043	0.000	0	358127	150.0	171.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.469	14.469	0.000	0	223680	100.0	112.6	
126 1,2,4-Trichlorobenzene	180	14.724	14.724	0.000	94	83313	50.0	58.7	
127 Hexachlorobutadiene	225	14.876	14.876	0.000	95	44532	50.0	65.1	
128 Naphthalene	128	14.992	14.992	0.000	98	212098	50.0	58.1	
129 1,2,3-Trichlorobenzene	180	15.217	15.217	0.000	95	69657	50.0	60.6	
131 2,4,5-Trichlorotoluene	159	15.995	15.995	0.000	0	26435	50.0	63.8	
130 2,3,6-Trichlorotoluene	159	16.099	16.099	0.000	89	23832	50.0	62.4	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	108.5	
S 134 1,2-Dichloroethene, Total	96				0		100.0	91.8	
S 135 1,3-Dichloropropene, Total	1				0		100.0	97.0	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

#### Review Flags

M - Manually Integrated

### Reagents:

voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
voaWEEpri Res_00006	Amount Added: 2.00	Units: uL	
VOA8260VOAPRI_00148	Amount Added: 2.00	Units: uL	
voaWVA1stRest_00001	Amount Added: 2.00	Units: uL	
voaW2-Clepri_00003	Amount Added: 2.00	Units: uL	
voaWKetmix2nd_00002	Amount Added: 2.00	Units: uL	
VOA8260INT_00043	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00043	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015002.D

Injection Date: 15-Oct-2015 12:56:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

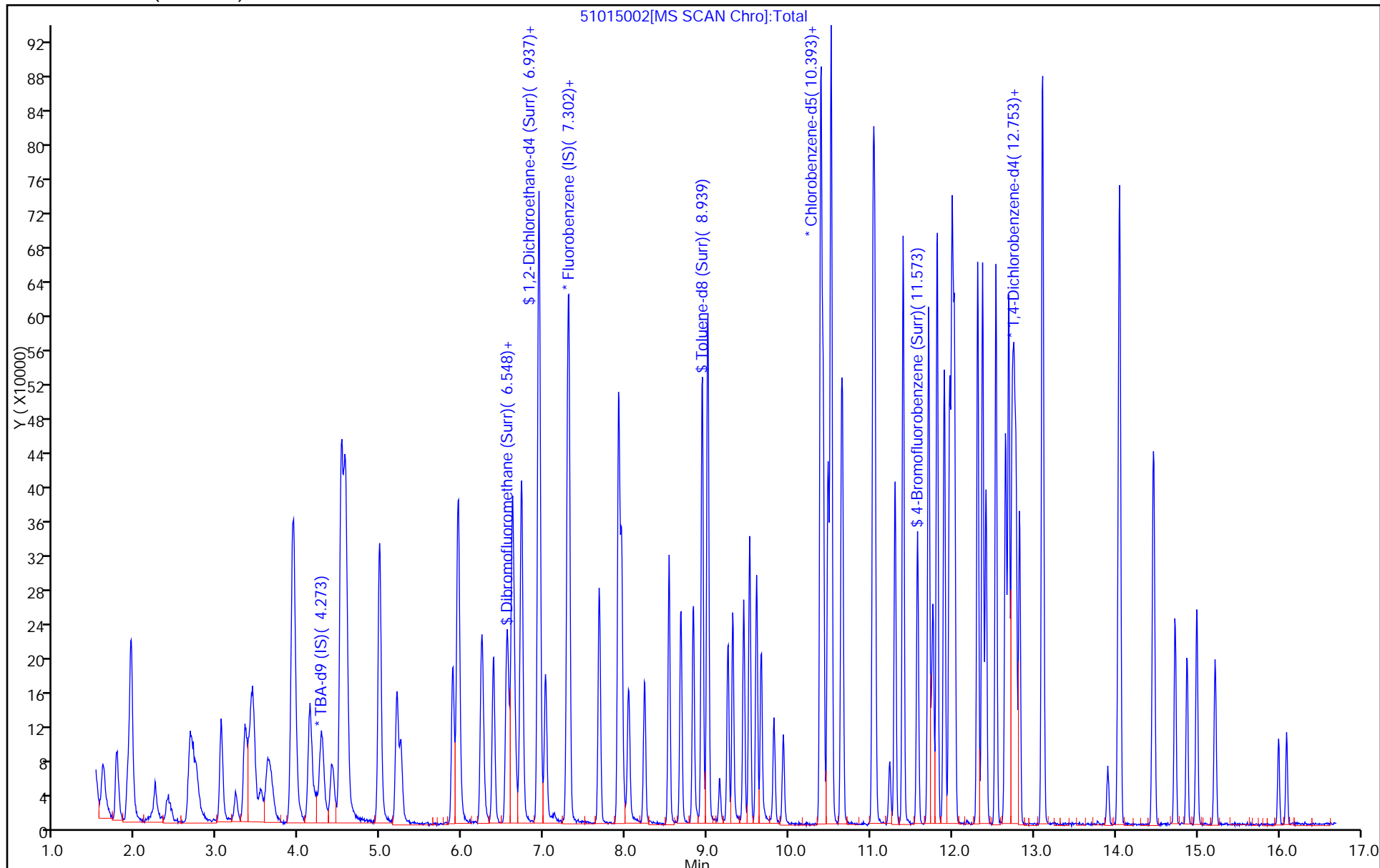
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



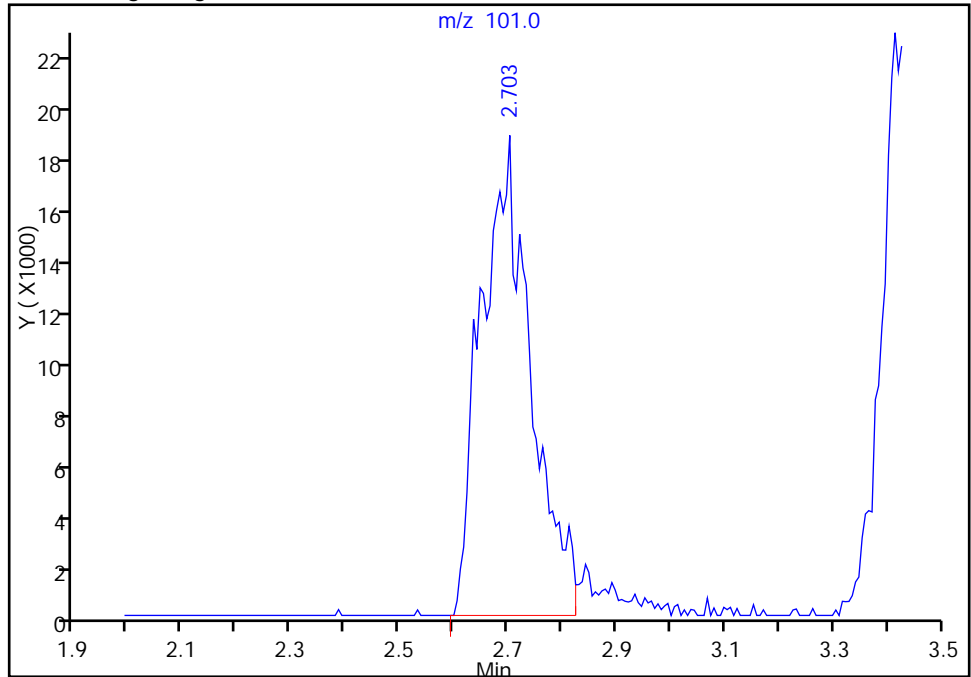
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015002.D  
Injection Date: 15-Oct-2015 12:56:30 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

18 Trichlorofluoromethane, CAS: 75-69-4

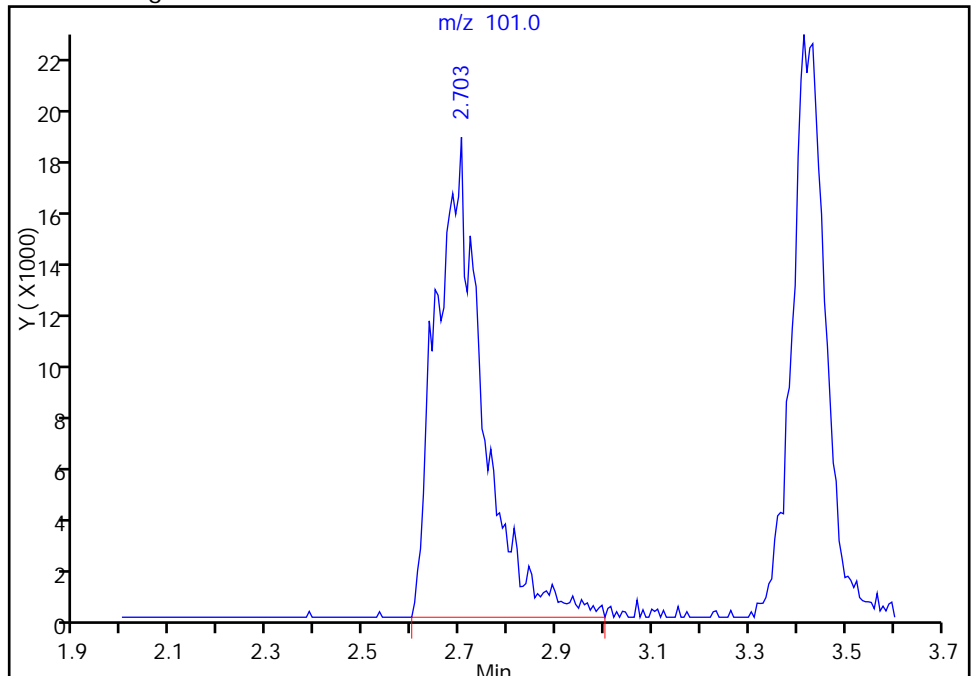
RT: 2.70  
Area: 116453  
Amount: 43.581645  
Amount Units: ng

Processing Integration Results



RT: 2.70  
Area: 124282  
Amount: 46.511588  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 15-Oct-2015 13:45:14  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

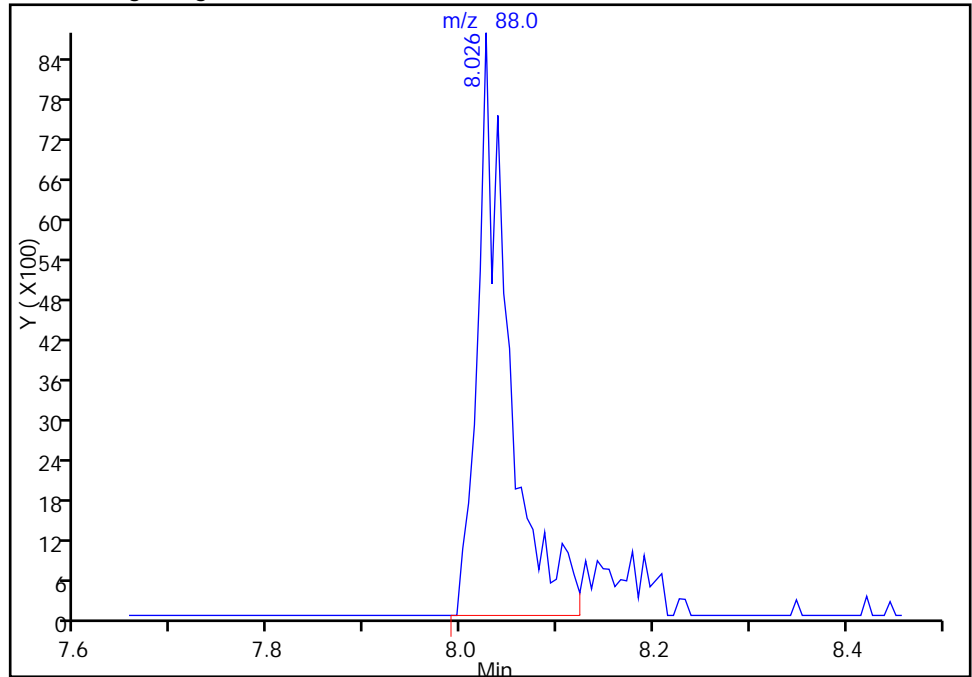
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015002.D  
Injection Date: 15-Oct-2015 12:56:30 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

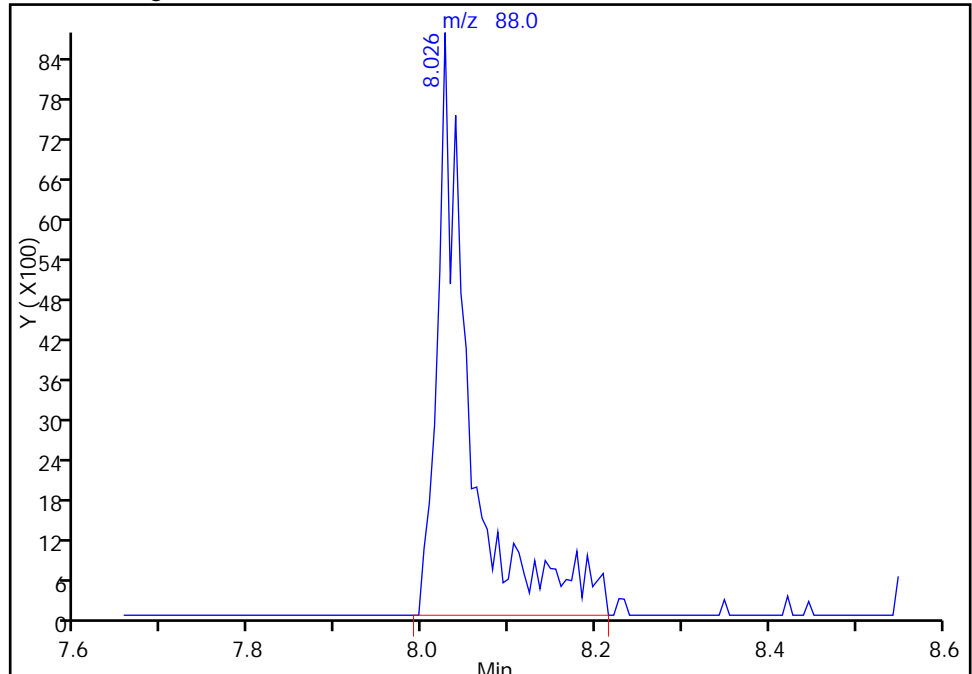
RT: 8.03  
Area: 19457  
Amount: 1150.1407  
Amount Units: ng

Processing Integration Results



RT: 8.03  
Area: 22603  
Amount: 1336.1068  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 15-Oct-2015 13:45:14  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-156820/5 Calibration Date: 10/13/2015 13:22  
 Instrument ID: CHHP6 Calib Start Date: 07/31/2015 14:00  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/31/2015 18:02  
 Lab File ID: 61013005.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	0.3462	0.2685	0.1000	7.75	10.0	-22.5*	20.0
Chloromethane	Ave	0.2984	0.3103	0.1000	10.4	10.0	4.0	20.0
Vinyl chloride	Ave	0.3214	0.2912	0.1000	9.06	10.0	-9.4	20.0
1,3-Butadiene	Ave	0.3013	0.3029	0.0100	10.1	10.0	0.5	20.0
Bromomethane	Ave	0.1735	0.1054	0.0500	6.08	10.0	-39.2*	20.0
Chloroethane	Ave	0.2194	0.1618	0.0500	7.37	10.0	-26.3*	20.0
Dichlorofluoromethane	Ave	0.5106	0.3671	0.0100	7.19	10.0	-28.1*	20.0
Trichlorofluoromethane	Ave	0.4072	0.2865	0.1000	7.04	10.0	-29.6*	20.0
Ethyl ether	Ave	0.2886	0.2940	0.0100	10.2	10.0	1.9	20.0
Acrolein	Ave	0.0315	0.0255	0.0100	24.3	30.0	-19.2	20.0
1,1-Dichloroethene	Ave	0.2517	0.2412	0.1000	9.58	10.0	-4.2	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2657	0.2286	0.1000	8.60	10.0	-14.0	20.0
Acetone	Ave	0.0885	0.0841	0.0500	19.0	20.0	-5.0	20.0
Iodomethane	Ave	0.3379	0.3373	0.0100	9.98	10.0	-0.2	20.0
Carbon disulfide	Ave	0.6522	0.6466	0.1000	9.91	10.0	-0.9	20.0
Allyl chloride	Ave	0.1419	0.1373	0.0100	9.68	10.0	-3.2	20.0
Methyl acetate	Ave	0.2074	0.2300	0.1000	55.4	50.0	10.9	20.0
Methylene Chloride	Lin2		0.3283	0.1000	9.35	10.0	-6.5	20.0
tert-Butyl alcohol	Ave	1.125	1.146	0.0100	102	100	1.8	20.0
Acrylonitrile	Ave	0.1046	0.1196	0.0100	114	100	14.4	20.0
trans-1,2-Dichloroethene	Ave	0.2905	0.2799	0.1000	9.64	10.0	-3.6	20.0
Methyl tert-butyl ether	Ave	0.8703	0.7480	0.1000	8.59	10.0	-14.1	20.0
Hexane	Ave	0.3936	0.4118	0.0100	10.5	10.0	4.6	20.0
1,1-Dichloroethane	Ave	0.5200	0.5158	0.2000	9.92	10.0	-0.8	20.0
Vinyl acetate	Ave	0.4197	0.4722	0.0100	11.3	10.0	12.5	20.0
cis-1,2-Dichloroethene	Ave	0.3158	0.3129	0.1000	9.91	10.0	-0.9	20.0
2,2-Dichloropropane	Ave	0.2629	0.2497	0.0100	9.50	10.0	-5.0	20.0
2-Butanone (MEK)	Ave	0.1207	0.1269	0.0500	21.0	20.0	5.1	20.0
Bromochloromethane	Ave	0.1269	0.1309	0.0100	10.3	10.0	3.1	20.0
Tetrahydrofuran	Ave	0.0813	0.0907	0.0100	22.3	20.0	11.5	20.0
Chloroform	Ave	0.5161	0.4660	0.2000	9.03	10.0	-9.7	20.0
1,1,1-Trichloroethane	Ave	0.3814	0.3471	0.1000	9.10	10.0	-9.0	20.0
Cyclohexane	Ave	0.4886	0.5251	0.1000	10.7	10.0	7.5	20.0
Carbon tetrachloride	Ave	0.2694	0.2617	0.1000	9.72	10.0	-2.8	20.0
1,1-Dichloropropene	Ave	0.4102	0.3767	0.0100	9.18	10.0	-8.2	20.0
Isobutyl alcohol	Ave	0.0072	0.0091*	0.0100	313	250	25.2*	20.0
Benzene	Ave	1.165	1.185	0.5000	10.2	10.0	1.7	20.0
1,2-Dichloroethane	Ave	0.4694	0.4006	0.1000	8.53	10.0	-14.7	20.0
n-Heptane	Ave	0.3168	0.3811	0.0100	12.0	10.0	20.3*	20.0
Trichloroethene	Ave	0.2430	0.2608	0.2000	10.7	10.0	7.3	20.0



FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-156820/5 Calibration Date: 10/13/2015 13:22  
 Instrument ID: CHHP6 Calib Start Date: 07/31/2015 14:00  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/31/2015 18:02  
 Lab File ID: 61013005.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4932	0.4640	0.1000	9.41	10.0	-5.9	20.0
1,2-Dichloropropane	Ave	0.2784	0.3025	0.1000	10.9	10.0	8.7	20.0
1,4-Dioxane	Ave	0.0027	0.0026*	0.0100	190	200	-5.2	20.0
Dibromomethane	Ave	0.1690	0.1553	0.0100	9.19	10.0	-8.1	20.0
Bromodichloromethane	Ave	0.3176	0.3089	0.2000	9.73	10.0	-2.7	20.0
cis-1,3-Dichloropropene	Ave	0.3489	0.3752	0.2000	10.8	10.0	7.5	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.028	1.095	0.1000	21.3	20.0	6.5	20.0
Toluene	Ave	5.159	5.300	0.4000	10.3	10.0	2.7	20.0
trans-1,3-Dichloropropene	Ave	1.310	1.337	0.1000	10.2	10.0	2.1	20.0
Ethyl methacrylate	Ave	1.391	1.471	0.0100	10.6	10.0	5.7	20.0
1,1,2-Trichloroethane	Ave	1.067	1.054	0.1000	9.88	10.0	-1.2	20.0
Tetrachloroethene	Ave	0.8800	0.8906	0.2000	10.1	10.0	1.2	20.0
1,3-Dichloropropane	Ave	1.971	2.001	0.0100	10.2	10.0	1.5	20.0
2-Hexanone	Ave	0.6750	0.8848	0.1000	26.2	20.0	31.1*	20.0
Dibromochloromethane	Ave	0.7283	0.8245	0.1000	11.3	10.0	13.2	20.0
1,2-Dibromoethane (EDB)	Ave	0.9442	0.9842	0.1000	10.4	10.0	4.2	20.0
3-Chlorobenzotrifluoride	Ave	1.652	1.559	0.0100	9.44	10.0	-5.6	20.0
Chlorobenzene	Ave	3.171	3.370	0.5000	10.6	10.0	6.3	20.0
4-Chlorobenzotrifluoride	Ave	1.531	1.495	0.0100	9.76	10.0	-2.4	20.0
1,1,1,2-Tetrachloroethane	Ave	0.8691	1.007	0.0100	11.6	10.0	15.8	20.0
Ethylbenzene	Ave	1.789	1.849	0.1000	10.3	10.0	3.4	20.0
m-Xylene & p-Xylene	Ave	2.220	2.247	0.1000	10.1	10.0	1.2	20.0
o-Xylene	Ave	2.221	2.248	0.3000	10.1	10.0	1.2	20.0
Styrene	Ave	3.411	3.722	0.3000	10.9	10.0	9.1	20.0
Bromoform	Ave	0.3887	0.4673	0.1000	12.0	10.0	20.2*	20.0
2-Chlorobenzotrifluoride	Ave	1.692	1.647	0.0100	9.74	10.0	-2.6	20.0
Isopropylbenzene	Ave	5.314	5.435	0.1000	10.2	10.0	2.3	20.0
1,1,2,2-Tetrachloroethane	Ave	1.428	1.386	0.3000	9.71	10.0	-2.9	20.0
Bromobenzene	Ave	0.8038	0.8308	0.0100	10.3	10.0	3.4	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2549	0.2468	0.0100	9.68	10.0	-3.2	20.0
1,2,3-Trichloropropane	Ave	0.3057	0.2864	0.0100	9.37	10.0	-6.3	20.0
N-Propylbenzene	Ave	0.9257	0.9459	0.0100	10.2	10.0	2.2	20.0
2-Chlorotoluene	Ave	0.7686	0.8480	0.0100	11.0	10.0	10.3	20.0
3-Chlorotoluene	Ave	0.8072	0.8856	0.0100	11.0	10.0	9.7	20.0
1,3,5-Trimethylbenzene	Ave	3.010	3.046	0.0100	10.1	10.0	1.2	20.0
4-Chlorotoluene	Ave	0.8119	0.8951	0.0100	11.0	10.0	10.2	20.0
tert-Butylbenzene	Ave	2.378	2.382	0.0100	10.0	10.0	0.1	20.0
1,2,4-Trimethylbenzene	Ave	3.078	3.118	0.0100	10.1	10.0	1.3	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8719	0.8137	0.0100	9.33	10.0	-6.7	20.0
sec-Butylbenzene	Ave	3.550	3.653	0.0100	10.3	10.0	2.9	20.0
1,3-Dichlorobenzene	Ave	1.570	1.636	0.6000	10.4	10.0	4.2	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-156820/5 Calibration Date: 10/13/2015 13:22  
 Instrument ID: CHHP6 Calib Start Date: 07/31/2015 14:00  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/31/2015 18:02  
 Lab File ID: 61013005.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	2.979	3.019	0.0100	10.1	10.0	1.4	20.0
1,4-Dichlorobenzene	Ave	1.605	1.673	0.5000	10.4	10.0	4.2	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.8674	0.7337	0.0100	8.46	10.0	-15.4	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.9687	0.9236	0.0100	9.53	10.0	-4.7	20.0
n-Butylbenzene	Ave	2.974	2.856	0.0100	9.60	10.0	-4.0	20.0
1,2-Dichlorobenzene	Ave	1.585	1.563	0.4000	9.86	10.0	-1.4	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1454	0.1177	0.0500	8.09	10.0	-19.1	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.380	1.407	0.0100	30.6	30.0	2.0	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.522	1.545	0.0100	20.3	20.0	1.5	20.0
1,2,4-Trichlorobenzene	Ave	1.229	1.131	0.2000	9.20	10.0	-8.0	20.0
Hexachlorobutadiene	Ave	0.4839	0.4339	0.0100	8.97	10.0	-10.3	20.0
Naphthalene	Ave	2.479	2.596	0.0100	10.5	10.0	4.7	20.0
1,2,3-Trichlorobenzene	Ave	1.150	1.020	0.0100	8.87	10.0	-11.3	20.0
2,4,5-Trichlorotoluene	Ave	0.7719	0.6875	0.0100	8.91	10.0	-10.9	20.0
2,3,6-Trichlorotoluene	Ave	0.7323	0.6541	0.0100	8.93	10.0	-10.7	20.0
Dibromofluoromethane (Surr)	Ave	0.2303	0.2229		9.68	10.0	-3.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3715	0.3167		8.52	10.0	-14.8	20.0
Toluene-d8 (Surr)	Ave	3.944	4.164		10.6	10.0	5.6	20.0
4-Bromofluorobenzene (Surr)	Ave	1.751	1.707		9.75	10.0	-2.5	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013005.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 13-Oct-2015 13:22:30 ALS Bottle#: 4 Worklist Smp#: 5  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: CCVIS  
 Misc. Info.: 180-0008971-005  
 Operator ID: 001562 Instrument ID: CHHP6  
 Sublist: chrom-MSVOA\_LL\_CHHP6\*sub5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 13-Oct-2015 15:24:08 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK048

First Level Reviewer: fergusond

Date: 13-Oct-2015 13:50:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.242	4.242	0.000	92	171513	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	98	449437	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.399	10.399	0.000	88	102863	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.747	0.000	95	159724	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.554	6.554	0.000	62	100188	50.0	48.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.931	0.000	53	142351	50.0	42.6	
\$ 7 Toluene-d8 (Surr)	98	8.945	8.945	0.000	93	428282	50.0	52.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.591	11.591	0.000	84	175552	50.0	48.7	
11 Dichlorodifluoromethane	85	1.602	1.602	0.000	99	120654	50.0	38.8	
12 Chloromethane	50	1.766	1.766	0.000	99	139474	50.0	52.0	
13 Vinyl chloride	62	1.900	1.900	0.000	97	130856	50.0	45.3	
14 Butadiene	39	1.937	1.937	0.000	91	136149	50.0	50.3	
15 Bromomethane	94	2.235	2.235	0.000	91	47383	50.0	30.4	M
16 Chloroethane	64	2.387	2.387	0.000	99	72696	50.0	36.9	M
17 Dichlorofluoromethane	67	2.654	2.654	0.000	97	164988	50.0	35.9	
18 Trichlorofluoromethane	101	2.660	2.660	0.000	50	128771	50.0	35.2	
20 Ethyl ether	59	3.050	3.050	0.000	94	132142	50.0	50.9	
21 Acrolein	56	3.220	3.220	0.000	98	34318	150.0	121.3	
22 1,1-Dichloroethene	96	3.342	3.342	0.000	98	108394	50.0	47.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.421	3.421	0.000	94	102743	50.0	43.0	
24 Acetone	43	3.427	3.427	0.000	94	75573	100.0	95.0	
25 Iodomethane	142	3.530	3.530	0.000	97	151599	50.0	49.9	
26 Carbon disulfide	76	3.634	3.634	0.000	100	290582	50.0	49.6	
29 3-Chloro-1-propene	76	3.920	3.920	0.000	90	61719	50.0	48.4	
30 Methyl acetate	43	3.932	3.932	0.000	98	516886	250.0	277.2	
31 Methylene Chloride	84	4.133	4.133	0.000	96	147561	50.0	46.8	
32 2-Methyl-2-propanol	59	4.382	4.382	0.000	91	98274	500.0	509.2	
33 Acrylonitrile	53	4.504	4.504	0.000	100	537643	500.0	572.0	
34 trans-1,2-Dichloroethene	96	4.565	4.565	0.000	76	125808	50.0	48.2	
35 Methyl tert-butyl ether	73	4.577	4.577	0.000	97	336168	50.0	43.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.990	4.990	0.000	93	185087	50.0	52.3	
37 1,1-Dichloroethane	63	5.203	5.203	0.000	96	231816	50.0	49.6	
38 Vinyl acetate	43	5.240	5.240	0.000	97	212240	50.0	56.3	
43 cis-1,2-Dichloroethene	96	5.939	5.939	0.000	83	140614	50.0	49.5	
42 2,2-Dichloropropane	77	5.946	5.946	0.000	59	112244	50.0	47.5	
44 2-Butanone (MEK)	43	5.952	5.952	0.000	68	114030	100.0	105.1	
48 Chlorobromomethane	128	6.231	6.231	0.000	95	58812	50.0	51.6	
49 Tetrahydrofuran	42	6.250	6.250	0.000	94	81491	100.0	111.5	
50 Chloroform	83	6.371	6.371	0.000	94	209430	50.0	45.1	
51 1,1,1-Trichloroethane	97	6.542	6.542	0.000	97	155982	50.0	45.5	
52 Cyclohexane	56	6.621	6.621	0.000	93	235990	50.0	53.7	
53 Carbon tetrachloride	117	6.718	6.718	0.000	93	117629	50.0	48.6	
54 1,1-Dichloropropene	75	6.730	6.730	0.000	94	169295	50.0	45.9	
55 Isobutyl alcohol	41	6.901	6.901	0.000	93	101732	1250.0	1564.6	
56 Benzene	78	6.943	6.943	0.000	98	532598	50.0	50.8	
57 1,2-Dichloroethane	62	7.016	7.016	0.000	97	180037	50.0	42.7	
59 n-Heptane	43	7.308	7.308	0.000	92	171268	50.0	60.1	
61 Trichloroethene	130	7.673	7.673	0.000	97	117224	50.0	53.7	
63 Methylcyclohexane	83	7.929	7.929	0.000	93	208516	50.0	47.0	
64 1,2-Dichloropropane	63	7.953	7.953	0.000	88	135951	50.0	54.3	
65 1,4-Dioxane	88	8.032	8.032	0.000	45	23424	1000.0	948.4	
67 Dibromomethane	93	8.038	8.038	0.000	97	69814	50.0	45.9	
68 Dichlorobromomethane	83	8.233	8.233	0.000	98	138840	50.0	48.6	
71 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	94	168643	50.0	53.8	
72 4-Methyl-2-pentanone (MIBK)	43	8.823	8.823	0.000	97	225174	100.0	106.5	
73 Toluene	91	9.012	9.012	0.000	98	545147	50.0	51.4	
74 trans-1,3-Dichloropropene	75	9.255	9.255	0.000	96	137531	50.0	51.0	
75 Ethyl methacrylate	69	9.316	9.316	0.000	91	151309	50.0	52.9	
76 1,1,2-Trichloroethane	97	9.450	9.450	0.000	93	108442	50.0	49.4	
77 Tetrachloroethene	164	9.529	9.529	0.000	97	91609	50.0	50.6	
78 1,3-Dichloropropane	76	9.614	9.614	0.000	92	205871	50.0	50.8	
79 2-Hexanone	43	9.663	9.663	0.000	98	182019	100.0	131.1	
81 Chlorodibromomethane	129	9.827	9.827	0.000	91	84807	50.0	56.6	
82 Ethylene Dibromide	107	9.936	9.936	0.000	99	101242	50.0	52.1	
83 3-Chlorobenzotrifluoride	180	10.393	10.393	0.000	89	160344	50.0	47.2	
84 Chlorobenzene	112	10.429	10.429	0.000	93	346609	50.0	53.1	
85 4-Chlorobenzotrifluoride	180	10.484	10.484	0.000	96	153795	50.0	48.8	
86 1,1,1,2-Tetrachloroethane	131	10.520	10.520	0.000	89	103545	50.0	57.9	
87 Ethylbenzene	106	10.526	10.526	0.000	99	190186	50.0	51.7	
88 m-Xylene & p-Xylene	106	10.660	10.660	0.000	100	231157	50.0	50.6	
89 o-Xylene	106	11.043	11.043	0.000	98	231220	50.0	50.6	
90 Styrene	104	11.062	11.062	0.000	94	382863	50.0	54.6	
91 Bromoform	173	11.244	11.244	0.000	95	48063	50.0	60.1	
92 2-Chlorobenzotrifluoride	180	11.305	11.305	0.000	92	169460	50.0	48.7	
93 Isopropylbenzene	105	11.409	11.409	0.000	97	559009	50.0	51.1	
96 1,1,2,2-Tetrachloroethane	83	11.713	11.713	0.000	93	142610	50.0	48.6	
95 Bromobenzene	156	11.725	11.725	0.000	96	132705	50.0	51.7	
97 trans-1,4-Dichloro-2-buten	53	11.749	11.749	0.000	83	39413	50.0	48.4	
98 1,2,3-Trichloropropane	110	11.774	11.774	0.000	83	45750	50.0	46.9	
99 N-Propylbenzene	120	11.828	11.828	0.000	99	151083	50.0	51.1	
100 2-Chlorotoluene	126	11.913	11.913	0.000	96	135449	50.0	55.2	
101 3-Chlorotoluene	126	11.980	11.980	0.000	96	141452	50.0	54.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.011	12.011	0.000	93	486575	50.0	50.6	
103 4-Chlorotoluene	126	12.035	12.035	0.000	99	142962	50.0	55.1	
104 tert-Butylbenzene	119	12.327	12.327	0.000	92	380414	50.0	50.1	
106 1,2,4-Trimethylbenzene	105	12.388	12.388	0.000	98	497998	50.0	50.7	
107 1,2-dichloro-4-(trifluorom	214	12.424	12.424	0.000	97	129970	50.0	46.7	
108 sec-Butylbenzene	105	12.552	12.552	0.000	95	583421	50.0	51.5	
109 1,3-Dichlorobenzene	146	12.668	12.668	0.000	96	261317	50.0	52.1	
110 4-Isopropyltoluene	119	12.704	12.704	0.000	96	482179	50.0	50.7	
111 1,4-Dichlorobenzene	146	12.771	12.771	0.000	92	267189	50.0	52.1	
113 2,4-Dichloro-1-(trifluorom	214	12.789	12.789	0.000	95	117189	50.0	42.3	
114 2,5-Dichlorobenzotrifluori	214	12.832	12.832	0.000	97	147517	50.0	47.7	
116 n-Butylbenzene	91	13.112	13.112	0.000	97	456174	50.0	48.0	
117 1,2-Dichlorobenzene	146	13.124	13.124	0.000	94	249588	50.0	49.3	
118 1,2-Dibromo-3-Chloropropan	75	13.915	13.915	0.000	76	18792	50.0	40.5	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.061	14.061	0.000	98	674018	150.0	152.9	
121 2,3- & 3,4- Dichlorotoluen	125	14.475	14.475	0.000	99	493632	100.0	101.5	
122 1,2,4-Trichlorobenzene	180	14.742	14.742	0.000	94	180613	50.0	46.0	
123 Hexachlorobutadiene	225	14.888	14.888	0.000	94	69302	50.0	44.8	
124 Naphthalene	128	15.010	15.010	0.000	98	414597	50.0	52.3	
125 1,2,3-Trichlorobenzene	180	15.235	15.235	0.000	95	162880	50.0	44.4	
126 2,4,5-Trichlorotoluene	159	16.008	16.008	0.000	0	109809	50.0	44.5	
127 2,3,6-Trichlorotoluene	159	16.105	16.105	0.000	94	104470	50.0	44.7	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	97.7	
S 131 Xylenes, Total	106				0		100.0	101.2	
S 132 1,3-Dichloropropene, Total	1				0		100.0	104.8	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260VOAPRI_00148	Amount Added: 2.00	Units: uL	
voaWKet1stRes_00001	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
voaWEEpri Res_00006	Amount Added: 2.00	Units: uL	
voaWVA1stRest_00001	Amount Added: 2.00	Units: uL	
VOA8260INT_00043	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00043	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013005.D

Injection Date: 13-Oct-2015 13:22:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

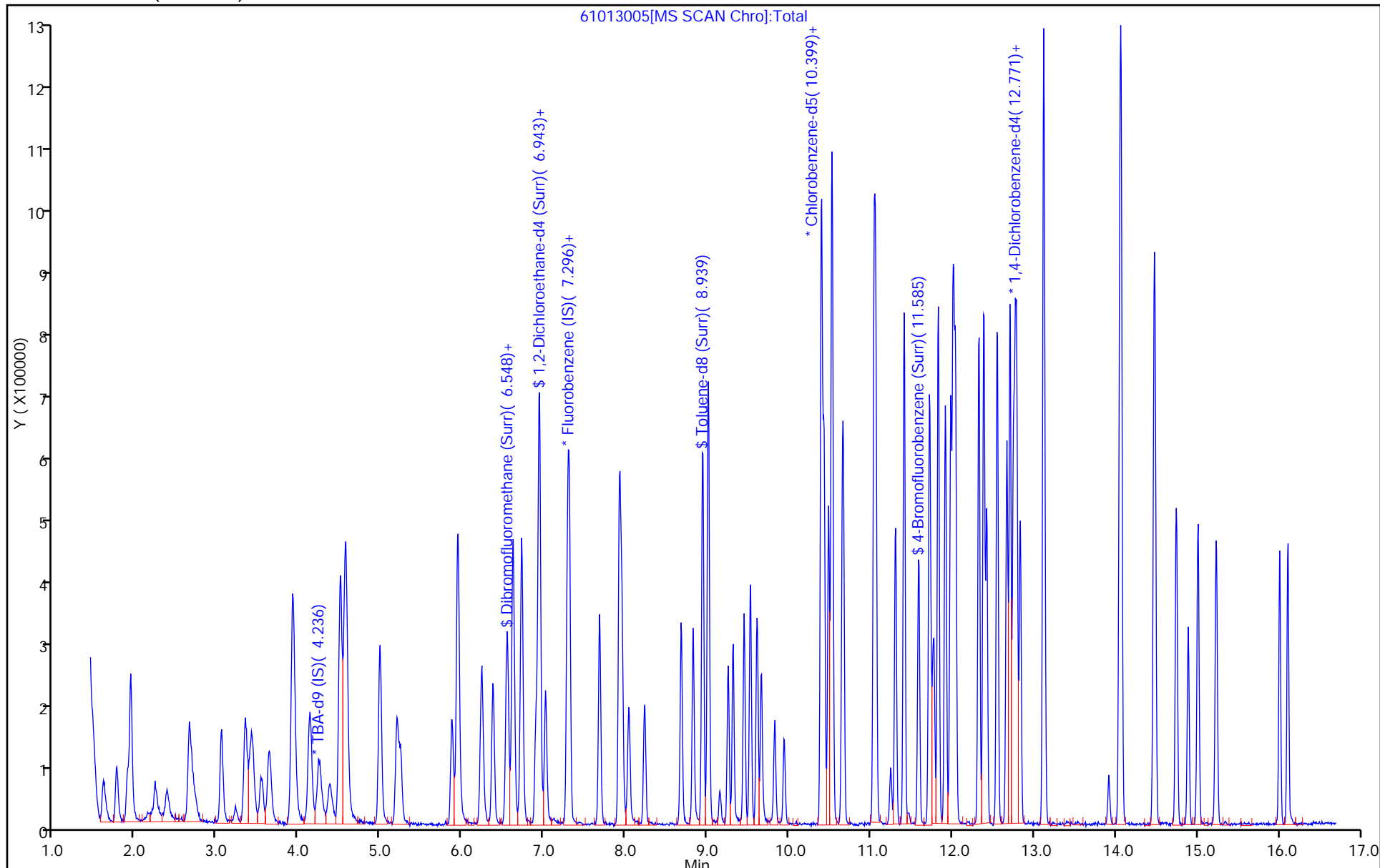
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



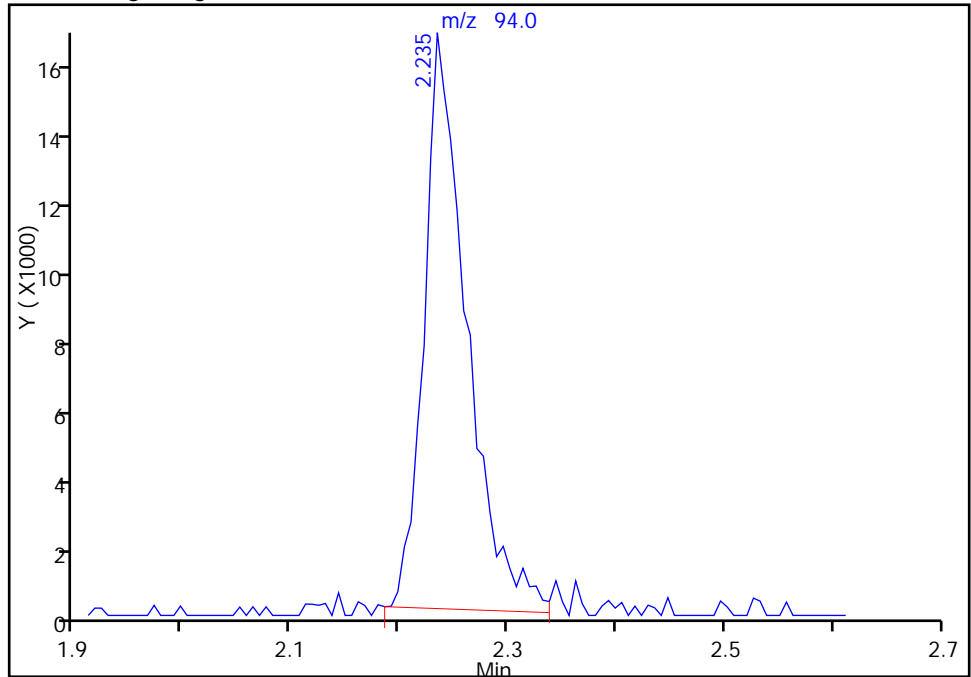
TestAmerica Pittsburgh

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Injection Date: 13-Oct-2015 13:22:30 Instrument ID: CHHP6  
Lims ID: CCVIS  
Client ID:  
Operator ID: 001562 ALS Bottle#: 4 Worklist Smp#: 5  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

15 Bromomethane, CAS: 74-83-9

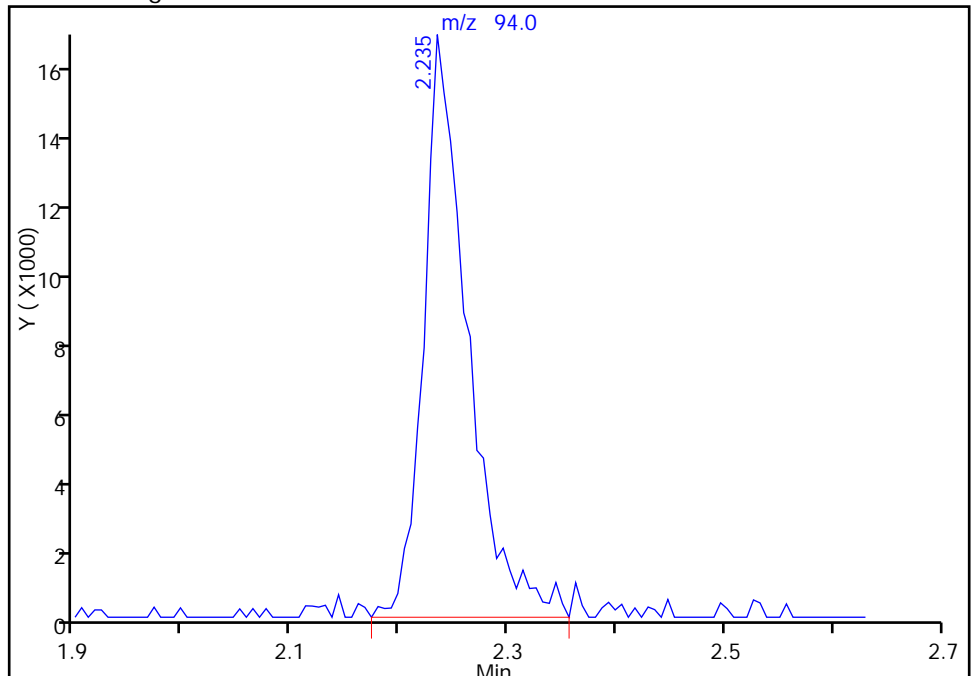
RT: 2.23  
Area: 45185  
Amount: 28.967465  
Amount Units: ng

Processing Integration Results



RT: 2.23  
Area: 47383  
Amount: 30.376572  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 13-Oct-2015 13:50:24  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

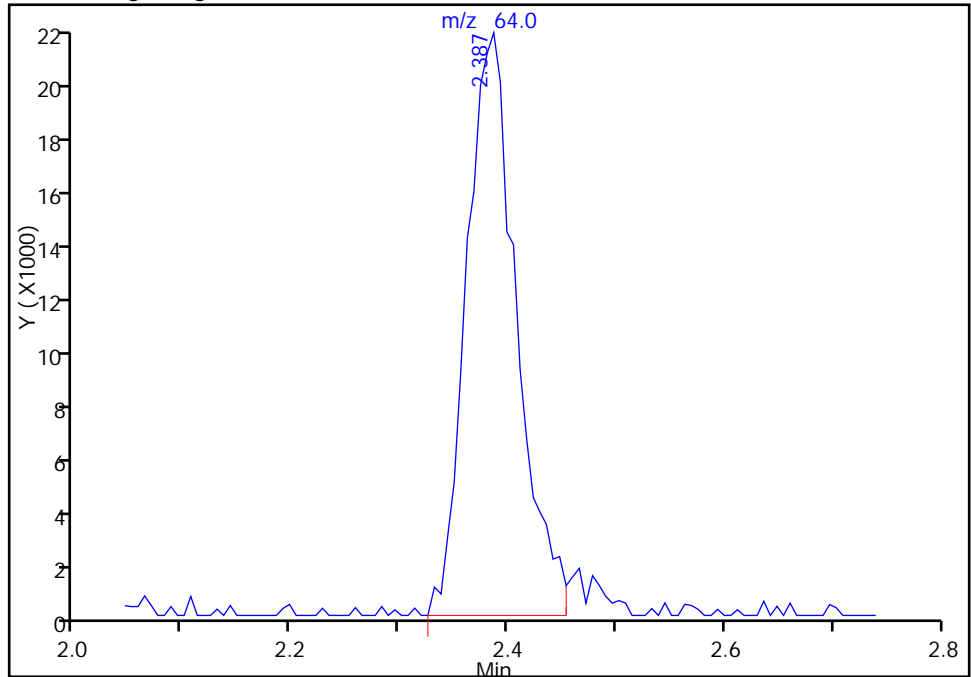
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013005.D  
Injection Date: 13-Oct-2015 13:22:30 Instrument ID: CHHP6  
Lims ID: CCVIS  
Client ID:  
Operator ID: 001562 ALS Bottle#: 4 Worklist Smp#: 5  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

16 Chloroethane, CAS: 75-00-3

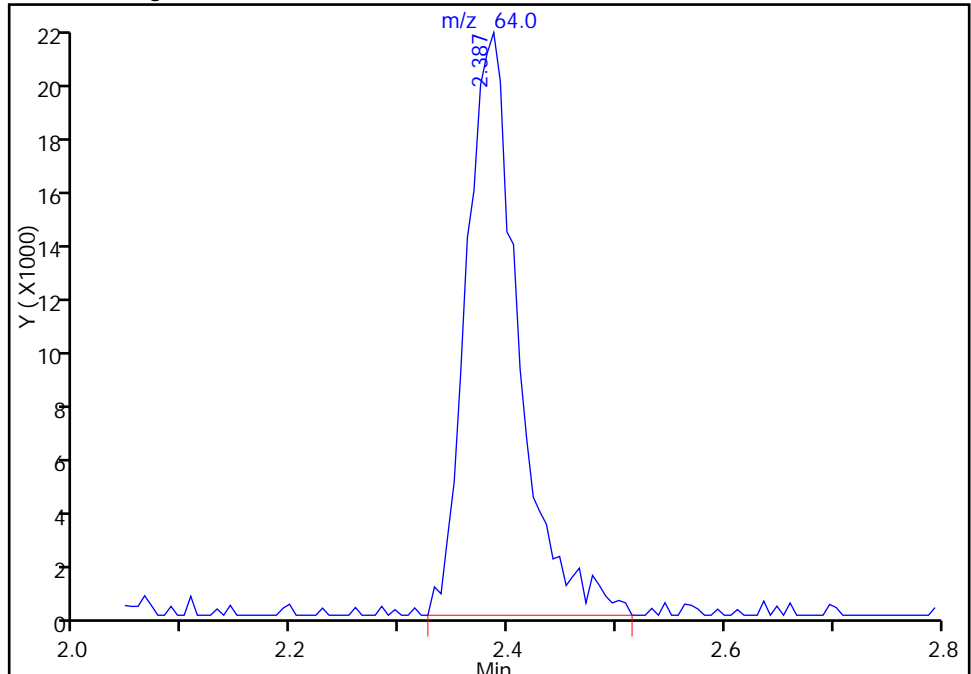
RT: 2.39  
Area: 69631  
Amount: 35.308600  
Amount Units: ng

Processing Integration Results



RT: 2.39  
Area: 72696  
Amount: 36.862806  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 13-Oct-2015 13:50:24  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration



FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-156975/2 Calibration Date: 10/14/2015 12:26  
 Instrument ID: CHHP6 Calib Start Date: 07/31/2015 14:00  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/31/2015 18:02  
 Lab File ID: 61014002.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	0.3462	0.2825	0.1000	8.16	10.0	-18.4	20.0
Chloromethane	Ave	0.2984	0.3330	0.1000	11.2	10.0	11.6	20.0
Vinyl chloride	Ave	0.3214	0.3081	0.1000	9.59	10.0	-4.1	20.0
1,3-Butadiene	Ave	0.3013	0.3066	0.0100	10.2	10.0	1.8	20.0
Bromomethane	Ave	0.1735	0.1142	0.0500	6.58	10.0	-34.2*	20.0
Chloroethane	Ave	0.2194	0.1790	0.0500	8.16	10.0	-18.4	20.0
Dichlorofluoromethane	Ave	0.5106	0.4030	0.0100	7.89	10.0	-21.1*	20.0
Trichlorofluoromethane	Ave	0.4072	0.3047	0.1000	7.48	10.0	-25.2*	20.0
Ethyl ether	Ave	0.2886	0.3024	0.0100	10.5	10.0	4.8	20.0
Acrolein	Ave	0.0315	0.0284	0.0100	27.1	30.0	-9.6	20.0
1,1-Dichloroethene	Ave	0.2517	0.2413	0.1000	9.59	10.0	-4.1	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2657	0.2367	0.1000	8.91	10.0	-10.9	20.0
Acetone	Ave	0.0885	0.0778	0.0500	17.6	20.0	-12.0	20.0
Iodomethane	Ave	0.3379	0.3400	0.0100	10.1	10.0	0.6	20.0
Carbon disulfide	Ave	0.6522	0.6190	0.1000	9.49	10.0	-5.1	20.0
Allyl chloride	Ave	0.1419	0.1419	0.0100	10.0	10.0	-0.0	20.0
Methyl acetate	Ave	0.2074	0.2245	0.1000	54.1	50.0	8.2	20.0
Methylene Chloride	Lin2		0.3376	0.1000	9.65	10.0	-3.5	20.0
tert-Butyl alcohol	Ave	1.125	1.189	0.0100	106	100	5.6	20.0
Acrylonitrile	Ave	0.1046	0.1161	0.0100	111	100	11.0	20.0
Methyl tert-butyl ether	Ave	0.8703	0.7259	0.1000	8.34	10.0	-16.6	20.0
trans-1,2-Dichloroethene	Ave	0.2905	0.2867	0.1000	9.87	10.0	-1.3	20.0
Hexane	Ave	0.3936	0.4492	0.0100	11.4	10.0	14.1	20.0
1,1-Dichloroethane	Ave	0.5200	0.5179	0.2000	9.96	10.0	-0.4	20.0
Vinyl acetate	Ave	0.4197	0.4166	0.0100	9.93	10.0	-0.7	20.0
cis-1,2-Dichloroethene	Ave	0.3158	0.3120	0.1000	9.88	10.0	-1.2	20.0
2,2-Dichloropropane	Ave	0.2629	0.2540	0.0100	9.66	10.0	-3.4	20.0
2-Butanone (MEK)	Ave	0.1207	0.1302	0.0500	21.6	20.0	7.9	20.0
Bromochloromethane	Ave	0.1269	0.1324	0.0100	10.4	10.0	4.4	20.0
Tetrahydrofuran	Ave	0.0813	0.0883	0.0100	21.7	20.0	8.6	20.0
Chloroform	Ave	0.5161	0.4844	0.2000	9.38	10.0	-6.2	20.0
1,1,1-Trichloroethane	Ave	0.3814	0.3328	0.1000	8.73	10.0	-12.7	20.0
Cyclohexane	Ave	0.4886	0.5609	0.1000	11.5	10.0	14.8	20.0
Carbon tetrachloride	Ave	0.2694	0.2525	0.1000	9.37	10.0	-6.3	20.0
1,1-Dichloropropene	Ave	0.4102	0.3886	0.0100	9.48	10.0	-5.2	20.0
Isobutyl alcohol	Ave	0.0072	0.0077*	0.0100	266	250	6.6	20.0
Benzene	Ave	1.165	1.248	0.5000	10.7	10.0	7.1	20.0
1,2-Dichloroethane	Ave	0.4694	0.4013	0.1000	8.55	10.0	-14.5	20.0
n-Heptane	Ave	0.3168	0.4475	0.0100	14.1	10.0	41.3*	20.0
Trichloroethene	Ave	0.2430	0.2710	0.2000	11.2	10.0	11.5	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-156975/2 Calibration Date: 10/14/2015 12:26  
 Instrument ID: CHHP6 Calib Start Date: 07/31/2015 14:00  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/31/2015 18:02  
 Lab File ID: 61014002.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4932	0.5092	0.1000	10.3	10.0	3.3	20.0
1,2-Dichloropropane	Ave	0.2784	0.3213	0.1000	11.5	10.0	15.4	20.0
1,4-Dioxane	Ave	0.0027	0.0028*	0.0100	206	200	3.2	20.0
Dibromomethane	Ave	0.1690	0.1540	0.0100	9.11	10.0	-8.9	20.0
Bromodichloromethane	Ave	0.3176	0.3185	0.2000	10.0	10.0	0.3	20.0
cis-1,3-Dichloropropene	Ave	0.3489	0.3668	0.2000	10.5	10.0	5.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.028	0.9564	0.1000	18.6	20.0	-7.0	20.0
Toluene	Ave	5.159	5.329	0.4000	10.3	10.0	3.3	20.0
trans-1,3-Dichloropropene	Ave	1.310	1.273	0.1000	9.72	10.0	-2.8	20.0
Ethyl methacrylate	Ave	1.391	1.413	0.0100	10.2	10.0	1.6	20.0
1,1,2-Trichloroethane	Ave	1.067	1.051	0.1000	9.85	10.0	-1.5	20.0
Tetrachloroethene	Ave	0.8800	0.8942	0.2000	10.2	10.0	1.6	20.0
1,3-Dichloropropane	Ave	1.971	1.996	0.0100	10.1	10.0	1.3	20.0
2-Hexanone	Ave	0.6750	0.7657	0.1000	22.7	20.0	13.4	20.0
Dibromochloromethane	Ave	0.7283	0.7768	0.1000	10.7	10.0	6.7	20.0
1,2-Dibromoethane (EDB)	Ave	0.9442	0.9011	0.1000	9.54	10.0	-4.6	20.0
3-Chlorobenzotrifluoride	Ave	1.652	1.585	0.0100	9.60	10.0	-4.0	20.0
Chlorobenzene	Ave	3.171	3.318	0.5000	10.5	10.0	4.6	20.0
4-Chlorobenzotrifluoride	Ave	1.531	1.512	0.0100	9.88	10.0	-1.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.8691	0.9480	0.0100	10.9	10.0	9.1	20.0
Ethylbenzene	Ave	1.789	1.812	0.1000	10.1	10.0	1.3	20.0
m-Xylene & p-Xylene	Ave	2.220	2.232	0.1000	10.1	10.0	0.6	20.0
o-Xylene	Ave	2.221	2.197	0.3000	9.89	10.0	-1.1	20.0
Styrene	Ave	3.411	3.691	0.3000	10.8	10.0	8.2	20.0
Bromoform	Ave	0.3887	0.4045	0.1000	10.4	10.0	4.1	20.0
2-Chlorobenzotrifluoride	Ave	1.692	1.607	0.0100	9.50	10.0	-5.0	20.0
Isopropylbenzene	Ave	5.314	5.355	0.1000	10.1	10.0	0.8	20.0
1,1,2,2-Tetrachloroethane	Ave	1.428	1.286	0.3000	9.01	10.0	-9.9	20.0
Bromobenzene	Ave	0.8038	0.8791	0.0100	10.9	10.0	9.4	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2549	0.2440	0.0100	9.57	10.0	-4.3	20.0
1,2,3-Trichloropropane	Ave	0.3057	0.2800	0.0100	9.16	10.0	-8.4	20.0
N-Propylbenzene	Ave	0.9257	1.029	0.0100	11.1	10.0	11.1	20.0
2-Chlorotoluene	Ave	0.7686	0.8675	0.0100	11.3	10.0	12.9	20.0
3-Chlorotoluene	Ave	0.8072	0.9762	0.0100	12.1	10.0	20.9*	20.0
1,3,5-Trimethylbenzene	Ave	3.010	3.215	0.0100	10.7	10.0	6.8	20.0
4-Chlorotoluene	Ave	0.8119	0.9495	0.0100	11.7	10.0	16.9	20.0
tert-Butylbenzene	Ave	2.378	2.517	0.0100	10.6	10.0	5.8	20.0
1,2,4-Trimethylbenzene	Ave	3.078	3.308	0.0100	10.7	10.0	7.5	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8719	0.8762	0.0100	10.0	10.0	0.5	20.0
sec-Butylbenzene	Ave	3.550	3.872	0.0100	10.9	10.0	9.1	20.0
1,3-Dichlorobenzene	Ave	1.570	1.726	0.6000	11.0	10.0	9.9	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-156975/2 Calibration Date: 10/14/2015 12:26  
 Instrument ID: CHHP6 Calib Start Date: 07/31/2015 14:00  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/31/2015 18:02  
 Lab File ID: 61014002.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	2.979	3.142	0.0100	10.5	10.0	5.5	20.0
1,4-Dichlorobenzene	Ave	1.605	1.776	0.5000	11.1	10.0	10.7	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.8674	0.9032	0.0100	10.4	10.0	4.1	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.9687	0.8953	0.0100	9.24	10.0	-7.6	20.0
n-Butylbenzene	Ave	2.974	3.011	0.0100	10.1	10.0	1.2	20.0
1,2-Dichlorobenzene	Ave	1.585	1.696	0.4000	10.7	10.0	7.0	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1454	0.1133	0.0500	7.79	10.0	-22.1*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.380	1.471	0.0100	32.0	30.0	6.6	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.522	1.587	0.0100	20.8	20.0	4.2	20.0
1,2,4-Trichlorobenzene	Ave	1.229	1.155	0.2000	9.40	10.0	-6.0	20.0
Hexachlorobutadiene	Ave	0.4839	0.4494	0.0100	9.29	10.0	-7.1	20.0
Naphthalene	Ave	2.479	2.465	0.0100	9.94	10.0	-0.6	20.0
1,2,3-Trichlorobenzene	Ave	1.150	1.040	0.0100	9.04	10.0	-9.6	20.0
2,4,5-Trichlorotoluene	Ave	0.7719	0.6927	0.0100	8.97	10.0	-10.3	20.0
2,3,6-Trichlorotoluene	Ave	0.7323	0.6696	0.0100	9.14	10.0	-8.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2303	0.2077		9.02	10.0	-9.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3715	0.2998		8.07	10.0	-19.3	20.0
Toluene-d8 (Surr)	Ave	3.944	4.001		10.1	10.0	1.5	20.0
4-Bromofluorobenzene (Surr)	Ave	1.751	1.637		9.35	10.0	-6.5	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014002.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 14-Oct-2015 12:26:30 ALS Bottle#: 2 Worklist Smp#: 2  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: CCVIS  
 Misc. Info.: 180-0008996-002  
 Operator ID: 001562 Instrument ID: CHHP6  
 Sublist: chrom-MSVOA\_LL\_CHHP6\*sub5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Oct-2015 14:19:39 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK037

First Level Reviewer: fergusond

Date: 14-Oct-2015 12:52:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.242	4.242	0.000	89	145055	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.284	7.284	0.000	98	432546	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.399	10.399	0.000	90	103819	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.747	0.000	95	151958	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.560	6.560	0.000	94	89818	50.0	45.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.931	0.000	68	129694	50.0	40.3	
\$ 7 Toluene-d8 (Surr)	98	8.939	8.939	0.000	93	415413	50.0	50.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.585	0.000	84	169988	50.0	46.8	
11 Dichlorodifluoromethane	85	1.608	1.608	0.000	99	122186	50.0	40.8	
12 Chloromethane	50	1.760	1.760	0.000	99	144021	50.0	55.8	
13 Vinyl chloride	62	1.900	1.900	0.000	97	133274	50.0	47.9	
14 Butadiene	39	1.936	1.936	0.000	93	132612	50.0	50.9	
15 Bromomethane	94	2.235	2.235	0.000	89	49391	50.0	32.9	M
16 Chloroethane	64	2.381	2.381	0.000	98	77404	50.0	40.8	
17 Dichlorofluoromethane	67	2.654	2.654	0.000	96	174296	50.0	39.5	
18 Trichlorofluoromethane	101	2.679	2.679	0.000	22	131785	50.0	37.4	M
20 Ethyl ether	59	3.044	3.044	0.000	91	130809	50.0	52.4	
21 Acrolein	56	3.226	3.226	0.000	99	36910	150.0	135.5	
22 1,1-Dichloroethene	96	3.336	3.336	0.000	97	104387	50.0	47.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.403	3.403	0.000	94	102385	50.0	44.5	
24 Acetone	43	3.433	3.433	0.000	97	67317	100.0	88.0	
25 Iodomethane	142	3.536	3.536	0.000	97	147057	50.0	50.3	
26 Carbon disulfide	76	3.628	3.628	0.000	99	267739	50.0	47.5	
29 3-Chloro-1-propene	76	3.914	3.914	0.000	92	61369	50.0	50.0	
30 Methyl acetate	43	3.926	3.926	0.000	98	485575	250.0	270.6	
31 Methylene Chloride	84	4.120	4.120	0.000	97	146026	50.0	48.2	
32 2-Methyl-2-propanol	59	4.370	4.370	0.000	92	86223	500.0	528.2	
33 Acrylonitrile	53	4.498	4.498	0.000	100	501993	500.0	555.0	
35 Methyl tert-butyl ether	73	4.565	4.565	0.000	96	313988	50.0	41.7	
34 trans-1,2-Dichloroethene	96	4.565	4.565	0.000	67	124003	50.0	49.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.984	4.984	0.000	93	194302	50.0	57.1	
37 1,1-Dichloroethane	63	5.191	5.191	0.000	96	224022	50.0	49.8	
38 Vinyl acetate	43	5.240	5.240	0.000	97	180214	50.0	49.6	
43 cis-1,2-Dichloroethene	96	5.939	5.939	0.000	81	134931	50.0	49.4	
44 2-Butanone (MEK)	43	5.945	5.945	0.000	66	112660	100.0	107.9	
42 2,2-Dichloropropane	77	5.945	5.945	0.000	59	109885	50.0	48.3	
48 Chlorobromomethane	128	6.225	6.225	0.000	93	57273	50.0	52.2	
49 Tetrahydrofuran	42	6.237	6.237	0.000	90	76399	100.0	108.6	
50 Chloroform	83	6.365	6.365	0.000	92	209502	50.0	46.9	
51 1,1,1-Trichloroethane	97	6.536	6.536	0.000	96	143951	50.0	43.6	
52 Cyclohexane	56	6.615	6.615	0.000	94	242624	50.0	57.4	
53 Carbon tetrachloride	117	6.718	6.718	0.000	96	109196	50.0	46.9	
54 1,1-Dichloropropene	75	6.724	6.724	0.000	94	168097	50.0	47.4	
55 Isobutyl alcohol	41	6.895	6.895	0.000	93	83357	1250.0	1332.0	
56 Benzene	78	6.943	6.943	0.000	97	539862	50.0	53.6	
57 1,2-Dichloroethane	62	7.016	7.016	0.000	97	173598	50.0	42.8	
59 n-Heptane	43	7.308	7.308	0.000	94	193566	50.0	70.6	
61 Trichloroethene	130	7.673	7.673	0.000	97	117218	50.0	55.8	
63 Methylcyclohexane	83	7.917	7.917	0.000	93	220269	50.0	51.6	
64 1,2-Dichloropropane	63	7.947	7.947	0.000	87	138961	50.0	57.7	
65 1,4-Dioxane	88	8.026	8.026	0.000	49	24534	1000.0	1032.1	
67 Dibromomethane	93	8.038	8.038	0.000	96	66607	50.0	45.5	
68 Dichlorobromomethane	83	8.227	8.227	0.000	98	137785	50.0	50.1	
71 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	93	158661	50.0	52.6	
72 4-Methyl-2-pentanone (MIBK)	43	8.823	8.823	0.000	97	198586	100.0	93.0	
73 Toluene	91	9.012	9.012	0.000	99	553287	50.0	51.6	
74 trans-1,3-Dichloropropene	75	9.255	9.255	0.000	95	132201	50.0	48.6	
75 Ethyl methacrylate	69	9.316	9.316	0.000	90	146718	50.0	50.8	
76 1,1,2-Trichloroethane	97	9.450	9.450	0.000	91	109116	50.0	49.3	
77 Tetrachloroethene	164	9.529	9.529	0.000	98	92837	50.0	50.8	
78 1,3-Dichloropropane	76	9.608	9.608	0.000	92	207271	50.0	50.6	
79 2-Hexanone	43	9.656	9.656	0.000	97	158982	100.0	113.4	
81 Chlorodibromomethane	129	9.821	9.821	0.000	91	80649	50.0	53.3	
82 Ethylene Dibromide	107	9.936	9.936	0.000	100	93554	50.0	47.7	
83 3-Chlorobenzotrifluoride	180	10.393	10.393	0.000	93	164588	50.0	48.0	
84 Chlorobenzene	112	10.429	10.429	0.000	93	344469	50.0	52.3	
85 4-Chlorobenzotrifluoride	180	10.484	10.484	0.000	96	156998	50.0	49.4	
86 1,1,1,2-Tetrachloroethane	131	10.520	10.520	0.000	90	98424	50.0	54.5	
87 Ethylbenzene	106	10.526	10.526	0.000	99	188092	50.0	50.6	
88 m-Xylene & p-Xylene	106	10.654	10.654	0.000	98	231757	50.0	50.3	
89 o-Xylene	106	11.037	11.037	0.000	97	228076	50.0	49.5	
90 Styrene	104	11.062	11.062	0.000	95	383214	50.0	54.1	
91 Bromoform	173	11.238	11.238	0.000	95	41995	50.0	52.0	
92 2-Chlorobenzotrifluoride	180	11.305	11.305	0.000	97	166866	50.0	47.5	
93 Isopropylbenzene	105	11.408	11.408	0.000	97	555987	50.0	50.4	
96 1,1,2,2-Tetrachloroethane	83	11.719	11.719	0.000	94	133558	50.0	45.1	
95 Bromobenzene	156	11.725	11.725	0.000	95	133585	50.0	54.7	
97 trans-1,4-Dichloro-2-buten	53	11.749	11.749	0.000	65	37070	50.0	47.8	
98 1,2,3-Trichloropropane	110	11.773	11.773	0.000	85	42545	50.0	45.8	
99 N-Propylbenzene	120	11.828	11.828	0.000	99	156298	50.0	55.6	
100 2-Chlorotoluene	126	11.913	11.913	0.000	95	131816	50.0	56.4	
101 3-Chlorotoluene	126	11.980	11.980	0.000	96	148342	50.0	60.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.011	12.011	0.000	95	488555	50.0	53.4	
103 4-Chlorotoluene	126	12.035	12.035	0.000	99	144289	50.0	58.5	
104 tert-Butylbenzene	119	12.327	12.327	0.000	93	382413	50.0	52.9	
106 1,2,4-Trimethylbenzene	105	12.382	12.382	0.000	98	502694	50.0	53.7	
107 1,2-dichloro-4-(trifluorom	214	12.424	12.424	0.000	98	133138	50.0	50.2	
108 sec-Butylbenzene	105	12.552	12.552	0.000	95	588395	50.0	54.5	
109 1,3-Dichlorobenzene	146	12.668	12.668	0.000	96	262211	50.0	54.9	
110 4-Isopropyltoluene	119	12.704	12.704	0.000	96	477505	50.0	52.7	
111 1,4-Dichlorobenzene	146	12.771	12.771	0.000	92	269930	50.0	55.3	
113 2,4-Dichloro-1-(trifluorom	214	12.789	12.789	0.000	96	137255	50.0	52.1	
114 2,5-Dichlorobenzotrifluori	214	12.832	12.832	0.000	96	136054	50.0	46.2	
116 n-Butylbenzene	91	13.112	13.112	0.000	98	457500	50.0	50.6	
117 1,2-Dichlorobenzene	146	13.124	13.124	0.000	96	257722	50.0	53.5	
118 1,2-Dibromo-3-Chloropropan	75	13.915	13.915	0.000	73	17211	50.0	39.0	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.061	14.061	0.000	99	670618	150.0	159.9	
121 2,3- & 3,4- Dichlorotoluen	125	14.475	14.475	0.000	99	482212	100.0	104.2	
122 1,2,4-Trichlorobenzene	180	14.742	14.742	0.000	94	175504	50.0	47.0	
123 Hexachlorobutadiene	225	14.888	14.888	0.000	94	68289	50.0	46.4	
124 Naphthalene	128	15.010	15.010	0.000	98	374566	50.0	49.7	
125 1,2,3-Trichlorobenzene	180	15.229	15.229	0.000	94	157978	50.0	45.2	
126 2,4,5-Trichlorotoluene	159	16.008	16.008	0.000	0	105261	50.0	44.9	
127 2,3,6-Trichlorotoluene	159	16.111	16.111	0.000	95	101752	50.0	45.7	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 131 Xylenes, Total	106				0		100.0	99.7	
S 130 1,2-Dichloroethene, Total	96				0		100.0	98.7	
S 132 1,3-Dichloropropene, Total	1				0		100.0	101.2	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260VOAPRI_00148	Amount Added: 2.00	Units: uL	
voaWKet1stRes_00001	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
voaWEEpri Res_00006	Amount Added: 2.00	Units: uL	
voaWVA1stRest_00001	Amount Added: 2.00	Units: uL	
VOA8260INT_00043	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00043	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014002.D

Injection Date: 14-Oct-2015 12:26:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

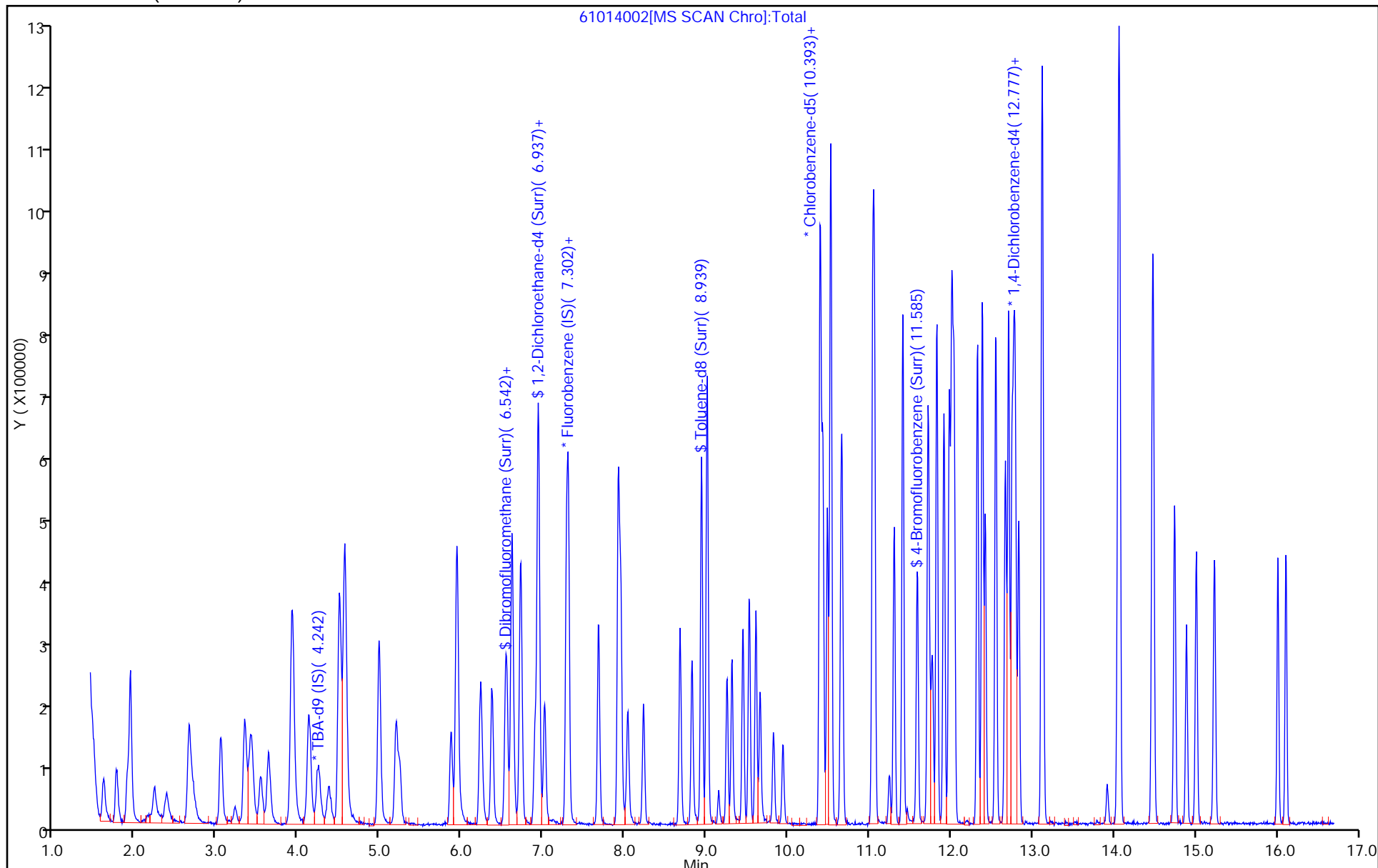
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



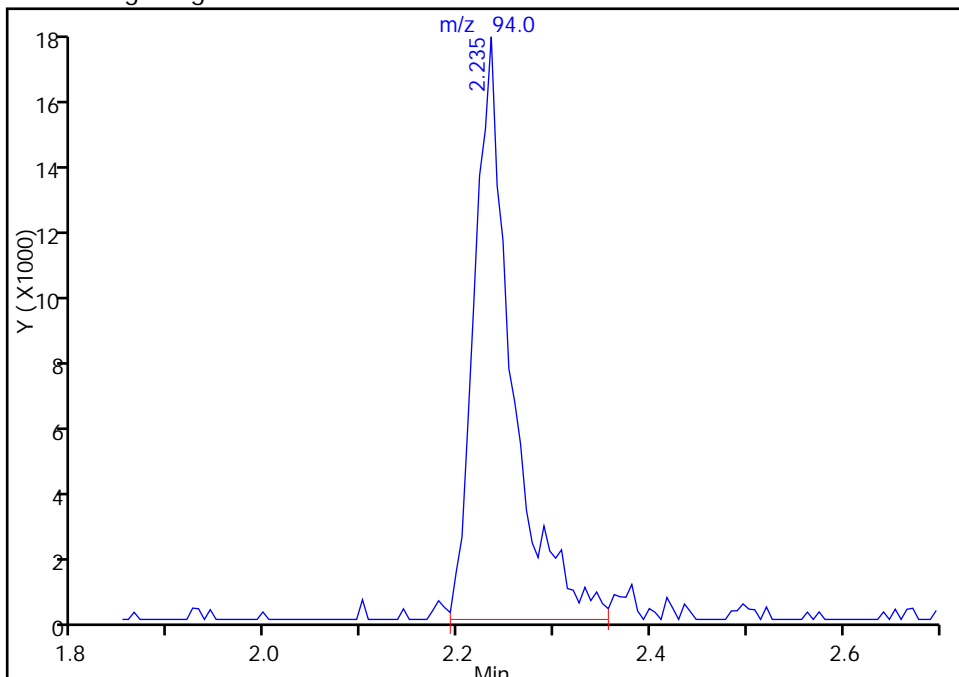
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014002.D  
Injection Date: 14-Oct-2015 12:26:30 Instrument ID: CHHP6  
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\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

15 Bromomethane, CAS: 74-83-9

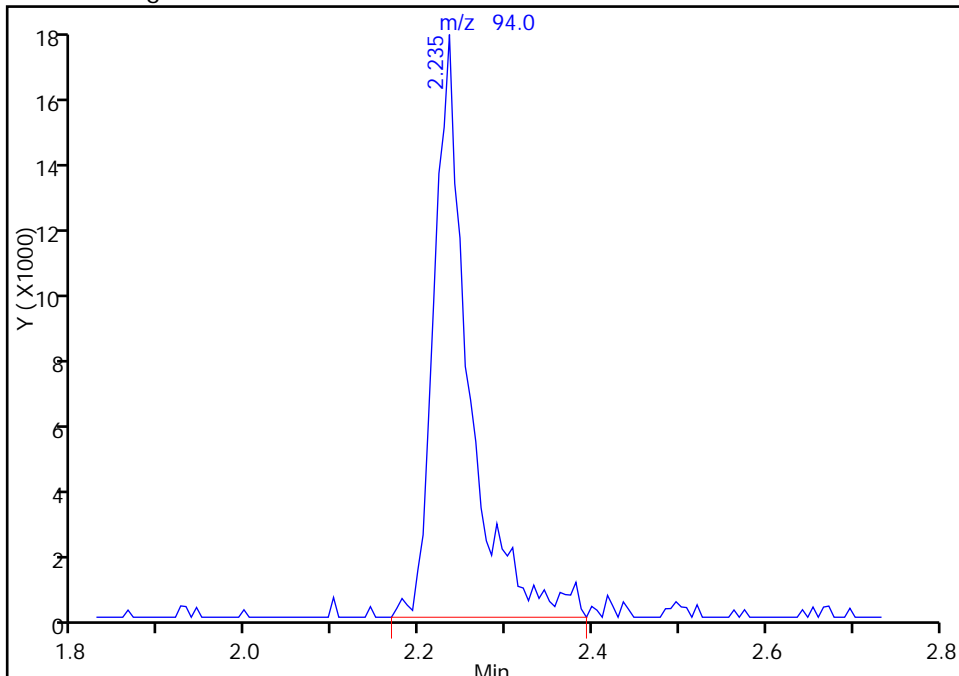
RT: 2.23  
Area: 47706  
Amount: 31.777940  
Amount Units: ng

Processing Integration Results



RT: 2.23  
Area: 49391  
Amount: 32.900352  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 14-Oct-2015 12:52:03  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration



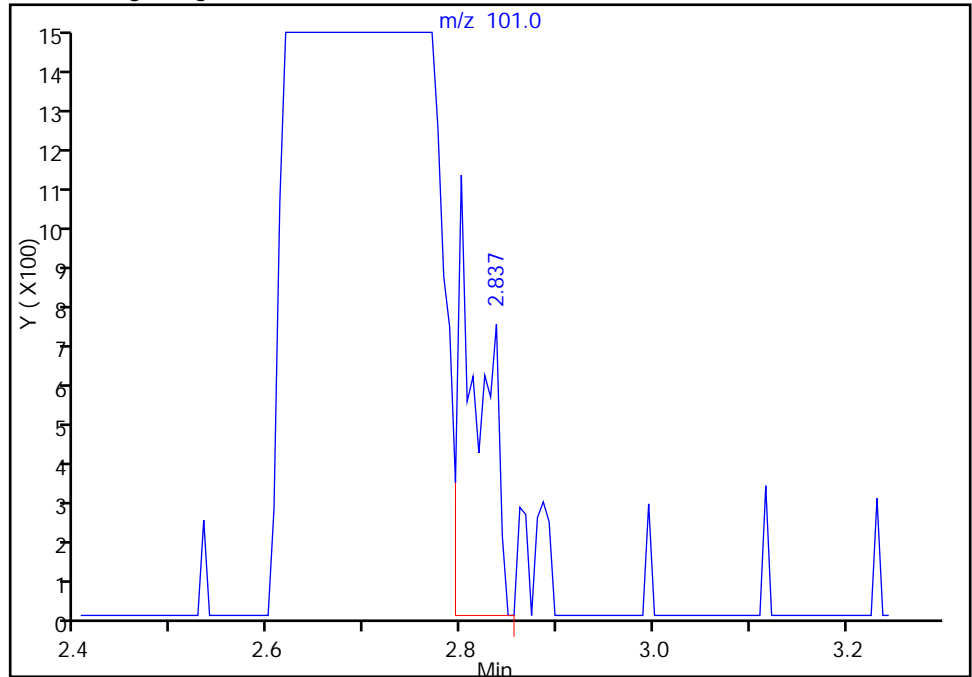
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014002.D  
Injection Date: 14-Oct-2015 12:26:30 Instrument ID: CHHP6  
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\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

18 Trichlorofluoromethane, CAS: 75-69-4

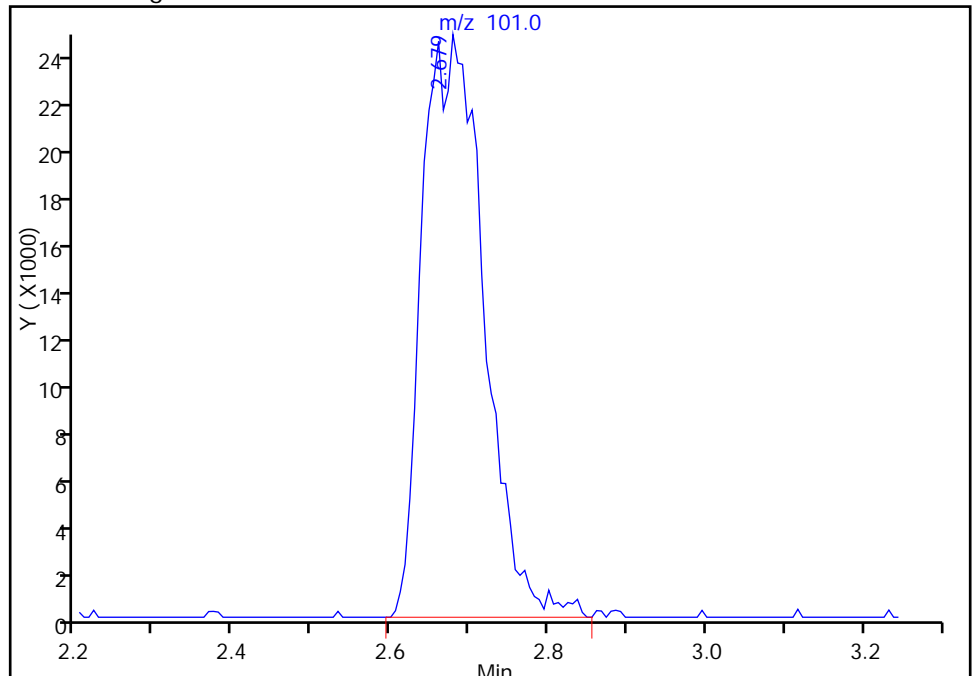
RT: 2.84  
Area: 1868  
Amount: 0.530252  
Amount Units: ng

Processing Integration Results



RT: 2.68  
Area: 131785  
Amount: 37.408633  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 14-Oct-2015 12:52:03  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826007.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 26-Aug-2015 14:01:30 ALS Bottle#: 4 Worklist Smp#: 7  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Sample Info: BFB  
 Misc. Info.: 180-0008300-007  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 27-Aug-2015 11:26:53 Calib Date: 26-Aug-2015 17:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK048

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
\$ 10 BFB	95	8.366	8.366	0.000	0	128431	NR	NR	

**QC Flag Legend**

Processing Flags  
 NR - Missing Quant Standard

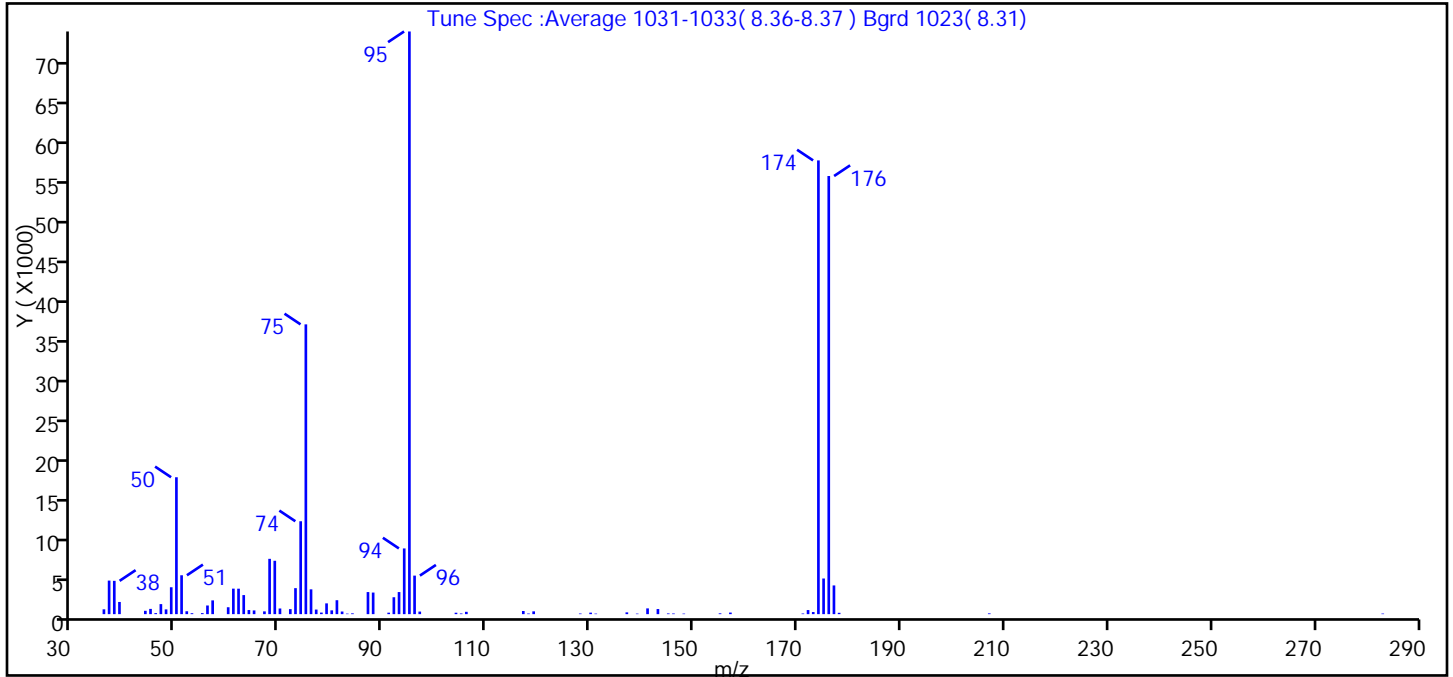
**Reagents:**

VOABFB25\_00065 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826007.D  
 Injection Date: 26-Aug-2015 14:01:30 Instrument ID: CHHP5  
 Lims ID: BFB  
 Client ID:  
 Operator ID: 001562 ALS Bottle#: 4 Worklist Smp#: 7  
 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	23.5
75	30 to 60% of m/z 95	49.7
96	5 to 9% of m/z 95	6.6
173	Less than 2% of m/z 174	0.4 (0.5)
174	50 to 120% of m/z 95	77.9
175	5 to 9% of m/z 174	6.1 (7.9)
176	Greater than 95% but less than 101% of m/z 174	75.2 (96.6)
177	5 to 9% of m/z 176	4.9 (6.6)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826007.D\MSVOA\_LL\_CHHP5.rsl\spectr  
Injection Date: 26-Aug-2015 14:01:30  
Spectrum: Tune Spec :Average 1031-1033( 8.36-8.37 ) Bgrd 1023( 8.31)  
Base Peak: 95.00  
Minimum % Base Peak: 0  
Number of Points: 77

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	611	63.00	2411	87.00	2793	141.00	728
37.00	4245	64.00	518	88.00	2731	143.00	645
38.00	4214	65.00	470	91.00	185	145.00	90
39.00	1541	67.00	350	92.00	2139	146.00	83
44.00	422	68.00	6998	93.00	2793	148.00	69
45.00	664	69.00	6752	94.00	8313	155.00	103
46.00	131	70.00	715	95.00	73720	157.00	200
47.00	1270	72.00	635	96.00	4875	171.00	82
48.00	602	73.00	3289	97.00	325	172.00	516
49.00	3402	74.00	11753	104.00	180	173.00	266
50.00	17320	75.00	36664	105.00	86	174.00	57408
51.00	4919	76.00	3139	106.00	295	175.00	4509
52.00	366	77.00	580	117.00	395	176.00	55432
53.00	119	78.00	199	118.00	78	177.00	3632
55.00	129	79.00	1363	119.00	354	178.00	170
56.00	1095	80.00	480	128.00	80	207.00	97
57.00	1741	81.00	1763	130.00	191	283.00	74
60.00	873	82.00	333	131.00	68		
61.00	3226	83.00	66	137.00	226		
62.00	3220	84.00	102	139.00	67		

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826007.D

Injection Date: 26-Aug-2015 14:01:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 7

Client ID:

Injection Vol: 5.0 mL

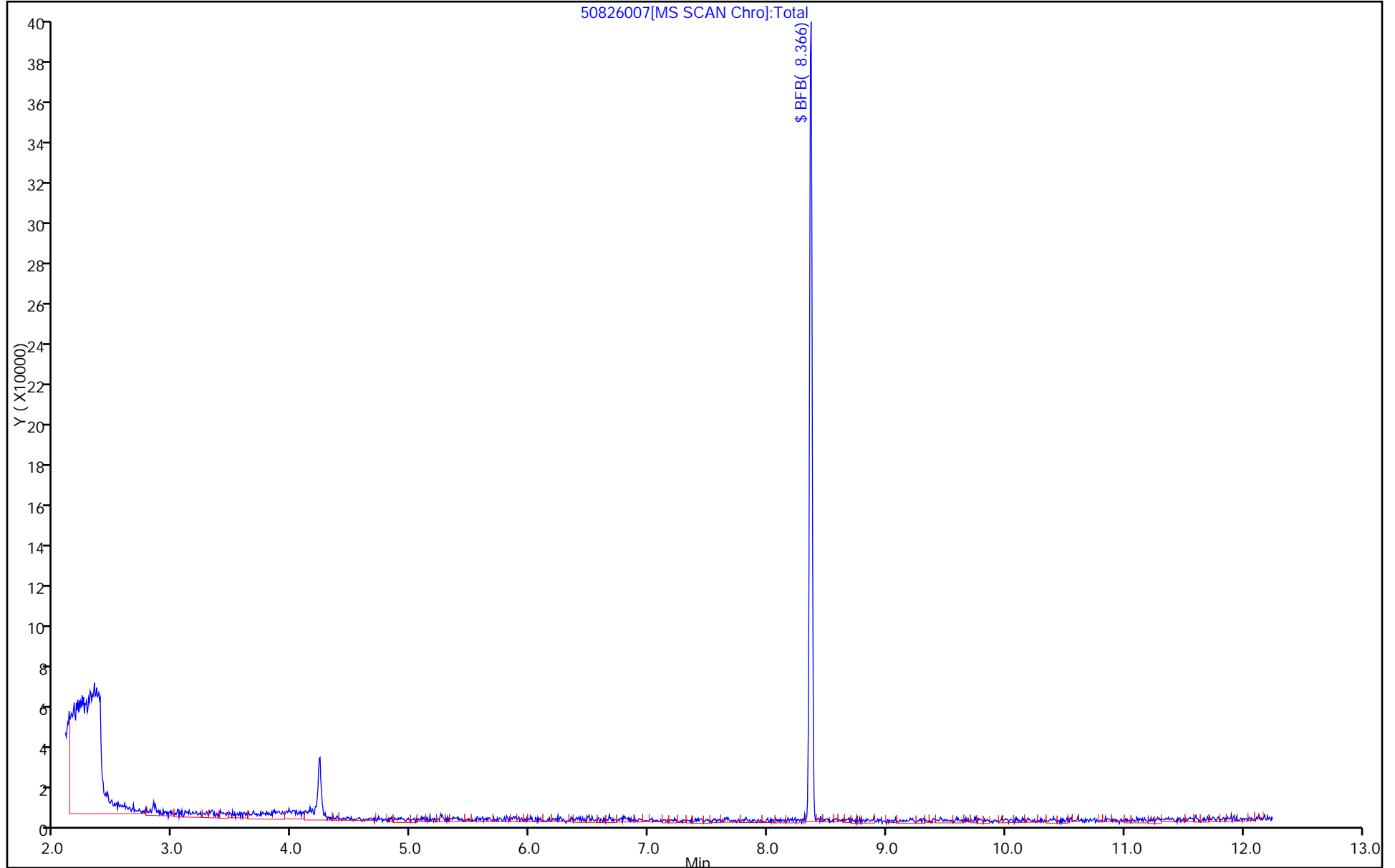
Dil. Factor: 1.0000

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: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151013-8970.b\51013005.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 13-Oct-2015 11:51:30 ALS Bottle#: 1 Worklist Smp#: 5  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Sample Info: BFB  
 Misc. Info.: 180-0008970-005  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151013-8970.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 13-Oct-2015 14:35:46 Calib Date: 26-Aug-2015 17:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK048

First Level Reviewer: fergusond Date: 13-Oct-2015 12:06:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
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\$ 10 BFB	95	8.362	8.362	0.000	0	137595	NR	NR	
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**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

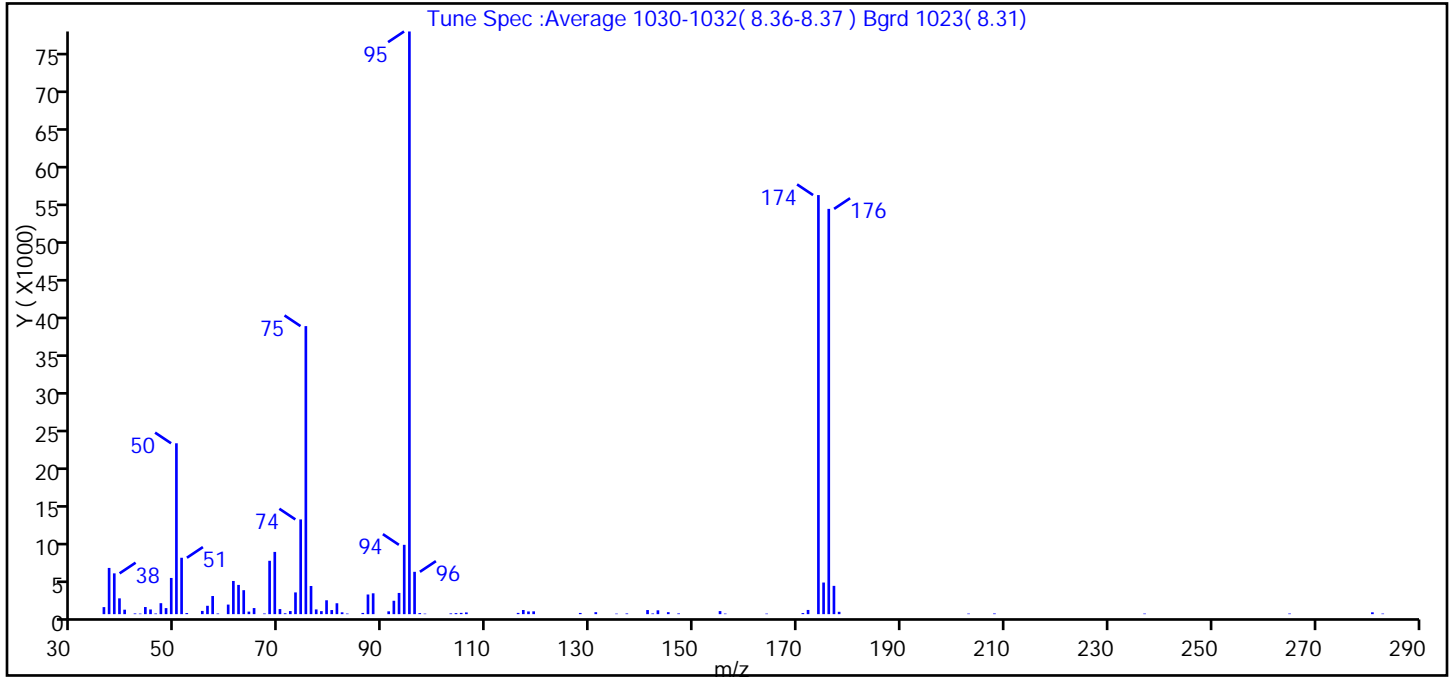
**Reagents:**

VOABFB25\_00067 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151013-8970.b\51013005.D  
 Injection Date: 13-Oct-2015 11:51:30 Instrument ID: CHHP5  
 Lims ID: BFB  
 Client ID:  
 Operator ID: 001562 ALS Bottle#: 1 Worklist Smp#: 5  
 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	29.3
75	30 to 60% of m/z 95	49.4
96	5 to 9% of m/z 95	7.3
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	71.9
175	5 to 9% of m/z 174	5.4 (7.5)
176	Greater than 95% but less than 101% of m/z 174	69.6 (96.7)
177	5 to 9% of m/z 176	4.9 (7.0)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151013-8970.b\51013005.D\MSVOA\_LL\_CHHP5.rsl\spectr  
 Injection Date: 13-Oct-2015 11:51:30  
 Spectrum: Tune Spec :Average 1030-1032( 8.36-8.37 ) Bgrd 1023( 8.31)  
 Base Peak: 95.00  
 Minimum % Base Peak: 0  
 Number of Points: 87

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	930	62.00	3863	87.00	2597	141.00	541
37.00	6108	63.00	3167	88.00	2754	142.00	91
38.00	5391	64.00	337	91.00	372	143.00	505
39.00	2088	65.00	804	92.00	1769	145.00	261
40.00	589	67.00	88	93.00	2802	147.00	97
42.00	94	68.00	7052	94.00	9163	155.00	403
43.00	73	69.00	8225	95.00	77016	156.00	74
44.00	940	70.00	672	96.00	5595	164.00	70
45.00	619	71.00	118	97.00	138	171.00	142
46.00	88	72.00	406	98.00	67	172.00	554
47.00	1450	73.00	2873	103.00	101	174.00	55392
48.00	798	74.00	12521	104.00	137	175.00	4178
49.00	4785	75.00	38072	105.00	168	176.00	53568
50.00	22584	76.00	3721	106.00	227	177.00	3738
51.00	7455	77.00	626	116.00	164	178.00	309
52.00	142	78.00	397	117.00	548	203.00	74
55.00	425	79.00	1833	118.00	355	208.00	90
56.00	1105	80.00	543	119.00	370	237.00	75
57.00	2395	81.00	1440	128.00	158	265.00	81
58.00	86	82.00	242	131.00	258	281.00	242
60.00	1264	83.00	78	135.00	67	283.00	75
61.00	4385	86.00	161	137.00	93		



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151013-8970.b\51013005.D

Injection Date: 13-Oct-2015 11:51:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 5

Client ID:

Injection Vol: 5.0 mL

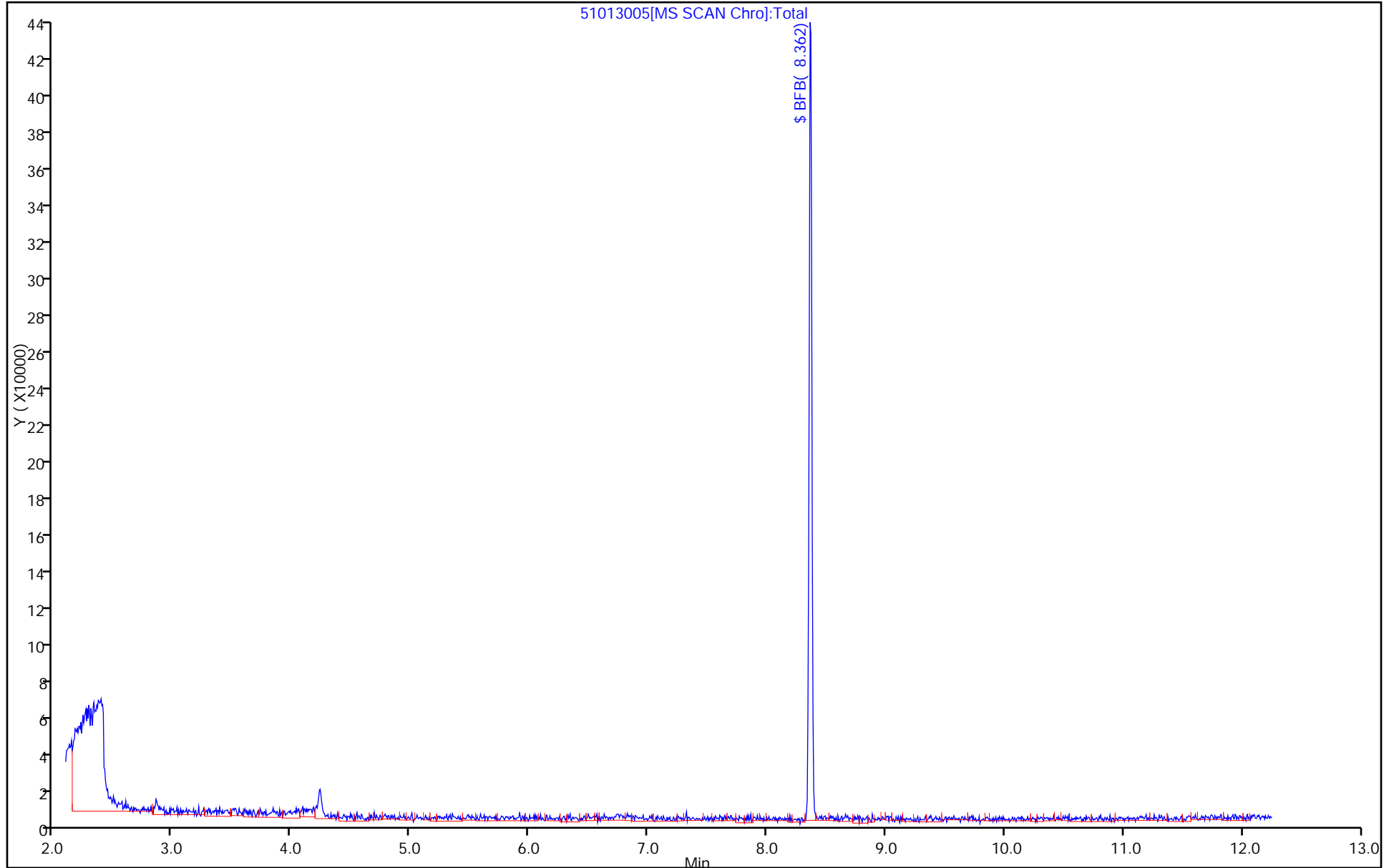
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015004.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 15-Oct-2015 12:12:30 ALS Bottle#: 1 Worklist Smp#: 4  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Sample Info: BFB  
 Misc. Info.: 180-0009022-004  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 15-Oct-2015 13:56:12 Calib Date: 26-Aug-2015 17:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK008

First Level Reviewer: fergusond Date: 15-Oct-2015 12:24:53

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	8.368	8.368	0.000	0	124424	NR	NR	
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**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

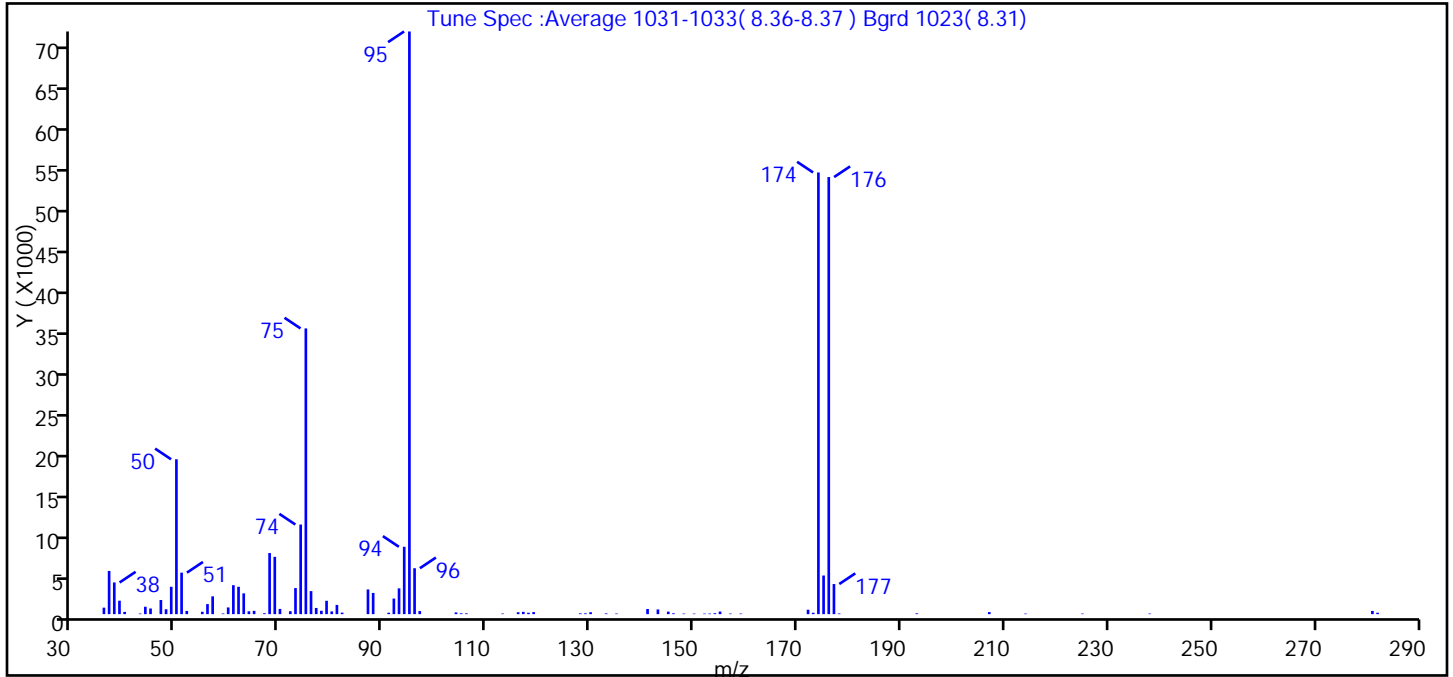
**Reagents:**

VOABFB25\_00067 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015004.D  
 Injection Date: 15-Oct-2015 12:12:30 Instrument ID: CHHP5  
 Lims ID: BFB  
 Client ID:  
 Operator ID: 001562 ALS Bottle#: 1 Worklist Smp#: 4  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
 Tune Method: BFB Method 8260

\$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	26.6
75	30 to 60% of m/z 95	49.0
96	5 to 9% of m/z 95	7.9
173	Less than 2% of m/z 174	0.2 (0.3)
174	50 to 120% of m/z 95	75.8
175	5 to 9% of m/z 174	6.6 (8.7)
176	Greater than 95% but less than 101% of m/z 174	75.0 (99.0)
177	5 to 9% of m/z 176	5.2 (6.9)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015004.D\MSVOA\_LL\_CHHP5.rsl\spectr  
Injection Date: 15-Oct-2015 12:12:30  
Spectrum: Tune Spec :Average 1031-1033( 8.36-8.37 ) Bgrd 1023( 8.31)  
Base Peak: 95.00  
Minimum % Base Peak: 0  
Number of Points: 87

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	800	64.00	350	94.00	8297	150.00	67
37.00	5323	65.00	406	95.00	71784	152.00	67
38.00	3901	67.00	113	96.00	5658	153.00	75
39.00	1658	68.00	7528	97.00	381	154.00	115
40.00	278	69.00	7060	104.00	213	155.00	321
43.00	78	70.00	644	105.00	102	157.00	73
44.00	910	72.00	358	106.00	95	159.00	72
45.00	697	73.00	3211	113.00	76	172.00	545
47.00	1744	74.00	11041	116.00	236	173.00	173
48.00	602	75.00	35200	117.00	285	174.00	54416
49.00	3372	76.00	2836	118.00	172	175.00	4761
50.00	19080	77.00	763	119.00	252	176.00	53848
51.00	5113	78.00	416	128.00	97	177.00	3710
52.00	396	79.00	1646	129.00	101	178.00	83
55.00	292	80.00	336	130.00	235	193.00	101
56.00	1237	81.00	1136	133.00	90	207.00	255
57.00	2193	82.00	187	135.00	75	214.00	71
59.00	82	87.00	3043	141.00	633	225.00	71
60.00	828	88.00	2615	143.00	579	238.00	73
61.00	3568	91.00	176	145.00	311	281.00	394
62.00	3371	92.00	1922	146.00	107	282.00	173
63.00	2563	93.00	3175	148.00	71		

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015004.D

Injection Date: 15-Oct-2015 12:12:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 4

Client ID:

Injection Vol: 5.0 mL

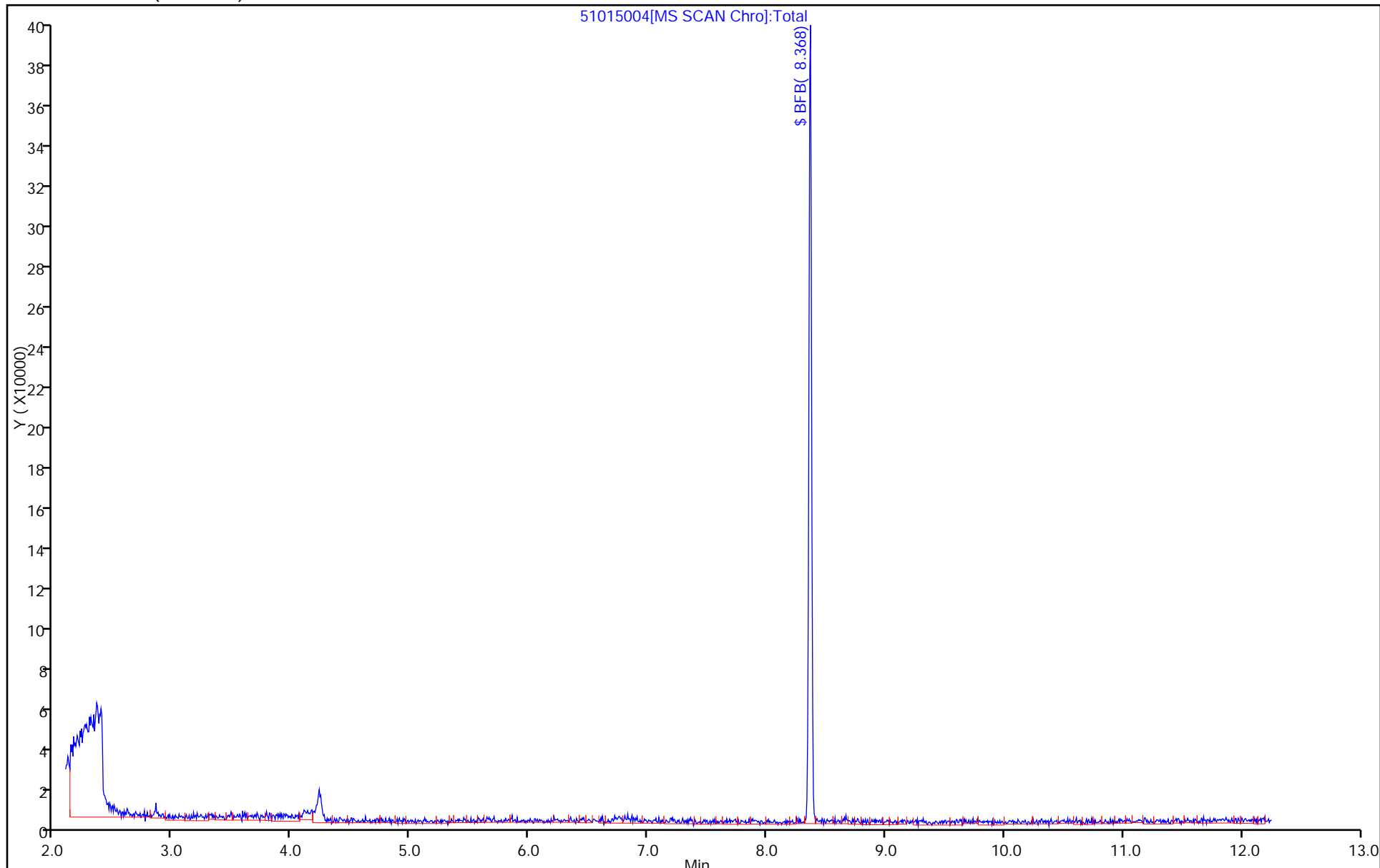
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731001.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 31-Jul-2015 12:10:30 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Sample Info: BFB  
 Misc. Info.: 180-0007999-001  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 03-Aug-2015 12:15:22 Calib Date: 31-Jul-2015 18:02:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK049

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
\$ 10 BFB	95	8.381	8.381	0.000	0	114672	NR	NR	

**QC Flag Legend**

Processing Flags  
 NR - Missing Quant Standard

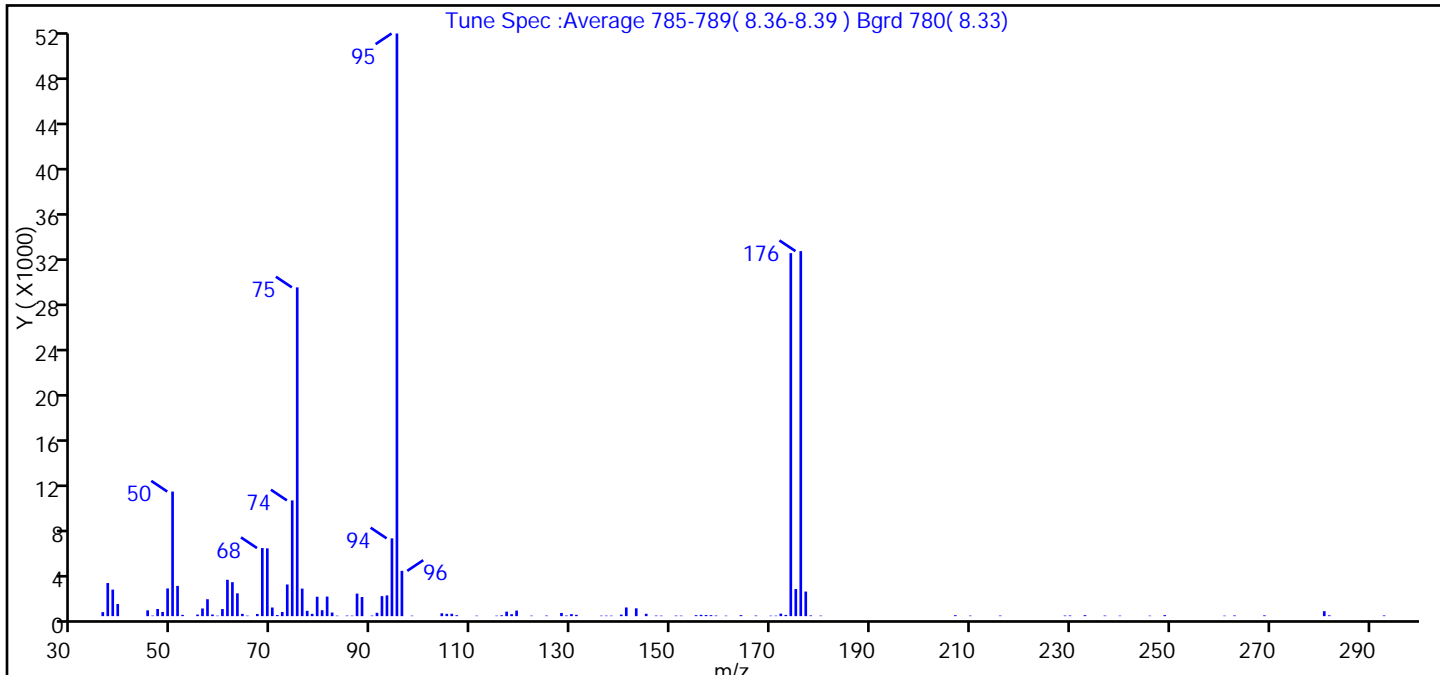
**Reagents:**

VOABFB25\_00064 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731001.D  
 Injection Date: 31-Jul-2015 12:10:30 Instrument ID: CHHP6  
 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\_CHHP6 Limit Group: VOA 8260C ICAL  
 Tune Method: BFB Method 8260

\$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.4
75	30 to 60% of m/z 95	56.4
96	5 to 9% of m/z 95	7.8
173	Less than 2% of m/z 174	0.2 (0.3)
174	50 to 120% of m/z 95	62.3
175	5 to 9% of m/z 174	4.7 (7.5)
176	Greater than 95% but less than 101% of m/z 174	62.6 (100.6)
177	5 to 9% of m/z 176	4.2 (6.7)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731001.D\MSVOA\_LL\_CHHP6.rsl\spectr  
Injection Date: 31-Jul-2015 12:10:30  
Spectrum: Tune Spec :Average 785-789( 8.36-8.39 ) Bgrd 780( 8.33)  
Base Peak: 95.00  
Minimum % Base Peak: 0  
Number of Points: 113

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	357	73.00	2786	116.00	79	170.00	42
37.00	2914	74.00	10190	117.00	397	171.00	42
38.00	2336	75.00	28944	118.00	172	172.00	223
39.00	1071	76.00	2425	119.00	489	173.00	107
45.00	513	77.00	467	122.00	43	174.00	31960
46.00	47	78.00	201	125.00	52	175.00	2388
47.00	630	79.00	1709	128.00	283	176.00	32136
48.00	370	80.00	524	129.00	57	177.00	2165
49.00	2439	81.00	1723	130.00	180	178.00	64
50.00	10968	82.00	318	131.00	115	180.00	45
51.00	2663	83.00	42	136.00	43	207.00	82
52.00	110	85.00	51	137.00	46	210.00	48
55.00	140	86.00	45	138.00	43	216.00	52
56.00	674	87.00	1982	140.00	137	229.00	53
57.00	1491	88.00	1683	141.00	763	230.00	56
58.00	144	90.00	51	143.00	689	233.00	85
59.00	42	91.00	295	145.00	209	237.00	52
60.00	626	92.00	1761	147.00	52	240.00	44
61.00	3200	93.00	1826	148.00	43	246.00	42
62.00	2990	94.00	6848	151.00	49	249.00	90
63.00	2009	95.00	51296	152.00	43	261.00	42
64.00	201	96.00	3987	155.00	87	263.00	61
65.00	44	98.00	42	156.00	116	269.00	68
67.00	191	104.00	251	157.00	98	281.00	438
68.00	5995	105.00	201	158.00	87	282.00	71
69.00	5969	106.00	210	159.00	54	293.00	62
70.00	760	107.00	82	161.00	42		
71.00	96	111.00	42	164.00	89		
72.00	366	115.00	42	167.00	53		



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731001.D

Injection Date: 31-Jul-2015 12:10:30

Instrument ID: CHHP6

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\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013001.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 13-Oct-2015 11:43:30 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Sample Info: BFB  
 Misc. Info.: 180-0008971-001  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 13-Oct-2015 15:23:56 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK048

First Level Reviewer: fergusond Date: 13-Oct-2015 12:05:28

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	8.381	8.381	0.000	0	106937	NR	NR	
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**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

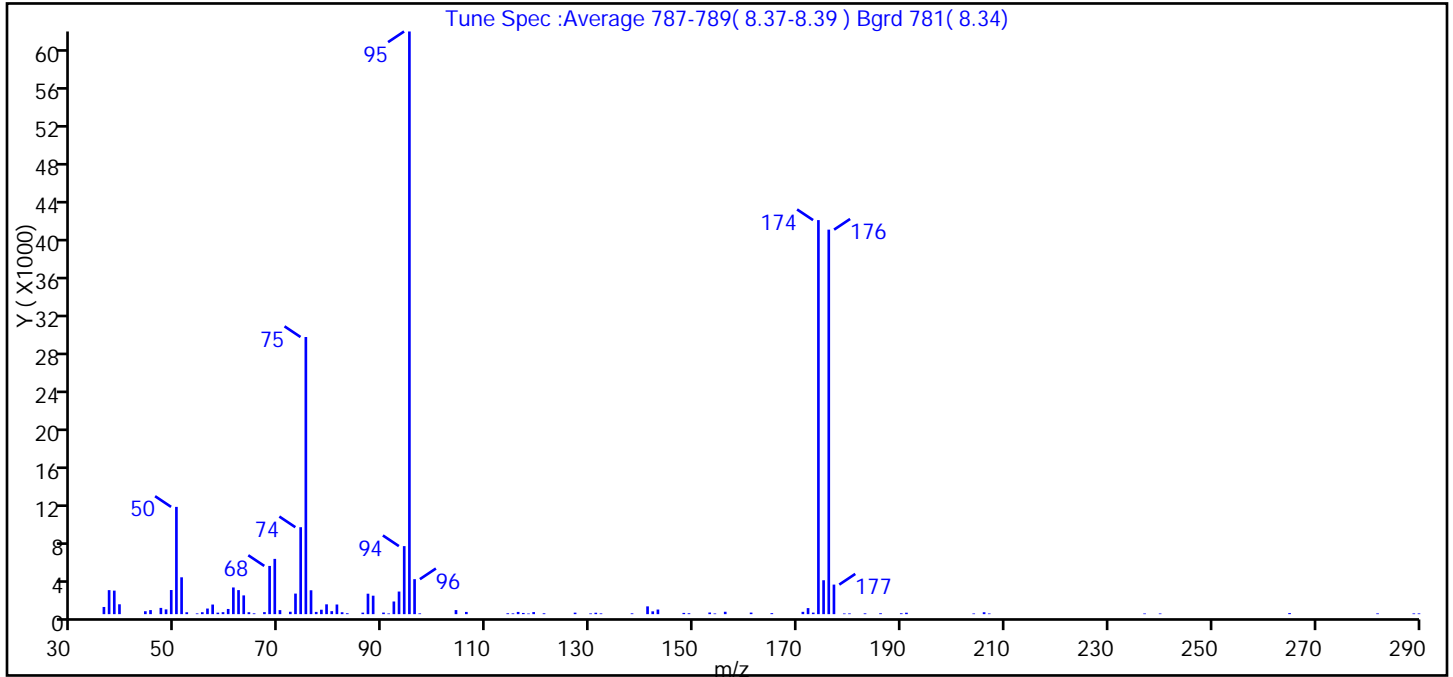
**Reagents:**

VOABFB25\_00067 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013001.D  
 Injection Date: 13-Oct-2015 11:43:30 Instrument ID: CHHP6  
 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\_CHHP6 Limit Group: VOA 8260C ICAL  
 Tune Method: BFB Method 8260

\$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.4
75	30 to 60% of m/z 95	47.6
96	5 to 9% of m/z 95	6.0
173	Less than 2% of m/z 174	0.3 (0.4)
174	50 to 120% of m/z 95	67.6
175	5 to 9% of m/z 174	5.8 (8.6)
176	Greater than 95% but less than 101% of m/z 174	66.0 (97.6)
177	5 to 9% of m/z 176	5.1 (7.7)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013001.D\MSVOA\_LL\_CHHP6.rsl\spectr  
Injection Date: 13-Oct-2015 11:43:30  
Spectrum: Tune Spec :Average 787-789( 8.37-8.39 ) Bgrd 781( 8.34)  
Base Peak: 95.00  
Minimum % Base Peak: 0  
Number of Points: 97

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	753	68.00	5055	97.00	80	171.00	242
37.00	2516	69.00	5794	104.00	425	172.00	634
38.00	2467	70.00	422	106.00	233	173.00	160
39.00	1034	72.00	251	114.00	94	174.00	41312
44.00	305	73.00	2155	115.00	82	175.00	3555
45.00	424	74.00	9115	116.00	233	176.00	40312
47.00	655	75.00	29056	117.00	125	177.00	3099
48.00	499	76.00	2503	118.00	66	179.00	70
49.00	2529	77.00	234	119.00	217	180.00	76
50.00	11246	78.00	464	121.00	90	183.00	83
51.00	3863	79.00	1029	127.00	156	186.00	93
52.00	198	80.00	313	130.00	77	190.00	91
54.00	77	81.00	1011	131.00	147	191.00	150
55.00	202	82.00	200	132.00	79	204.00	71
56.00	587	83.00	94	138.00	85	206.00	199
57.00	1007	86.00	158	141.00	816	207.00	70
58.00	157	87.00	2144	142.00	294	237.00	70
59.00	207	88.00	1935	143.00	482	240.00	71
60.00	543	90.00	164	148.00	130	265.00	111
61.00	2797	91.00	72	149.00	93	282.00	81
62.00	2519	92.00	1326	153.00	171	289.00	77
63.00	1966	93.00	2370	154.00	72	290.00	76
64.00	202	94.00	7132	156.00	250		
65.00	84	95.00	61088	161.00	163		
67.00	211	96.00	3667	165.00	104		

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013001.D

Injection Date: 13-Oct-2015 11:43:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

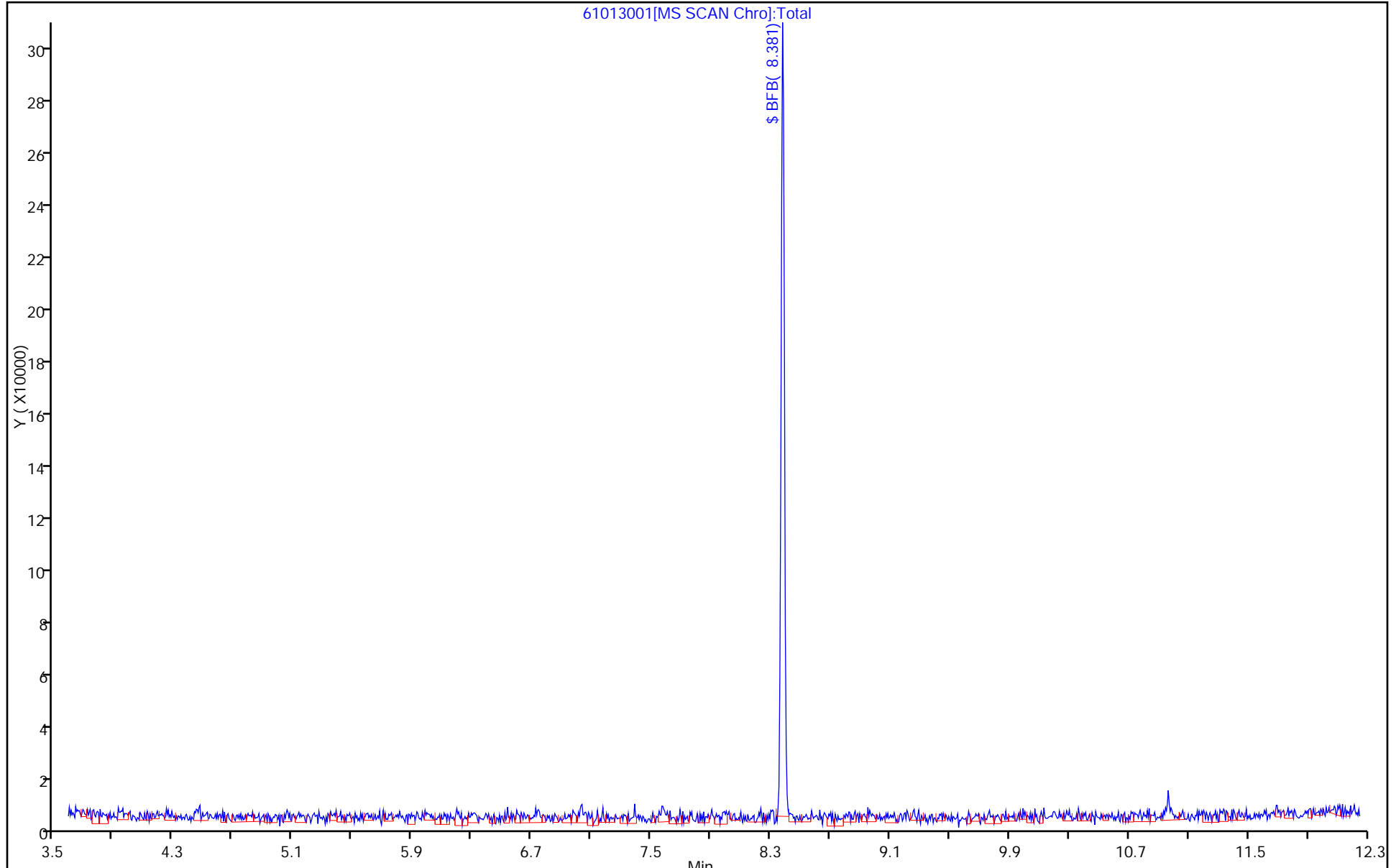
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014001.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 14-Oct-2015 11:42:30 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Sample Info: BFB  
 Misc. Info.: 180-0008996-001  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Oct-2015 14:19:33 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK037

First Level Reviewer: fergusond Date: 14-Oct-2015 11:55:50

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	8.381	8.381	0.000	0	97930	NR	NR	
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**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

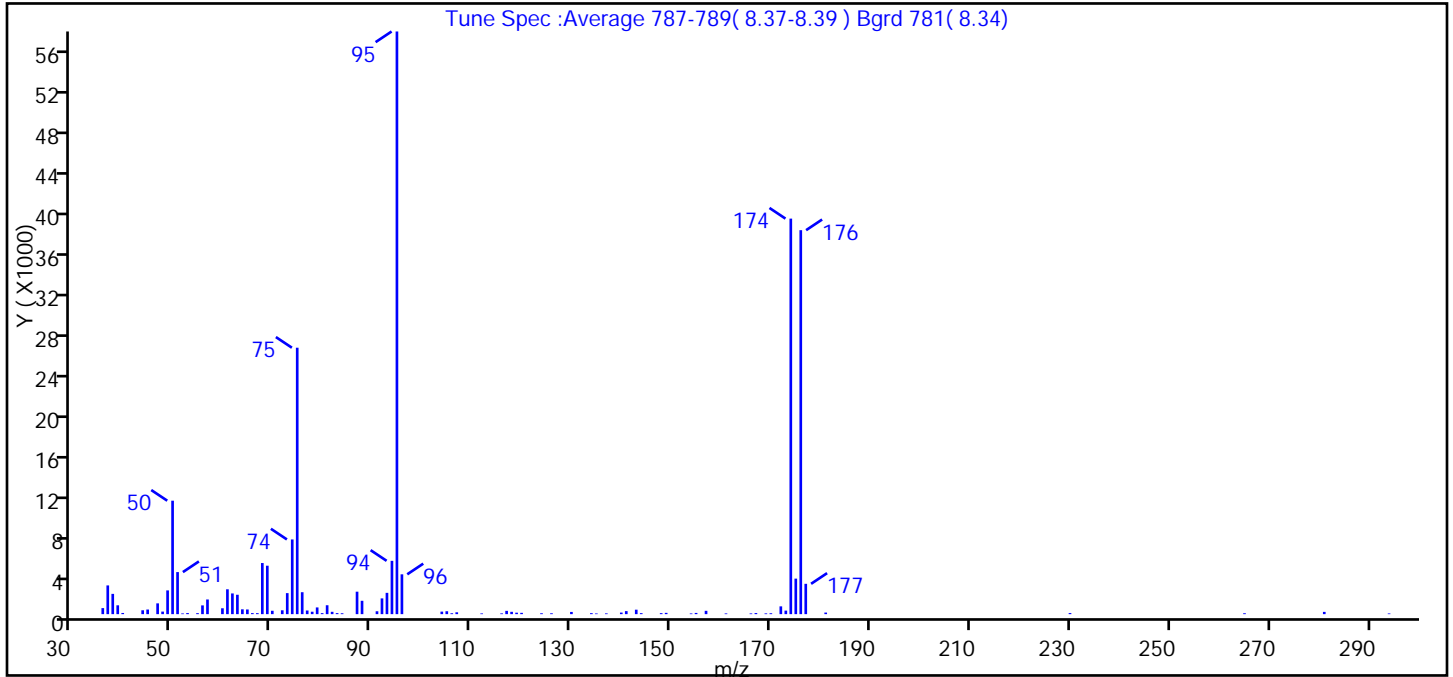
**Reagents:**

VOABFB25\_00067 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014001.D  
 Injection Date: 14-Oct-2015 11:42:30 Instrument ID: CHHP6  
 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\_CHHP6 Limit Group: VOA 8260C ICAL  
 Tune Method: BFB Method 8260

\$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	19.5
75	30 to 60% of m/z 95	45.7
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0.6 (0.9)
174	50 to 120% of m/z 95	67.9
175	5 to 9% of m/z 174	6.1 (9.0)
176	Greater than 95% but less than 101% of m/z 174	65.9 (97.1)
177	5 to 9% of m/z 176	5.2 (7.9)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014001.D\MSVOA\_LL\_CHHP6.rsl\spectr  
 Injection Date: 14-Oct-2015 11:42:30  
 Spectrum: Tune Spec :Average 787-789( 8.37-8.39 ) Bgrd 781( 8.34)  
 Base Peak: 95.00  
 Minimum % Base Peak: 0  
 Number of Points: 90

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	593	66.00	102	94.00	5239	148.00	98
37.00	2823	67.00	97	95.00	57264	149.00	126
38.00	1992	68.00	5023	96.00	3914	154.00	69
39.00	868	69.00	4760	104.00	248	155.00	119
40.00	115	70.00	332	105.00	286	157.00	326
44.00	380	72.00	379	106.00	89	161.00	71
45.00	454	73.00	2066	107.00	182	166.00	71
47.00	1060	74.00	7341	112.00	71	167.00	107
48.00	251	75.00	26184	116.00	75	169.00	75
49.00	2333	76.00	2155	117.00	322	170.00	89
50.00	11149	77.00	358	118.00	228	172.00	765
51.00	4133	78.00	238	119.00	144	173.00	346
52.00	69	79.00	660	120.00	129	174.00	38872
53.00	106	80.00	99	124.00	87	175.00	3490
55.00	97	81.00	875	126.00	85	176.00	37736
56.00	861	82.00	230	130.00	217	177.00	2981
57.00	1442	83.00	102	134.00	97	181.00	155
60.00	577	84.00	87	135.00	67	230.00	107
61.00	2443	87.00	2207	137.00	75	265.00	88
62.00	2035	88.00	1312	140.00	155	281.00	222
63.00	1905	91.00	284	141.00	298	294.00	69
64.00	475	92.00	1548	143.00	438		
65.00	459	93.00	2093	144.00	98		



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014001.D

Injection Date: 14-Oct-2015 11:42:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

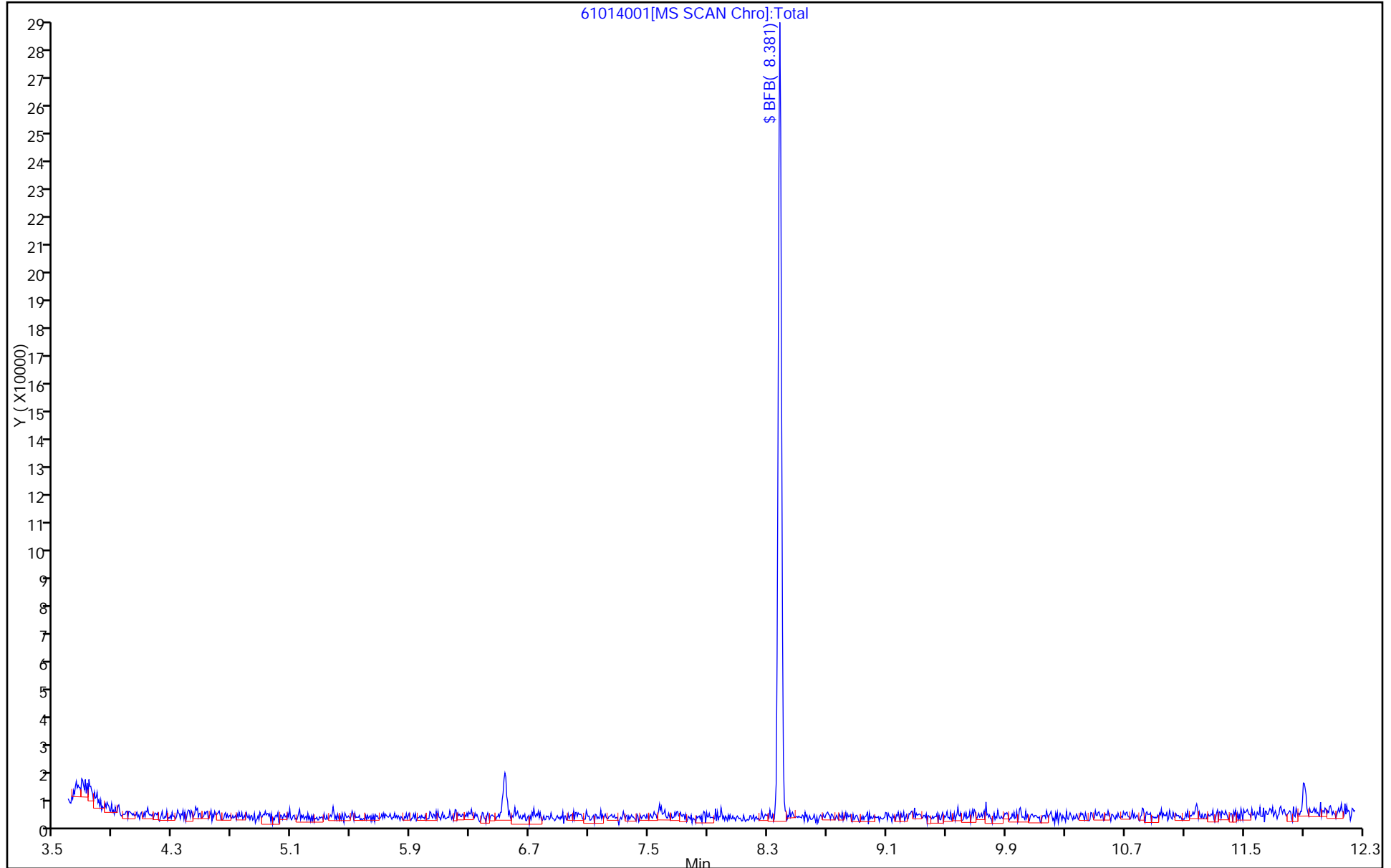
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-156816/7  
 Matrix: Water Lab File ID: 51013007.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 14:19  
 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.: 156816 Units: ug/L

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

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-156816/7  
 Matrix: Water Lab File ID: 51013007.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 14:19  
 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.: 156816 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		64-135
2037-26-5	Toluene-d8 (Surr)	100		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	95		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151013-8970.b\51013007.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 13-Oct-2015 14:19:30 ALS Bottle#: 6 Worklist Smp#: 7  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: MB  
 Misc. Info.: 180-0008970-007  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151013-8970.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 13-Oct-2015 16:54:42 Calib Date: 26-Aug-2015 17:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK048

First Level Reviewer: fergusond

Date: 13-Oct-2015 16:54:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.266	4.284	-0.018	0	180801	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.296	7.289	0.007	97	398965	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.392	10.386	0.006	91	89248	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.734	12.734	0.000	97	122004	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.572	6.566	0.006	93	93440	50.0	47.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	134299	50.0	49.9	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	96	344846	50.0	50.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.572	0.000	85	121008	50.0	46.6	
11 Dichlorodifluoromethane	85		1.601					ND	
12 Chloromethane	50		1.772					ND	
13 Vinyl chloride	62		1.918					ND	
14 Butadiene	39		1.942					ND	
15 Bromomethane	94		2.265					ND	
16 Chloroethane	64		2.417					ND	
17 Dichlorofluoromethane	67		2.678					ND	
18 Trichlorofluoromethane	101		2.709					ND	
19 Ethanol	45		2.954					ND	
20 Ethyl ether	59		3.055					ND	
21 Acrolein	56		3.238					ND	
22 1,1-Dichloroethene	96		3.341					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.426					ND	
24 Acetone	43		3.439					ND	
25 Iodomethane	142		3.536					ND	
26 Carbon disulfide	76		3.633					ND	
27 Isopropyl alcohol	45		3.727					ND	
29 Acetonitrile	40		3.873					ND	
28 3-Chloro-1-propene	76		3.919					ND	
30 Methyl acetate	43		3.944					ND	
31 Methylene Chloride	84		4.144					ND	
32 2-Methyl-2-propanol	59		4.412					ND	
33 Acrylonitrile	53		4.521					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		4.570					ND	
35 Methyl tert-butyl ether	73		4.582					ND	
36 Hexane	57		4.996					ND	
37 1,1-Dichloroethane	63		5.209					ND	
38 Vinyl acetate	43		5.251					ND	
41 Isopropyl ether	45		5.302					ND	
39 2-Chloro-1,3-butadiene	53		5.302					ND	
40 Isopropyl ether TIC	45		5.409					ND	
42 Tert-butyl ethyl ether	59		5.777					ND	
45 cis-1,2-Dichloroethene	96		5.951					ND	
44 2,2-Dichloropropane	77		5.951					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
46 2-Butanone (MEK)	43		5.963					ND	
48 Ethyl acetate	43		6.032					ND	
47 Propionitrile	54		6.032					ND	
50 Methacrylonitrile	41		6.215					ND	
49 Chlorobromomethane	128		6.237					ND	
51 Tetrahydrofuran	42		6.255					ND	
52 Chloroform	83		6.383					ND	
53 1,1,1-Trichloroethane	97		6.547					ND	
54 Cyclohexane	56		6.614					ND	
56 Carbon tetrachloride	117		6.718					ND	
55 1,1-Dichloropropene	75		6.730					ND	
57 Isobutyl alcohol	41		6.931					ND	
58 Benzene	78		6.949					ND	
59 1,2-Dichloroethane	62		7.022					ND	
61 Tert-amyl methyl ether	73		7.128					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.308					ND	
63 n-Butanol	56		7.639					ND	
64 Trichloroethene	130		7.685					ND	
65 Ethyl acrylate	55		7.803					ND	
66 Methylcyclohexane	83		7.916					ND	
67 1,2-Dichloropropane	63		7.946					ND	
69 Methyl methacrylate	69		8.034					ND	
68 Dibromomethane	93		8.038					ND	
70 1,4-Dioxane	88		8.044					ND	
71 Dichlorobromomethane	83		8.232					ND	
72 2-Nitropropane	41		8.454					ND	
73 2-Chloroethyl vinyl ether	63		8.533					ND	
74 cis-1,3-Dichloropropene	75		8.676					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.829					ND	
76 Toluene	91		9.005					ND	
77 trans-1,3-Dichloropropene	75		9.254					ND	
78 Ethyl methacrylate	69		9.315					ND	
79 1,1,2-Trichloroethane	97		9.449					ND	
80 Tetrachloroethene	164		9.522					ND	
81 1,3-Dichloropropane	76		9.607					ND	
82 2-Hexanone	43		9.656					ND	
83 n-Butyl acetate	43		9.780					ND	
84 Chlorodibromomethane	129		9.820					ND	
85 Ethylene Dibromide	107		9.936					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.392					ND	
87 Chlorobenzene	112		10.416					ND	
88 4-Chlorobenzotrifluoride	180		10.477					ND	
89 1,1,1,2-Tetrachloroethane	131		10.514					ND	
90 Ethylbenzene	106		10.520					ND	
91 m-Xylene & p-Xylene	106		10.648					ND	
92 o-Xylene	106		11.031					ND	
93 Styrene	104		11.049					ND	
94 Bromoform	173		11.238					ND	
95 Cyclohexanol	57		11.245					ND	
96 2-Chlorobenzotrifluoride	180		11.298					ND	
97 Isopropylbenzene	105		11.396					ND	
98 Cyclohexanone	55		11.483					ND	
99 1,1,2,2-Tetrachloroethane	83		11.706					ND	
100 Bromobenzene	156		11.712					ND	
102 trans-1,4-Dichloro-2-buten	53		11.743					ND	
101 1,2,3-Trichloropropane	110		11.761					ND	
103 N-Propylbenzene	120		11.816					ND	
104 2-Chlorotoluene	126		11.901					ND	
105 3-Chlorotoluene	126		11.968					ND	
106 1,3,5-Trimethylbenzene	105		11.998					ND	
107 4-Chlorotoluene	126		12.022					ND	
108 tert-Butylbenzene	119		12.308					ND	
109 Pentachloroethane	167		12.341					ND	
110 1,2,4-Trimethylbenzene	105		12.369					ND	
111 1,2-dichloro-4-(trifluorom	214		12.412					ND	
112 sec-Butylbenzene	105		12.533					ND	
113 1,3-Dichlorobenzene	146		12.649					ND	
114 4-Isopropyltoluene	119		12.692					ND	
115 1,4-Dichlorobenzene	146		12.758					ND	
117 1,2,3-Trimethylbenzene	105		12.779					ND	
116 2,4-Dichloro-1-(triflourom	214		12.783					ND	
118 2,5-Dichlorobenzotrifluori	214		12.825					ND	
119 Benzyl chloride	91		12.870					ND	
120 n-Butylbenzene	91		13.099					ND	
121 1,2-Dichlorobenzene	146		13.111					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.902					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.048					ND	
124 1,3,5-Trichlorobenzene	180		14.093					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.462					ND	
126 1,2,4-Trichlorobenzene	180		14.730					ND	
127 Hexachlorobutadiene	225		14.869					ND	
128 Naphthalene	128		14.997					ND	
129 1,2,3-Trichlorobenzene	180		15.216					ND	
131 2,4,5-Trichlorotoluene	159		15.995					ND	
130 2,3,6-Trichlorotoluene	159		16.092					ND	
132 2-Methylnaphthalene	142		16.137					ND	
150 2,6-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
151 Isooctane	57		0.000					ND	
146 2,5-Dichlorotoluene	1		0.000					ND	

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

**Reagents:**

VOA8260INT\_00043

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURRE\_00043

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151013-8970.b\51013007.D

Injection Date: 13-Oct-2015 14:19:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: MB

Worklist Smp#: 7

Client ID:

Purge Vol: 5.000 mL

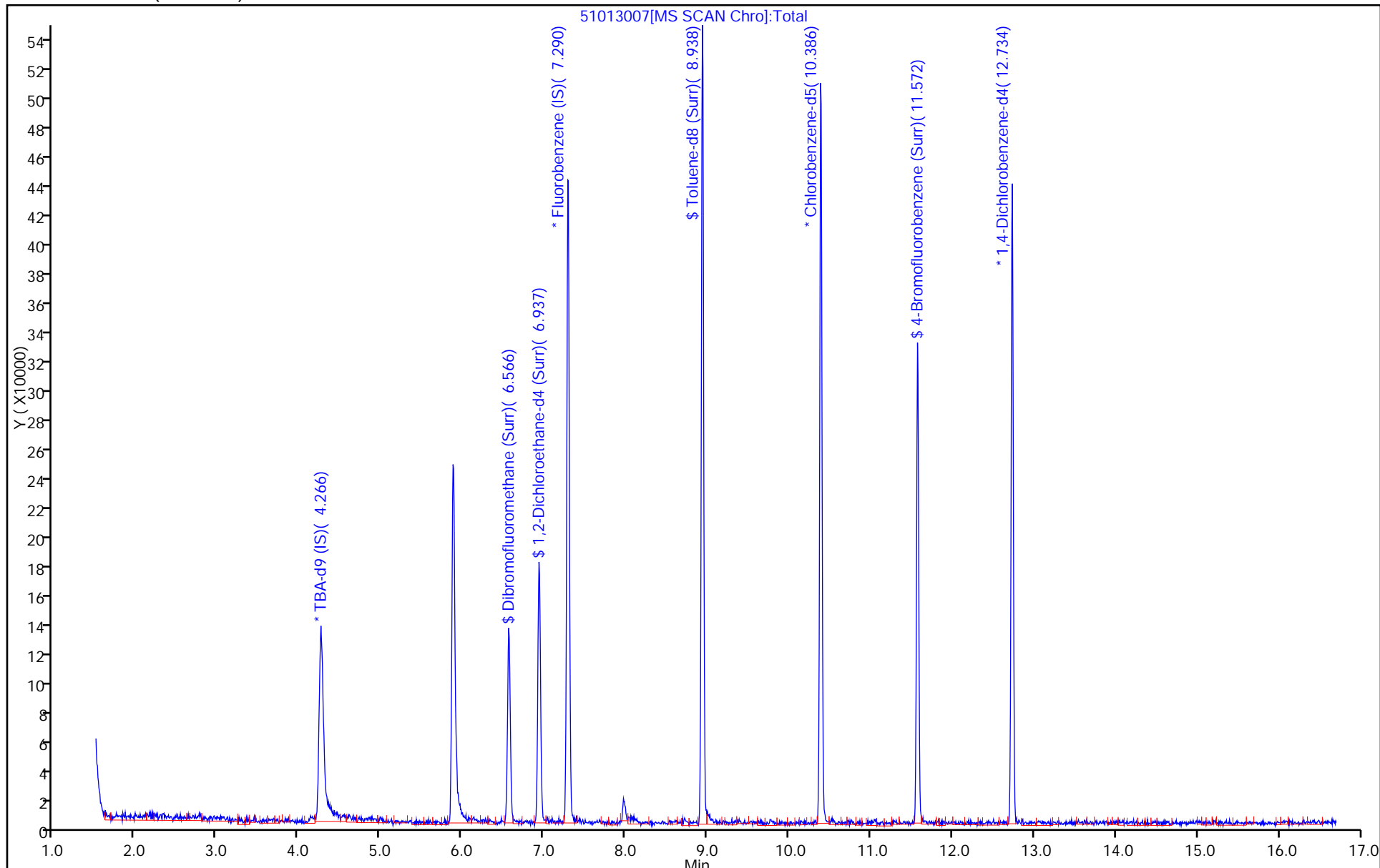
Dil. Factor: 1.0000

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.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-156820/6  
 Matrix: Water Lab File ID: 61013006.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 14:17  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 156820 Units: ug/L

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

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-156820/6  
 Matrix: Water Lab File ID: 61013006.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 14:17  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 156820 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	78		64-135
2037-26-5	Toluene-d8 (Surr)	106		71-118
460-00-4	4-Bromofluorobenzene (Surr)	95		70-118
1868-53-7	Dibromofluoromethane (Surr)	87		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013006.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 13-Oct-2015 14:17:30 ALS Bottle#: 6 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: MB  
 Misc. Info.: 180-0008971-006  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 13-Oct-2015 15:24:08 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK048

First Level Reviewer: fergusond

Date: 13-Oct-2015 14:58:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.231	4.242	-0.011	89	150481	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.291	7.290	0.001	98	514339	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.399	10.399	0.000	90	113048	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.747	0.000	99	173717	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.554	6.554	0.000	92	103251	50.0	43.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.938	6.931	0.007	69	148915	50.0	39.0	
\$ 7 Toluene-d8 (Surr)	98	8.945	8.945	0.000	92	472275	50.0	53.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.591	-0.006	84	187756	50.0	47.4	
11 Dichlorodifluoromethane	85		1.602					ND	
12 Chloromethane	50		1.766					ND	
13 Vinyl chloride	62		1.900					ND	
14 Butadiene	39		1.937					ND	
15 Bromomethane	94		2.235					ND	
16 Chloroethane	64		2.387					ND	
17 Dichlorofluoromethane	67		2.654					ND	
18 Trichlorofluoromethane	101		2.660					ND	
19 Ethanol	45		2.922					ND	
20 Ethyl ether	59		3.050					ND	
21 Acrolein	56		3.220					ND	
22 1,1-Dichloroethene	96		3.342					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.421					ND	
24 Acetone	43		3.427					ND	
25 Iodomethane	142		3.530					ND	
26 Carbon disulfide	76		3.634					ND	
27 Isopropyl alcohol	45		3.683					ND	
28 Acetonitrile	40		3.853					ND	
29 3-Chloro-1-propene	76		3.920					ND	
30 Methyl acetate	43		3.932					ND	
31 Methylene Chloride	84		4.133					ND	
32 2-Methyl-2-propanol	59		4.382					ND	
33 Acrylonitrile	53		4.504					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		4.565					ND	
35 Methyl tert-butyl ether	73		4.577					ND	
36 Hexane	57		4.990					ND	
37 1,1-Dichloroethane	63		5.203					ND	
38 Vinyl acetate	43		5.240					ND	
40 Isopropyl ether	45		5.295					ND	
39 2-Chloro-1,3-butadiene	53		5.295					ND	
41 Tert-butyl ethyl ether	59		5.775					ND	
43 cis-1,2-Dichloroethene	96		5.939					ND	
42 2,2-Dichloropropane	77		5.946					ND	
44 2-Butanone (MEK)	43		5.952					ND	
45 Propionitrile	54		6.019					ND	
46 Ethyl acetate	43		6.025					ND	
47 Methacrylonitrile	41		6.195					ND	
48 Chlorobromomethane	128		6.231					ND	
49 Tetrahydrofuran	42		6.250					ND	
50 Chloroform	83		6.371					ND	
51 1,1,1-Trichloroethane	97		6.542					ND	
52 Cyclohexane	56		6.621					ND	
53 Carbon tetrachloride	117		6.718					ND	
54 1,1-Dichloropropene	75		6.730					ND	
55 Isobutyl alcohol	41		6.901					ND	
56 Benzene	78		6.943					ND	
57 1,2-Dichloroethane	62		7.016					ND	
148 Isooctane	57		7.102					ND	
58 Tert-amyl methyl ether	73		7.120					ND	
59 n-Heptane	43		7.308					ND	
60 n-Butanol	56		7.613					ND	
61 Trichloroethene	130		7.673					ND	
62 Ethyl acrylate	55		7.795					ND	
63 Methylcyclohexane	83		7.929					ND	
64 1,2-Dichloropropane	63		7.953					ND	
65 1,4-Dioxane	88		8.032					ND	
66 Methyl methacrylate	69		8.032					ND	
67 Dibromomethane	93		8.038					ND	
68 Dichlorobromomethane	83		8.233					ND	
69 2-Nitropropane	41		8.446					ND	
70 2-Chloroethyl vinyl ether	63		8.531					ND	
71 cis-1,3-Dichloropropene	75		8.677					ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823					ND	
73 Toluene	91		9.012					ND	
74 trans-1,3-Dichloropropene	75		9.255					ND	
75 Ethyl methacrylate	69		9.316					ND	
76 1,1,2-Trichloroethane	97		9.450					ND	
77 Tetrachloroethene	164		9.529					ND	
78 1,3-Dichloropropane	76		9.614					ND	
79 2-Hexanone	43		9.663					ND	
80 n-Butyl acetate	43		9.784					ND	
81 Chlorodibromomethane	129		9.827					ND	
82 Ethylene Dibromide	107		9.936					ND	
83 3-Chlorobenzotrifluoride	180		10.393					ND	
84 Chlorobenzene	112		10.429					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
85 4-Chlorobenzotrifluoride	180		10.484					ND	
86 1,1,1,2-Tetrachloroethane	131		10.520					ND	
87 Ethylbenzene	106		10.526					ND	
88 m-Xylene & p-Xylene	106		10.660					ND	
89 o-Xylene	106		11.043					ND	
90 Styrene	104		11.062					ND	
91 Bromoform	173		11.244					ND	
129 Cyclohexanol	57		11.246					ND	
92 2-Chlorobenzotrifluoride	180		11.305					ND	
93 Isopropylbenzene	105		11.409					ND	
94 Cyclohexanone	55		11.494					ND	
96 1,1,2,2-Tetrachloroethane	83		11.713					ND	
95 Bromobenzene	156		11.725					ND	
97 trans-1,4-Dichloro-2-buten	53		11.749					ND	
98 1,2,3-Trichloropropane	110		11.774					ND	
99 N-Propylbenzene	120		11.828					ND	
100 2-Chlorotoluene	126		11.913					ND	
101 3-Chlorotoluene	126		11.980					ND	
102 1,3,5-Trimethylbenzene	105		12.011					ND	
103 4-Chlorotoluene	126		12.035					ND	
104 tert-Butylbenzene	119		12.327					ND	
105 Pentachloroethane	167		12.358					ND	
106 1,2,4-Trimethylbenzene	105		12.388					ND	
107 1,2-dichloro-4-(trifluorom	214		12.424					ND	
108 sec-Butylbenzene	105		12.552					ND	
109 1,3-Dichlorobenzene	146		12.668					ND	
110 4-Isopropyltoluene	119		12.704					ND	
111 1,4-Dichlorobenzene	146		12.771					ND	
113 2,4-Dichloro-1-(triflourom	214		12.789					ND	
112 1,2,3-Trimethylbenzene	105		12.796					ND	
114 2,5-Dichlorobenzotrifluori	214		12.832					ND	
115 Benzyl chloride	91		12.887					ND	
116 n-Butylbenzene	91		13.112					ND	
117 1,2-Dichlorobenzene	146		13.124					ND	
118 1,2-Dibromo-3-Chloropropan	75		13.915					ND	
119 2,4- & 2,5- & 2,6- Dichlor	125		14.061					ND	
120 1,3,5-Trichlorobenzene	180		14.110					ND	
121 2,3- & 3,4- Dichlorotoluen	125		14.475					ND	
122 1,2,4-Trichlorobenzene	180		14.742					ND	
123 Hexachlorobutadiene	225		14.888					ND	
124 Naphthalene	128		15.010					ND	M
125 1,2,3-Trichlorobenzene	180		15.235					ND	
126 2,4,5-Trichlorotoluene	159		16.008					ND	
127 2,3,6-Trichlorotoluene	159	16.008	16.105	-0.097	1	257		0.1010	
128 2-Methylnaphthalene	142		16.154					ND	
144 2,4-Dichlorotoluene	1		0.000					ND	
149 Isopropyl ether TIC	1		0.000					ND	
147 2,6-Dichlorotoluene	1		0.000					ND	
145 2,3-Dichlorotoluene	1		0.000					ND	
153 1,2 Epoxybutane TIC	1		0.000					ND	
146 3,4-Dichlorotoluene	1		0.000					ND	
151 Tert-amyl methyl ether (TI	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
143 2,5-Dichlorotoluene	1		0.000					ND	
150 Tert-butyl ethyl ether (TI	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
S 130 1,2-Dichloroethene, Total	96		1.000					ND	
S 131 Xylenes, Total	106		1.000					ND	
S 132 1,3-Dichloropropene, Total	1		0.000					ND	
T 133 Tetrahydrofuran TIC	42		0.000					ND	
T 134 Methyl n-amyl ketone TIC	43		0.000					ND	
T 135 Mesityl oxide TIC	83		0.000					ND	

### QC Flag Legend

Review Flags

M - Manually Integrated

### Reagents:

VOA8260INT\_00043

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00043

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013006.D

Injection Date: 13-Oct-2015 14:17:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: MB

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

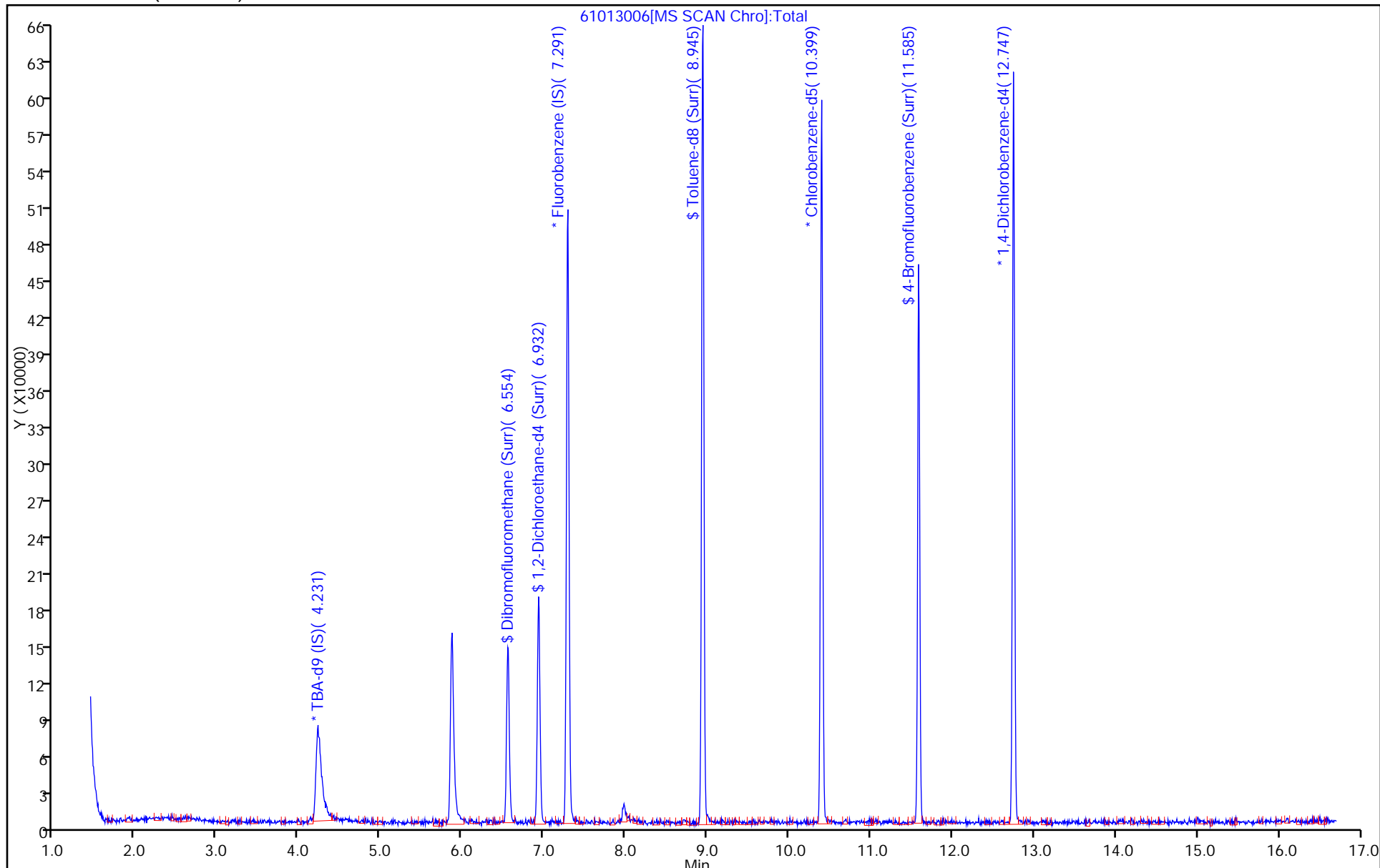
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-156975/5  
 Matrix: Water Lab File ID: 61014005.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/14/2015 13:44  
 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.: 156975 Units: ug/L

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



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-156975/5  
 Matrix: Water Lab File ID: 61014005.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/14/2015 13:44  
 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.: 156975 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	82		64-135
2037-26-5	Toluene-d8 (Surr)	105		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	88		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014005.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 14-Oct-2015 13:44:30 ALS Bottle#: 6 Worklist Smp#: 5  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: MB  
 Misc. Info.: 180-0008996-005  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Oct-2015 14:24:35 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK037

First Level Reviewer: fergusond

Date: 14-Oct-2015 14:24:35

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.236	4.230	0.006	88	156583	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.290	-0.001	98	502591	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.399	-0.001	90	110156	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.753	-0.007	99	165601	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.553	6.560	-0.007	93	101842	50.0	44.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.931	0.000	70	152801	50.0	40.9	
\$ 7 Toluene-d8 (Surr)	98	8.944	8.939	0.005	93	456965	50.0	52.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.585	-0.001	83	178636	50.0	46.3	
11 Dichlorodifluoromethane	85		1.608					ND	
12 Chloromethane	50		1.760					ND	
13 Vinyl chloride	62		1.900					ND	
14 Butadiene	39		1.936					ND	
15 Bromomethane	94		2.235					ND	
16 Chloroethane	64		2.381					ND	
17 Dichlorofluoromethane	67		2.654					ND	
18 Trichlorofluoromethane	101		2.679					ND	
19 Ethanol	45		2.922					ND	
20 Ethyl ether	59		3.044					ND	
21 Acrolein	56		3.226					ND	
22 1,1-Dichloroethene	96		3.336					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.403					ND	
24 Acetone	43		3.433					ND	
25 Iodomethane	142		3.536					ND	
26 Carbon disulfide	76		3.628					ND	
27 Isopropyl alcohol	45		3.695					ND	
28 Acetonitrile	40		3.847					ND	
29 3-Chloro-1-propene	76		3.914					ND	
30 Methyl acetate	43		3.926					ND	
31 Methylene Chloride	84		4.120					ND	
32 2-Methyl-2-propanol	59		4.370					ND	
33 Acrylonitrile	53		4.498					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
35 Methyl tert-butyl ether	73		4.565					ND	
34 trans-1,2-Dichloroethene	96		4.565					ND	
36 Hexane	57		4.984					ND	
37 1,1-Dichloroethane	63		5.191					ND	
38 Vinyl acetate	43		5.240					ND	
39 2-Chloro-1,3-butadiene	53		5.295					ND	
40 Isopropyl ether	45		5.295					ND	
41 Tert-butyl ethyl ether	59		5.769					ND	
43 cis-1,2-Dichloroethene	96		5.939					ND	
44 2-Butanone (MEK)	43		5.945					ND	
42 2,2-Dichloropropane	77		5.945					ND	
45 Propionitrile	54		6.012					ND	
46 Ethyl acetate	43		6.025					ND	
47 Methacrylonitrile	41		6.195					ND	
48 Chlorobromomethane	128		6.225					ND	
49 Tetrahydrofuran	42		6.237					ND	
50 Chloroform	83		6.365					ND	
51 1,1,1-Trichloroethane	97		6.536					ND	
52 Cyclohexane	56		6.615					ND	
53 Carbon tetrachloride	117		6.718					ND	
54 1,1-Dichloropropene	75		6.724					ND	
55 Isobutyl alcohol	41		6.895					ND	
56 Benzene	78		6.943					ND	
57 1,2-Dichloroethane	62		7.016					ND	
148 Isooctane	57		7.101					ND	
58 Tert-amyl methyl ether	73		7.126					ND	
59 n-Heptane	43		7.308					ND	
60 n-Butanol	56		7.606					ND	
61 Trichloroethene	130		7.673					ND	
62 Ethyl acrylate	55		7.795					ND	
63 Methylcyclohexane	83		7.917					ND	
64 1,2-Dichloropropane	63		7.947					ND	
65 1,4-Dioxane	88		8.026					ND	
66 Methyl methacrylate	69		8.032					ND	
67 Dibromomethane	93		8.038					ND	
68 Dichlorobromomethane	83		8.227					ND	
69 2-Nitropropane	41		8.446					ND	
70 2-Chloroethyl vinyl ether	63		8.531					ND	
71 cis-1,3-Dichloropropene	75		8.677					ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823					ND	
73 Toluene	91	9.017	9.012	0.005	37	5329		0.4688	M
74 trans-1,3-Dichloropropene	75		9.255					ND	
75 Ethyl methacrylate	69		9.316					ND	
76 1,1,2-Trichloroethane	97		9.450					ND	
77 Tetrachloroethene	164		9.529					ND	
78 1,3-Dichloropropane	76		9.608					ND	
79 2-Hexanone	43		9.656					ND	
80 n-Butyl acetate	43		9.790					ND	
81 Chlorodibromomethane	129		9.821					ND	
82 Ethylene Dibromide	107		9.936					ND	
83 3-Chlorobenzotrifluoride	180		10.393					ND	
84 Chlorobenzene	112		10.429					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
85 4-Chlorobenzotrifluoride	180		10.484					ND	
86 1,1,1,2-Tetrachloroethane	131		10.520					ND	
87 Ethylbenzene	106		10.526					ND	
88 m-Xylene & p-Xylene	106		10.654					ND	
89 o-Xylene	106		11.037					ND	
90 Styrene	104		11.062					ND	
91 Bromoform	173		11.238					ND	
129 Cyclohexanol	57		11.246					ND	
92 2-Chlorobenzotrifluoride	180		11.305					ND	
93 Isopropylbenzene	105		11.408					ND	
94 Cyclohexanone	55		11.500					ND	
96 1,1,2,2-Tetrachloroethane	83		11.719					ND	
95 Bromobenzene	156		11.725					ND	
97 trans-1,4-Dichloro-2-buten	53		11.749					ND	
98 1,2,3-Trichloropropane	110		11.773					ND	
99 N-Propylbenzene	120		11.828					ND	
100 2-Chlorotoluene	126		11.913					ND	
101 3-Chlorotoluene	126		11.980					ND	
102 1,3,5-Trimethylbenzene	105		12.011					ND	
103 4-Chlorotoluene	126		12.035					ND	
104 tert-Butylbenzene	119		12.327					ND	
105 Pentachloroethane	167		12.357					ND	
106 1,2,4-Trimethylbenzene	105		12.382					ND	
107 1,2-dichloro-4-(trifluorom	214		12.424					ND	
108 sec-Butylbenzene	105		12.552					ND	
109 1,3-Dichlorobenzene	146		12.668					ND	
110 4-Isopropyltoluene	119		12.704					ND	
111 1,4-Dichlorobenzene	146		12.771					ND	
113 2,4-Dichloro-1-(triflourom	214		12.789					ND	
112 1,2,3-Trimethylbenzene	105		12.795					ND	
114 2,5-Dichlorobenzotrifluori	214		12.832					ND	
115 Benzyl chloride	91		12.881					ND	
116 n-Butylbenzene	91		13.112					ND	
117 1,2-Dichlorobenzene	146		13.124					ND	
118 1,2-Dibromo-3-Chloropropan	75		13.915					ND	
119 2,4- & 2,5- & 2,6- Dichlor	125		14.061					ND	
120 1,3,5-Trichlorobenzene	180		14.109					ND	
121 2,3- & 3,4- Dichlorotoluen	125		14.475					ND	
122 1,2,4-Trichlorobenzene	180		14.742					ND	
123 Hexachlorobutadiene	225		14.888					ND	
124 Naphthalene	128		15.010					ND	
125 1,2,3-Trichlorobenzene	180		15.229					ND	
126 2,4,5-Trichlorotoluene	159		16.008					ND	
127 2,3,6-Trichlorotoluene	159		16.111					ND	
128 2-Methylnaphthalene	142	16.159	16.154	0.005	1	356		NC	
146 3,4-Dichlorotoluene	1		0.000					ND	
153 1,2 Epoxybutane TIC	1		0.000					ND	
151 Tert-amyl methyl ether (TI	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
150 Tert-butyl ethyl ether (TI	1		0.000					ND	
143 2,5-Dichlorotoluene	1		0.000					ND	
147 2,6-Dichlorotoluene	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
145 2,3-Dichlorotoluene	1		0.000						ND
144 2,4-Dichlorotoluene	1		0.000						ND
149 Isopropyl ether TIC	1		0.000						ND
S 131 Xylenes, Total	106		1.000						ND
S 130 1,2-Dichloroethene, Total	96		1.000						ND
S 132 1,3-Dichloropropene, Total	1		0.000						ND
T 135 Mesityl oxide TIC	83		0.000						ND
T 134 Methyl n-amyl ketone TIC	43		0.000						ND
T 133 Tetrahydrofuran TIC	42		0.000						ND

### QC Flag Legend

#### Processing Flags

NC - Not Calibrated

#### Review Flags

M - Manually Integrated

### Reagents:

VOA8260INT\_00043

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00043

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014005.D

Injection Date: 14-Oct-2015 13:44:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: MB

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

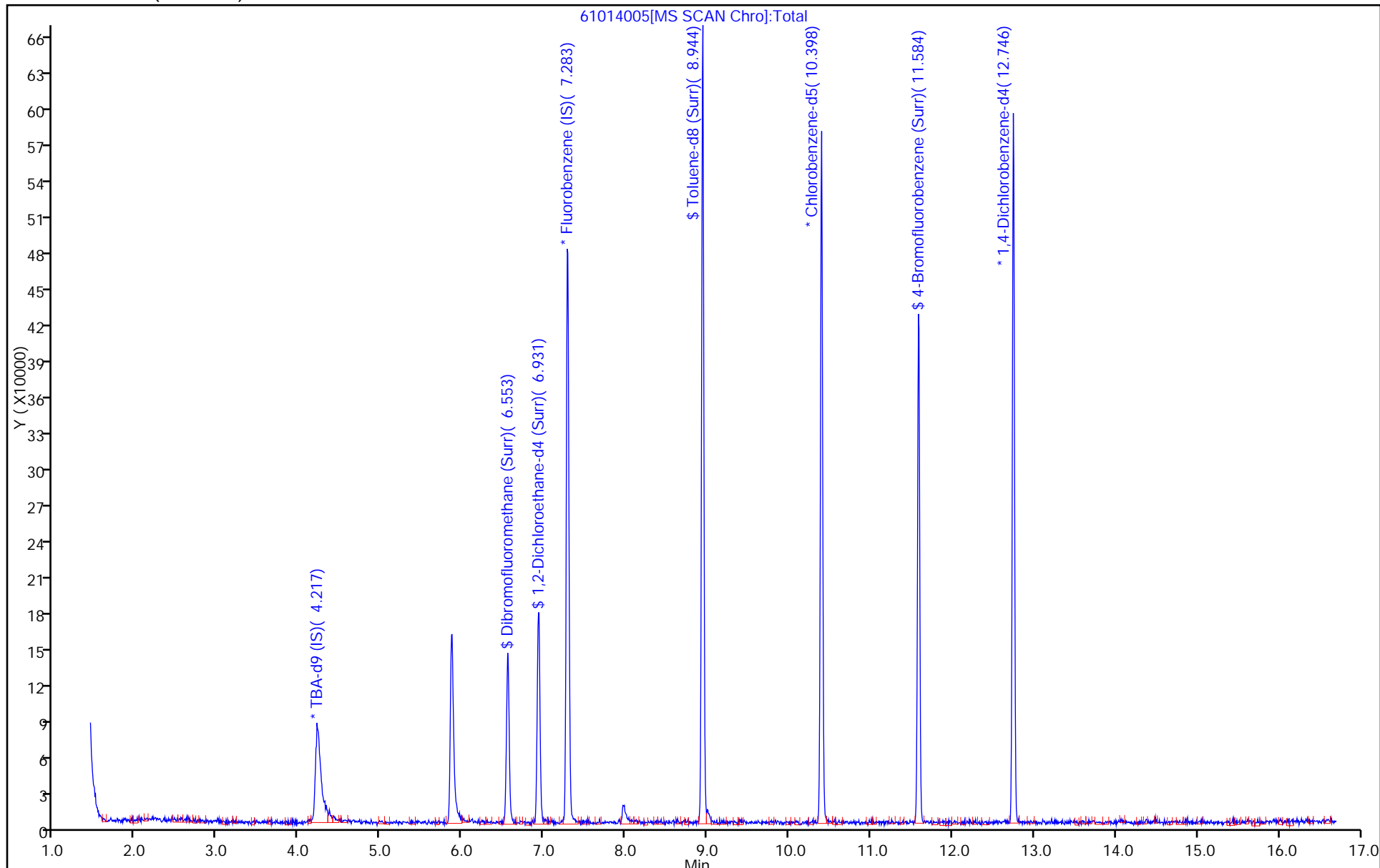
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



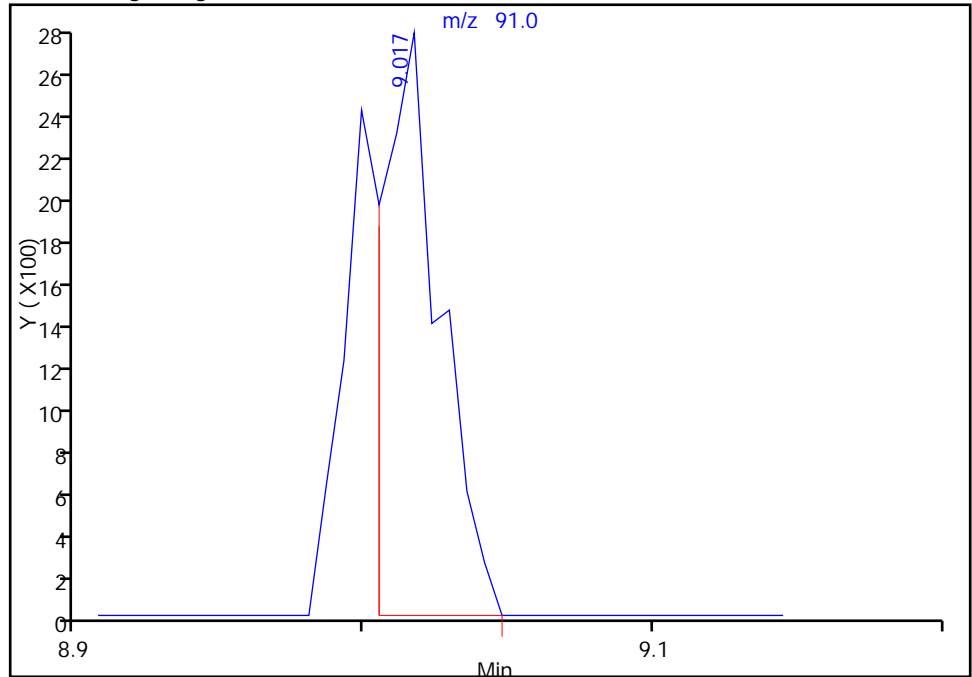
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014005.D  
Injection Date: 14-Oct-2015 13:44:30 Instrument ID: CHHP6  
Lims ID: MB  
Client ID:  
Operator ID: 001562 ALS Bottle#: 6 Worklist Smp#: 5  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

73 Toluene, CAS: 108-88-3

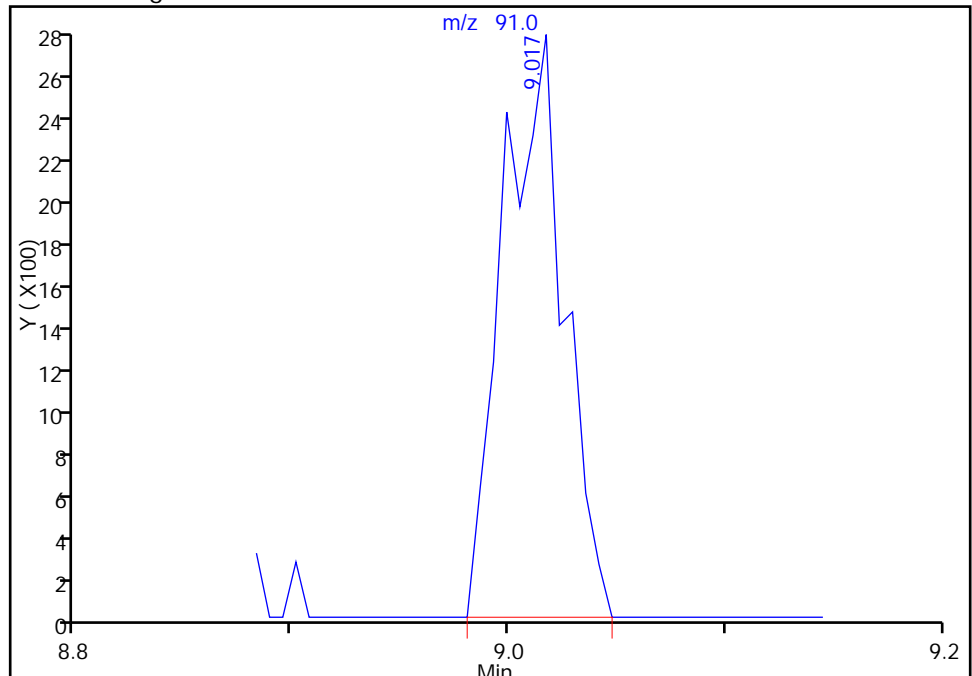
RT: 9.02  
Area: 3816  
Amount: 0.335734  
Amount Units: ng

Processing Integration Results



RT: 9.02  
Area: 5329  
Amount: 0.468849  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 14-Oct-2015 14:24:35  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-157127/6  
 Matrix: Water Lab File ID: 51015006.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/15/2015 14:08  
 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.: 157127 Units: ug/L

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



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-157127/6  
 Matrix: Water Lab File ID: 51015006.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/15/2015 14:08  
 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.: 157127 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		64-135
2037-26-5	Toluene-d8 (Surr)	103		71-118
460-00-4	4-Bromofluorobenzene (Surr)	95		70-118
1868-53-7	Dibromofluoromethane (Surr)	93		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015006.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 15-Oct-2015 14:08:30 ALS Bottle#: 5 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: MB  
 Misc. Info.: 180-0009022-006  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 15-Oct-2015 15:50:52 Calib Date: 26-Aug-2015 17:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK008

First Level Reviewer: fergusond

Date: 15-Oct-2015 15:50:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.271	4.273	-0.002	0	166634	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.294	7.290	0.004	97	345393	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.386	-0.001	90	77841	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.733	12.729	0.004	98	106606	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.564	6.554	0.010	93	79289	50.0	46.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.931	0.005	0	117965	50.0	50.6	
\$ 7 Toluene-d8 (Surr)	98	8.937	8.939	-0.002	95	310614	50.0	51.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.571	11.573	-0.002	86	107478	50.0	47.4	
11 Dichlorodifluoromethane	85		1.596					ND	
12 Chloromethane	50		1.772					ND	
13 Vinyl chloride	62		1.912					ND	
14 Butadiene	39		1.943					ND	
15 Bromomethane	94		2.241					ND	
16 Chloroethane	64		2.399					ND	
17 Dichlorofluoromethane	67		2.667					ND	
18 Trichlorofluoromethane	101		2.703					ND	
19 Ethanol	45		2.954					ND	
20 Ethyl ether	59		3.038					ND	
21 Acrolein	56		3.220					ND	
22 1,1-Dichloroethene	96		3.330					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.415					ND	
24 Acetone	43		3.439					ND	
25 Iodomethane	142		3.537					ND	
26 Carbon disulfide	76		3.640					ND	
27 Isopropyl alcohol	45		3.727					ND	
29 Acetonitrile	40		3.873					ND	
28 3-Chloro-1-propene	76		3.914					ND	
30 Methyl acetate	43		3.938					ND	
31 Methylene Chloride	84		4.139					ND	
32 2-Methyl-2-propanol	59		4.394					ND	
33 Acrylonitrile	53		4.522					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		4.559					ND	
35 Methyl tert-butyl ether	73		4.577					ND	
36 Hexane	57		4.984					ND	
37 1,1-Dichloroethane	63		5.197					ND	
38 Vinyl acetate	43		5.246					ND	
39 2-Chloro-1,3-butadiene	53		5.302					ND	
41 Isopropyl ether	45		5.302					ND	
40 Isopropyl ether TIC	45		5.409					ND	
42 Tert-butyl ethyl ether	59		5.777					ND	
44 2,2-Dichloropropane	77		5.946					ND	
45 cis-1,2-Dichloroethene	96		5.946					ND	
46 2-Butanone (MEK)	43		5.952					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
47 Propionitrile	54		6.032					ND	
48 Ethyl acetate	43		6.032					ND	
50 Methacrylonitrile	41		6.215					ND	
49 Chlorobromomethane	128		6.231					ND	
51 Tetrahydrofuran	42		6.250					ND	
52 Chloroform	83		6.377					ND	
53 1,1,1-Trichloroethane	97		6.536					ND	
54 Cyclohexane	56		6.609					ND	
56 Carbon tetrachloride	117		6.718					ND	
55 1,1-Dichloropropene	75		6.724					ND	
57 Isobutyl alcohol	41		6.925					ND	
58 Benzene	78		6.943					ND	
59 1,2-Dichloroethane	62		7.016					ND	
61 Tert-amyl methyl ether	73		7.128					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.302					ND	
63 n-Butanol	56		7.639					ND	
64 Trichloroethene	130		7.673					ND	
65 Ethyl acrylate	55		7.803					ND	
66 Methylcyclohexane	83		7.917					ND	
67 1,2-Dichloropropane	63		7.947					ND	
70 1,4-Dioxane	88		8.026					ND	
68 Dibromomethane	93		8.032					ND	
69 Methyl methacrylate	69		8.034					ND	
71 Dichlorobromomethane	83		8.233					ND	
72 2-Nitropropane	41		8.454					ND	
73 2-Chloroethyl vinyl ether	63		8.531					ND	
74 cis-1,3-Dichloropropene	75		8.671					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.823					ND	
76 Toluene	91		9.006					ND	
77 trans-1,3-Dichloropropene	75		9.255					ND	
78 Ethyl methacrylate	69		9.310					ND	
79 1,1,2-Trichloroethane	97		9.444					ND	
80 Tetrachloroethene	164		9.517					ND	
81 1,3-Dichloropropane	76		9.602					ND	
82 2-Hexanone	43		9.663					ND	
83 n-Butyl acetate	43		9.780					ND	
84 Chlorodibromomethane	129		9.815					ND	
85 Ethylene Dibromide	107		9.930					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.393					ND	
87 Chlorobenzene	112		10.417					ND	
88 4-Chlorobenzotrifluoride	180		10.478					ND	
89 1,1,1,2-Tetrachloroethane	131		10.514					ND	
90 Ethylbenzene	106		10.520					ND	
91 m-Xylene & p-Xylene	106		10.654					ND	
92 o-Xylene	106		11.031					ND	
93 Styrene	104		11.050					ND	
94 Bromoform	173		11.232					ND	
95 Cyclohexanol	57		11.250					ND	
96 2-Chlorobenzotrifluoride	180		11.299					ND	
97 Isopropylbenzene	105		11.396					ND	
98 Cyclohexanone	55		11.483					ND	
99 1,1,2,2-Tetrachloroethane	83		11.707					ND	
100 Bromobenzene	156		11.707					ND	
102 trans-1,4-Dichloro-2-buten	53		11.743					ND	
101 1,2,3-Trichloropropane	110		11.767					ND	
103 N-Propylbenzene	120		11.816					ND	
104 2-Chlorotoluene	126		11.901					ND	
105 3-Chlorotoluene	126		11.968					ND	
106 1,3,5-Trimethylbenzene	105		11.999					ND	
107 4-Chlorotoluene	126		12.029					ND	
108 tert-Butylbenzene	119		12.309					ND	
109 Pentachloroethane	167		12.341					ND	
110 1,2,4-Trimethylbenzene	105		12.370					ND	
111 1,2-dichloro-4-(trifluorom	214		12.412					ND	
112 sec-Butylbenzene	105		12.534					ND	
113 1,3-Dichlorobenzene	146		12.650					ND	
114 4-Isopropyltoluene	119		12.692					ND	
115 1,4-Dichlorobenzene	146		12.753					ND	
117 1,2,3-Trimethylbenzene	105		12.779					ND	
116 2,4-Dichloro-1-(triflourom	214		12.783					ND	
118 2,5-Dichlorobenzotrifluori	214		12.820					ND	
119 Benzyl chloride	91		12.870					ND	
120 n-Butylbenzene	91		13.100					ND	
121 1,2-Dichlorobenzene	146		13.112					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.903					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.043					ND	
124 1,3,5-Trichlorobenzene	180		14.091					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.469					ND	
126 1,2,4-Trichlorobenzene	180		14.724					ND	
127 Hexachlorobutadiene	225		14.876					ND	
128 Naphthalene	128		14.992					ND	
129 1,2,3-Trichlorobenzene	180		15.217					ND	
131 2,4,5-Trichlorotoluene	159		15.995					ND	
130 2,3,6-Trichlorotoluene	159		16.099					ND	
132 2-Methylnaphthalene	142		16.137					ND	
146 2,5-Dichlorotoluene	1		0.000					ND	
150 2,6-Dichlorotoluene	1		0.000					ND	
147 2,4-Dichlorotoluene	1		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
151 Isooctane	57		0.000					ND	

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
152 Formaldehyde TIC	1		0.000						ND
S 133 Xylenes, Total	106		1.000						ND
S 134 1,2-Dichloroethene, Total	96		1.000						ND
S 135 1,3-Dichloropropene, Total	1		0.000						ND
T 136 Mesityl oxide TIC	83		0.000						ND
T 138 Methyl n-amyl ketone TIC	43		0.000						ND
T 137 Tetrahydrofuran TIC	42		6.253						ND
T 153 1,2 Epoxybutane TIC	42		6.253						ND

**Reagents:**

VOA8260INT\_00043

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00043

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015006.D

Injection Date: 15-Oct-2015 14:08:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: MB

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

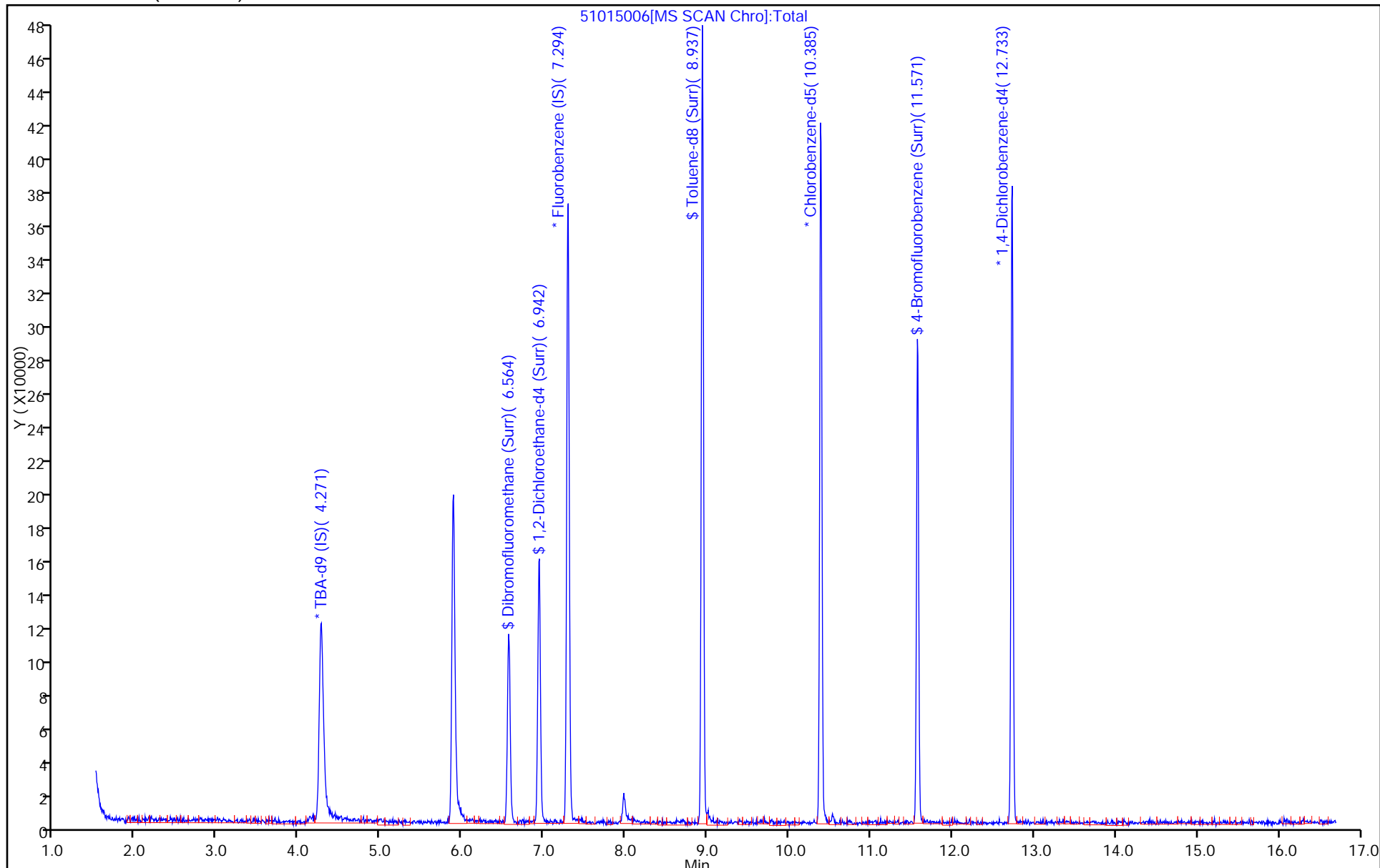
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-156816/10  
 Matrix: Water Lab File ID: 51013010.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 16:03  
 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.: 156816 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	12.4		1.0	0.28
75-01-4	Vinyl chloride	9.23		1.0	0.23
74-83-9	Bromomethane	8.45		1.0	0.31
75-00-3	Chloroethane	7.72		1.0	0.21
75-35-4	1,1-Dichloroethene	9.82		1.0	0.30
67-64-1	Acetone	28.1		5.0	2.5
75-15-0	Carbon disulfide	11.0		1.0	0.21
75-09-2	Methylene Chloride	9.94		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.47		1.0	0.17
1634-04-4	Methyl tert-butyl ether	10.6		1.0	0.18
75-34-3	1,1-Dichloroethane	10.5		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	9.32		1.0	0.24
74-97-5	Bromochloromethane	9.55		1.0	0.18
78-93-3	2-Butanone (MEK)	25.7		5.0	0.55
67-66-3	Chloroform	9.62		1.0	0.17
71-55-6	1,1,1-Trichloroethane	9.44		1.0	0.29
56-23-5	Carbon tetrachloride	9.61		1.0	0.14
71-43-2	Benzene	10.4		1.0	0.11
107-06-2	1,2-Dichloroethane	10.6		1.0	0.21
79-01-6	Trichloroethene	9.74		1.0	0.14
78-87-5	1,2-Dichloropropane	11.2		1.0	0.095
75-27-4	Bromodichloromethane	10.1		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.60		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	22.5		5.0	0.53
108-88-3	Toluene	10.7		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.97		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.5		1.0	0.20
127-18-4	Tetrachloroethene	10.5		1.0	0.15
591-78-6	2-Hexanone	23.4		5.0	0.16
124-48-1	Dibromochloromethane	10.3		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	11.3		1.0	0.18
108-90-7	Chlorobenzene	10.4		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.2		1.0	0.28
100-41-4	Ethylbenzene	11.0		1.0	0.23
1330-20-7	Xylenes, Total	22.1		3.0	0.49
100-42-5	Styrene	11.5		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-156816/10  
 Matrix: Water Lab File ID: 51013010.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 16:03  
 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.: 156816 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	11.1		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	11.3		1.0	0.20
107-13-1	Acrylonitrile	137		20	0.55
123-91-1	1,4-Dioxane	278		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)	108		71-118
460-00-4	4-Bromofluorobenzene (Surr)	104		70-118
1868-53-7	Dibromofluoromethane (Surr)	98		70-128



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151013-8970.b\51013010.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 13-Oct-2015 16:03:30 ALS Bottle#: 9 Worklist Smp#: 10  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: LCS  
 Misc. Info.: 180-0008970-010  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151013-8970.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 13-Oct-2015 16:57:25 Calib Date: 26-Aug-2015 17:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK048

First Level Reviewer: fergusond

Date: 13-Oct-2015 16:58:46

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.278	4.284	-0.006	0	188065	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.289	0.001	97	389453	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.386	0.000	89	92170	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.734	12.734	0.000	95	138523	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.560	6.566	-0.006	94	93936	50.0	49.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	135938	50.0	51.7	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	95	384510	50.0	54.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.572	0.000	86	138971	50.0	51.8	
11 Dichlorodifluoromethane	85	1.608	1.601	0.007	97	122687	50.0	55.8	
12 Chloromethane	50	1.778	1.772	0.006	99	200793	50.0	62.2	
13 Vinyl chloride	62	1.912	1.918	-0.006	98	132247	50.0	46.1	
14 Butadiene	39	1.948	1.942	0.006	99	212965	50.0	62.9	
15 Bromomethane	94	2.240	2.265	-0.024	87	49269	50.0	42.2	
16 Chloroethane	64	2.411	2.417	-0.006	97	66710	50.0	38.6	
17 Dichlorofluoromethane	67	2.672	2.678	-0.006	95	155376	50.0	42.4	
18 Trichlorofluoromethane	101	2.709	2.709	0.000	97	129103	50.0	47.1	
20 Ethyl ether	59	3.055	3.055	0.000	96	135106	50.0	53.1	
21 Acrolein	56	3.232	3.238	-0.006	98	68054	150.0	179.6	
22 1,1-Dichloroethene	96	3.354	3.341	0.013	92	106458	50.0	49.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.433	3.426	0.007	92	112698	50.0	49.0	
24 Acetone	43	3.445	3.439	0.006	97	110503	100.0	140.6	
25 Iodomethane	142	3.542	3.536	0.006	97	153305	50.0	47.4	
26 Carbon disulfide	76	3.640	3.633	0.007	99	277247	50.0	55.0	
28 3-Chloro-1-propene	76	3.925	3.919	0.006	90	60405	50.0	49.2	
30 Methyl acetate	43	3.938	3.944	-0.006	100	813312	250.0	346.4	
31 Methylene Chloride	84	4.144	4.144	0.000	92	126786	50.0	49.7	
32 2-Methyl-2-propanol	59	4.412	4.412	0.000	88	118455	500.0	559.6	
33 Acrylonitrile	53	4.528	4.521	0.007	98	782116	500.0	686.5	
34 trans-1,2-Dichloroethene	96	4.570	4.570	0.000	92	111535	50.0	47.4	
35 Methyl tert-butyl ether	73	4.582	4.582	0.000	92	287931	50.0	52.8	
36 Hexane	57	4.990	4.996	-0.006	94	245855	50.0	62.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.203	5.209	-0.006	96	244447	50.0	52.7	
38 Vinyl acetate	43	5.252	5.251	0.001	97	278640	50.0	80.1	
45 cis-1,2-Dichloroethene	96	5.951	5.951	0.000	87	117235	50.0	46.6	
44 2,2-Dichloropropane	77	5.945	5.951	-0.006	57	83689	50.0	45.0	
46 2-Butanone (MEK)	43	5.963	5.963	0.000	89	151977	100.0	128.7	
49 Chlorobromomethane	128	6.237	6.237	0.000	85	52734	50.0	47.7	
51 Tetrahydrofuran	42	6.249	6.255	-0.006	92	125118	100.0	132.1	
52 Chloroform	83	6.383	6.383	0.000	96	192705	50.0	48.1	
53 1,1,1-Trichloroethane	97	6.547	6.547	0.000	95	139930	50.0	47.2	
54 Cyclohexane	56	6.614	6.614	0.000	97	294789	50.0	59.4	
56 Carbon tetrachloride	117	6.712	6.718	-0.006	96	121341	50.0	48.1	
55 1,1-Dichloropropene	75	6.730	6.730	0.000	86	163231	50.0	49.8	
57 Isobutyl alcohol	41	6.931	6.931	0.000	93	149137	1250.0	2010.9	
58 Benzene	78	6.943	6.949	-0.006	95	498985	50.0	52.0	
59 1,2-Dichloroethane	62	7.022	7.022	0.000	96	175415	50.0	52.8	
62 n-Heptane	43	7.308	7.308	0.000	96	242389	50.0	67.5	
64 Trichloroethene	130	7.685	7.685	0.000	95	114444	50.0	48.7	
66 Methylcyclohexane	83	7.916	7.916	0.000	95	186028	50.0	50.2	
67 1,2-Dichloropropane	63	7.947	7.946	0.001	95	141451	50.0	56.1	
68 Dibromomethane	93	8.044	8.038	0.006	96	64108	50.0	50.1	
70 1,4-Dioxane	88	8.026	8.044	-0.018	43	24176	1000.0	1391.7	
71 Dichlorobromomethane	83	8.233	8.232	0.001	97	128411	50.0	50.7	
74 cis-1,3-Dichloropropene	75	8.677	8.676	0.001	86	142290	50.0	48.0	
75 4-Methyl-2-pentanone (MIBK)	43	8.829	8.829	0.000	98	255080	100.0	112.3	
76 Toluene	91	9.005	9.005	0.000	97	488710	50.0	53.6	
77 trans-1,3-Dichloropropene	75	9.248	9.254	-0.006	95	118665	50.0	49.8	
78 Ethyl methacrylate	69	9.309	9.315	-0.006	91	124441	50.0	54.0	
79 1,1,2-Trichloroethane	97	9.449	9.449	0.000	95	91234	50.0	52.6	
80 Tetrachloroethene	164	9.516	9.522	-0.006	93	93334	50.0	52.7	
81 1,3-Dichloropropane	76	9.601	9.607	-0.006	94	170882	50.0	53.0	
82 2-Hexanone	43	9.656	9.656	0.000	98	191683	100.0	116.9	
84 Chlorodibromomethane	129	9.820	9.820	0.000	91	77401	50.0	51.5	
85 Ethylene Dibromide	107	9.930	9.936	-0.006	98	94269	50.0	56.4	
86 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	83	146420	50.0	49.9	
87 Chlorobenzene	112	10.416	10.416	0.000	89	306407	50.0	52.2	
88 4-Chlorobenzotrifluoride	180	10.477	10.477	0.000	95	139663	50.0	50.4	
89 1,1,1,2-Tetrachloroethane	131	10.514	10.514	0.000	90	97684	50.0	51.0	
90 Ethylbenzene	106	10.514	10.520	-0.006	98	171721	50.0	55.1	
91 m-Xylene & p-Xylene	106	10.648	10.648	0.000	0	210075	50.0	55.0	
92 o-Xylene	106	11.031	11.031	0.000	98	201703	50.0	55.6	
93 Styrene	104	11.049	11.049	0.000	94	345952	50.0	57.5	
94 Bromoform	173	11.232	11.238	-0.006	94	47649	50.0	55.6	
96 2-Chlorobenzotrifluoride	180	11.299	11.298	0.001	95	144403	50.0	50.0	
97 Isopropylbenzene	105	11.396	11.396	0.000	97	507492	50.0	57.1	
99 1,1,2,2-Tetrachloroethane	83	11.712	11.706	0.006	77	132726	50.0	56.7	
100 Bromobenzene	156	11.712	11.712	0.000	97	120425	50.0	50.6	
102 trans-1,4-Dichloro-2-buten	53	11.749	11.743	0.006	60	4832	50.0	5.62	
101 1,2,3-Trichloropropane	110	11.761	11.761	0.000	90	43167	50.0	55.0	
103 N-Propylbenzene	120	11.816	11.816	0.000	99	139169	50.0	51.1	
104 2-Chlorotoluene	126	11.901	11.901	0.000	95	117521	50.0	50.8	
105 3-Chlorotoluene	126	11.968	11.968	0.000	96	119977	50.0	50.5	
106 1,3,5-Trimethylbenzene	105	11.998	11.998	0.000	95	436169	50.0	56.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
107 4-Chlorotoluene	126	12.023	12.022	0.001	98	129396	50.0	50.8	
108 tert-Butylbenzene	119	12.308	12.308	0.000	97	328021	50.0	52.5	
110 1,2,4-Trimethylbenzene	105	12.369	12.369	0.000	98	418607	50.0	54.3	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.412	0.000	97	104716	50.0	48.7	
112 sec-Butylbenzene	105	12.534	12.533	0.001	95	494860	50.0	56.1	
113 1,3-Dichlorobenzene	146	12.649	12.649	0.000	97	221273	50.0	52.3	
114 4-Isopropyltoluene	119	12.692	12.692	0.000	97	403775	50.0	54.1	
115 1,4-Dichlorobenzene	146	12.759	12.758	0.001	93	225894	50.0	51.3	
116 2,4-Dichloro-1-(trifluorom	214	12.783	12.783	0.000	96	96078	50.0	48.3	
118 2,5-Dichlorobenzotrifluori	214	12.826	12.825	0.001	0	108934	50.0	50.6	
120 n-Butylbenzene	91	13.099	13.099	0.000	98	332603	50.0	52.0	
121 1,2-Dichlorobenzene	146	13.111	13.111	0.000	93	201560	50.0	50.9	
122 1,2-Dibromo-3-Chloropropan	75	13.902	13.902	0.000	71	21137	50.0	65.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.048	14.048	0.000	0	356602	150.0	157.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.462	14.462	0.000	0	229051	100.0	106.3	
126 1,2,4-Trichlorobenzene	180	14.724	14.730	-0.006	94	81795	50.0	53.1	
127 Hexachlorobutadiene	225	14.876	14.869	0.007	96	38369	50.0	51.7	
128 Naphthalene	128	14.991	14.997	-0.006	98	233908	50.0	59.1	
129 1,2,3-Trichlorobenzene	180	15.216	15.216	0.000	94	65999	50.0	53.0	
131 2,4,5-Trichlorotoluene	159	15.989	15.995	-0.006	0	21311	50.0	47.4	
130 2,3,6-Trichlorotoluene	159	16.092	16.092	0.000	92	20269	50.0	48.9	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	110.6	
S 134 1,2-Dichloroethene, Total	96				0		100.0	94.0	
S 135 1,3-Dichloropropene, Total	1				0		100.0	97.8	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOA8260VOA2ND_00147	Amount Added: 2.00	Units: uL	
voaWKetmix2nd_00002	Amount Added: 2.00	Units: uL	
voaWVA1stRest_00001	Amount Added: 2.00	Units: uL	
voaWEEpri Res_00006	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
VOA8260INT_00043	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00043	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151013-8970.b\51013010.D

Injection Date: 13-Oct-2015 16:03:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: LCS

Worklist Smp#: 10

Client ID:

Purge Vol: 5.000 mL

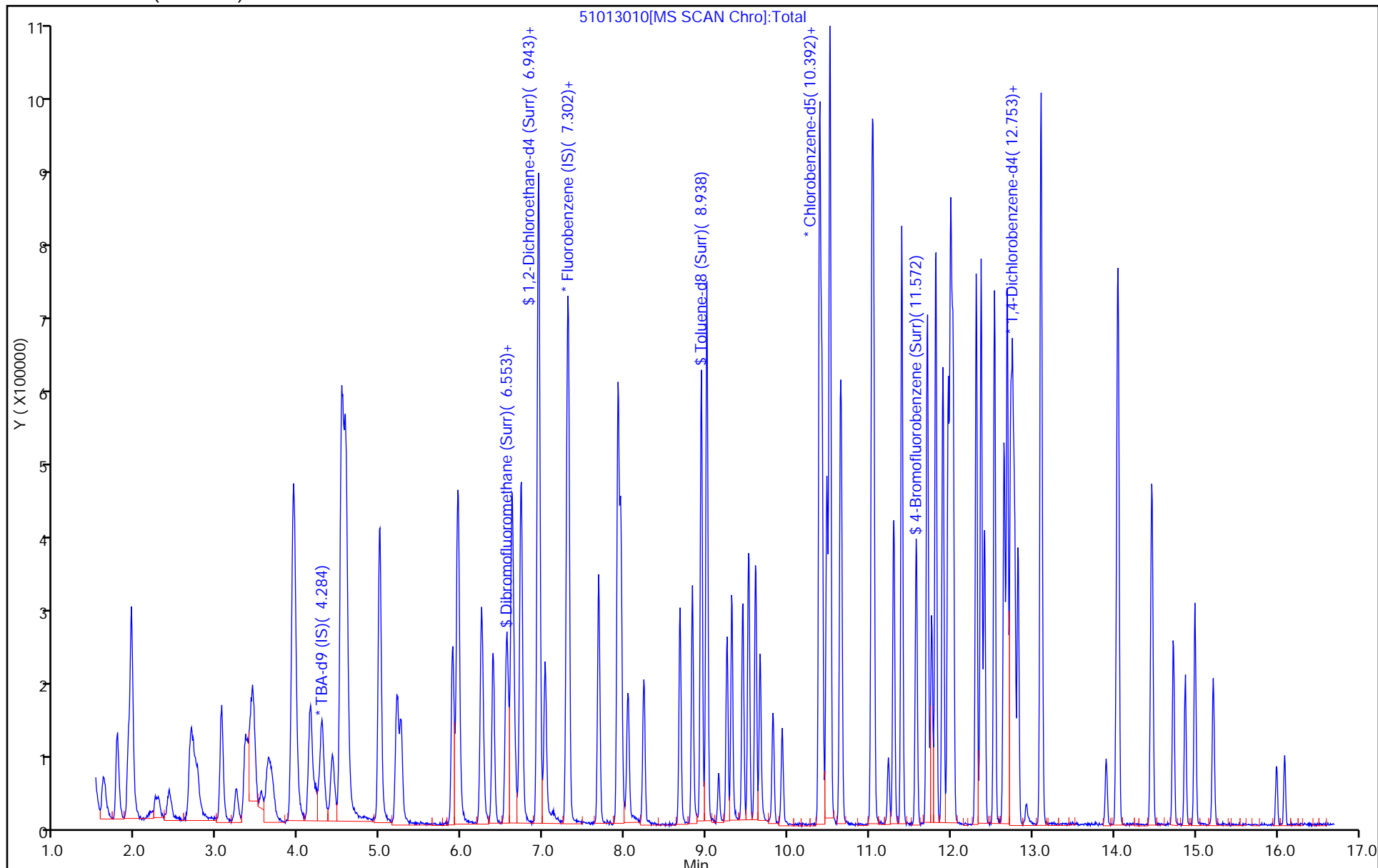
Dil. Factor: 1.0000

ALS Bottle#: 9

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.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-156820/9  
 Matrix: Water Lab File ID: 61013009.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 15:48  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 156820 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	10.7		1.0	0.28
75-01-4	Vinyl chloride	8.95		1.0	0.23
74-83-9	Bromomethane	6.45		1.0	0.31
75-00-3	Chloroethane	7.32		1.0	0.21
75-35-4	1,1-Dichloroethene	9.20		1.0	0.30
67-64-1	Acetone	18.1		5.0	2.5
75-15-0	Carbon disulfide	9.02		1.0	0.21
75-09-2	Methylene Chloride	8.96		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.60		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.54		1.0	0.18
75-34-3	1,1-Dichloroethane	9.46		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	9.69		1.0	0.24
74-97-5	Bromochloromethane	9.76		1.0	0.18
78-93-3	2-Butanone (MEK)	21.4		5.0	0.55
67-66-3	Chloroform	9.33		1.0	0.17
71-55-6	1,1,1-Trichloroethane	8.64		1.0	0.29
56-23-5	Carbon tetrachloride	9.44		1.0	0.14
71-43-2	Benzene	10.3		1.0	0.11
107-06-2	1,2-Dichloroethane	8.25		1.0	0.21
79-01-6	Trichloroethene	10.7		1.0	0.14
78-87-5	1,2-Dichloropropane	11.2		1.0	0.095
75-27-4	Bromodichloromethane	9.41		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	10.1		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	21.6		5.0	0.53
108-88-3	Toluene	10.1		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	8.95		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.84		1.0	0.20
127-18-4	Tetrachloroethene	9.83		1.0	0.15
591-78-6	2-Hexanone	24.9		5.0	0.16
124-48-1	Dibromochloromethane	11.0		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.2		1.0	0.18
108-90-7	Chlorobenzene	10.2		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	11.2		1.0	0.28
100-41-4	Ethylbenzene	9.89		1.0	0.23
1330-20-7	Xylenes, Total	19.9		3.0	0.49
100-42-5	Styrene	10.8		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-156820/9  
 Matrix: Water Lab File ID: 61013009.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/13/2015 15:48  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 156820 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	11.8		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.51		1.0	0.20
107-13-1	Acrylonitrile	113		20	0.55
123-91-1	1,4-Dioxane	186	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	84		64-135
2037-26-5	Toluene-d8 (Surr)	101		71-118
460-00-4	4-Bromofluorobenzene (Surr)	95		70-118
1868-53-7	Dibromofluoromethane (Surr)	93		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013009.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 13-Oct-2015 15:48:30 ALS Bottle#: 9 Worklist Smp#: 9  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: LCS  
 Misc. Info.: 180-0008971-009  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 13-Oct-2015 16:14:51 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK048

First Level Reviewer: fergusond

Date: 13-Oct-2015 16:14:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.248	4.242	0.006	90	166050	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.284	7.290	-0.006	98	452228	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.399	10.399	0.000	89	104138	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.747	0.000	97	161610	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.548	6.554	-0.006	94	96841	50.0	46.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.931	0.000	58	141285	50.0	42.0	
\$ 7 Toluene-d8 (Surr)	98	8.939	8.945	-0.006	92	415351	50.0	50.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.591	-0.006	83	173342	50.0	47.5	
11 Dichlorodifluoromethane	85	1.608	1.602	0.006	99	113540	50.0	36.3	
12 Chloromethane	50	1.766	1.766	0.000	99	143976	50.0	53.3	
13 Vinyl chloride	62	1.900	1.900	0.000	97	130163	50.0	44.8	
14 Butadiene	39	1.937	1.937	0.000	90	125955	50.0	46.2	
15 Bromomethane	94	2.235	2.235	0.000	91	50582	50.0	32.2	M
16 Chloroethane	64	2.381	2.387	-0.006	99	72631	50.0	36.6	
17 Dichlorofluoromethane	67	2.655	2.654	0.001	97	172192	50.0	37.3	
18 Trichlorofluoromethane	101	2.667	2.660	0.007	61	129165	50.0	35.1	
20 Ethyl ether	59	3.044	3.050	-0.006	92	127221	50.0	48.7	
21 Acrolein	56	3.220	3.220	0.000	98	31354	150.0	110.1	M
22 1,1-Dichloroethene	96	3.342	3.342	0.000	97	104762	50.0	46.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.421	3.421	0.000	94	103112	50.0	42.9	
24 Acetone	43	3.439	3.427	0.012	100	72269	100.0	90.3	
25 Iodomethane	142	3.543	3.530	0.013	97	154977	50.0	50.7	
26 Carbon disulfide	76	3.628	3.634	-0.006	99	265920	50.0	45.1	
29 3-Chloro-1-propene	76	3.920	3.920	0.000	90	58519	50.0	45.6	
30 Methyl acetate	43	3.932	3.932	0.000	98	500747	250.0	266.9	
31 Methylene Chloride	84	4.127	4.133	-0.006	95	142901	50.0	44.8	
32 2-Methyl-2-propanol	59	4.370	4.382	-0.012	93	102011	500.0	545.9	
33 Acrylonitrile	53	4.504	4.504	0.000	100	536524	500.0	567.3	
34 trans-1,2-Dichloroethene	96	4.559	4.565	-0.006	83	126086	50.0	48.0	
35 Methyl tert-butyl ether	73	4.577	4.577	0.000	97	335942	50.0	42.7	
36 Hexane	57	4.991	4.990	0.001	92	186581	50.0	52.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.197	5.203	-0.006	96	222471	50.0	47.3	
38 Vinyl acetate	43	5.240	5.240	0.000	97	179907	50.0	47.4	
43 cis-1,2-Dichloroethene	96	5.946	5.939	0.007	82	138405	50.0	48.5	
42 2,2-Dichloropropane	77	5.946	5.946	0.000	58	104779	50.0	44.1	
44 2-Butanone (MEK)	43	5.952	5.952	0.000	69	116762	100.0	106.9	
48 Chlorobromomethane	128	6.232	6.231	0.001	95	55996	50.0	48.8	
49 Tetrahydrofuran	42	6.250	6.250	0.000	89	77263	100.0	105.1	
50 Chloroform	83	6.372	6.371	0.001	94	217664	50.0	46.6	
51 1,1,1-Trichloroethane	97	6.542	6.542	0.000	97	148921	50.0	43.2	
52 Cyclohexane	56	6.621	6.621	0.000	95	234524	50.0	53.1	
53 Carbon tetrachloride	117	6.718	6.718	0.000	98	114943	50.0	47.2	
54 1,1-Dichloropropene	75	6.731	6.730	0.001	97	167683	50.0	45.2	
55 Isobutyl alcohol	41	6.901	6.901	0.000	91	94532	1250.0	1444.9	
56 Benzene	78	6.943	6.943	0.000	97	542059	50.0	51.4	
57 1,2-Dichloroethane	62	7.023	7.016	0.007	97	175170	50.0	41.3	
59 n-Heptane	43	7.315	7.308	0.007	92	168511	50.0	58.8	
61 Trichloroethene	130	7.680	7.673	0.007	96	117381	50.0	53.4	
63 Methylcyclohexane	83	7.923	7.929	-0.006	92	209288	50.0	46.9	
64 1,2-Dichloropropane	63	7.953	7.953	0.000	91	140473	50.0	55.8	
65 1,4-Dioxane	88	8.032	8.032	0.000	38	23088	1000.0	929.0	
67 Dibromomethane	93	8.038	8.038	0.000	94	70819	50.0	46.3	
68 Dichlorobromomethane	83	8.233	8.233	0.000	98	135133	50.0	47.0	
71 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	94	159187	50.0	50.4	
72 4-Methyl-2-pentanone (MIBK)	43	8.823	8.823	0.000	96	231524	100.0	108.1	
73 Toluene	91	9.012	9.012	0.000	98	543607	50.0	50.6	
74 trans-1,3-Dichloropropene	75	9.255	9.255	0.000	96	122015	50.0	44.7	
75 Ethyl methacrylate	69	9.316	9.316	0.000	89	153384	50.0	52.9	
76 1,1,2-Trichloroethane	97	9.450	9.450	0.000	91	109357	50.0	49.2	
77 Tetrachloroethene	164	9.529	9.529	0.000	97	90049	50.0	49.1	
78 1,3-Dichloropropane	76	9.608	9.614	-0.006	94	197798	50.0	48.2	
79 2-Hexanone	43	9.663	9.663	0.000	98	174859	100.0	124.4	
81 Chlorodibromomethane	129	9.821	9.827	-0.006	90	83067	50.0	54.8	
82 Ethylene Dibromide	107	9.943	9.936	0.007	98	100049	50.0	50.9	
83 3-Chlorobenzotrifluoride	180	10.393	10.393	0.000	92	152536	50.0	44.3	
84 Chlorobenzene	112	10.429	10.429	0.000	93	336216	50.0	50.9	
85 4-Chlorobenzotrifluoride	180	10.484	10.484	0.000	96	139498	50.0	43.7	
86 1,1,1,2-Tetrachloroethane	131	10.521	10.520	0.000	89	100983	50.0	55.8	
87 Ethylbenzene	106	10.527	10.526	0.001	99	184149	50.0	49.4	
88 m-Xylene & p-Xylene	106	10.660	10.660	0.000	100	235821	50.0	51.0	
89 o-Xylene	106	11.038	11.043	-0.005	96	223798	50.0	48.4	
90 Styrene	104	11.062	11.062	0.000	95	381910	50.0	53.8	
91 Bromoform	173	11.244	11.244	0.000	96	47637	50.0	58.8	
92 2-Chlorobenzotrifluoride	180	11.305	11.305	0.000	95	158729	50.0	45.0	
93 Isopropylbenzene	105	11.409	11.409	0.001	97	561741	50.0	50.8	
96 1,1,2,2-Tetrachloroethane	83	11.713	11.713	0.000	94	141362	50.0	47.5	
95 Bromobenzene	156	11.725	11.725	0.000	96	127574	50.0	49.1	
97 trans-1,4-Dichloro-2-buten	53	11.755	11.749	0.006	76	34253	50.0	41.6	
98 1,2,3-Trichloropropane	110	11.774	11.774	0.000	83	47977	50.0	48.6	
99 N-Propylbenzene	120	11.828	11.828	0.000	99	148140	50.0	49.5	
100 2-Chlorotoluene	126	11.914	11.913	0.001	95	131115	50.0	52.8	
101 3-Chlorotoluene	126	11.981	11.980	0.001	96	143529	50.0	55.0	
102 1,3,5-Trimethylbenzene	105	12.011	12.011	0.000	95	478085	50.0	49.1	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
103 4-Chlorotoluene	126	12.035	12.035	0.000	98	144520	50.0	55.1	
104 tert-Butylbenzene	119	12.327	12.327	0.000	92	364290	50.0	47.4	
106 1,2,4-Trimethylbenzene	105	12.382	12.388	-0.006	98	498093	50.0	50.1	
107 1,2-dichloro-4-(trifluorom	214	12.419	12.424	-0.005	97	122459	50.0	43.5	
108 sec-Butylbenzene	105	12.546	12.552	-0.006	95	573750	50.0	50.0	
109 1,3-Dichlorobenzene	146	12.668	12.668	0.000	96	259329	50.0	51.1	
110 4-Isopropyltoluene	119	12.704	12.704	0.000	96	479569	50.0	49.8	
111 1,4-Dichlorobenzene	146	12.771	12.771	0.000	91	269715	50.0	52.0	
113 2,4-Dichloro-1-(trifluorom	214	12.790	12.789	0.001	95	129775	50.0	46.3	
114 2,5-Dichlorobenzotrifluori	214	12.832	12.832	0.000	96	132250	50.0	42.2	
116 n-Butylbenzene	91	13.112	13.112	0.000	98	444451	50.0	46.2	
117 1,2-Dichlorobenzene	146	13.124	13.124	0.000	95	256209	50.0	50.0	
118 1,2-Dibromo-3-Chloropropan	75	13.909	13.915	-0.006	72	20776	50.0	44.2	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.061	14.061	0.000	99	661882	150.0	148.4	
121 2,3- & 3,4- Dichlorotoluen	125	14.481	14.475	0.006	99	471420	100.0	95.8	
122 1,2,4-Trichlorobenzene	180	14.742	14.742	0.000	93	183629	50.0	46.2	
123 Hexachlorobutadiene	225	14.888	14.888	0.000	97	66399	50.0	42.4	
124 Naphthalene	128	15.010	15.010	0.000	97	411908	50.0	51.4	
125 1,2,3-Trichlorobenzene	180	15.235	15.235	0.000	95	162384	50.0	43.7	
126 2,4,5-Trichlorotoluene	159	16.008	16.008	0.000	0	102820	50.0	41.2	
127 2,3,6-Trichlorotoluene	159	16.111	16.105	0.006	94	102662	50.0	43.4	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	96.4	
S 131 Xylenes, Total	106				0		100.0	99.4	
S 132 1,3-Dichloropropene, Total	1				0		100.0	95.2	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
voaWVA1stRest_00001	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00147	Amount Added: 2.00	Units: uL	
voaWKetmix2nd_00002	Amount Added: 2.00	Units: uL	
voaWEEpri Res_00006	Amount Added: 2.00	Units: uL	
VOA8260INT_00043	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00043	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013009.D

Injection Date: 13-Oct-2015 15:48:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: LCS

Worklist Smp#: 9

Client ID:

Purge Vol: 5.000 mL

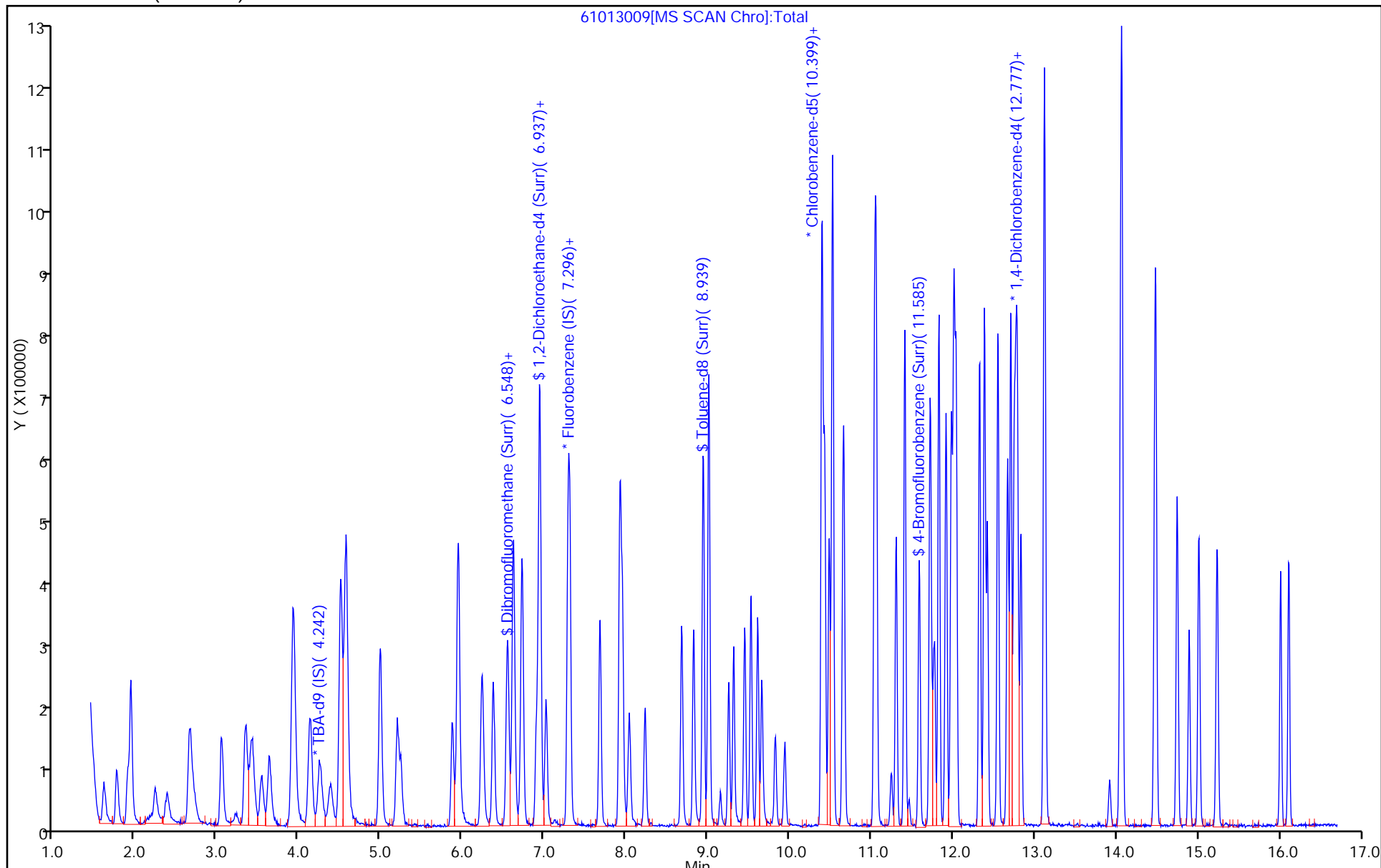
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



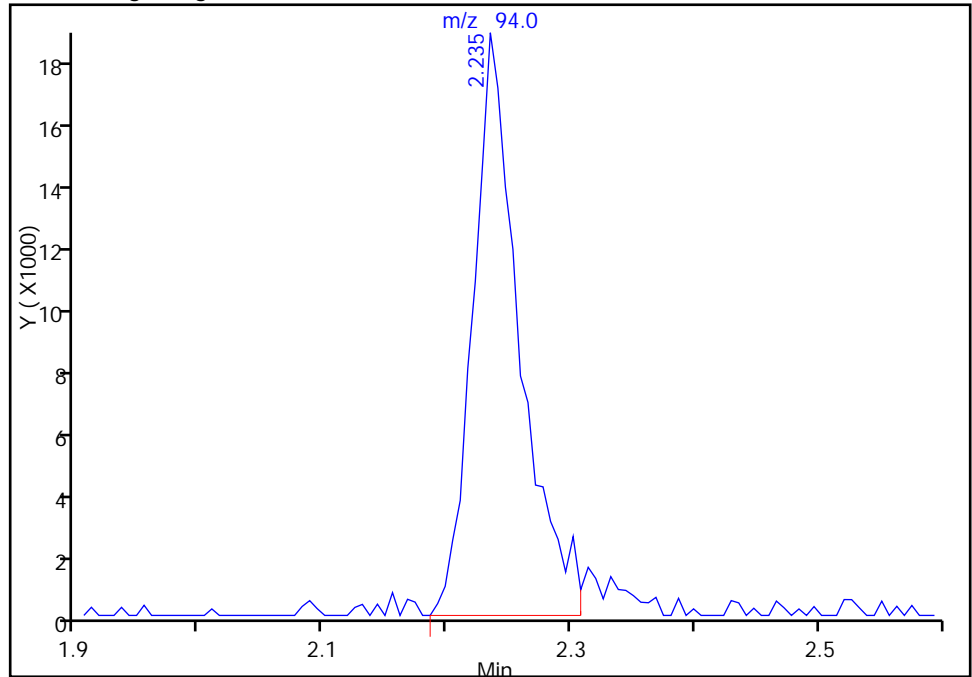
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151013-8971.b\61013009.D  
Injection Date: 13-Oct-2015 15:48:30 Instrument ID: CHHP6  
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\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

15 Bromomethane, CAS: 74-83-9

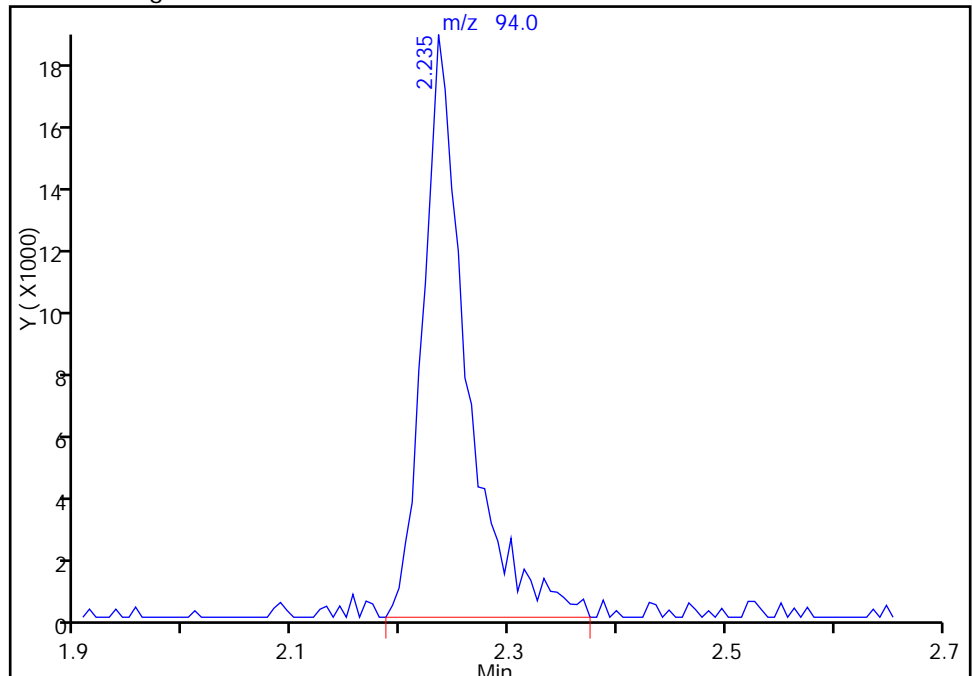
RT: 2.23  
Area: 47687  
Amount: 30.382785  
Amount Units: ng

Processing Integration Results



RT: 2.23  
Area: 50582  
Amount: 32.227275  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 13-Oct-2015 16:14:51  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-156975/11  
 Matrix: Water Lab File ID: 61014011.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/14/2015 16:25  
 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.: 156975 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	10.9		1.0	0.28
75-01-4	Vinyl chloride	8.99		1.0	0.23
74-83-9	Bromomethane	5.55		1.0	0.31
75-00-3	Chloroethane	8.14		1.0	0.21
75-35-4	1,1-Dichloroethene	9.15		1.0	0.30
67-64-1	Acetone	19.8		5.0	2.5
75-15-0	Carbon disulfide	8.42		1.0	0.21
75-09-2	Methylene Chloride	8.80		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.19		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.63		1.0	0.18
75-34-3	1,1-Dichloroethane	9.88		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	9.19		1.0	0.24
74-97-5	Bromochloromethane	9.78		1.0	0.18
78-93-3	2-Butanone (MEK)	23.3		5.0	0.55
67-66-3	Chloroform	8.90		1.0	0.17
71-55-6	1,1,1-Trichloroethane	8.31		1.0	0.29
56-23-5	Carbon tetrachloride	8.11		1.0	0.14
71-43-2	Benzene	10.1		1.0	0.11
107-06-2	1,2-Dichloroethane	7.91		1.0	0.21
79-01-6	Trichloroethene	10.2		1.0	0.14
78-87-5	1,2-Dichloropropane	10.7		1.0	0.095
75-27-4	Bromodichloromethane	8.32		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	10.1		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	21.4		5.0	0.53
108-88-3	Toluene	10.2		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	8.97		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.93		1.0	0.20
127-18-4	Tetrachloroethene	9.83		1.0	0.15
591-78-6	2-Hexanone	24.0		5.0	0.16
124-48-1	Dibromochloromethane	9.23		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.59		1.0	0.18
108-90-7	Chlorobenzene	10.5		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.45		1.0	0.28
100-41-4	Ethylbenzene	10.0		1.0	0.23
1330-20-7	Xylenes, Total	19.9		3.0	0.49
100-42-5	Styrene	10.8		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-156975/11  
 Matrix: Water Lab File ID: 61014011.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/14/2015 16:25  
 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.: 156975 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.73		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.50		1.0	0.20
107-13-1	Acrylonitrile	114		20	0.55
123-91-1	1,4-Dioxane	214		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	80		64-135
2037-26-5	Toluene-d8 (Surr)	103		71-118
460-00-4	4-Bromofluorobenzene (Surr)	101		70-118
1868-53-7	Dibromofluoromethane (Surr)	89		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014011.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 14-Oct-2015 16:25:30 ALS Bottle#: 12 Worklist Smp#: 11  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: LCS  
 Misc. Info.: 180-0008996-011  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Oct-2015 16:41:51 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK037

First Level Reviewer: fergusond

Date: 14-Oct-2015 16:41:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.242	4.230	0.012	90	189019	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.284	7.290	-0.006	98	457732	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.393	10.399	-0.006	89	103987	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.753	-0.006	95	173330	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.560	6.560	0.000	93	93635	50.0	44.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.931	0.000	69	136900	50.0	40.2	
\$ 7 Toluene-d8 (Surr)	98	8.939	8.939	0.000	93	423855	50.0	51.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.585	0.000	83	183348	50.0	50.3	
11 Dichlorodifluoromethane	85	1.602	1.608	-0.006	99	116470	50.0	36.7	
12 Chloromethane	50	1.766	1.760	0.006	100	148810	50.0	54.5	
13 Vinyl chloride	62	1.894	1.900	-0.006	98	132250	50.0	44.9	
14 Butadiene	39	1.937	1.936	0.001	91	145333	50.0	52.7	
15 Bromomethane	94	2.229	2.235	-0.006	90	44047	50.0	27.7	
16 Chloroethane	64	2.375	2.381	-0.006	99	81727	50.0	40.7	
17 Dichlorofluoromethane	67	2.655	2.654	0.001	97	173849	50.0	37.2	
18 Trichlorofluoromethane	101	2.685	2.679	0.006	93	125742	50.0	33.7	
20 Ethyl ether	59	3.044	3.044	0.000	94	133668	50.0	50.6	
21 Acrolein	56	3.220	3.226	-0.006	96	33207	150.0	115.2	
22 1,1-Dichloroethene	96	3.330	3.336	-0.006	97	105430	50.0	45.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.409	3.403	0.006	93	106767	50.0	43.9	
24 Acetone	43	3.421	3.433	-0.012	99	80186	100.0	99.0	
25 Iodomethane	142	3.543	3.536	0.007	97	147217	50.0	47.6	
26 Carbon disulfide	76	3.622	3.628	-0.006	99	251363	50.0	42.1	
29 3-Chloro-1-propene	76	3.908	3.914	-0.006	91	60886	50.0	46.9	
30 Methyl acetate	43	3.926	3.926	0.000	99	538503	250.0	283.6	
31 Methylene Chloride	84	4.127	4.120	0.007	97	142395	50.0	44.0	
32 2-Methyl-2-propanol	59	4.376	4.370	0.006	92	107397	500.0	504.9	
33 Acrylonitrile	53	4.498	4.498	0.000	100	543756	500.0	568.0	
35 Methyl tert-butyl ether	73	4.571	4.565	0.006	98	343987	50.0	43.2	
34 trans-1,2-Dichloroethene	96	4.559	4.565	-0.006	97	122121	50.0	45.9	
36 Hexane	57	4.978	4.984	-0.006	93	203463	50.0	56.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.191	5.191	0.000	96	235143	50.0	49.4	
38 Vinyl acetate	43	5.240	5.240	0.000	98	191277	50.0	49.8	
43 cis-1,2-Dichloroethene	96	5.946	5.939	0.007	82	132843	50.0	45.9	
44 2-Butanone (MEK)	43	5.946	5.945	0.001	75	128561	100.0	116.3	
42 2,2-Dichloropropane	77	5.940	5.945	-0.005	57	106264	50.0	44.1	
48 Chlorobromomethane	128	6.226	6.225	0.001	95	56808	50.0	48.9	
49 Tetrahydrofuran	42	6.238	6.237	0.001	92	91437	100.0	122.8	
50 Chloroform	83	6.372	6.365	0.007	94	210258	50.0	44.5	
51 1,1,1-Trichloroethane	97	6.536	6.536	0.000	98	145119	50.0	41.6	
52 Cyclohexane	56	6.615	6.615	0.000	92	240896	50.0	53.9	
53 Carbon tetrachloride	117	6.712	6.718	-0.006	95	99958	50.0	40.5	
54 1,1-Dichloropropene	75	6.731	6.724	0.007	96	172795	50.0	46.0	
55 Isobutyl alcohol	41	6.895	6.895	0.001	95	90076	1250.0	1360.2	
56 Benzene	78	6.943	6.943	0.000	98	538822	50.0	50.5	
57 1,2-Dichloroethane	62	7.016	7.016	0.000	97	170039	50.0	39.6	
59 n-Heptane	43	7.308	7.308	0.000	95	181791	50.0	62.7	
61 Trichloroethene	130	7.673	7.673	0.000	96	113620	50.0	51.1	
63 Methylcyclohexane	83	7.923	7.917	0.006	93	219201	50.0	48.5	
64 1,2-Dichloropropane	63	7.953	7.947	0.006	95	135997	50.0	53.4	
65 1,4-Dioxane	88	8.026	8.026	0.000	50	26937	1000.0	1070.8	
67 Dibromomethane	93	8.038	8.038	0.000	97	65324	50.0	42.2	
68 Dichlorobromomethane	83	8.233	8.227	0.006	98	121007	50.0	41.6	
71 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	94	160907	50.0	50.4	
72 4-Methyl-2-pentanone (MIBK)	43	8.823	8.823	0.000	97	228377	100.0	106.8	
73 Toluene	91	9.012	9.012	0.000	98	546175	50.0	50.9	
74 trans-1,3-Dichloropropene	75	9.255	9.255	0.000	95	122174	50.0	44.9	
75 Ethyl methacrylate	69	9.316	9.316	0.000	91	155817	50.0	53.9	
76 1,1,2-Trichloroethane	97	9.450	9.450	0.000	89	110137	50.0	49.6	
77 Tetrachloroethene	164	9.529	9.529	0.000	96	89972	50.0	49.2	
78 1,3-Dichloropropane	76	9.608	9.608	0.000	95	199351	50.0	48.6	
79 2-Hexanone	43	9.663	9.656	0.007	99	168416	100.0	120.0	
81 Chlorodibromomethane	129	9.827	9.821	0.006	93	69917	50.0	46.2	
82 Ethylene Dibromide	107	9.937	9.936	0.000	99	94181	50.0	48.0	
83 3-Chlorobenzotrifluoride	180	10.399	10.393	0.007	90	163784	50.0	47.7	
84 Chlorobenzene	112	10.429	10.429	0.000	95	345247	50.0	52.3	
85 4-Chlorobenzotrifluoride	180	10.484	10.484	0.000	96	151938	50.0	47.7	
86 1,1,1,2-Tetrachloroethane	131	10.521	10.520	0.000	88	85365	50.0	47.2	
87 Ethylbenzene	106	10.527	10.526	0.001	99	186153	50.0	50.0	
88 m-Xylene & p-Xylene	106	10.660	10.654	0.006	99	231914	50.0	50.2	
89 o-Xylene	106	11.038	11.037	0.001	97	228588	50.0	49.5	
90 Styrene	104	11.062	11.062	0.000	95	383688	50.0	54.1	
91 Bromoform	173	11.244	11.238	0.006	95	35285	50.0	43.6	
92 2-Chlorobenzotrifluoride	180	11.305	11.305	0.000	98	165341	50.0	47.0	
93 Isopropylbenzene	105	11.409	11.408	0.001	97	542366	50.0	49.1	
96 1,1,2,2-Tetrachloroethane	83	11.713	11.719	-0.006	95	140990	50.0	47.5	
95 Bromobenzene	156	11.719	11.725	-0.006	95	168661	50.0	60.5	
97 trans-1,4-Dichloro-2-buten	53	11.755	11.749	0.006	64	38355	50.0	43.4	
98 1,2,3-Trichloropropane	110	11.774	11.773	0.001	85	43303	50.0	40.9	
99 N-Propylbenzene	120	11.822	11.828	-0.006	99	154455	50.0	48.1	
100 2-Chlorotoluene	126	11.920	11.913	0.007	95	127930	50.0	48.0	
101 3-Chlorotoluene	126	11.981	11.980	0.001	95	147661	50.0	52.8	
102 1,3,5-Trimethylbenzene	105	12.011	12.011	0.000	93	480714	50.0	46.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
103 4-Chlorotoluene	126	12.041	12.035	0.006	98	141598	50.0	50.3	
104 tert-Butylbenzene	119	12.321	12.327	-0.006	92	378772	50.0	45.9	
106 1,2,4-Trimethylbenzene	105	12.382	12.382	0.000	98	497993	50.0	46.7	
107 1,2-dichloro-4-(trifluorom	214	12.419	12.424	-0.005	97	128788	50.0	42.6	
108 sec-Butylbenzene	105	12.546	12.552	-0.006	95	559148	50.0	45.4	
109 1,3-Dichlorobenzene	146	12.668	12.668	0.000	96	254942	50.0	46.8	
110 4-Isopropyltoluene	119	12.704	12.704	0.000	96	467674	50.0	45.3	
111 1,4-Dichlorobenzene	146	12.771	12.771	0.000	91	257706	50.0	46.3	
113 2,4-Dichloro-1-(trifluorom	214	12.790	12.789	0.001	94	117341	50.0	39.0	
114 2,5-Dichlorobenzotrifluori	214	12.832	12.832	0.000	96	144464	50.0	43.0	
116 n-Butylbenzene	91	13.112	13.112	0.000	98	461725	50.0	44.8	
117 1,2-Dichlorobenzene	146	13.124	13.124	0.000	94	250210	50.0	45.5	
118 1,2-Dibromo-3-Chloropropan	75	13.915	13.915	0.000	72	16973	50.0	33.7	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.061	14.061	0.000	99	669854	150.0	140.1	
121 2,3- & 3,4- Dichlorotoluen	125	14.475	14.475	0.001	98	484346	100.0	91.8	
122 1,2,4-Trichlorobenzene	180	14.742	14.742	0.000	94	182051	50.0	42.7	
123 Hexachlorobutadiene	225	14.888	14.888	0.000	94	66657	50.0	39.7	
124 Naphthalene	128	15.004	15.010	-0.006	98	443052	50.0	51.5	
125 1,2,3-Trichlorobenzene	180	15.235	15.229	0.006	96	163204	50.0	41.0	
126 2,4,5-Trichlorotoluene	159	16.008	16.008	0.000	0	120467	50.0	45.0	
127 2,3,6-Trichlorotoluene	159	16.105	16.111	-0.006	95	105163	50.0	41.4	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 131 Xylenes, Total	106				0		100.0	99.7	
S 130 1,2-Dichloroethene, Total	96				0		100.0	91.9	
S 132 1,3-Dichloropropene, Total	1				0		100.0	95.2	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

voaWKetmix2nd_00002	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00147	Amount Added: 2.00	Units: uL	
voaWVA1stRest_00001	Amount Added: 2.00	Units: uL	
voaWEEpri Res_00006	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
VOA8260INT_00043	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00043	Amount Added: 2.00	Units: uL	Run Reagent



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20151014-8996.b\61014011.D

Injection Date: 14-Oct-2015 16:25:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: LCS

Worklist Smp#: 11

Client ID:

Purge Vol: 5.000 mL

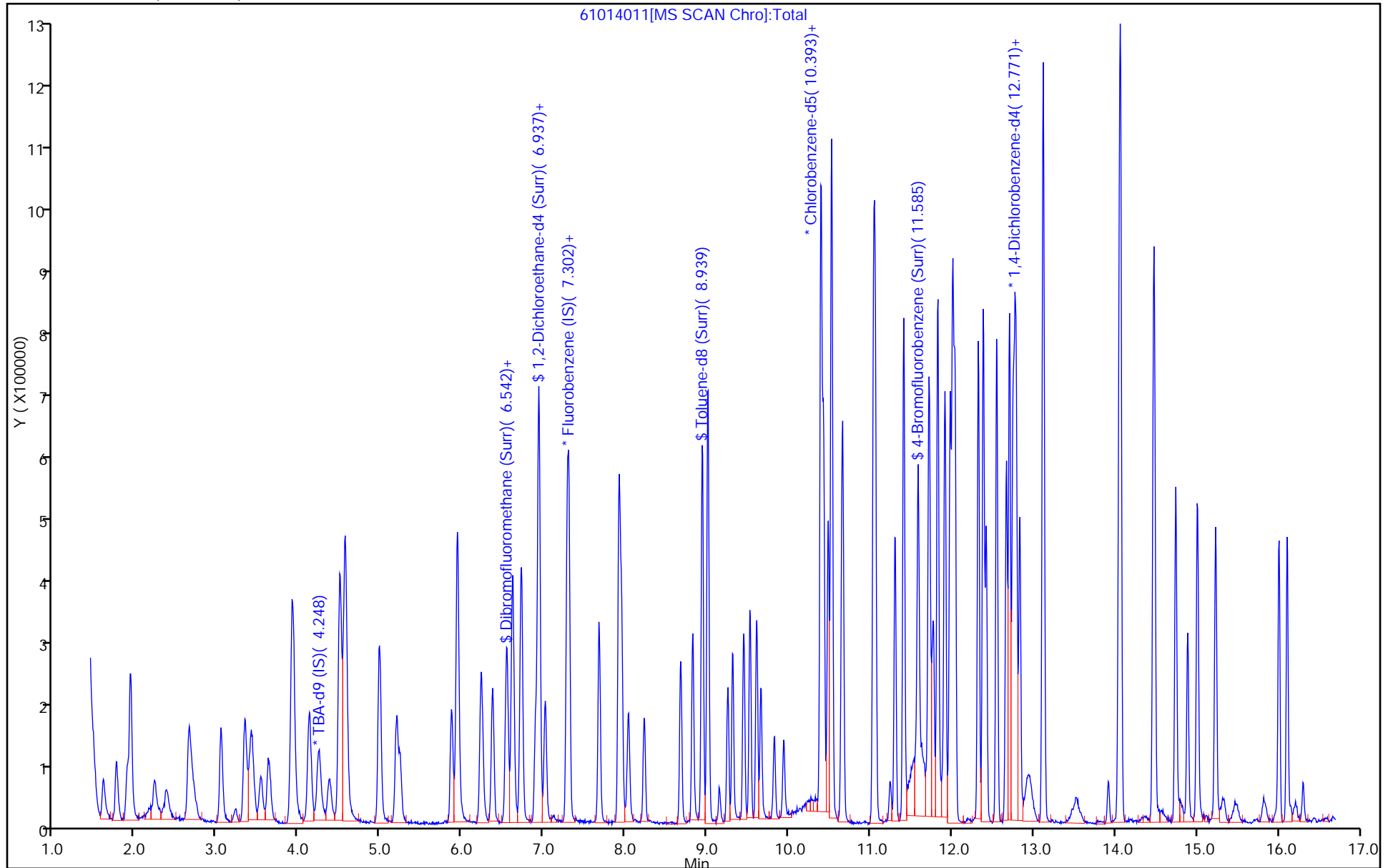
Dil. Factor: 1.0000

ALS Bottle#: 12

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-157127/10  
 Matrix: Water Lab File ID: 51015010.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/15/2015 15:59  
 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.: 157127 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	9.71		1.0	0.28
75-01-4	Vinyl chloride	8.06		1.0	0.23
74-83-9	Bromomethane	8.03		1.0	0.31
75-00-3	Chloroethane	7.31		1.0	0.21
75-35-4	1,1-Dichloroethene	9.39		1.0	0.30
67-64-1	Acetone	19.9		5.0	2.5
75-15-0	Carbon disulfide	10.0		1.0	0.21
75-09-2	Methylene Chloride	9.92		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.68		1.0	0.17
1634-04-4	Methyl tert-butyl ether	9.53		1.0	0.18
75-34-3	1,1-Dichloroethane	9.61		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	9.55		1.0	0.24
74-97-5	Bromochloromethane	8.75		1.0	0.18
78-93-3	2-Butanone (MEK)	19.4		5.0	0.55
67-66-3	Chloroform	9.41		1.0	0.17
71-55-6	1,1,1-Trichloroethane	9.64		1.0	0.29
56-23-5	Carbon tetrachloride	9.66		1.0	0.14
71-43-2	Benzene	10.2		1.0	0.11
107-06-2	1,2-Dichloroethane	9.87		1.0	0.21
79-01-6	Trichloroethene	9.16		1.0	0.14
78-87-5	1,2-Dichloropropane	9.92		1.0	0.095
75-27-4	Bromodichloromethane	9.80		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	8.94		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	18.6		5.0	0.53
108-88-3	Toluene	11.0		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.97		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.7		1.0	0.20
127-18-4	Tetrachloroethene	10.8		1.0	0.15
591-78-6	2-Hexanone	18.1		5.0	0.16
124-48-1	Dibromochloromethane	9.40		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.2		1.0	0.18
108-90-7	Chlorobenzene	10.3		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.76		1.0	0.28
100-41-4	Ethylbenzene	10.7		1.0	0.23
1330-20-7	Xylenes, Total	21.4		3.0	0.49
100-42-5	Styrene	11.4		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-157127/10  
 Matrix: Water Lab File ID: 51015010.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 10/15/2015 15:59  
 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.: 157127 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10.7		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	11.7		1.0	0.20
107-13-1	Acrylonitrile	112		20	0.55
123-91-1	1,4-Dioxane	287		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		64-135
2037-26-5	Toluene-d8 (Surr)	112		71-118
460-00-4	4-Bromofluorobenzene (Surr)	104		70-118
1868-53-7	Dibromofluoromethane (Surr)	87		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015010.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 15-Oct-2015 15:59:30 ALS Bottle#: 9 Worklist Smp#: 10  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: LCS  
 Misc. Info.: 180-0009022-010  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 15-Oct-2015 16:13:11 Calib Date: 26-Aug-2015 17:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150826-8300.b\50826014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK008

First Level Reviewer: fergusond

Date: 15-Oct-2015 16:13:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.281	4.273	0.008	0	156359	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.290	0.002	97	369647	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.389	10.386	0.003	89	81657	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.731	12.729	0.002	94	128850	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.562	6.554	0.008	94	78949	50.0	43.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.939	6.931	0.008	0	122844	50.0	49.3	
\$ 7 Toluene-d8 (Surr)	98	8.935	8.939	-0.004	95	353122	50.0	56.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.575	11.573	0.002	86	123880	50.0	52.1	
11 Dichlorodifluoromethane	85	1.610	1.596	0.014	99	109399	50.0	52.4	
12 Chloromethane	50	1.775	1.772	0.003	99	148896	50.0	48.6	
13 Vinyl chloride	62	1.914	1.912	0.002	97	109652	50.0	40.3	
14 Butadiene	39	1.945	1.943	0.002	100	154127	50.0	48.0	
15 Bromomethane	94	2.249	2.241	0.008	91	44464	50.0	40.2	
16 Chloroethane	64	2.401	2.399	0.002	98	59963	50.0	36.5	
17 Dichlorofluoromethane	67	2.675	2.667	0.008	96	137114	50.0	39.4	
18 Trichlorofluoromethane	101	2.711	2.703	0.008	96	125150	50.0	48.1	
20 Ethyl ether	59	3.052	3.038	0.014	96	104035	50.0	43.1	
21 Acrolein	56	3.235	3.220	0.015	100	48357	150.0	134.5	
22 1,1-Dichloroethene	96	3.356	3.330	0.026	95	96649	50.0	46.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.423	3.415	0.008	93	106155	50.0	48.7	
24 Acetone	43	3.454	3.439	0.015	98	74137	100.0	99.4	
25 Iodomethane	142	3.539	3.537	0.002	99	139443	50.0	45.4	
26 Carbon disulfide	76	3.642	3.640	0.002	100	240197	50.0	50.2	
28 3-Chloro-1-propene	76	3.928	3.914	0.014	88	55306	50.0	47.4	
30 Methyl acetate	43	3.946	3.938	0.008	100	632656	250.0	283.9	
31 Methylene Chloride	84	4.147	4.139	0.008	95	120024	50.0	49.6	
32 2-Methyl-2-propanol	59	4.421	4.394	0.027	88	102911	500.0	584.8	
33 Acrylonitrile	53	4.530	4.522	0.008	96	606311	500.0	560.7	
34 trans-1,2-Dichloroethene	96	4.567	4.559	0.008	94	108210	50.0	48.4	
35 Methyl tert-butyl ether	73	4.591	4.577	0.014	94	246663	50.0	47.7	
36 Hexane	57	4.993	4.984	0.009	95	207159	50.0	55.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.206	5.197	0.009	96	211516	50.0	48.0	
38 Vinyl acetate	43	5.254	5.246	0.008	97	194277	50.0	58.8	
44 2,2-Dichloropropane	77	5.954	5.946	0.008	55	80056	50.0	45.4	
45 cis-1,2-Dichloroethene	96	5.954	5.946	0.008	86	114051	50.0	47.8	
46 2-Butanone (MEK)	43	5.960	5.952	0.008	68	108695	100.0	97.0	
49 Chlorobromomethane	128	6.246	6.231	0.015	88	45882	50.0	43.8	
51 Tetrahydrofuran	42	6.258	6.250	0.008	91	88834	100.0	98.8	
52 Chloroform	83	6.386	6.377	0.009	96	178970	50.0	47.0	
53 1,1,1-Trichloroethane	97	6.544	6.536	0.008	94	135612	50.0	48.2	
54 Cyclohexane	56	6.617	6.609	0.008	96	251927	50.0	53.5	
56 Carbon tetrachloride	117	6.714	6.718	-0.004	96	115697	50.0	48.3	
55 1,1-Dichloropropene	75	6.733	6.724	0.009	91	150788	50.0	48.5	
57 Isobutyl alcohol	41	6.933	6.925	0.008	93	116080	1250.0	1649.0	
58 Benzene	78	6.946	6.943	0.003	97	464073	50.0	50.9	
59 1,2-Dichloroethane	62	7.025	7.016	0.009	96	155567	50.0	49.3	
62 n-Heptane	43	7.311	7.302	0.009	97	186094	50.0	54.6	
64 Trichloroethene	130	7.676	7.673	0.003	96	102081	50.0	45.8	
66 Methylcyclohexane	83	7.919	7.917	0.002	97	179752	50.0	51.2	
67 1,2-Dichloropropane	63	7.955	7.947	0.008	94	118675	50.0	49.6	
70 1,4-Dioxane	88	8.034	8.026	0.008	42	23674	1000.0	1435.8	
68 Dibromomethane	93	8.034	8.032	0.002	95	55385	50.0	45.6	
71 Dichlorobromomethane	83	8.235	8.233	0.002	98	117707	50.0	49.0	
74 cis-1,3-Dichloropropene	75	8.679	8.671	0.008	89	125752	50.0	44.7	
75 4-Methyl-2-pentanone (MIBK)	43	8.825	8.823	0.002	98	187142	100.0	93.0	
76 Toluene	91	9.002	9.006	-0.004	97	445948	50.0	55.2	
77 trans-1,3-Dichloropropene	75	9.251	9.255	-0.004	98	105213	50.0	49.9	
78 Ethyl methacrylate	69	9.312	9.310	0.002	96	113420	50.0	55.6	
79 1,1,2-Trichloroethane	97	9.446	9.444	0.002	94	81991	50.0	53.3	
80 Tetrachloroethene	164	9.519	9.517	0.002	96	84907	50.0	54.1	
81 1,3-Dichloropropane	76	9.604	9.602	0.002	98	149085	50.0	52.2	
82 2-Hexanone	43	9.659	9.663	-0.004	99	131345	100.0	90.4	
84 Chlorodibromomethane	129	9.817	9.815	0.002	91	62580	50.0	47.0	
85 Ethylene Dibromide	107	9.926	9.930	-0.004	98	75501	50.0	51.0	
86 3-Chlorobenzotrifluoride	180	10.389	10.393	-0.004	84	140426	50.0	54.1	
87 Chlorobenzene	112	10.419	10.417	0.002	91	269320	50.0	51.7	
88 4-Chlorobenzotrifluoride	180	10.480	10.478	0.002	95	131743	50.0	53.6	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.514	-0.004	88	82815	50.0	48.8	
90 Ethylbenzene	106	10.517	10.520	-0.003	99	147356	50.0	53.4	
91 m-Xylene & p-Xylene	106	10.650	10.654	-0.004	0	184341	50.0	54.5	
92 o-Xylene	106	11.028	11.031	-0.003	99	169174	50.0	52.6	
93 Styrene	104	11.046	11.050	-0.004	95	303948	50.0	57.1	
94 Bromoform	173	11.234	11.232	0.002	96	40549	50.0	53.4	
96 2-Chlorobenzotrifluoride	180	11.301	11.299	0.002	96	139469	50.0	54.6	
97 Isopropylbenzene	105	11.399	11.396	0.003	97	454485	50.0	57.7	
99 1,1,2,2-Tetrachloroethane	83	11.709	11.707	0.002	79	121571	50.0	58.6	
100 Bromobenzene	156	11.709	11.707	0.002	97	103061	50.0	46.6	
102 trans-1,4-Dichloro-2-buten	53	11.739	11.743	-0.004	61	11549	50.0	14.4	
101 1,2,3-Trichloropropane	110	11.764	11.767	-0.003	87	37885	50.0	51.9	
103 N-Propylbenzene	120	11.812	11.816	-0.004	99	124566	50.0	49.2	
104 2-Chlorotoluene	126	11.897	11.901	-0.004	95	103870	50.0	48.3	
105 3-Chlorotoluene	126	11.964	11.968	-0.004	96	104933	50.0	47.4	
106 1,3,5-Trimethylbenzene	105	11.995	11.999	-0.004	95	387864	50.0	54.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
107 4-Chlorotoluene	126	12.025	12.029	-0.004	99	111257	50.0	47.0	
108 tert-Butylbenzene	119	12.311	12.309	0.002	95	298870	50.0	51.4	
110 1,2,4-Trimethylbenzene	105	12.372	12.370	0.002	98	381323	50.0	53.2	
111 1,2-dichloro-4-(trifluorom	214	12.408	12.412	-0.004	98	104403	50.0	52.2	
112 sec-Butylbenzene	105	12.536	12.534	0.002	95	450288	50.0	54.8	
113 1,3-Dichlorobenzene	146	12.652	12.650	0.002	98	201008	50.0	51.0	
114 4-Isopropyltoluene	119	12.688	12.692	-0.004	97	366228	50.0	52.7	
115 1,4-Dichlorobenzene	146	12.755	12.753	0.002	93	210247	50.0	51.3	
116 2,4-Dichloro-1-(trifluorom	214	12.780	12.783	-0.003	96	91281	50.0	49.3	
118 2,5-Dichlorobenzotrifluori	214	12.822	12.820	0.002	0	113558	50.0	56.8	
120 n-Butylbenzene	91	13.096	13.100	-0.004	98	314724	50.0	52.9	
121 1,2-Dichlorobenzene	146	13.108	13.112	-0.004	96	186574	50.0	50.7	
122 1,2-Dibromo-3-Chloropropan	75	13.899	13.903	-0.004	75	17997	50.0	59.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.045	14.043	0.002	0	330926	150.0	157.4	
125 2,3- & 3,4- Dichlorotoluen	125	14.465	14.469	-0.003	0	209319	100.0	104.4	
126 1,2,4-Trichlorobenzene	180	14.726	14.724	0.002	92	76167	50.0	53.2	
127 Hexachlorobutadiene	225	14.878	14.876	0.002	95	42327	50.0	61.4	
128 Naphthalene	128	14.994	14.992	0.002	97	205825	50.0	55.9	
129 1,2,3-Trichlorobenzene	180	15.213	15.217	-0.004	94	63976	50.0	55.2	
131 2,4,5-Trichlorotoluene	159	15.992	15.995	-0.003	0	22567	50.0	54.0	
130 2,3,6-Trichlorotoluene	159	16.095	16.099	-0.004	95	21654	50.0	56.2	
148 2,3-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	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	107.1	
S 134 1,2-Dichloroethene, Total	96				0		100.0	96.2	
S 135 1,3-Dichloropropene, Total	1				0		100.0	94.6	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
voaWEEpri Res_00006	Amount Added: 2.00	Units: uL	
voaWVA1stRest_00001	Amount Added: 2.00	Units: uL	
voaWKetmix2nd_00002	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00147	Amount Added: 2.00	Units: uL	
VOA8260INT_00043	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00043	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20151015-9022.b\51015010.D

Injection Date: 15-Oct-2015 15:59:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: LCS

Worklist Smp#: 10

Client ID:

Purge Vol: 5.000 mL

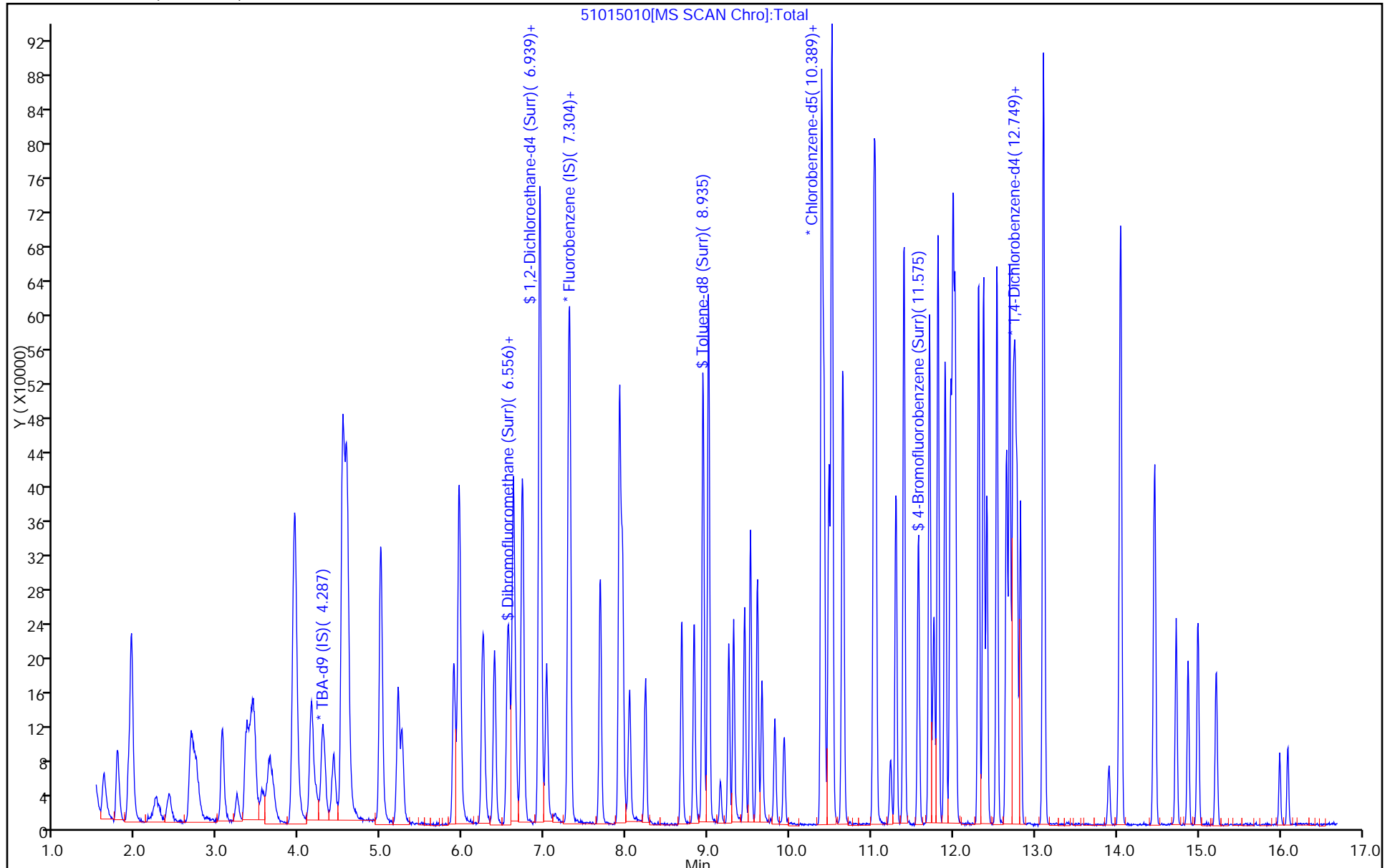
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



## GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1

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

Instrument ID: CHHP6 Start Date: 07/31/2015 12:10Analysis Batch Number: 149469 End Date: 07/31/2015 18:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-149469/1		07/31/2015 12:10	1	60731001.D	DB-624 0.18 (mm)
IC 180-149469/4		07/31/2015 14:00	1	60731004.D	DB-624 0.18 (mm)
ICIS 180-149469/5		07/31/2015 14:24	1	60731005.D	DB-624 0.18 (mm)
IC 180-149469/6		07/31/2015 14:49	1	60731006.D	DB-624 0.18 (mm)
IC 180-149469/7		07/31/2015 15:13	1	60731007.D	DB-624 0.18 (mm)
IC 180-149469/8		07/31/2015 15:37	1	60731008.D	DB-624 0.18 (mm)
IC 180-149469/9		07/31/2015 16:01	1	60731009.D	DB-624 0.18 (mm)
IC 180-149469/10		07/31/2015 16:25	1	60731010.D	DB-624 0.18 (mm)
IC 180-149469/14		07/31/2015 18:02	1	60731014.D	DB-624 0.18 (mm)
ZZZZZ		07/31/2015 18:26	1		DB-624 0.18 (mm)
ICV 180-149469/16		07/31/2015 18:50	1		DB-624 0.18 (mm)



## GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1

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

Instrument ID: CHHP5 Start Date: 08/26/2015 14:01Analysis Batch Number: 151868 End Date: 08/26/2015 20:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-151868/7		08/26/2015 14:01	1	50826007.D	DB-624 0.18 (mm)
IC 180-151868/6		08/26/2015 15:04	1	50826006.D	DB-624 0.18 (mm)
IC 180-151868/8		08/26/2015 15:28	1	50826008.D	DB-624 0.18 (mm)
ICIS 180-151868/9		08/26/2015 15:52	1	50826009.D	DB-624 0.18 (mm)
IC 180-151868/10		08/26/2015 16:16	1	50826010.D	DB-624 0.18 (mm)
IC 180-151868/11		08/26/2015 16:40	1	50826011.D	DB-624 0.18 (mm)
IC 180-151868/12		08/26/2015 17:04	1	50826012.D	DB-624 0.18 (mm)
IC 180-151868/13		08/26/2015 17:28	1	50826013.D	DB-624 0.18 (mm)
IC 180-151868/14		08/26/2015 17:52	1	50826014.D	DB-624 0.18 (mm)
ZZZZZ		08/26/2015 19:52	1		DB-624 0.18 (mm)
ICV 180-151868/20		08/26/2015 20:16	1		DB-624 0.18 (mm)

## GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1

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

Instrument ID: CHHP5 Start Date: 10/13/2015 11:51Analysis Batch Number: 156816 End Date: 10/13/2015 23:41

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-156816/5		10/13/2015 11:51	1	51013005.D	DB-624 0.18 (mm)
CCVIS 180-156816/6		10/13/2015 13:30	1	51013006.D	DB-624 0.18 (mm)
ZZZZZ		10/13/2015 13:54	1		DB-624 0.18 (mm)
MB 180-156816/7		10/13/2015 14:19	1	51013007.D	DB-624 0.18 (mm)
LCS 180-156816/10		10/13/2015 16:03	1	51013010.D	DB-624 0.18 (mm)
ZZZZZ		10/13/2015 20:52	1		DB-624 0.18 (mm)
ZZZZZ		10/13/2015 21:16	1		DB-624 0.18 (mm)
ZZZZZ		10/13/2015 21:40	1		DB-624 0.18 (mm)
ZZZZZ		10/13/2015 22:04	1		DB-624 0.18 (mm)
ZZZZZ		10/13/2015 22:28	1		DB-624 0.18 (mm)
ZZZZZ		10/13/2015 22:52	1		DB-624 0.18 (mm)
ZZZZZ		10/13/2015 23:17	1		DB-624 0.18 (mm)
180-48399-12	HD-QC4-0/1-3	10/13/2015 23:41	1	51013029.D	DB-624 0.18 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1

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

Instrument ID: CHHP6 Start Date: 10/13/2015 11:43

Analysis Batch Number: 156820 End Date: 10/13/2015 23:37

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-156820/1		10/13/2015 11:43	1	61013001.D	DB-624 0.18 (mm)
CCV 180-156820/3		10/13/2015 12:58	1	61013003.D	DB-624 0.18 (mm)
CCVIS 180-156820/5		10/13/2015 13:22	1	61013005.D	DB-624 0.18 (mm)
ZZZZZ		10/13/2015 13:46	1		DB-624 0.18 (mm)
MB 180-156820/6		10/13/2015 14:17	1	61013006.D	DB-624 0.18 (mm)
ZZZZZ		10/13/2015 15:00	1		DB-624 0.18 (mm)
ZZZZZ		10/13/2015 15:24	1		DB-624 0.18 (mm)
LCS 180-156820/9		10/13/2015 15:48	1	61013009.D	DB-624 0.18 (mm)
ZZZZZ		10/13/2015 16:12	1		DB-624 0.18 (mm)
ZZZZZ		10/13/2015 16:37	1		DB-624 0.18 (mm)
ZZZZZ		10/13/2015 17:32	1		DB-624 0.18 (mm)
ZZZZZ		10/13/2015 17:56	50		DB-624 0.18 (mm)
ZZZZZ		10/13/2015 18:45	3		DB-624 0.18 (mm)
180-48399-1	HD-TATE (S-6)-0/1-0	10/13/2015 19:10	1	61013017.D	DB-624 0.18 (mm)
180-48399-2	HD-SOFTAIL LIFT STATION-0/1-0	10/13/2015 19:34	1	61013018.D	DB-624 0.18 (mm)
180-48399-3 DL	HD-MW-161-0/1-0 DL	10/13/2015 19:58	10	61013019.D	DB-624 0.18 (mm)
180-48399-4	HD-MW-163-0/1-0	10/13/2015 20:22	1	61013020.D	DB-624 0.18 (mm)
180-48399-5	HD-MW-166-0/1-0	10/13/2015 21:11	1	61013022.D	DB-624 0.18 (mm)
180-48399-6	HD-MW-167-0/1-0	10/13/2015 21:36	1	61013023.D	DB-624 0.18 (mm)
180-48399-7	HD-MW-168-0/1-0	10/13/2015 22:00	1	61013024.D	DB-624 0.18 (mm)
180-48399-14	HD-QC14-0/1-2	10/13/2015 23:13	1	61013027.D	DB-624 0.18 (mm)
180-48399-10	HD-MW-102S-0/1-0	10/13/2015 23:37	1	61013028.D	DB-624 0.18 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-48399-1

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

Instrument ID: CHHP6 Start Date: 10/14/2015 11:42

Analysis Batch Number: 156975 End Date: 10/14/2015 20:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-156975/1		10/14/2015 11:42	1	61014001.D	DB-624 0.18 (mm)
CCVIS 180-156975/2		10/14/2015 12:26	1	61014002.D	DB-624 0.18 (mm)
CCV 180-156975/3		10/14/2015 12:51	1	61014003.D	DB-624 0.18 (mm)
ZZZZZ		10/14/2015 13:15	1		DB-624 0.18 (mm)
MB 180-156975/5		10/14/2015 13:44	1	61014005.D	DB-624 0.18 (mm)
ZZZZZ		10/14/2015 14:24	1		DB-624 0.18 (mm)
ZZZZZ		10/14/2015 14:48	1		DB-624 0.18 (mm)
ZZZZZ		10/14/2015 15:37	1		DB-624 0.18 (mm)
ZZZZZ		10/14/2015 16:01	1		DB-624 0.18 (mm)
LCS 180-156975/11		10/14/2015 16:25	1	61014011.D	DB-624 0.18 (mm)
180-48399-8 DL	HD-MW-103S-0/1-0 DL	10/14/2015 17:14	5	61014013.D	DB-624 0.18 (mm)
180-48399-9	HD-MW-103D-0/1-0	10/14/2015 17:38	1	61014014.D	DB-624 0.18 (mm)
180-48399-11 DL	HD-MW-102D-0/1-0 DL	10/14/2015 18:02	10	61014015.D	DB-624 0.18 (mm)
180-48399-13	HD-QC4-0/1-4	10/14/2015 18:26	1	61014016.D	DB-624 0.18 (mm)
ZZZZZ		10/14/2015 18:51	1		DB-624 0.18 (mm)
ZZZZZ		10/14/2015 19:15	1		DB-624 0.18 (mm)
ZZZZZ		10/14/2015 19:40	1		DB-624 0.18 (mm)
ZZZZZ		10/14/2015 20:28	100		DB-624 0.18 (mm)

## GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica PittsburghJob No.: 180-48399-1

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

Instrument ID: CHHP5Start Date: 10/15/2015 12:12Analysis Batch Number: 157127End Date: 10/15/2015 23:37

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-157127/4		10/15/2015 12:12	1	51015004.D	DB-624 0.18 (mm)
CCVIS 180-157127/2		10/15/2015 12:56	1	51015002.D	DB-624 0.18 (mm)
ZZZZZ		10/15/2015 13:44	1		DB-624 0.18 (mm)
MB 180-157127/6		10/15/2015 14:08	1	51015006.D	DB-624 0.18 (mm)
ZZZZZ		10/15/2015 15:11	1		DB-624 0.18 (mm)
ZZZZZ		10/15/2015 15:35	1		DB-624 0.18 (mm)
LCS 180-157127/10		10/15/2015 15:59	1	51015010.D	DB-624 0.18 (mm)
ZZZZZ		10/15/2015 16:23	1		DB-624 0.18 (mm)
ZZZZZ		10/15/2015 16:47	1		DB-624 0.18 (mm)
ZZZZZ		10/15/2015 17:35	1		DB-624 0.18 (mm)
ZZZZZ		10/15/2015 17:59	1		DB-624 0.18 (mm)
ZZZZZ		10/15/2015 18:23	1		DB-624 0.18 (mm)
ZZZZZ		10/15/2015 19:12	25		DB-624 0.18 (mm)
ZZZZZ		10/15/2015 19:36	500		DB-624 0.18 (mm)
ZZZZZ		10/15/2015 20:25	5		DB-624 0.18 (mm)
ZZZZZ		10/15/2015 20:49	50		DB-624 0.18 (mm)
ZZZZZ		10/15/2015 21:13	1		DB-624 0.18 (mm)
ZZZZZ		10/15/2015 21:37	1		DB-624 0.18 (mm)
ZZZZZ		10/15/2015 22:01	1		DB-624 0.18 (mm)
180-48399-8	HD-MW-103S-0/1-0	10/15/2015 22:25	1	51015026.D	DB-624 0.18 (mm)
180-48399-11	HD-MW-102D-0/1-0	10/15/2015 22:49	1	51015027.D	DB-624 0.18 (mm)
180-48399-3	HD-MW-161-0/1-0	10/15/2015 23:37	1	51015029.D	DB-624 0.18 (mm)

# Shipping and Receiving Documents

Chain of Custody Record

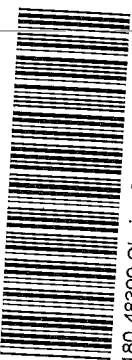
Client Contact: Groundwater Sciences Corporation  
2801 Market Place St. Suite 310  
Harrisburg, PA 17110  
(717) 901-8180 Phone  
(717) 657-1611 FAX

Project Name: 2015 Comprehensive Event  
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  
 2 weeks  
 1 week  
 5 days  
 1 day

Site Contact: Jennifer S. Reese  
Lab Contact: Carrie Gamber  
Date Submitted: 10/22/15  
Carrier: FEDEX

COGS No: 142015100201  
COGS: 100122



180-48399 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	VOCs (826C)		Other Contaminants	Notes
						Total CR 6+ (SW846 7196A)	Dissolved Cr 6+ (SW846 7196A)		
HD-TATE (S-6)-0/1-0	10/2/15	11:10	Groundwater	Water	3	X			
HD-SOFTAIL LIFT STATION-0/1-0	10/2/15	13:30	Groundwater	Water	3	X			
HD-MW-161-0/1-0	10/2/15	9:45	Groundwater	Water	3	X			
HD-MW-163-0/1-0	10/2/15	12:30	Groundwater	Water	3	X			
HD-MW-166-0/1-0	10/2/15	11:55	Groundwater	Water	3	X			
HD-MW-167-0/1-0	10/2/15	11:50	Groundwater	Water	3	X			
HD-MW-168-0/1-0	10/2/15	11:20	Groundwater	Water	3	X			
HD-MW-103S-0/1-0	10/2/15	12:02	Groundwater	Water	3	X			
HD-MW-103D-0/1-0	10/2/15	9:52	Groundwater	Water	3	X			
HD-MW-102S-0/1-0	10/2/15	14:50	Groundwater	Water	3	X			
HD-MW-102D-0/1-0	10/2/15	14:42	Groundwater	Water	3	X			
HD-QC4-0/1-3	10/2/15	13:30	Rinse Blank	Water	3	X			
HD-QC4-0/1-4	10/2/15	13:35	Field Blank	Water	3	X			
HD-QC14-0/1-2	10/2/15	12:00	Trip Blank	Water	2	X			

Number of Containers: 5  
 HNO3 5 NoOB 6 Unpreserved Zinc Acetate 5  
 H2O 100 3 H2SO4 1 HNO3 5  
 Possible Hazard Identification:  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

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

Special Instructions/QC Requirements & Comments: CLP Like Deliverables

Relinquished by (Print and Sign): *W. J. [Signature]* Company: GSC  
 Date/Time: 15/10/15

Relinquished by: *Spencer [Signature]* Company: THKCP  
 Date/Time: 10/2/15 17:18

Relinquished by: *[Signature]* Company: [Blank]  
 Date/Time: [Blank]

Received by: *[Signature]* Company: THKCP  
 Date/Time: 10-2-15 15:45

Received by: *[Signature]* Company: THKCP  
 Date/Time: 10-3-15

Received by: *[Signature]* Company: [Blank]  
 Date/Time: 9:00



180-48399 Waybill

ORIGIN ID: KPDA (610) 337-9992  
SAMPLE RECEIPT  
TEST AMERICA  
1008 WEST 9TH AVE  
KING OF PRUSSIA, PA 19406  
UNITED STATES US

SHIP DATE: 020CT15  
ACTWGT: 42.00 LB  
CAD: 8490299/INET3670

BILL RECIPIENT

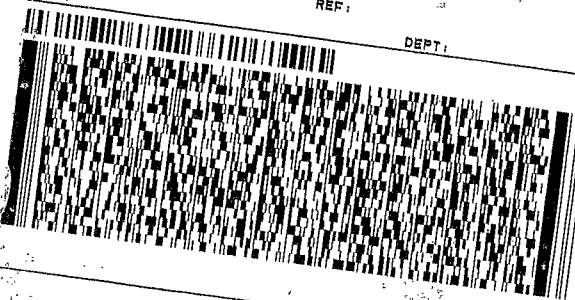
TO SAMPLE RECEIPT  
TEST AMERICA - PITTSBURGH  
301 ALPHA DR

PITTSBURGH PA 15238

(412) 963-7058  
INV:  
PO:

REF:

DEPT:



FedEx  
Express



J153815891001LV

TRK# 7746 5709 9414  
0201

SATURDAY 12:00P  
PRIORITY OVERNIGHT

X0 AGCA

15238  
PA-US PIT

Uncorrected temp  
Thermometer ID

CF Q Initials DW

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

84 °C  
7





# Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-48399-1

**Login Number: 48399**  
**List Number: 1**  
**Creator: Watson, Debbie**

**List Source: TestAmerica Pittsburgh**

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