

## ANALYTICAL REPORT

Job Number: 180-47781-1

Job Description: Harley Davidson

For:

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

Attention: Allan Miller



Approved for release.  
Julie M Unger  
Project Management Assistant I  
11/20/2015 3:29 PM

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11/20/2015  
Revision: 1

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# Definitions/Glossary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
^c	CCV Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
E	Result exceeded calibration range.
F1	MS and/or MSD Recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

## Glossary

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



## CASE NARRATIVE

**Client: Groundwater Sciences Corporation**

**Project: Harley Davidson**

**Report Number: 180-47781-1 REVISED**

**NOTE: This report has been revised to update the report formatting.**

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 09/16/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.3 C.

### **VOLATILES**

The following sample was diluted to bring the concentration of target analytes within the calibration range: HD-MW-136A-459.5/460-0 (180-47781-16). Elevated reporting limits (RLs) are provided.

cis-1,2-Dichloroethene, Tetrachloroethene and Trichloroethene failed the recovery criteria low for the MS/MSD of sample HD-COD-SW-17-0/1-0 (180-47781-9) in batch 180-154121. The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

# Detection Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

## Client Sample ID: HD-COD-SW-6-0/1-0

Lab Sample ID: 180-47781-1

No Detections.

## Client Sample ID: HD-COD-SW-7-0/1-0

Lab Sample ID: 180-47781-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	2.8	J ^c	5.0	2.5	ug/L	1			8260C	Total/NA
Trichloroethene	0.16	J	1.0	0.14	ug/L	1			8260C	Total/NA

## Client Sample ID: HD-COD-SW-8-0/1-0

Lab Sample ID: 180-47781-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Trichloroethene	0.24	J	1.0	0.14	ug/L	1			8260C	Total/NA
Tetrachloroethene	0.23	J	1.0	0.15	ug/L	1			8260C	Total/NA

## Client Sample ID: HD-COD-SW-9-0/1-0

Lab Sample ID: 180-47781-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	2.7	J ^c	5.0	2.5	ug/L	1			8260C	Total/NA
cis-1,2-Dichloroethene	0.53	J	1.0	0.24	ug/L	1			8260C	Total/NA
Chloroform	0.17	J	1.0	0.17	ug/L	1			8260C	Total/NA
Trichloroethene	0.53	J	1.0	0.14	ug/L	1			8260C	Total/NA
Tetrachloroethene	0.29	J	1.0	0.15	ug/L	1			8260C	Total/NA

## Client Sample ID: HD-COD-SW-12-0/1-0

Lab Sample ID: 180-47781-5

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

## Client Sample ID: HD-COD-SW-13-0/1-0

Lab Sample ID: 180-47781-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.35	J	1.0	0.24	ug/L	1			8260C	Total/NA
Trichloroethene	0.57	J	1.0	0.14	ug/L	1			8260C	Total/NA
Tetrachloroethene	0.37	J	1.0	0.15	ug/L	1			8260C	Total/NA

## Client Sample ID: HD-COD-SW-15-0/1-0

Lab Sample ID: 180-47781-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,1-Dichloroethene	0.77	J	1.0	0.30	ug/L	1			8260C	Total/NA
1,1-Dichloroethane	0.26	J	1.0	0.12	ug/L	1			8260C	Total/NA
cis-1,2-Dichloroethene	15		1.0	0.24	ug/L	1			8260C	Total/NA
Chloroform	0.21	J	1.0	0.17	ug/L	1			8260C	Total/NA
1,1,1-Trichloroethane	0.57	J	1.0	0.29	ug/L	1			8260C	Total/NA
Trichloroethene	17		1.0	0.14	ug/L	1			8260C	Total/NA
Tetrachloroethene	9.2		1.0	0.15	ug/L	1			8260C	Total/NA

## Client Sample ID: HD-COD-SW-16-0/1-0

Lab Sample ID: 180-47781-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Trichloroethene	0.37	J	1.0	0.14	ug/L	1			8260C	Total/NA
Tetrachloroethene	0.40	J	1.0	0.15	ug/L	1			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: 180-47781-1

## Client Sample ID: HD-COD-SW-17-0/1-0

## Lab Sample ID: 180-47781-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.84	J	1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.67	J	1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	15	F1	1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform	0.20	J	1.0	0.17	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	2.8		1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	16	F1	1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	42		1.0	0.15	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-COD-SW-26-0/1-0

## Lab Sample ID: 180-47781-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.28	J	1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform	1.0		1.0	0.17	ug/L	1		8260C	Total/NA
Trichloroethene	0.44	J	1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	4.8		1.0	0.15	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-COD-SW-27-0/1-0

## Lab Sample ID: 180-47781-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.3	J	5.0	2.5	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	0.85	J	1.0	0.24	ug/L	1		8260C	Total/NA
Trichloroethene	1.1		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.48	J	1.0	0.15	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-COD-SW-28-0/1-0

## Lab Sample ID: 180-47781-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.3	J	5.0	2.5	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	0.61	J	1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform	0.19	J	1.0	0.17	ug/L	1		8260C	Total/NA
Trichloroethene	0.83	J	1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.33	J	1.0	0.15	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-COD-SW-29-0/1-0

## Lab Sample ID: 180-47781-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.22	J	1.0	0.14	ug/L	1		8260C	Total/NA

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

## Lab Sample ID: 180-47781-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.65	J	1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.25	J	1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	15		1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform	0.23	J	1.0	0.17	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	0.59	J	1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	17		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	8.9		1.0	0.15	ug/L	1		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: 180-47781-1

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

**Lab Sample ID: 180-47781-15**

No Detections.

**Client Sample ID: HD-MW-136A-459.5/460-0**

**Lab Sample ID: 180-47781-16**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	11		10	2.3	ug/L	10		8260C	Total/NA
1,1-Dichloroethene	4.0	J	10	3.0	ug/L	10		8260C	Total/NA
Acetone	42	J ^c	50	25	ug/L	10		8260C	Total/NA
trans-1,2-Dichloroethene	4.4	J	10	1.7	ug/L	10		8260C	Total/NA
1,1-Dichloroethane	3.2	J	10	1.2	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	2500	E	10	2.4	ug/L	10		8260C	Total/NA
2-Butanone (MEK)	180	^c	50	5.5	ug/L	10		8260C	Total/NA
Trichloroethene	140		10	1.4	ug/L	10		8260C	Total/NA
Tetrachloroethene	2.1	J	10	1.5	ug/L	10		8260C	Total/NA
Acrylonitrile	850		200	5.5	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene - DL	2400		100	24	ug/L	100		8260C	Total/NA
Trichloroethene - DL	210		100	14	ug/L	100		8260C	Total/NA
Toluene - DL	37	J	100	15	ug/L	100		8260C	Total/NA
Acrylonitrile - DL	740	J	2000	55	ug/L	100		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Client Sample ID: HD-COD-SW-6-0/1-0**

**Date Collected: 09/15/15 10:40**

**Date Received: 09/16/15 09:15**

**Lab Sample ID: 180-47781-1**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U ^c	1.0	0.28	ug/L			09/22/15 15:03	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			09/22/15 15:03	1
Bromomethane	1.0	U	1.0	0.31	ug/L			09/22/15 15:03	1
Chloroethane	1.0	U	1.0	0.21	ug/L			09/22/15 15:03	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/22/15 15:03	1
Acetone	5.0	U ^c	5.0	2.5	ug/L			09/22/15 15:03	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			09/22/15 15:03	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			09/22/15 15:03	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			09/22/15 15:03	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			09/22/15 15:03	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			09/22/15 15:03	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			09/22/15 15:03	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			09/22/15 15:03	1
2-Butanone (MEK)	5.0	U ^c	5.0	0.55	ug/L			09/22/15 15:03	1
Chloroform	1.0	U	1.0	0.17	ug/L			09/22/15 15:03	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			09/22/15 15:03	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			09/22/15 15:03	1
Benzene	1.0	U	1.0	0.11	ug/L			09/22/15 15:03	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			09/22/15 15:03	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			09/22/15 15:03	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			09/22/15 15:03	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			09/22/15 15:03	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			09/22/15 15:03	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			09/22/15 15:03	1
Toluene	1.0	U	1.0	0.15	ug/L			09/22/15 15:03	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			09/22/15 15:03	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			09/22/15 15:03	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			09/22/15 15:03	1
2-Hexanone	5.0	U ^c	5.0	0.16	ug/L			09/22/15 15:03	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			09/22/15 15:03	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			09/22/15 15:03	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			09/22/15 15:03	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			09/22/15 15:03	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			09/22/15 15:03	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			09/22/15 15:03	1
Styrene	1.0	U	1.0	0.097	ug/L			09/22/15 15:03	1
Bromoform	1.0	U	1.0	0.19	ug/L			09/22/15 15:03	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			09/22/15 15:03	1
Acrylonitrile	20	U	20	0.55	ug/L			09/22/15 15:03	1
1,4-Dioxane	200	U ^c	200	34	ug/L			09/22/15 15:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		64 - 135		09/22/15 15:03	1
Toluene-d8 (Surr)	97		71 - 118		09/22/15 15:03	1
4-Bromofluorobenzene (Surr)	94		70 - 118		09/22/15 15:03	1
Dibromofluoromethane (Surr)	102		70 - 128		09/22/15 15:03	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Client Sample ID: HD-COD-SW-7-0/1-0**

**Date Collected: 09/15/15 11:20**

**Date Received: 09/16/15 09:15**

**Lab Sample ID: 180-47781-2**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U ^c	1.0	0.28	ug/L			09/22/15 17:28	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			09/22/15 17:28	1
Bromomethane	1.0	U	1.0	0.31	ug/L			09/22/15 17:28	1
Chloroethane	1.0	U	1.0	0.21	ug/L			09/22/15 17:28	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/22/15 17:28	1
<b>Acetone</b>	<b>2.8</b>	<b>J ^c</b>	5.0	2.5	ug/L			09/22/15 17:28	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			09/22/15 17:28	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			09/22/15 17:28	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			09/22/15 17:28	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			09/22/15 17:28	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			09/22/15 17:28	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			09/22/15 17:28	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			09/22/15 17:28	1
2-Butanone (MEK)	5.0	U ^c	5.0	0.55	ug/L			09/22/15 17:28	1
Chloroform	1.0	U	1.0	0.17	ug/L			09/22/15 17:28	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			09/22/15 17:28	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			09/22/15 17:28	1
Benzene	1.0	U	1.0	0.11	ug/L			09/22/15 17:28	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			09/22/15 17:28	1
<b>Trichloroethene</b>	<b>0.16</b>	<b>J</b>	1.0	0.14	ug/L			09/22/15 17:28	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			09/22/15 17:28	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			09/22/15 17:28	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			09/22/15 17:28	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			09/22/15 17:28	1
Toluene	1.0	U	1.0	0.15	ug/L			09/22/15 17:28	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			09/22/15 17:28	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			09/22/15 17:28	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			09/22/15 17:28	1
2-Hexanone	5.0	U ^c	5.0	0.16	ug/L			09/22/15 17:28	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			09/22/15 17:28	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			09/22/15 17:28	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			09/22/15 17:28	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			09/22/15 17:28	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			09/22/15 17:28	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			09/22/15 17:28	1
Styrene	1.0	U	1.0	0.097	ug/L			09/22/15 17:28	1
Bromoform	1.0	U	1.0	0.19	ug/L			09/22/15 17:28	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			09/22/15 17:28	1
Acrylonitrile	20	U	20	0.55	ug/L			09/22/15 17:28	1
1,4-Dioxane	200	U ^c	200	34	ug/L			09/22/15 17:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		64 - 135		09/22/15 17:28	1
Toluene-d8 (Surr)	97		71 - 118		09/22/15 17:28	1
4-Bromofluorobenzene (Surr)	98		70 - 118		09/22/15 17:28	1
Dibromofluoromethane (Surr)	100		70 - 128		09/22/15 17:28	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Client Sample ID: HD-COD-SW-8-0/1-0**

**Date Collected: 09/15/15 09:23**

**Date Received: 09/16/15 09:15**

**Lab Sample ID: 180-47781-3**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U ^c	1.0	0.28	ug/L			09/22/15 17:52	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			09/22/15 17:52	1
Bromomethane	1.0	U	1.0	0.31	ug/L			09/22/15 17:52	1
Chloroethane	1.0	U	1.0	0.21	ug/L			09/22/15 17:52	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/22/15 17:52	1
Acetone	5.0	U ^c	5.0	2.5	ug/L			09/22/15 17:52	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			09/22/15 17:52	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			09/22/15 17:52	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			09/22/15 17:52	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			09/22/15 17:52	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			09/22/15 17:52	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			09/22/15 17:52	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			09/22/15 17:52	1
2-Butanone (MEK)	5.0	U ^c	5.0	0.55	ug/L			09/22/15 17:52	1
Chloroform	1.0	U	1.0	0.17	ug/L			09/22/15 17:52	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			09/22/15 17:52	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			09/22/15 17:52	1
Benzene	1.0	U	1.0	0.11	ug/L			09/22/15 17:52	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			09/22/15 17:52	1
<b>Trichloroethene</b>	<b>0.24</b>	<b>J</b>	1.0	0.14	ug/L			09/22/15 17:52	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			09/22/15 17:52	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			09/22/15 17:52	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			09/22/15 17:52	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			09/22/15 17:52	1
Toluene	1.0	U	1.0	0.15	ug/L			09/22/15 17:52	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			09/22/15 17:52	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			09/22/15 17:52	1
<b>Tetrachloroethene</b>	<b>0.23</b>	<b>J</b>	1.0	0.15	ug/L			09/22/15 17:52	1
2-Hexanone	5.0	U ^c	5.0	0.16	ug/L			09/22/15 17:52	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			09/22/15 17:52	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			09/22/15 17:52	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			09/22/15 17:52	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			09/22/15 17:52	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			09/22/15 17:52	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			09/22/15 17:52	1
Styrene	1.0	U	1.0	0.097	ug/L			09/22/15 17:52	1
Bromoform	1.0	U	1.0	0.19	ug/L			09/22/15 17:52	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			09/22/15 17:52	1
Acrylonitrile	20	U	20	0.55	ug/L			09/22/15 17:52	1
1,4-Dioxane	200	U ^c	200	34	ug/L			09/22/15 17:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		64 - 135		09/22/15 17:52	1
Toluene-d8 (Surr)	96		71 - 118		09/22/15 17:52	1
4-Bromofluorobenzene (Surr)	93		70 - 118		09/22/15 17:52	1
Dibromofluoromethane (Surr)	105		70 - 128		09/22/15 17:52	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Client Sample ID: HD-COD-SW-9-0/1-0**

**Date Collected: 09/15/15 12:15**

**Date Received: 09/16/15 09:15**

**Lab Sample ID: 180-47781-4**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U ^c	1.0	0.28	ug/L			09/22/15 18:16	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			09/22/15 18:16	1
Bromomethane	1.0	U	1.0	0.31	ug/L			09/22/15 18:16	1
Chloroethane	1.0	U	1.0	0.21	ug/L			09/22/15 18:16	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/22/15 18:16	1
<b>Acetone</b>	<b>2.7</b>	<b>J ^c</b>	5.0	2.5	ug/L			09/22/15 18:16	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			09/22/15 18:16	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			09/22/15 18:16	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			09/22/15 18:16	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			09/22/15 18:16	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			09/22/15 18:16	1
<b>cis-1,2-Dichloroethene</b>	<b>0.53</b>	<b>J</b>	1.0	0.24	ug/L			09/22/15 18:16	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			09/22/15 18:16	1
2-Butanone (MEK)	5.0	U ^c	5.0	0.55	ug/L			09/22/15 18:16	1
<b>Chloroform</b>	<b>0.17</b>	<b>J</b>	1.0	0.17	ug/L			09/22/15 18:16	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			09/22/15 18:16	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			09/22/15 18:16	1
Benzene	1.0	U	1.0	0.11	ug/L			09/22/15 18:16	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			09/22/15 18:16	1
<b>Trichloroethene</b>	<b>0.53</b>	<b>J</b>	1.0	0.14	ug/L			09/22/15 18:16	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			09/22/15 18:16	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			09/22/15 18:16	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			09/22/15 18:16	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			09/22/15 18:16	1
Toluene	1.0	U	1.0	0.15	ug/L			09/22/15 18:16	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			09/22/15 18:16	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			09/22/15 18:16	1
<b>Tetrachloroethene</b>	<b>0.29</b>	<b>J</b>	1.0	0.15	ug/L			09/22/15 18:16	1
2-Hexanone	5.0	U ^c	5.0	0.16	ug/L			09/22/15 18:16	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			09/22/15 18:16	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			09/22/15 18:16	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			09/22/15 18:16	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			09/22/15 18:16	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			09/22/15 18:16	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			09/22/15 18:16	1
Styrene	1.0	U	1.0	0.097	ug/L			09/22/15 18:16	1
Bromoform	1.0	U	1.0	0.19	ug/L			09/22/15 18:16	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			09/22/15 18:16	1
Acrylonitrile	20	U	20	0.55	ug/L			09/22/15 18:16	1
1,4-Dioxane	200	U ^c	200	34	ug/L			09/22/15 18:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		64 - 135		09/22/15 18:16	1
Toluene-d8 (Surr)	96		71 - 118		09/22/15 18:16	1
4-Bromofluorobenzene (Surr)	91		70 - 118		09/22/15 18:16	1
Dibromofluoromethane (Surr)	102		70 - 128		09/22/15 18:16	1



# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Client Sample ID: HD-COD-SW-12-0/1-0**

**Date Collected: 09/15/15 12:55**

**Date Received: 09/16/15 09:15**

**Lab Sample ID: 180-47781-5**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			09/23/15 12:53	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			09/23/15 12:53	1
Bromomethane	1.0	U	1.0	0.31	ug/L			09/23/15 12:53	1
Chloroethane	1.0	U	1.0	0.21	ug/L			09/23/15 12:53	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/23/15 12:53	1
Acetone	5.0	U	5.0	2.5	ug/L			09/23/15 12:53	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			09/23/15 12:53	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			09/23/15 12:53	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			09/23/15 12:53	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			09/23/15 12:53	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			09/23/15 12:53	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			09/23/15 12:53	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			09/23/15 12:53	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			09/23/15 12:53	1
<b>Chloroform</b>	<b>0.20</b>	<b>J</b>	1.0	0.17	ug/L			09/23/15 12:53	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			09/23/15 12:53	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			09/23/15 12:53	1
Benzene	1.0	U	1.0	0.11	ug/L			09/23/15 12:53	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			09/23/15 12:53	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			09/23/15 12:53	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			09/23/15 12:53	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			09/23/15 12:53	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			09/23/15 12:53	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			09/23/15 12:53	1
Toluene	1.0	U	1.0	0.15	ug/L			09/23/15 12:53	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			09/23/15 12:53	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			09/23/15 12:53	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			09/23/15 12:53	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			09/23/15 12:53	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			09/23/15 12:53	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			09/23/15 12:53	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			09/23/15 12:53	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			09/23/15 12:53	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			09/23/15 12:53	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			09/23/15 12:53	1
Styrene	1.0	U	1.0	0.097	ug/L			09/23/15 12:53	1
Bromoform	1.0	U	1.0	0.19	ug/L			09/23/15 12:53	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			09/23/15 12:53	1
Acrylonitrile	20	U	20	0.55	ug/L			09/23/15 12:53	1
1,4-Dioxane	200	U	200	34	ug/L			09/23/15 12:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		64 - 135		09/23/15 12:53	1
Toluene-d8 (Surr)	99		71 - 118		09/23/15 12:53	1
4-Bromofluorobenzene (Surr)	84		70 - 118		09/23/15 12:53	1
Dibromofluoromethane (Surr)	111		70 - 128		09/23/15 12:53	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Client Sample ID: HD-COD-SW-13-0/1-0**

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

**Date Received: 09/16/15 09:15**

**Lab Sample ID: 180-47781-6**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			09/23/15 16:31	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			09/23/15 16:31	1
Bromomethane	1.0	U	1.0	0.31	ug/L			09/23/15 16:31	1
Chloroethane	1.0	U	1.0	0.21	ug/L			09/23/15 16:31	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/23/15 16:31	1
Acetone	5.0	U	5.0	2.5	ug/L			09/23/15 16:31	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			09/23/15 16:31	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			09/23/15 16:31	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			09/23/15 16:31	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			09/23/15 16:31	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			09/23/15 16:31	1
<b>cis-1,2-Dichloroethene</b>	<b>0.35</b>	<b>J</b>	1.0	0.24	ug/L			09/23/15 16:31	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			09/23/15 16:31	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			09/23/15 16:31	1
Chloroform	1.0	U	1.0	0.17	ug/L			09/23/15 16:31	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			09/23/15 16:31	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			09/23/15 16:31	1
Benzene	1.0	U	1.0	0.11	ug/L			09/23/15 16:31	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			09/23/15 16:31	1
<b>Trichloroethene</b>	<b>0.57</b>	<b>J</b>	1.0	0.14	ug/L			09/23/15 16:31	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			09/23/15 16:31	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			09/23/15 16:31	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			09/23/15 16:31	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			09/23/15 16:31	1
Toluene	1.0	U	1.0	0.15	ug/L			09/23/15 16:31	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			09/23/15 16:31	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			09/23/15 16:31	1
<b>Tetrachloroethene</b>	<b>0.37</b>	<b>J</b>	1.0	0.15	ug/L			09/23/15 16:31	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			09/23/15 16:31	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			09/23/15 16:31	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			09/23/15 16:31	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			09/23/15 16:31	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			09/23/15 16:31	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			09/23/15 16:31	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			09/23/15 16:31	1
Styrene	1.0	U	1.0	0.097	ug/L			09/23/15 16:31	1
Bromoform	1.0	U	1.0	0.19	ug/L			09/23/15 16:31	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			09/23/15 16:31	1
Acrylonitrile	20	U	20	0.55	ug/L			09/23/15 16:31	1
1,4-Dioxane	200	U	200	34	ug/L			09/23/15 16:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		64 - 135		09/23/15 16:31	1
Toluene-d8 (Surr)	101		71 - 118		09/23/15 16:31	1
4-Bromofluorobenzene (Surr)	88		70 - 118		09/23/15 16:31	1
Dibromofluoromethane (Surr)	110		70 - 128		09/23/15 16:31	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Client Sample ID: HD-COD-SW-15-0/1-0**

**Date Collected: 09/15/15 13:10**

**Date Received: 09/16/15 09:15**

**Lab Sample ID: 180-47781-7**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			09/23/15 16:56	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			09/23/15 16:56	1
Bromomethane	1.0	U	1.0	0.31	ug/L			09/23/15 16:56	1
Chloroethane	1.0	U	1.0	0.21	ug/L			09/23/15 16:56	1
<b>1,1-Dichloroethene</b>	<b>0.77</b>	<b>J</b>	1.0	0.30	ug/L			09/23/15 16:56	1
Acetone	5.0	U	5.0	2.5	ug/L			09/23/15 16:56	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			09/23/15 16:56	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			09/23/15 16:56	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			09/23/15 16:56	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			09/23/15 16:56	1
<b>1,1-Dichloroethane</b>	<b>0.26</b>	<b>J</b>	1.0	0.12	ug/L			09/23/15 16:56	1
<b>cis-1,2-Dichloroethene</b>	<b>15</b>		1.0	0.24	ug/L			09/23/15 16:56	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			09/23/15 16:56	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			09/23/15 16:56	1
<b>Chloroform</b>	<b>0.21</b>	<b>J</b>	1.0	0.17	ug/L			09/23/15 16:56	1
<b>1,1,1-Trichloroethane</b>	<b>0.57</b>	<b>J</b>	1.0	0.29	ug/L			09/23/15 16:56	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			09/23/15 16:56	1
Benzene	1.0	U	1.0	0.11	ug/L			09/23/15 16:56	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			09/23/15 16:56	1
<b>Trichloroethene</b>	<b>17</b>		1.0	0.14	ug/L			09/23/15 16:56	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			09/23/15 16:56	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			09/23/15 16:56	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			09/23/15 16:56	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			09/23/15 16:56	1
Toluene	1.0	U	1.0	0.15	ug/L			09/23/15 16:56	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			09/23/15 16:56	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			09/23/15 16:56	1
<b>Tetrachloroethene</b>	<b>9.2</b>		1.0	0.15	ug/L			09/23/15 16:56	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			09/23/15 16:56	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			09/23/15 16:56	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			09/23/15 16:56	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			09/23/15 16:56	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			09/23/15 16:56	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			09/23/15 16:56	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			09/23/15 16:56	1
Styrene	1.0	U	1.0	0.097	ug/L			09/23/15 16:56	1
Bromoform	1.0	U	1.0	0.19	ug/L			09/23/15 16:56	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			09/23/15 16:56	1
Acrylonitrile	20	U	20	0.55	ug/L			09/23/15 16:56	1
1,4-Dioxane	200	U	200	34	ug/L			09/23/15 16:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		64 - 135		09/23/15 16:56	1
Toluene-d8 (Surr)	102		71 - 118		09/23/15 16:56	1
4-Bromofluorobenzene (Surr)	89		70 - 118		09/23/15 16:56	1
Dibromofluoromethane (Surr)	112		70 - 128		09/23/15 16:56	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Client Sample ID: HD-COD-SW-16-0/1-0**

**Lab Sample ID: 180-47781-8**

**Date Collected: 09/15/15 10:05**

**Matrix: Water**

**Date Received: 09/16/15 09:15**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			09/23/15 17:20	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			09/23/15 17:20	1
Bromomethane	1.0	U	1.0	0.31	ug/L			09/23/15 17:20	1
Chloroethane	1.0	U	1.0	0.21	ug/L			09/23/15 17:20	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/23/15 17:20	1
Acetone	5.0	U	5.0	2.5	ug/L			09/23/15 17:20	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			09/23/15 17:20	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			09/23/15 17:20	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			09/23/15 17:20	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			09/23/15 17:20	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			09/23/15 17:20	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			09/23/15 17:20	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			09/23/15 17:20	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			09/23/15 17:20	1
Chloroform	1.0	U	1.0	0.17	ug/L			09/23/15 17:20	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			09/23/15 17:20	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			09/23/15 17:20	1
Benzene	1.0	U	1.0	0.11	ug/L			09/23/15 17:20	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			09/23/15 17:20	1
<b>Trichloroethene</b>	<b>0.37</b>	<b>J</b>	1.0	0.14	ug/L			09/23/15 17:20	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			09/23/15 17:20	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			09/23/15 17:20	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			09/23/15 17:20	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			09/23/15 17:20	1
Toluene	1.0	U	1.0	0.15	ug/L			09/23/15 17:20	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			09/23/15 17:20	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			09/23/15 17:20	1
<b>Tetrachloroethene</b>	<b>0.40</b>	<b>J</b>	1.0	0.15	ug/L			09/23/15 17:20	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			09/23/15 17:20	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			09/23/15 17:20	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			09/23/15 17:20	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			09/23/15 17:20	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			09/23/15 17:20	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			09/23/15 17:20	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			09/23/15 17:20	1
Styrene	1.0	U	1.0	0.097	ug/L			09/23/15 17:20	1
Bromoform	1.0	U	1.0	0.19	ug/L			09/23/15 17:20	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			09/23/15 17:20	1
Acrylonitrile	20	U	20	0.55	ug/L			09/23/15 17:20	1
1,4-Dioxane	200	U	200	34	ug/L			09/23/15 17:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		64 - 135		09/23/15 17:20	1
Toluene-d8 (Surr)	99		71 - 118		09/23/15 17:20	1
4-Bromofluorobenzene (Surr)	86		70 - 118		09/23/15 17:20	1
Dibromofluoromethane (Surr)	114		70 - 128		09/23/15 17:20	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Client Sample ID: HD-COD-SW-17-0/1-0**

**Date Collected: 09/15/15 10:20**

**Date Received: 09/16/15 09:15**

**Lab Sample ID: 180-47781-9**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			09/18/15 14:16	1
Vinyl chloride	1.0	U ^c	1.0	0.23	ug/L			09/18/15 14:16	1
Bromomethane	1.0	U ^c	1.0	0.31	ug/L			09/18/15 14:16	1
Chloroethane	1.0	U ^c	1.0	0.21	ug/L			09/18/15 14:16	1
<b>1,1-Dichloroethene</b>	<b>0.84</b>	<b>J</b>	1.0	0.30	ug/L			09/18/15 14:16	1
Acetone	5.0	U	5.0	2.5	ug/L			09/18/15 14:16	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			09/18/15 14:16	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			09/18/15 14:16	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			09/18/15 14:16	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			09/18/15 14:16	1
<b>1,1-Dichloroethane</b>	<b>0.67</b>	<b>J</b>	1.0	0.12	ug/L			09/18/15 14:16	1
<b>cis-1,2-Dichloroethene</b>	<b>15</b>	<b>F1</b>	1.0	0.24	ug/L			09/18/15 14:16	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			09/18/15 14:16	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			09/18/15 14:16	1
<b>Chloroform</b>	<b>0.20</b>	<b>J</b>	1.0	0.17	ug/L			09/18/15 14:16	1
<b>1,1,1-Trichloroethane</b>	<b>2.8</b>		1.0	0.29	ug/L			09/18/15 14:16	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			09/18/15 14:16	1
Benzene	1.0	U	1.0	0.11	ug/L			09/18/15 14:16	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			09/18/15 14:16	1
<b>Trichloroethene</b>	<b>16</b>	<b>F1</b>	1.0	0.14	ug/L			09/18/15 14:16	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			09/18/15 14:16	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			09/18/15 14:16	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			09/18/15 14:16	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			09/18/15 14:16	1
Toluene	1.0	U	1.0	0.15	ug/L			09/18/15 14:16	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			09/18/15 14:16	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			09/18/15 14:16	1
<b>Tetrachloroethene</b>	<b>42</b>		1.0	0.15	ug/L			09/18/15 14:16	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			09/18/15 14:16	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			09/18/15 14:16	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			09/18/15 14:16	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			09/18/15 14:16	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			09/18/15 14:16	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			09/18/15 14:16	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			09/18/15 14:16	1
Styrene	1.0	U	1.0	0.097	ug/L			09/18/15 14:16	1
Bromoform	1.0	U	1.0	0.19	ug/L			09/18/15 14:16	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			09/18/15 14:16	1
Acrylonitrile	20	U	20	0.55	ug/L			09/18/15 14:16	1
1,4-Dioxane	200	U	200	34	ug/L			09/18/15 14:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		64 - 135		09/18/15 14:16	1
Toluene-d8 (Surr)	100		71 - 118		09/18/15 14:16	1
4-Bromofluorobenzene (Surr)	96		70 - 118		09/18/15 14:16	1
Dibromofluoromethane (Surr)	113		70 - 128		09/18/15 14:16	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Client Sample ID: HD-COD-SW-26-0/1-0**

**Date Collected: 09/15/15 11:00**

**Date Received: 09/16/15 09:15**

**Lab Sample ID: 180-47781-10**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			09/23/15 17:45	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			09/23/15 17:45	1
Bromomethane	1.0	U	1.0	0.31	ug/L			09/23/15 17:45	1
Chloroethane	1.0	U	1.0	0.21	ug/L			09/23/15 17:45	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/23/15 17:45	1
Acetone	5.0	U	5.0	2.5	ug/L			09/23/15 17:45	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			09/23/15 17:45	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			09/23/15 17:45	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			09/23/15 17:45	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			09/23/15 17:45	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			09/23/15 17:45	1
<b>cis-1,2-Dichloroethene</b>	<b>0.28</b>	<b>J</b>	1.0	0.24	ug/L			09/23/15 17:45	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			09/23/15 17:45	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			09/23/15 17:45	1
<b>Chloroform</b>	<b>1.0</b>		1.0	0.17	ug/L			09/23/15 17:45	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			09/23/15 17:45	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			09/23/15 17:45	1
Benzene	1.0	U	1.0	0.11	ug/L			09/23/15 17:45	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			09/23/15 17:45	1
<b>Trichloroethene</b>	<b>0.44</b>	<b>J</b>	1.0	0.14	ug/L			09/23/15 17:45	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			09/23/15 17:45	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			09/23/15 17:45	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			09/23/15 17:45	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			09/23/15 17:45	1
Toluene	1.0	U	1.0	0.15	ug/L			09/23/15 17:45	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			09/23/15 17:45	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			09/23/15 17:45	1
<b>Tetrachloroethene</b>	<b>4.8</b>		1.0	0.15	ug/L			09/23/15 17:45	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			09/23/15 17:45	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			09/23/15 17:45	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			09/23/15 17:45	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			09/23/15 17:45	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			09/23/15 17:45	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			09/23/15 17:45	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			09/23/15 17:45	1
Styrene	1.0	U	1.0	0.097	ug/L			09/23/15 17:45	1
Bromoform	1.0	U	1.0	0.19	ug/L			09/23/15 17:45	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			09/23/15 17:45	1
Acrylonitrile	20	U	20	0.55	ug/L			09/23/15 17:45	1
1,4-Dioxane	200	U	200	34	ug/L			09/23/15 17:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		64 - 135		09/23/15 17:45	1
Toluene-d8 (Surr)	101		71 - 118		09/23/15 17:45	1
4-Bromofluorobenzene (Surr)	90		70 - 118		09/23/15 17:45	1
Dibromofluoromethane (Surr)	115		70 - 128		09/23/15 17:45	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Client Sample ID: HD-COD-SW-27-0/1-0**

**Date Collected: 09/15/15 13:20**

**Date Received: 09/16/15 09:15**

**Lab Sample ID: 180-47781-11**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			09/23/15 18:09	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			09/23/15 18:09	1
Bromomethane	1.0	U	1.0	0.31	ug/L			09/23/15 18:09	1
Chloroethane	1.0	U	1.0	0.21	ug/L			09/23/15 18:09	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/23/15 18:09	1
<b>Acetone</b>	<b>4.3</b>	<b>J</b>	5.0	2.5	ug/L			09/23/15 18:09	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			09/23/15 18:09	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			09/23/15 18:09	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			09/23/15 18:09	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			09/23/15 18:09	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			09/23/15 18:09	1
<b>cis-1,2-Dichloroethene</b>	<b>0.85</b>	<b>J</b>	1.0	0.24	ug/L			09/23/15 18:09	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			09/23/15 18:09	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			09/23/15 18:09	1
Chloroform	1.0	U	1.0	0.17	ug/L			09/23/15 18:09	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			09/23/15 18:09	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			09/23/15 18:09	1
Benzene	1.0	U	1.0	0.11	ug/L			09/23/15 18:09	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			09/23/15 18:09	1
<b>Trichloroethene</b>	<b>1.1</b>		1.0	0.14	ug/L			09/23/15 18:09	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			09/23/15 18:09	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			09/23/15 18:09	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			09/23/15 18:09	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			09/23/15 18:09	1
Toluene	1.0	U	1.0	0.15	ug/L			09/23/15 18:09	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			09/23/15 18:09	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			09/23/15 18:09	1
<b>Tetrachloroethene</b>	<b>0.48</b>	<b>J</b>	1.0	0.15	ug/L			09/23/15 18:09	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			09/23/15 18:09	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			09/23/15 18:09	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			09/23/15 18:09	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			09/23/15 18:09	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			09/23/15 18:09	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			09/23/15 18:09	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			09/23/15 18:09	1
Styrene	1.0	U	1.0	0.097	ug/L			09/23/15 18:09	1
Bromoform	1.0	U	1.0	0.19	ug/L			09/23/15 18:09	1
1,1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			09/23/15 18:09	1
Acrylonitrile	20	U	20	0.55	ug/L			09/23/15 18:09	1
1,4-Dioxane	200	U	200	34	ug/L			09/23/15 18:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		64 - 135		09/23/15 18:09	1
Toluene-d8 (Surr)	97		71 - 118		09/23/15 18:09	1
4-Bromofluorobenzene (Surr)	83		70 - 118		09/23/15 18:09	1
Dibromofluoromethane (Surr)	112		70 - 128		09/23/15 18:09	1



# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Client Sample ID: HD-COD-SW-28-0/1-0**

**Date Collected: 09/15/15 12:40**

**Date Received: 09/16/15 09:15**

**Lab Sample ID: 180-47781-12**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			09/23/15 18:33	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			09/23/15 18:33	1
Bromomethane	1.0	U	1.0	0.31	ug/L			09/23/15 18:33	1
Chloroethane	1.0	U	1.0	0.21	ug/L			09/23/15 18:33	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/23/15 18:33	1
<b>Acetone</b>	<b>3.3</b>	<b>J</b>	5.0	2.5	ug/L			09/23/15 18:33	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			09/23/15 18:33	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			09/23/15 18:33	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			09/23/15 18:33	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			09/23/15 18:33	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			09/23/15 18:33	1
<b>cis-1,2-Dichloroethene</b>	<b>0.61</b>	<b>J</b>	1.0	0.24	ug/L			09/23/15 18:33	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			09/23/15 18:33	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			09/23/15 18:33	1
<b>Chloroform</b>	<b>0.19</b>	<b>J</b>	1.0	0.17	ug/L			09/23/15 18:33	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			09/23/15 18:33	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			09/23/15 18:33	1
Benzene	1.0	U	1.0	0.11	ug/L			09/23/15 18:33	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			09/23/15 18:33	1
<b>Trichloroethene</b>	<b>0.83</b>	<b>J</b>	1.0	0.14	ug/L			09/23/15 18:33	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			09/23/15 18:33	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			09/23/15 18:33	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			09/23/15 18:33	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			09/23/15 18:33	1
Toluene	1.0	U	1.0	0.15	ug/L			09/23/15 18:33	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			09/23/15 18:33	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			09/23/15 18:33	1
<b>Tetrachloroethene</b>	<b>0.33</b>	<b>J</b>	1.0	0.15	ug/L			09/23/15 18:33	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			09/23/15 18:33	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			09/23/15 18:33	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			09/23/15 18:33	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			09/23/15 18:33	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			09/23/15 18:33	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			09/23/15 18:33	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			09/23/15 18:33	1
Styrene	1.0	U	1.0	0.097	ug/L			09/23/15 18:33	1
Bromoform	1.0	U	1.0	0.19	ug/L			09/23/15 18:33	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			09/23/15 18:33	1
Acrylonitrile	20	U	20	0.55	ug/L			09/23/15 18:33	1
1,4-Dioxane	200	U	200	34	ug/L			09/23/15 18:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		64 - 135		09/23/15 18:33	1
Toluene-d8 (Surr)	102		71 - 118		09/23/15 18:33	1
4-Bromofluorobenzene (Surr)	89		70 - 118		09/23/15 18:33	1
Dibromofluoromethane (Surr)	116		70 - 128		09/23/15 18:33	1



# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Client Sample ID: HD-COD-SW-29-0/1-0**

**Date Collected: 09/15/15 09:08**

**Date Received: 09/16/15 09:15**

**Lab Sample ID: 180-47781-13**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			09/23/15 18:57	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			09/23/15 18:57	1
Bromomethane	1.0	U	1.0	0.31	ug/L			09/23/15 18:57	1
Chloroethane	1.0	U	1.0	0.21	ug/L			09/23/15 18:57	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/23/15 18:57	1
Acetone	5.0	U	5.0	2.5	ug/L			09/23/15 18:57	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			09/23/15 18:57	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			09/23/15 18:57	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			09/23/15 18:57	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			09/23/15 18:57	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			09/23/15 18:57	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			09/23/15 18:57	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			09/23/15 18:57	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			09/23/15 18:57	1
Chloroform	1.0	U	1.0	0.17	ug/L			09/23/15 18:57	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			09/23/15 18:57	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			09/23/15 18:57	1
Benzene	1.0	U	1.0	0.11	ug/L			09/23/15 18:57	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			09/23/15 18:57	1
<b>Trichloroethene</b>	<b>0.22</b>	<b>J</b>	1.0	0.14	ug/L			09/23/15 18:57	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			09/23/15 18:57	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			09/23/15 18:57	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			09/23/15 18:57	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			09/23/15 18:57	1
Toluene	1.0	U	1.0	0.15	ug/L			09/23/15 18:57	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			09/23/15 18:57	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			09/23/15 18:57	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			09/23/15 18:57	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			09/23/15 18:57	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			09/23/15 18:57	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			09/23/15 18:57	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			09/23/15 18:57	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			09/23/15 18:57	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			09/23/15 18:57	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			09/23/15 18:57	1
Styrene	1.0	U	1.0	0.097	ug/L			09/23/15 18:57	1
Bromoform	1.0	U	1.0	0.19	ug/L			09/23/15 18:57	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			09/23/15 18:57	1
Acrylonitrile	20	U	20	0.55	ug/L			09/23/15 18:57	1
1,4-Dioxane	200	U	200	34	ug/L			09/23/15 18:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		64 - 135		09/23/15 18:57	1
Toluene-d8 (Surr)	98		71 - 118		09/23/15 18:57	1
4-Bromofluorobenzene (Surr)	88		70 - 118		09/23/15 18:57	1
Dibromofluoromethane (Surr)	113		70 - 128		09/23/15 18:57	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

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

**Date Collected: 09/15/15 08:00**

**Date Received: 09/16/15 09:15**

**Lab Sample ID: 180-47781-14**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			09/23/15 19:21	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			09/23/15 19:21	1
Bromomethane	1.0	U	1.0	0.31	ug/L			09/23/15 19:21	1
Chloroethane	1.0	U	1.0	0.21	ug/L			09/23/15 19:21	1
<b>1,1-Dichloroethene</b>	<b>0.65</b>	<b>J</b>	1.0	0.30	ug/L			09/23/15 19:21	1
Acetone	5.0	U	5.0	2.5	ug/L			09/23/15 19:21	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			09/23/15 19:21	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			09/23/15 19:21	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			09/23/15 19:21	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			09/23/15 19:21	1
<b>1,1-Dichloroethane</b>	<b>0.25</b>	<b>J</b>	1.0	0.12	ug/L			09/23/15 19:21	1
<b>cis-1,2-Dichloroethene</b>	<b>15</b>		1.0	0.24	ug/L			09/23/15 19:21	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			09/23/15 19:21	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			09/23/15 19:21	1
<b>Chloroform</b>	<b>0.23</b>	<b>J</b>	1.0	0.17	ug/L			09/23/15 19:21	1
<b>1,1,1-Trichloroethane</b>	<b>0.59</b>	<b>J</b>	1.0	0.29	ug/L			09/23/15 19:21	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			09/23/15 19:21	1
Benzene	1.0	U	1.0	0.11	ug/L			09/23/15 19:21	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			09/23/15 19:21	1
<b>Trichloroethene</b>	<b>17</b>		1.0	0.14	ug/L			09/23/15 19:21	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			09/23/15 19:21	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			09/23/15 19:21	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			09/23/15 19:21	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			09/23/15 19:21	1
Toluene	1.0	U	1.0	0.15	ug/L			09/23/15 19:21	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			09/23/15 19:21	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			09/23/15 19:21	1
<b>Tetrachloroethene</b>	<b>8.9</b>		1.0	0.15	ug/L			09/23/15 19:21	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			09/23/15 19:21	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			09/23/15 19:21	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			09/23/15 19:21	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			09/23/15 19:21	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			09/23/15 19:21	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			09/23/15 19:21	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			09/23/15 19:21	1
Styrene	1.0	U	1.0	0.097	ug/L			09/23/15 19:21	1
Bromoform	1.0	U	1.0	0.19	ug/L			09/23/15 19:21	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			09/23/15 19:21	1
Acrylonitrile	20	U	20	0.55	ug/L			09/23/15 19:21	1
1,4-Dioxane	200	U	200	34	ug/L			09/23/15 19:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		64 - 135		09/23/15 19:21	1
Toluene-d8 (Surr)	103		71 - 118		09/23/15 19:21	1
4-Bromofluorobenzene (Surr)	90		70 - 118		09/23/15 19:21	1
Dibromofluoromethane (Surr)	112		70 - 128		09/23/15 19:21	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

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

**Date Collected: 09/15/15 12:00**

**Date Received: 09/16/15 09:15**

**Lab Sample ID: 180-47781-15**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			09/18/15 14:40	1
Vinyl chloride	1.0	U ^c	1.0	0.23	ug/L			09/18/15 14:40	1
Bromomethane	1.0	U ^c	1.0	0.31	ug/L			09/18/15 14:40	1
Chloroethane	1.0	U ^c	1.0	0.21	ug/L			09/18/15 14:40	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/18/15 14:40	1
Acetone	5.0	U	5.0	2.5	ug/L			09/18/15 14:40	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			09/18/15 14:40	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			09/18/15 14:40	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			09/18/15 14:40	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			09/18/15 14:40	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			09/18/15 14:40	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			09/18/15 14:40	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			09/18/15 14:40	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			09/18/15 14:40	1
Chloroform	1.0	U	1.0	0.17	ug/L			09/18/15 14:40	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			09/18/15 14:40	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			09/18/15 14:40	1
Benzene	1.0	U	1.0	0.11	ug/L			09/18/15 14:40	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			09/18/15 14:40	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			09/18/15 14:40	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			09/18/15 14:40	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			09/18/15 14:40	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			09/18/15 14:40	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			09/18/15 14:40	1
Toluene	1.0	U	1.0	0.15	ug/L			09/18/15 14:40	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			09/18/15 14:40	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			09/18/15 14:40	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			09/18/15 14:40	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			09/18/15 14:40	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			09/18/15 14:40	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			09/18/15 14:40	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			09/18/15 14:40	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			09/18/15 14:40	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			09/18/15 14:40	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			09/18/15 14:40	1
Styrene	1.0	U	1.0	0.097	ug/L			09/18/15 14:40	1
Bromoform	1.0	U	1.0	0.19	ug/L			09/18/15 14:40	1
1,1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			09/18/15 14:40	1
Acrylonitrile	20	U	20	0.55	ug/L			09/18/15 14:40	1
1,4-Dioxane	200	U	200	34	ug/L			09/18/15 14:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		64 - 135		09/18/15 14:40	1
Toluene-d8 (Surr)	85		71 - 118		09/18/15 14:40	1
4-Bromofluorobenzene (Surr)	87		70 - 118		09/18/15 14:40	1
Dibromofluoromethane (Surr)	106		70 - 128		09/18/15 14:40	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Client Sample ID: HD-MW-136A-459.5/460-0**

**Date Collected: 09/15/15 13:00**

**Date Received: 09/16/15 09:15**

**Lab Sample ID: 180-47781-16**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	10	U ^c	10	2.8	ug/L			09/24/15 22:04	10
<b>Vinyl chloride</b>	<b>11</b>		10	2.3	ug/L			09/24/15 22:04	10
Bromomethane	10	U	10	3.1	ug/L			09/24/15 22:04	10
Chloroethane	10	U	10	2.1	ug/L			09/24/15 22:04	10
<b>1,1-Dichloroethene</b>	<b>4.0</b>	<b>J</b>	10	3.0	ug/L			09/24/15 22:04	10
<b>Acetone</b>	<b>42</b>	<b>J ^c</b>	50	25	ug/L			09/24/15 22:04	10
Carbon disulfide	10	U	10	2.1	ug/L			09/24/15 22:04	10
Methylene Chloride	10	U	10	1.3	ug/L			09/24/15 22:04	10
<b>trans-1,2-Dichloroethene</b>	<b>4.4</b>	<b>J</b>	10	1.7	ug/L			09/24/15 22:04	10
Methyl tert-butyl ether	10	U	10	1.8	ug/L			09/24/15 22:04	10
<b>1,1-Dichloroethane</b>	<b>3.2</b>	<b>J</b>	10	1.2	ug/L			09/24/15 22:04	10
<b>cis-1,2-Dichloroethene</b>	<b>2500</b>	<b>E</b>	10	2.4	ug/L			09/24/15 22:04	10
Bromochloromethane	10	U	10	1.8	ug/L			09/24/15 22:04	10
<b>2-Butanone (MEK)</b>	<b>180</b>	<b>^c</b>	50	5.5	ug/L			09/24/15 22:04	10
Chloroform	10	U	10	1.7	ug/L			09/24/15 22:04	10
1,1,1-Trichloroethane	10	U	10	2.9	ug/L			09/24/15 22:04	10
Carbon tetrachloride	10	U	10	1.4	ug/L			09/24/15 22:04	10
Benzene	10	U	10	1.1	ug/L			09/24/15 22:04	10
1,2-Dichloroethane	10	U	10	2.1	ug/L			09/24/15 22:04	10
<b>Trichloroethene</b>	<b>140</b>		10	1.4	ug/L			09/24/15 22:04	10
1,2-Dichloropropane	10	U	10	0.95	ug/L			09/24/15 22:04	10
Bromodichloromethane	10	U	10	1.3	ug/L			09/24/15 22:04	10
cis-1,3-Dichloropropene	10	U	10	1.9	ug/L			09/24/15 22:04	10
4-Methyl-2-pentanone (MIBK)	50	U	50	5.3	ug/L			09/24/15 22:04	10
Toluene	10	U	10	1.5	ug/L			09/24/15 22:04	10
trans-1,3-Dichloropropene	10	U	10	1.5	ug/L			09/24/15 22:04	10
1,1,2-Trichloroethane	10	U	10	2.0	ug/L			09/24/15 22:04	10
<b>Tetrachloroethene</b>	<b>2.1</b>	<b>J</b>	10	1.5	ug/L			09/24/15 22:04	10
2-Hexanone	50	U	50	1.6	ug/L			09/24/15 22:04	10
Dibromochloromethane	10	U	10	1.4	ug/L			09/24/15 22:04	10
1,2-Dibromoethane (EDB)	10	U	10	1.8	ug/L			09/24/15 22:04	10
Chlorobenzene	10	U	10	1.4	ug/L			09/24/15 22:04	10
1,1,1,2-Tetrachloroethane	10	U	10	2.8	ug/L			09/24/15 22:04	10
Ethylbenzene	10	U	10	2.3	ug/L			09/24/15 22:04	10
Xylenes, Total	30	U	30	4.9	ug/L			09/24/15 22:04	10
Styrene	10	U	10	0.97	ug/L			09/24/15 22:04	10
Bromoform	10	U	10	1.9	ug/L			09/24/15 22:04	10
1,1,2,2-Tetrachloroethane	10	U	10	2.0	ug/L			09/24/15 22:04	10
<b>Acrylonitrile</b>	<b>850</b>		200	5.5	ug/L			09/24/15 22:04	10
1,4-Dioxane	2000	U	2000	340	ug/L			09/24/15 22:04	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		64 - 135		09/24/15 22:04	10
Toluene-d8 (Surr)	98		71 - 118		09/24/15 22:04	10
4-Bromofluorobenzene (Surr)	102		70 - 118		09/24/15 22:04	10
Dibromofluoromethane (Surr)	105		70 - 128		09/24/15 22:04	10

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Client Sample ID: HD-MW-136A-459.5/460-0**

**Lab Sample ID: 180-47781-16**

**Date Collected: 09/15/15 13:00**

**Matrix: Water**

**Date Received: 09/16/15 09:15**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	100	U	100	28	ug/L			09/23/15 19:46	100
Vinyl chloride	100	U	100	23	ug/L			09/23/15 19:46	100
Bromomethane	100	U	100	31	ug/L			09/23/15 19:46	100
Chloroethane	100	U	100	21	ug/L			09/23/15 19:46	100
1,1-Dichloroethene	100	U	100	30	ug/L			09/23/15 19:46	100
Acetone	500	U	500	250	ug/L			09/23/15 19:46	100
Carbon disulfide	100	U	100	21	ug/L			09/23/15 19:46	100
Methylene Chloride	100	U	100	13	ug/L			09/23/15 19:46	100
trans-1,2-Dichloroethene	100	U	100	17	ug/L			09/23/15 19:46	100
Methyl tert-butyl ether	100	U	100	18	ug/L			09/23/15 19:46	100
1,1-Dichloroethane	100	U	100	12	ug/L			09/23/15 19:46	100
<b>cis-1,2-Dichloroethene</b>	<b>2400</b>		100	24	ug/L			09/23/15 19:46	100
Bromochloromethane	100	U	100	18	ug/L			09/23/15 19:46	100
2-Butanone (MEK)	500	U	500	55	ug/L			09/23/15 19:46	100
Chloroform	100	U	100	17	ug/L			09/23/15 19:46	100
1,1,1-Trichloroethane	100	U	100	29	ug/L			09/23/15 19:46	100
Carbon tetrachloride	100	U	100	14	ug/L			09/23/15 19:46	100
Benzene	100	U	100	11	ug/L			09/23/15 19:46	100
1,2-Dichloroethane	100	U	100	21	ug/L			09/23/15 19:46	100
<b>Trichloroethene</b>	<b>210</b>		100	14	ug/L			09/23/15 19:46	100
1,2-Dichloropropane	100	U	100	9.5	ug/L			09/23/15 19:46	100
Bromodichloromethane	100	U	100	13	ug/L			09/23/15 19:46	100
cis-1,3-Dichloropropene	100	U	100	19	ug/L			09/23/15 19:46	100
4-Methyl-2-pentanone (MIBK)	500	U	500	53	ug/L			09/23/15 19:46	100
<b>Toluene</b>	<b>37 J</b>		100	15	ug/L			09/23/15 19:46	100
trans-1,3-Dichloropropene	100	U	100	15	ug/L			09/23/15 19:46	100
1,1,2-Trichloroethane	100	U	100	20	ug/L			09/23/15 19:46	100
Tetrachloroethene	100	U	100	15	ug/L			09/23/15 19:46	100
2-Hexanone	500	U	500	16	ug/L			09/23/15 19:46	100
Dibromochloromethane	100	U	100	14	ug/L			09/23/15 19:46	100
1,2-Dibromoethane (EDB)	100	U	100	18	ug/L			09/23/15 19:46	100
Chlorobenzene	100	U	100	14	ug/L			09/23/15 19:46	100
1,1,1,2-Tetrachloroethane	100	U	100	28	ug/L			09/23/15 19:46	100
Ethylbenzene	100	U	100	23	ug/L			09/23/15 19:46	100
Xylenes, Total	300	U	300	49	ug/L			09/23/15 19:46	100
Styrene	100	U	100	9.7	ug/L			09/23/15 19:46	100
Bromoform	100	U	100	19	ug/L			09/23/15 19:46	100
1,1,2,2-Tetrachloroethane	100	U	100	20	ug/L			09/23/15 19:46	100
<b>Acrylonitrile</b>	<b>740 J</b>		2000	55	ug/L			09/23/15 19:46	100
1,4-Dioxane	20000	U	20000	3400	ug/L			09/23/15 19:46	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		64 - 135		09/23/15 19:46	100
Toluene-d8 (Surr)	98		71 - 118		09/23/15 19:46	100
4-Bromofluorobenzene (Surr)	86		70 - 118		09/23/15 19:46	100
Dibromofluoromethane (Surr)	117		70 - 128		09/23/15 19:46	100

# Default Detection Limits

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

## 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: 180-47781-1

## 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)
180-47781-1	HD-COD-SW-6-0/1-0	106	97	94	102
180-47781-1 MS	HD-COD-SW-6-0/1-0	93	100	103	89
180-47781-1 MSD	HD-COD-SW-6-0/1-0	90	95	96	87
180-47781-2	HD-COD-SW-7-0/1-0	108	97	98	100
180-47781-3	HD-COD-SW-8-0/1-0	105	96	93	105
180-47781-4	HD-COD-SW-9-0/1-0	108	96	91	102
180-47781-5	HD-COD-SW-12-0/1-0	111	99	84	111
180-47781-5 MS	HD-COD-SW-12-0/1-0	97	100	91	99
180-47781-5 MSD	HD-COD-SW-12-0/1-0	104	103	95	105
180-47781-6	HD-COD-SW-13-0/1-0	114	101	88	110
180-47781-7	HD-COD-SW-15-0/1-0	113	102	89	112
180-47781-8	HD-COD-SW-16-0/1-0	114	99	86	114
180-47781-9	HD-COD-SW-17-0/1-0	119	100	96	113
180-47781-9 MS	HD-COD-SW-17-0/1-0	86	105	90	84
180-47781-9 MSD	HD-COD-SW-17-0/1-0	89	101	103	88
180-47781-10	HD-COD-SW-26-0/1-0	113	101	90	115
180-47781-11	HD-COD-SW-27-0/1-0	112	97	83	112
180-47781-12	HD-COD-SW-28-0/1-0	114	102	89	116
180-47781-13	HD-COD-SW-29-0/1-0	112	98	88	113
180-47781-14	HD-QC1-0/1-1	114	103	90	112
180-47781-15	HD-QC1-0/1-2	114	85	87	106
180-47781-16 - DL	HD-MW-136A-459.5/460-0	114	98	86	117
180-47781-16	HD-MW-136A-459.5/460-0	113	98	102	105
LCS 180-154121/9	Lab Control Sample	88	95	83	85
LCS 180-154425/12	Lab Control Sample	93	93	93	89
LCS 180-154553/10	Lab Control Sample	100	96	90	95
LCS 180-154736/7	Lab Control Sample	92	96	93	88
MB 180-154121/6	Method Blank	98	99	99	95
MB 180-154425/9	Method Blank	108	105	102	99
MB 180-154553/4	Method Blank	112	100	89	115
MB 180-154736/4	Method Blank	107	98	91	101

### 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: 180-47781-1

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

**Lab Sample ID: MB 180-154121/6**

**Matrix: Water**

**Analysis Batch: 154121**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			09/18/15 13:41	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			09/18/15 13:41	1
Bromomethane	1.0	U	1.0	0.31	ug/L			09/18/15 13:41	1
Chloroethane	1.0	U	1.0	0.21	ug/L			09/18/15 13:41	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/18/15 13:41	1
Acetone	5.0	U	5.0	2.5	ug/L			09/18/15 13:41	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			09/18/15 13:41	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			09/18/15 13:41	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			09/18/15 13:41	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			09/18/15 13:41	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			09/18/15 13:41	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			09/18/15 13:41	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			09/18/15 13:41	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			09/18/15 13:41	1
Chloroform	1.0	U	1.0	0.17	ug/L			09/18/15 13:41	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			09/18/15 13:41	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			09/18/15 13:41	1
Benzene	1.0	U	1.0	0.11	ug/L			09/18/15 13:41	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			09/18/15 13:41	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			09/18/15 13:41	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			09/18/15 13:41	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			09/18/15 13:41	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			09/18/15 13:41	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			09/18/15 13:41	1
Toluene	1.0	U	1.0	0.15	ug/L			09/18/15 13:41	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			09/18/15 13:41	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			09/18/15 13:41	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			09/18/15 13:41	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			09/18/15 13:41	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			09/18/15 13:41	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			09/18/15 13:41	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			09/18/15 13:41	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			09/18/15 13:41	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			09/18/15 13:41	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			09/18/15 13:41	1
Styrene	1.0	U	1.0	0.097	ug/L			09/18/15 13:41	1
Bromoform	1.0	U	1.0	0.19	ug/L			09/18/15 13:41	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			09/18/15 13:41	1
Acrylonitrile	20	U	20	0.55	ug/L			09/18/15 13:41	1
1,4-Dioxane	200	U	200	34	ug/L			09/18/15 13:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		64 - 135		09/18/15 13:41	1
Toluene-d8 (Surr)	99		71 - 118		09/18/15 13:41	1
4-Bromofluorobenzene (Surr)	99		70 - 118		09/18/15 13:41	1
Dibromofluoromethane (Surr)	95		70 - 128		09/18/15 13:41	1



# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Lab Sample ID: LCS 180-154121/9**

**Matrix: Water**

**Analysis Batch: 154121**

**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	9.06		ug/L		91	50 - 139
Vinyl chloride	10.0	7.96		ug/L		80	53 - 138
Bromomethane	10.0	7.75		ug/L		78	33 - 150
Chloroethane	10.0	6.42		ug/L		64	36 - 142
1,1-Dichloroethene	10.0	9.09		ug/L		91	65 - 136
Acetone	20.0	21.8		ug/L		109	22 - 150
Carbon disulfide	10.0	7.13		ug/L		71	54 - 132
Methylene Chloride	10.0	9.07		ug/L		91	63 - 129
trans-1,2-Dichloroethene	10.0	9.03		ug/L		90	73 - 126
Methyl tert-butyl ether	10.0	8.73		ug/L		87	64 - 123
1,1-Dichloroethane	10.0	8.81		ug/L		88	73 - 126
cis-1,2-Dichloroethene	10.0	8.86		ug/L		89	70 - 120
Bromochloromethane	10.0	9.30		ug/L		93	70 - 127
2-Butanone (MEK)	20.0	20.7		ug/L		104	39 - 138
Chloroform	10.0	9.35		ug/L		94	72 - 127
1,1,1-Trichloroethane	10.0	9.13		ug/L		91	63 - 133
Carbon tetrachloride	10.0	9.59		ug/L		96	55 - 150
Benzene	10.0	9.35		ug/L		94	80 - 120
1,2-Dichloroethane	10.0	9.83		ug/L		98	68 - 132
Trichloroethene	10.0	8.87		ug/L		89	73 - 120
1,2-Dichloropropane	10.0	9.48		ug/L		95	76 - 124
Bromodichloromethane	10.0	9.14		ug/L		91	66 - 130
cis-1,3-Dichloropropene	10.0	9.23		ug/L		92	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	20.0		ug/L		100	45 - 145
Toluene	10.0	10.5		ug/L		105	80 - 123
trans-1,3-Dichloropropene	10.0	9.65		ug/L		96	65 - 125
1,1,2-Trichloroethane	10.0	10.5		ug/L		105	77 - 127
Tetrachloroethene	10.0	9.45		ug/L		95	70 - 135
2-Hexanone	20.0	19.3		ug/L		97	25 - 132
Dibromochloromethane	10.0	9.15		ug/L		92	60 - 140
1,2-Dibromoethane (EDB)	10.0	10.3		ug/L		103	74 - 123
Chlorobenzene	10.0	10.3		ug/L		103	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.90		ug/L		99	63 - 140
Ethylbenzene	10.0	10.2		ug/L		102	72 - 126
Xylenes, Total	20.0	20.4		ug/L		102	76 - 128
Styrene	10.0	10.6		ug/L		106	71 - 127
Bromoform	10.0	9.11		ug/L		91	46 - 150
1,1,2,2-Tetrachloroethane	10.0	8.84		ug/L		88	62 - 125
Acrylonitrile	100	93.4		ug/L		93	30 - 140
1,4-Dioxane	200	205		ug/L		102	10 - 160

Surrogate	LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	88		64 - 135
Toluene-d8 (Surr)	95		71 - 118
4-Bromofluorobenzene (Surr)	83		70 - 118
Dibromofluoromethane (Surr)	85		70 - 128

# QC Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Lab Sample ID: 180-47781-9 MS**

**Matrix: Water**

**Analysis Batch: 154121**

**Client Sample ID: HD-COD-SW-17-0/1-0**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
Chloromethane	1.0	U	10.0	8.37		ug/L		84	50 - 139
Vinyl chloride	1.0	U ^c	10.0	7.53		ug/L		75	53 - 138
Bromomethane	1.0	U ^c	10.0	6.98		ug/L		70	33 - 150
Chloroethane	1.0	U ^c	10.0	6.73		ug/L		67	36 - 142
1,1-Dichloroethene	0.84	J	10.0	8.70		ug/L		79	65 - 136
Acetone	5.0	U	20.0	21.4		ug/L		107	22 - 150
Carbon disulfide	1.0	U	10.0	6.91		ug/L		69	54 - 132
Methylene Chloride	1.0	U	10.0	8.69		ug/L		87	63 - 129
trans-1,2-Dichloroethene	1.0	U	10.0	8.36		ug/L		84	73 - 126
Methyl tert-butyl ether	1.0	U	10.0	8.79		ug/L		88	64 - 123
1,1-Dichloroethane	0.67	J	10.0	8.78		ug/L		81	73 - 126
cis-1,2-Dichloroethene	15	F1	10.0	20.2	F1	ug/L		51	70 - 120
Bromochloromethane	1.0	U	10.0	8.43		ug/L		84	70 - 127
2-Butanone (MEK)	5.0	U	20.0	21.1		ug/L		106	39 - 138
Chloroform	0.20	J	10.0	8.83		ug/L		86	72 - 127
1,1,1-Trichloroethane	2.8		10.0	10.7		ug/L		79	63 - 133
Carbon tetrachloride	1.0	U	10.0	9.04		ug/L		90	55 - 150
Benzene	1.0	U	10.0	8.89		ug/L		89	80 - 120
1,2-Dichloroethane	1.0	U	10.0	9.10		ug/L		91	68 - 132
Trichloroethene	16	F1	10.0	21.3	F1	ug/L		56	73 - 120
1,2-Dichloropropane	1.0	U	10.0	8.74		ug/L		87	76 - 124
Bromodichloromethane	1.0	U	10.0	8.77		ug/L		88	66 - 130
cis-1,3-Dichloropropene	1.0	U	10.0	8.25		ug/L		83	66 - 120
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	20.5		ug/L		103	45 - 145
Toluene	1.0	U	10.0	10.3		ug/L		103	80 - 123
trans-1,3-Dichloropropene	1.0	U	10.0	9.35		ug/L		93	65 - 125
1,1,2-Trichloroethane	1.0	U	10.0	9.82		ug/L		98	77 - 127
Tetrachloroethene	42		10.0	42.8	4	ug/L		10	70 - 135
2-Hexanone	5.0	U	20.0	19.8		ug/L		99	25 - 132
Dibromochloromethane	1.0	U	10.0	9.42		ug/L		94	60 - 140
1,2-Dibromoethane (EDB)	1.0	U	10.0	10.5		ug/L		105	74 - 123
Chlorobenzene	1.0	U	10.0	9.76		ug/L		98	80 - 120
1,1,1,2-Tetrachloroethane	1.0	U	10.0	8.28		ug/L		83	63 - 140
Ethylbenzene	1.0	U	10.0	8.88		ug/L		89	72 - 126
Xylenes, Total	3.0	U	20.0	17.5		ug/L		87	76 - 128
Styrene	1.0	U	10.0	9.10		ug/L		91	71 - 127
Bromoform	1.0	U	10.0	8.42		ug/L		84	46 - 150
1,1,2,2-Tetrachloroethane	1.0	U	10.0	9.05		ug/L		90	62 - 125
Acrylonitrile	20	U	100	91.9		ug/L		92	30 - 140
1,4-Dioxane	200	U	200	186	J	ug/L		93	10 - 160

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	86		64 - 135
Toluene-d8 (Surr)	105		71 - 118
4-Bromofluorobenzene (Surr)	90		70 - 118
Dibromofluoromethane (Surr)	84		70 - 128

# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Lab Sample ID: 180-47781-9 MSD**

**Matrix: Water**

**Analysis Batch: 154121**

**Client Sample ID: HD-COD-SW-17-0/1-0**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
Chloromethane	1.0	U	10.0	8.17		ug/L		82	50 - 139	2	35
Vinyl chloride	1.0	U ^c	10.0	7.53		ug/L		75	53 - 138	0	35
Bromomethane	1.0	U ^c	10.0	6.93		ug/L		69	33 - 150	1	35
Chloroethane	1.0	U ^c	10.0	5.92		ug/L		59	36 - 142	13	35
1,1-Dichloroethene	0.84	J	10.0	7.48		ug/L		66	65 - 136	15	35
Acetone	5.0	U	20.0	17.6		ug/L		88	22 - 150	20	35
Carbon disulfide	1.0	U	10.0	5.92		ug/L		59	54 - 132	15	35
Methylene Chloride	1.0	U	10.0	7.21		ug/L		72	63 - 129	19	35
trans-1,2-Dichloroethene	1.0	U	10.0	7.76		ug/L		78	73 - 126	7	35
Methyl tert-butyl ether	1.0	U	10.0	8.14		ug/L		81	64 - 123	8	35
1,1-Dichloroethane	0.67	J	10.0	9.04		ug/L		84	73 - 126	3	35
cis-1,2-Dichloroethene	15	F1	10.0	20.7	F1	ug/L		56	70 - 120	3	35
Bromochloromethane	1.0	U	10.0	8.66		ug/L		87	70 - 127	3	35
2-Butanone (MEK)	5.0	U	20.0	21.2		ug/L		106	39 - 138	1	35
Chloroform	0.20	J	10.0	9.23		ug/L		90	72 - 127	4	35
1,1,1-Trichloroethane	2.8		10.0	11.2		ug/L		84	63 - 133	5	35
Carbon tetrachloride	1.0	U	10.0	9.44		ug/L		94	55 - 150	4	35
Benzene	1.0	U	10.0	9.00		ug/L		90	80 - 120	1	32
1,2-Dichloroethane	1.0	U	10.0	9.56		ug/L		96	68 - 132	5	32
Trichloroethene	16	F1	10.0	21.9	F1	ug/L		62	73 - 120	3	35
1,2-Dichloropropane	1.0	U	10.0	8.92		ug/L		89	76 - 124	2	34
Bromodichloromethane	1.0	U	10.0	8.64		ug/L		86	66 - 130	2	35
cis-1,3-Dichloropropene	1.0	U	10.0	8.69		ug/L		87	66 - 120	5	35
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	19.9		ug/L		99	45 - 145	3	35
Toluene	1.0	U	10.0	10.4		ug/L		104	80 - 123	2	35
trans-1,3-Dichloropropene	1.0	U	10.0	9.47		ug/L		95	65 - 125	1	35
1,1,2-Trichloroethane	1.0	U	10.0	10.3		ug/L		103	77 - 127	4	35
Tetrachloroethene	42		10.0	42.4	4	ug/L		6	70 - 135	1	35
2-Hexanone	5.0	U	20.0	19.4		ug/L		97	25 - 132	2	35
Dibromochloromethane	1.0	U	10.0	9.44		ug/L		94	60 - 140	0	35
1,2-Dibromoethane (EDB)	1.0	U	10.0	10.4		ug/L		104	74 - 123	1	35
Chlorobenzene	1.0	U	10.0	10.4		ug/L		104	80 - 120	6	29
1,1,1,2-Tetrachloroethane	1.0	U	10.0	9.88		ug/L		99	63 - 140	18	34
Ethylbenzene	1.0	U	10.0	10.1		ug/L		101	72 - 126	13	33
Xylenes, Total	3.0	U	20.0	20.3		ug/L		101	76 - 128	15	32
Styrene	1.0	U	10.0	10.4		ug/L		104	71 - 127	13	34
Bromoform	1.0	U	10.0	9.17		ug/L		92	46 - 150	9	35
1,1,2,2-Tetrachloroethane	1.0	U	10.0	10.7		ug/L		107	62 - 125	17	35
Acrylonitrile	20	U	100	85.7		ug/L		86	30 - 140	7	35
1,4-Dioxane	200	U	200	202		ug/L		101	10 - 160	8	35
	<b>MSD</b>	<b>MSD</b>									
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>								
1,2-Dichloroethane-d4 (Surr)	89		64 - 135								
Toluene-d8 (Surr)	101		71 - 118								
4-Bromofluorobenzene (Surr)	103		70 - 118								
Dibromofluoromethane (Surr)	88		70 - 128								

# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Lab Sample ID: MB 180-154425/9**

**Matrix: Water**

**Analysis Batch: 154425**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			09/22/15 14:26	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			09/22/15 14:26	1
Bromomethane	1.0	U	1.0	0.31	ug/L			09/22/15 14:26	1
Chloroethane	1.0	U	1.0	0.21	ug/L			09/22/15 14:26	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/22/15 14:26	1
Acetone	5.0	U	5.0	2.5	ug/L			09/22/15 14:26	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			09/22/15 14:26	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			09/22/15 14:26	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			09/22/15 14:26	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			09/22/15 14:26	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			09/22/15 14:26	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			09/22/15 14:26	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			09/22/15 14:26	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			09/22/15 14:26	1
Chloroform	1.0	U	1.0	0.17	ug/L			09/22/15 14:26	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			09/22/15 14:26	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			09/22/15 14:26	1
Benzene	1.0	U	1.0	0.11	ug/L			09/22/15 14:26	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			09/22/15 14:26	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			09/22/15 14:26	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			09/22/15 14:26	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			09/22/15 14:26	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			09/22/15 14:26	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			09/22/15 14:26	1
Toluene	1.0	U	1.0	0.15	ug/L			09/22/15 14:26	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			09/22/15 14:26	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			09/22/15 14:26	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			09/22/15 14:26	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			09/22/15 14:26	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			09/22/15 14:26	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			09/22/15 14:26	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			09/22/15 14:26	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			09/22/15 14:26	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			09/22/15 14:26	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			09/22/15 14:26	1
Styrene	1.0	U	1.0	0.097	ug/L			09/22/15 14:26	1
Bromoform	1.0	U	1.0	0.19	ug/L			09/22/15 14:26	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			09/22/15 14:26	1
Acrylonitrile	20	U	20	0.55	ug/L			09/22/15 14:26	1
1,4-Dioxane	200	U	200	34	ug/L			09/22/15 14:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		64 - 135		09/22/15 14:26	1
Toluene-d8 (Surr)	105		71 - 118		09/22/15 14:26	1
4-Bromofluorobenzene (Surr)	102		70 - 118		09/22/15 14:26	1
Dibromofluoromethane (Surr)	99		70 - 128		09/22/15 14:26	1

# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Lab Sample ID: LCS 180-154425/12**

**Matrix: Water**

**Analysis Batch: 154425**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	11.6		ug/L		116	50 - 139
Vinyl chloride	10.0	10.3		ug/L		103	53 - 138
Bromomethane	10.0	9.42		ug/L		94	33 - 150
Chloroethane	10.0	9.27		ug/L		93	36 - 142
1,1-Dichloroethene	10.0	8.31		ug/L		83	65 - 136
Acetone	20.0	23.2		ug/L		116	22 - 150
Carbon disulfide	10.0	8.73		ug/L		87	54 - 132
Methylene Chloride	10.0	9.18		ug/L		92	63 - 129
trans-1,2-Dichloroethene	10.0	8.79		ug/L		88	73 - 126
Methyl tert-butyl ether	10.0	9.32		ug/L		93	64 - 123
1,1-Dichloroethane	10.0	9.19		ug/L		92	73 - 126
cis-1,2-Dichloroethene	10.0	8.72		ug/L		87	70 - 120
Bromochloromethane	10.0	8.91		ug/L		89	70 - 127
2-Butanone (MEK)	20.0	22.0		ug/L		110	39 - 138
Chloroform	10.0	9.26		ug/L		93	72 - 127
1,1,1-Trichloroethane	10.0	8.39		ug/L		84	63 - 133
Carbon tetrachloride	10.0	8.82		ug/L		88	55 - 150
Benzene	10.0	9.45		ug/L		94	80 - 120
1,2-Dichloroethane	10.0	9.47		ug/L		95	68 - 132
Trichloroethene	10.0	9.17		ug/L		92	73 - 120
1,2-Dichloropropane	10.0	9.92		ug/L		99	76 - 124
Bromodichloromethane	10.0	9.62		ug/L		96	66 - 130
cis-1,3-Dichloropropene	10.0	9.24		ug/L		92	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	19.2		ug/L		96	45 - 145
Toluene	10.0	9.86		ug/L		99	80 - 123
trans-1,3-Dichloropropene	10.0	8.87		ug/L		89	65 - 125
1,1,2-Trichloroethane	10.0	9.71		ug/L		97	77 - 127
Tetrachloroethene	10.0	9.99		ug/L		100	70 - 135
2-Hexanone	20.0	18.9		ug/L		95	25 - 132
Dibromochloromethane	10.0	9.94		ug/L		99	60 - 140
1,2-Dibromoethane (EDB)	10.0	10.0		ug/L		100	74 - 123
Chlorobenzene	10.0	9.79		ug/L		98	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.48		ug/L		95	63 - 140
Ethylbenzene	10.0	10.0		ug/L		100	72 - 126
Xylenes, Total	20.0	20.5		ug/L		103	76 - 128
Styrene	10.0	10.6		ug/L		106	71 - 127
Bromoform	10.0	10.5		ug/L		105	46 - 150
1,1,2,2-Tetrachloroethane	10.0	10.5		ug/L		105	62 - 125
Acrylonitrile	100	108		ug/L		108	30 - 140
1,4-Dioxane	200	248		ug/L		124	10 - 160

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		64 - 135
Toluene-d8 (Surr)	93		71 - 118
4-Bromofluorobenzene (Surr)	93		70 - 118
Dibromofluoromethane (Surr)	89		70 - 128

# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Lab Sample ID: 180-47781-1 MS**

**Matrix: Water**

**Analysis Batch: 154425**

**Client Sample ID: HD-COD-SW-6-0/1-0**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier		Added	Result				
Chloromethane	1.0	U ^c	10.0	11.4		ug/L		114	50 - 139
Vinyl chloride	1.0	U	10.0	10.1		ug/L		101	53 - 138
Bromomethane	1.0	U	10.0	9.86		ug/L		99	33 - 150
Chloroethane	1.0	U	10.0	8.97		ug/L		90	36 - 142
1,1-Dichloroethene	1.0	U	10.0	8.35		ug/L		84	65 - 136
Acetone	5.0	U ^c	20.0	19.9		ug/L		100	22 - 150
Carbon disulfide	1.0	U	10.0	8.75		ug/L		88	54 - 132
Methylene Chloride	1.0	U	10.0	9.42		ug/L		94	63 - 129
trans-1,2-Dichloroethene	1.0	U	10.0	8.96		ug/L		90	73 - 126
Methyl tert-butyl ether	1.0	U	10.0	9.75		ug/L		97	64 - 123
1,1-Dichloroethane	1.0	U	10.0	9.47		ug/L		95	73 - 126
cis-1,2-Dichloroethene	1.0	U	10.0	9.12		ug/L		91	70 - 120
Bromochloromethane	1.0	U	10.0	9.17		ug/L		92	70 - 127
2-Butanone (MEK)	5.0	U ^c	20.0	22.1		ug/L		111	39 - 138
Chloroform	1.0	U	10.0	9.13		ug/L		91	72 - 127
1,1,1-Trichloroethane	1.0	U	10.0	8.73		ug/L		87	63 - 133
Carbon tetrachloride	1.0	U	10.0	8.83		ug/L		88	55 - 150
Benzene	1.0	U	10.0	9.36		ug/L		94	80 - 120
1,2-Dichloroethane	1.0	U	10.0	9.61		ug/L		96	68 - 132
Trichloroethene	1.0	U	10.0	9.30		ug/L		93	73 - 120
1,2-Dichloropropane	1.0	U	10.0	9.93		ug/L		99	76 - 124
Bromodichloromethane	1.0	U	10.0	9.37		ug/L		94	66 - 130
cis-1,3-Dichloropropene	1.0	U	10.0	8.89		ug/L		89	66 - 120
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	21.9		ug/L		109	45 - 145
Toluene	1.0	U	10.0	10.3		ug/L		103	80 - 123
trans-1,3-Dichloropropene	1.0	U	10.0	9.63		ug/L		96	65 - 125
1,1,2-Trichloroethane	1.0	U	10.0	10.3		ug/L		103	77 - 127
Tetrachloroethene	1.0	U	10.0	10.2		ug/L		102	70 - 135
2-Hexanone	5.0	U ^c	20.0	21.6		ug/L		108	25 - 132
Dibromochloromethane	1.0	U	10.0	10.6		ug/L		106	60 - 140
1,2-Dibromoethane (EDB)	1.0	U	10.0	10.9		ug/L		109	74 - 123
Chlorobenzene	1.0	U	10.0	10.4		ug/L		104	80 - 120
1,1,1,2-Tetrachloroethane	1.0	U	10.0	10.0		ug/L		100	63 - 140
Ethylbenzene	1.0	U	10.0	10.6		ug/L		106	72 - 126
Xylenes, Total	3.0	U	20.0	22.0		ug/L		110	76 - 128
Styrene	1.0	U	10.0	11.4		ug/L		114	71 - 127
Bromoform	1.0	U	10.0	10.3		ug/L		103	46 - 150
1,1,2,2-Tetrachloroethane	1.0	U	10.0	11.2		ug/L		112	62 - 125
Acrylonitrile	20	U	100	108		ug/L		108	30 - 140
1,4-Dioxane	200	U ^c	200	227		ug/L		114	10 - 160
	<b>MS</b>	<b>MS</b>							
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
1,2-Dichloroethane-d4 (Surr)	93		64 - 135						
Toluene-d8 (Surr)	100		71 - 118						
4-Bromofluorobenzene (Surr)	103		70 - 118						
Dibromofluoromethane (Surr)	89		70 - 128						

# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Lab Sample ID: 180-47781-1 MSD**

**Matrix: Water**

**Analysis Batch: 154425**

**Client Sample ID: HD-COD-SW-6-0/1-0**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
Chloromethane	1.0	U ^c	10.0	11.0		ug/L		110	50 - 139	4	35
Vinyl chloride	1.0	U	10.0	9.52		ug/L		95	53 - 138	6	35
Bromomethane	1.0	U	10.0	9.62		ug/L		96	33 - 150	2	35
Chloroethane	1.0	U	10.0	9.02		ug/L		90	36 - 142	1	35
1,1-Dichloroethene	1.0	U	10.0	8.01		ug/L		80	65 - 136	4	35
Acetone	5.0	U ^c	20.0	19.8		ug/L		99	22 - 150	1	35
Carbon disulfide	1.0	U	10.0	8.18		ug/L		82	54 - 132	7	35
Methylene Chloride	1.0	U	10.0	8.96		ug/L		90	63 - 129	5	35
trans-1,2-Dichloroethene	1.0	U	10.0	8.52		ug/L		85	73 - 126	5	35
Methyl tert-butyl ether	1.0	U	10.0	9.52		ug/L		95	64 - 123	2	35
1,1-Dichloroethane	1.0	U	10.0	8.83		ug/L		88	73 - 126	7	35
cis-1,2-Dichloroethene	1.0	U	10.0	8.78		ug/L		88	70 - 120	4	35
Bromochloromethane	1.0	U	10.0	9.02		ug/L		90	70 - 127	2	35
2-Butanone (MEK)	5.0	U ^c	20.0	21.1		ug/L		105	39 - 138	5	35
Chloroform	1.0	U	10.0	8.70		ug/L		87	72 - 127	5	35
1,1,1-Trichloroethane	1.0	U	10.0	8.19		ug/L		82	63 - 133	6	35
Carbon tetrachloride	1.0	U	10.0	8.39		ug/L		84	55 - 150	5	35
Benzene	1.0	U	10.0	9.01		ug/L		90	80 - 120	4	32
1,2-Dichloroethane	1.0	U	10.0	9.37		ug/L		94	68 - 132	3	32
Trichloroethene	1.0	U	10.0	8.76		ug/L		88	73 - 120	6	35
1,2-Dichloropropane	1.0	U	10.0	9.47		ug/L		95	76 - 124	5	34
Bromodichloromethane	1.0	U	10.0	9.04		ug/L		90	66 - 130	4	35
cis-1,3-Dichloropropene	1.0	U	10.0	8.31		ug/L		83	66 - 120	7	35
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	20.9		ug/L		104	45 - 145	5	35
Toluene	1.0	U	10.0	9.63		ug/L		96	80 - 123	7	35
trans-1,3-Dichloropropene	1.0	U	10.0	8.74		ug/L		87	65 - 125	10	35
1,1,2-Trichloroethane	1.0	U	10.0	9.80		ug/L		98	77 - 127	5	35
Tetrachloroethene	1.0	U	10.0	9.62		ug/L		96	70 - 135	6	35
2-Hexanone	5.0	U ^c	20.0	19.9		ug/L		100	25 - 132	8	35
Dibromochloromethane	1.0	U	10.0	9.54		ug/L		95	60 - 140	11	35
1,2-Dibromoethane (EDB)	1.0	U	10.0	10.0		ug/L		100	74 - 123	9	35
Chlorobenzene	1.0	U	10.0	9.81		ug/L		98	80 - 120	6	29
1,1,1,2-Tetrachloroethane	1.0	U	10.0	9.68		ug/L		97	63 - 140	4	34
Ethylbenzene	1.0	U	10.0	9.84		ug/L		98	72 - 126	8	33
Xylenes, Total	3.0	U	20.0	20.3		ug/L		102	76 - 128	8	32
Styrene	1.0	U	10.0	10.8		ug/L		108	71 - 127	6	34
Bromoform	1.0	U	10.0	10.2		ug/L		102	46 - 150	1	35
1,1,2,2-Tetrachloroethane	1.0	U	10.0	10.6		ug/L		106	62 - 125	5	35
Acrylonitrile	20	U	100	108		ug/L		108	30 - 140	1	35
1,4-Dioxane	200	U ^c	200	229		ug/L		115	10 - 160	1	35

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	90		64 - 135
Toluene-d8 (Surr)	95		71 - 118
4-Bromofluorobenzene (Surr)	96		70 - 118
Dibromofluoromethane (Surr)	87		70 - 128



# QC Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Lab Sample ID: MB 180-154553/4**  
**Matrix: Water**  
**Analysis Batch: 154553**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			09/23/15 12:14	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			09/23/15 12:14	1
Bromomethane	1.0	U	1.0	0.31	ug/L			09/23/15 12:14	1
Chloroethane	1.0	U	1.0	0.21	ug/L			09/23/15 12:14	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/23/15 12:14	1
Acetone	5.0	U	5.0	2.5	ug/L			09/23/15 12:14	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			09/23/15 12:14	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			09/23/15 12:14	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			09/23/15 12:14	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			09/23/15 12:14	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			09/23/15 12:14	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			09/23/15 12:14	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			09/23/15 12:14	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			09/23/15 12:14	1
Chloroform	1.0	U	1.0	0.17	ug/L			09/23/15 12:14	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			09/23/15 12:14	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			09/23/15 12:14	1
Benzene	1.0	U	1.0	0.11	ug/L			09/23/15 12:14	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			09/23/15 12:14	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			09/23/15 12:14	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			09/23/15 12:14	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			09/23/15 12:14	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			09/23/15 12:14	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			09/23/15 12:14	1
Toluene	1.0	U	1.0	0.15	ug/L			09/23/15 12:14	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			09/23/15 12:14	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			09/23/15 12:14	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			09/23/15 12:14	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			09/23/15 12:14	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			09/23/15 12:14	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			09/23/15 12:14	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			09/23/15 12:14	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			09/23/15 12:14	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			09/23/15 12:14	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			09/23/15 12:14	1
Styrene	1.0	U	1.0	0.097	ug/L			09/23/15 12:14	1
Bromoform	1.0	U	1.0	0.19	ug/L			09/23/15 12:14	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			09/23/15 12:14	1
Acrylonitrile	20	U	20	0.55	ug/L			09/23/15 12:14	1
1,4-Dioxane	200	U	200	34	ug/L			09/23/15 12:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		64 - 135		09/23/15 12:14	1
Toluene-d8 (Surr)	100		71 - 118		09/23/15 12:14	1
4-Bromofluorobenzene (Surr)	89		70 - 118		09/23/15 12:14	1
Dibromofluoromethane (Surr)	115		70 - 128		09/23/15 12:14	1



# QC Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Lab Sample ID: LCS 180-154553/10**  
**Matrix: Water**  
**Analysis Batch: 154553**

**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	9.12		ug/L		91	53 - 138
Bromomethane	10.0	7.85		ug/L		78	33 - 150
Chloroethane	10.0	8.40		ug/L		84	36 - 142
1,1-Dichloroethene	10.0	8.17		ug/L		82	65 - 136
Acetone	20.0	21.7		ug/L		108	22 - 150
Carbon disulfide	10.0	7.36		ug/L		74	54 - 132
Methylene Chloride	10.0	8.39		ug/L		84	63 - 129
trans-1,2-Dichloroethene	10.0	8.64		ug/L		86	73 - 126
Methyl tert-butyl ether	10.0	8.86		ug/L		89	64 - 123
1,1-Dichloroethane	10.0	9.67		ug/L		97	73 - 126
cis-1,2-Dichloroethene	10.0	8.57		ug/L		86	70 - 120
Bromochloromethane	10.0	10.4		ug/L		104	70 - 127
2-Butanone (MEK)	20.0	22.9		ug/L		115	39 - 138
Chloroform	10.0	8.99		ug/L		90	72 - 127
1,1,1-Trichloroethane	10.0	8.42		ug/L		84	63 - 133
Carbon tetrachloride	10.0	8.68		ug/L		87	55 - 150
Benzene	10.0	9.54		ug/L		95	80 - 120
1,2-Dichloroethane	10.0	9.91		ug/L		99	68 - 132
Trichloroethene	10.0	10.6		ug/L		106	73 - 120
1,2-Dichloropropane	10.0	10.7		ug/L		107	76 - 124
Bromodichloromethane	10.0	8.79		ug/L		88	66 - 130
cis-1,3-Dichloropropene	10.0	9.10		ug/L		91	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	21.3		ug/L		106	45 - 145
Toluene	10.0	9.56		ug/L		96	80 - 123
trans-1,3-Dichloropropene	10.0	8.53		ug/L		85	65 - 125
1,1,2-Trichloroethane	10.0	9.58		ug/L		96	77 - 127
Tetrachloroethene	10.0	10.3		ug/L		103	70 - 135
2-Hexanone	20.0	23.3		ug/L		117	25 - 132
Dibromochloromethane	10.0	9.16		ug/L		92	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.96		ug/L		100	74 - 123
Chlorobenzene	10.0	9.85		ug/L		99	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.30		ug/L		93	63 - 140
Ethylbenzene	10.0	9.64		ug/L		96	72 - 126
Xylenes, Total	20.0	18.7		ug/L		93	76 - 128
Styrene	10.0	9.86		ug/L		99	71 - 127
Bromoform	10.0	9.74		ug/L		97	46 - 150
1,1,2,2-Tetrachloroethane	10.0	9.51		ug/L		95	62 - 125
Acrylonitrile	100	114		ug/L		114	30 - 140
1,4-Dioxane	200	183	J	ug/L		92	10 - 160

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		64 - 135
Toluene-d8 (Surr)	96		71 - 118
4-Bromofluorobenzene (Surr)	90		70 - 118
Dibromofluoromethane (Surr)	95		70 - 128

# QC Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Lab Sample ID: 180-47781-5 MS**

**Matrix: Water**

**Analysis Batch: 154553**

**Client Sample ID: HD-COD-SW-12-0/1-0**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
Chloromethane	1.0	U	10.0	10.7		ug/L		107	50 - 139
Vinyl chloride	1.0	U	10.0	9.73		ug/L		97	53 - 138
Bromomethane	1.0	U	10.0	7.54		ug/L		75	33 - 150
Chloroethane	1.0	U	10.0	9.24		ug/L		92	36 - 142
1,1-Dichloroethene	1.0	U	10.0	8.82		ug/L		88	65 - 136
Acetone	5.0	U	20.0	21.7		ug/L		108	22 - 150
Carbon disulfide	1.0	U	10.0	7.82		ug/L		78	54 - 132
Methylene Chloride	1.0	U	10.0	8.44		ug/L		84	63 - 129
trans-1,2-Dichloroethene	1.0	U	10.0	9.12		ug/L		91	73 - 126
Methyl tert-butyl ether	1.0	U	10.0	8.69		ug/L		87	64 - 123
1,1-Dichloroethane	1.0	U	10.0	9.78		ug/L		98	73 - 126
cis-1,2-Dichloroethene	1.0	U	10.0	8.81		ug/L		88	70 - 120
Bromochloromethane	1.0	U	10.0	10.4		ug/L		104	70 - 127
2-Butanone (MEK)	5.0	U	20.0	23.4		ug/L		117	39 - 138
Chloroform	0.20	J	10.0	9.65		ug/L		94	72 - 127
1,1,1-Trichloroethane	1.0	U	10.0	8.95		ug/L		89	63 - 133
Carbon tetrachloride	1.0	U	10.0	9.62		ug/L		96	55 - 150
Benzene	1.0	U	10.0	9.73		ug/L		97	80 - 120
1,2-Dichloroethane	1.0	U	10.0	9.93		ug/L		99	68 - 132
Trichloroethene	1.0	U	10.0	10.9		ug/L		109	73 - 120
1,2-Dichloropropane	1.0	U	10.0	10.3		ug/L		103	76 - 124
Bromodichloromethane	1.0	U	10.0	8.82		ug/L		88	66 - 130
cis-1,3-Dichloropropene	1.0	U	10.0	8.85		ug/L		88	66 - 120
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	20.8		ug/L		104	45 - 145
Toluene	1.0	U	10.0	9.70		ug/L		97	80 - 123
trans-1,3-Dichloropropene	1.0	U	10.0	8.63		ug/L		86	65 - 125
1,1,2-Trichloroethane	1.0	U	10.0	9.54		ug/L		95	77 - 127
Tetrachloroethene	1.0	U	10.0	10.7		ug/L		107	70 - 135
2-Hexanone	5.0	U	20.0	22.9		ug/L		114	25 - 132
Dibromochloromethane	1.0	U	10.0	9.22		ug/L		92	60 - 140
1,2-Dibromoethane (EDB)	1.0	U	10.0	10.2		ug/L		102	74 - 123
Chlorobenzene	1.0	U	10.0	10.1		ug/L		101	80 - 120
1,1,1,2-Tetrachloroethane	1.0	U	10.0	9.88		ug/L		99	63 - 140
Ethylbenzene	1.0	U	10.0	9.98		ug/L		100	72 - 126
Xylenes, Total	3.0	U	20.0	19.5		ug/L		98	76 - 128
Styrene	1.0	U	10.0	10.3		ug/L		103	71 - 127
Bromoform	1.0	U	10.0	10.1		ug/L		101	46 - 150
1,1,2,2-Tetrachloroethane	1.0	U	10.0	9.53		ug/L		95	62 - 125
Acrylonitrile	20	U	100	112		ug/L		112	30 - 140
1,4-Dioxane	200	U	200	238		ug/L		119	10 - 160

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	97		64 - 135
Toluene-d8 (Surr)	100		71 - 118
4-Bromofluorobenzene (Surr)	91		70 - 118
Dibromofluoromethane (Surr)	99		70 - 128

# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Lab Sample ID: 180-47781-5 MSD**

**Matrix: Water**

**Analysis Batch: 154553**

**Client Sample ID: HD-COD-SW-12-0/1-0**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
Chloromethane	1.0	U	10.0	11.0		ug/L		110	50 - 139	3	35
Vinyl chloride	1.0	U	10.0	9.76		ug/L		98	53 - 138	0	35
Bromomethane	1.0	U	10.0	7.61		ug/L		76	33 - 150	1	35
Chloroethane	1.0	U	10.0	8.25		ug/L		83	36 - 142	11	35
1,1-Dichloroethene	1.0	U	10.0	9.13		ug/L		91	65 - 136	3	35
Acetone	5.0	U	20.0	22.9		ug/L		115	22 - 150	6	35
Carbon disulfide	1.0	U	10.0	7.87		ug/L		79	54 - 132	1	35
Methylene Chloride	1.0	U	10.0	9.31		ug/L		93	63 - 129	10	35
trans-1,2-Dichloroethene	1.0	U	10.0	9.44		ug/L		94	73 - 126	3	35
Methyl tert-butyl ether	1.0	U	10.0	9.33		ug/L		93	64 - 123	7	35
1,1-Dichloroethane	1.0	U	10.0	10.3		ug/L		103	73 - 126	6	35
cis-1,2-Dichloroethene	1.0	U	10.0	9.31		ug/L		93	70 - 120	5	35
Bromochloromethane	1.0	U	10.0	10.6		ug/L		106	70 - 127	1	35
2-Butanone (MEK)	5.0	U	20.0	23.9		ug/L		119	39 - 138	2	35
Chloroform	0.20	J	10.0	9.78		ug/L		96	72 - 127	1	35
1,1,1-Trichloroethane	1.0	U	10.0	9.17		ug/L		92	63 - 133	2	35
Carbon tetrachloride	1.0	U	10.0	9.55		ug/L		96	55 - 150	1	35
Benzene	1.0	U	10.0	10.0		ug/L		100	80 - 120	3	32
1,2-Dichloroethane	1.0	U	10.0	10.5		ug/L		105	68 - 132	6	32
Trichloroethene	1.0	U	10.0	11.1		ug/L		111	73 - 120	2	35
1,2-Dichloropropane	1.0	U	10.0	11.1		ug/L		111	76 - 124	7	34
Bromodichloromethane	1.0	U	10.0	9.39		ug/L		94	66 - 130	6	35
cis-1,3-Dichloropropene	1.0	U	10.0	9.40		ug/L		94	66 - 120	6	35
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	24.1		ug/L		121	45 - 145	15	35
Toluene	1.0	U	10.0	9.87		ug/L		99	80 - 123	2	35
trans-1,3-Dichloropropene	1.0	U	10.0	8.98		ug/L		90	65 - 125	4	35
1,1,2-Trichloroethane	1.0	U	10.0	10.2		ug/L		102	77 - 127	6	35
Tetrachloroethene	1.0	U	10.0	10.5		ug/L		105	70 - 135	2	35
2-Hexanone	5.0	U	20.0	26.3		ug/L		132	25 - 132	14	35
Dibromochloromethane	1.0	U	10.0	10.0		ug/L		100	60 - 140	9	35
1,2-Dibromoethane (EDB)	1.0	U	10.0	10.9		ug/L		109	74 - 123	7	35
Chlorobenzene	1.0	U	10.0	10.5		ug/L		105	80 - 120	4	29
1,1,1,2-Tetrachloroethane	1.0	U	10.0	10.2		ug/L		102	63 - 140	3	34
Ethylbenzene	1.0	U	10.0	10.4		ug/L		104	72 - 126	4	33
Xylenes, Total	3.0	U	20.0	20.1		ug/L		101	76 - 128	3	32
Styrene	1.0	U	10.0	10.6		ug/L		106	71 - 127	3	34
Bromoform	1.0	U	10.0	10.7		ug/L		107	46 - 150	5	35
1,1,2,2-Tetrachloroethane	1.0	U	10.0	9.84		ug/L		98	62 - 125	3	35
Acrylonitrile	20	U	100	122		ug/L		122	30 - 140	9	35
1,4-Dioxane	200	U	200	235		ug/L		117	10 - 160	1	35
	<b>MSD</b>	<b>MSD</b>									
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>								
1,2-Dichloroethane-d4 (Surr)	104		64 - 135								
Toluene-d8 (Surr)	103		71 - 118								
4-Bromofluorobenzene (Surr)	95		70 - 118								
Dibromofluoromethane (Surr)	105		70 - 128								

# QC Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Lab Sample ID: MB 180-154736/4**  
**Matrix: Water**  
**Analysis Batch: 154736**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			09/24/15 12:10	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			09/24/15 12:10	1
Bromomethane	1.0	U	1.0	0.31	ug/L			09/24/15 12:10	1
Chloroethane	1.0	U	1.0	0.21	ug/L			09/24/15 12:10	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			09/24/15 12:10	1
Acetone	5.0	U	5.0	2.5	ug/L			09/24/15 12:10	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			09/24/15 12:10	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			09/24/15 12:10	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			09/24/15 12:10	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			09/24/15 12:10	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			09/24/15 12:10	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			09/24/15 12:10	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			09/24/15 12:10	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			09/24/15 12:10	1
Chloroform	1.0	U	1.0	0.17	ug/L			09/24/15 12:10	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			09/24/15 12:10	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			09/24/15 12:10	1
Benzene	1.0	U	1.0	0.11	ug/L			09/24/15 12:10	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			09/24/15 12:10	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			09/24/15 12:10	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			09/24/15 12:10	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			09/24/15 12:10	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			09/24/15 12:10	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			09/24/15 12:10	1
Toluene	1.0	U	1.0	0.15	ug/L			09/24/15 12:10	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			09/24/15 12:10	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			09/24/15 12:10	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			09/24/15 12:10	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			09/24/15 12:10	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			09/24/15 12:10	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			09/24/15 12:10	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			09/24/15 12:10	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			09/24/15 12:10	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			09/24/15 12:10	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			09/24/15 12:10	1
Styrene	1.0	U	1.0	0.097	ug/L			09/24/15 12:10	1
Bromoform	1.0	U	1.0	0.19	ug/L			09/24/15 12:10	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			09/24/15 12:10	1
Acrylonitrile	20	U	20	0.55	ug/L			09/24/15 12:10	1
1,4-Dioxane	200	U	200	34	ug/L			09/24/15 12:10	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		64 - 135		09/24/15 12:10	1
Toluene-d8 (Surr)	98		71 - 118		09/24/15 12:10	1
4-Bromofluorobenzene (Surr)	91		70 - 118		09/24/15 12:10	1
Dibromofluoromethane (Surr)	101		70 - 128		09/24/15 12:10	1

# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

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

**Lab Sample ID: LCS 180-154736/7**

**Matrix: Water**

**Analysis Batch: 154736**

**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	12.9		ug/L		129	50 - 139
Vinyl chloride	10.0	11.0		ug/L		110	53 - 138
Bromomethane	10.0	9.36		ug/L		94	33 - 150
Chloroethane	10.0	10.6		ug/L		106	36 - 142
1,1-Dichloroethene	10.0	7.97		ug/L		80	65 - 136
Acetone	20.0	19.0		ug/L		95	22 - 150
Carbon disulfide	10.0	8.54		ug/L		85	54 - 132
Methylene Chloride	10.0	9.06		ug/L		91	63 - 129
trans-1,2-Dichloroethene	10.0	8.26		ug/L		83	73 - 126
Methyl tert-butyl ether	10.0	8.33		ug/L		83	64 - 123
1,1-Dichloroethane	10.0	8.77		ug/L		88	73 - 126
cis-1,2-Dichloroethene	10.0	8.15		ug/L		81	70 - 120
Bromochloromethane	10.0	8.20		ug/L		82	70 - 127
2-Butanone (MEK)	20.0	20.9		ug/L		105	39 - 138
Chloroform	10.0	9.03		ug/L		90	72 - 127
1,1,1-Trichloroethane	10.0	8.20		ug/L		82	63 - 133
Carbon tetrachloride	10.0	8.54		ug/L		85	55 - 150
Benzene	10.0	8.91		ug/L		89	80 - 120
1,2-Dichloroethane	10.0	9.39		ug/L		94	68 - 132
Trichloroethene	10.0	8.49		ug/L		85	73 - 120
1,2-Dichloropropane	10.0	9.65		ug/L		96	76 - 124
Bromodichloromethane	10.0	10.1		ug/L		101	66 - 130
cis-1,3-Dichloropropene	10.0	9.72		ug/L		97	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	20.6		ug/L		103	45 - 145
Toluene	10.0	9.89		ug/L		99	80 - 123
trans-1,3-Dichloropropene	10.0	10.4		ug/L		104	65 - 125
1,1,2-Trichloroethane	10.0	11.3		ug/L		113	77 - 127
Tetrachloroethene	10.0	10.4		ug/L		104	70 - 135
2-Hexanone	20.0	20.7		ug/L		103	25 - 132
Dibromochloromethane	10.0	11.2		ug/L		112	60 - 140
1,2-Dibromoethane (EDB)	10.0	11.0		ug/L		110	74 - 123
Chlorobenzene	10.0	10.6		ug/L		106	80 - 120
1,1,1,2-Tetrachloroethane	10.0	10.9		ug/L		109	63 - 140
Ethylbenzene	10.0	10.8		ug/L		108	72 - 126
Xylenes, Total	20.0	22.0		ug/L		110	76 - 128
Styrene	10.0	11.9		ug/L		119	71 - 127
Bromoform	10.0	12.0		ug/L		120	46 - 150
1,1,2,2-Tetrachloroethane	10.0	12.5		ug/L		125	62 - 125
Acrylonitrile	100	101		ug/L		101	30 - 140
1,4-Dioxane	200	251		ug/L		125	10 - 160
	<b>LCS</b>	<b>LCS</b>					
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>					<b>Limits</b>
<i>1,2-Dichloroethane-d4 (Surr)</i>	92						64 - 135
<i>Toluene-d8 (Surr)</i>	96						71 - 118
<i>4-Bromofluorobenzene (Surr)</i>	93						70 - 118
<i>Dibromofluoromethane (Surr)</i>	88						70 - 128

# QC Association Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

## GC/MS VOA

### Analysis Batch: 154121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-47781-9	HD-COD-SW-17-0/1-0	Total/NA	Water	8260C	
180-47781-9 MS	HD-COD-SW-17-0/1-0	Total/NA	Water	8260C	
180-47781-9 MSD	HD-COD-SW-17-0/1-0	Total/NA	Water	8260C	
180-47781-15	HD-QC1-0/1-2	Total/NA	Water	8260C	
LCS 180-154121/9	Lab Control Sample	Total/NA	Water	8260C	
MB 180-154121/6	Method Blank	Total/NA	Water	8260C	

### Analysis Batch: 154425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-47781-1	HD-COD-SW-6-0/1-0	Total/NA	Water	8260C	
180-47781-1 MS	HD-COD-SW-6-0/1-0	Total/NA	Water	8260C	
180-47781-1 MSD	HD-COD-SW-6-0/1-0	Total/NA	Water	8260C	
180-47781-2	HD-COD-SW-7-0/1-0	Total/NA	Water	8260C	
180-47781-3	HD-COD-SW-8-0/1-0	Total/NA	Water	8260C	
180-47781-4	HD-COD-SW-9-0/1-0	Total/NA	Water	8260C	
LCS 180-154425/12	Lab Control Sample	Total/NA	Water	8260C	
MB 180-154425/9	Method Blank	Total/NA	Water	8260C	

### Analysis Batch: 154553

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-47781-5	HD-COD-SW-12-0/1-0	Total/NA	Water	8260C	
180-47781-5 MS	HD-COD-SW-12-0/1-0	Total/NA	Water	8260C	
180-47781-5 MSD	HD-COD-SW-12-0/1-0	Total/NA	Water	8260C	
180-47781-6	HD-COD-SW-13-0/1-0	Total/NA	Water	8260C	
180-47781-7	HD-COD-SW-15-0/1-0	Total/NA	Water	8260C	
180-47781-8	HD-COD-SW-16-0/1-0	Total/NA	Water	8260C	
180-47781-10	HD-COD-SW-26-0/1-0	Total/NA	Water	8260C	
180-47781-11	HD-COD-SW-27-0/1-0	Total/NA	Water	8260C	
180-47781-12	HD-COD-SW-28-0/1-0	Total/NA	Water	8260C	
180-47781-13	HD-COD-SW-29-0/1-0	Total/NA	Water	8260C	
180-47781-14	HD-QC1-0/1-1	Total/NA	Water	8260C	
180-47781-16 - DL	HD-MW-136A-459.5/460-0	Total/NA	Water	8260C	
LCS 180-154553/10	Lab Control Sample	Total/NA	Water	8260C	
MB 180-154553/4	Method Blank	Total/NA	Water	8260C	

### Analysis Batch: 154736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-47781-16	HD-MW-136A-459.5/460-0	Total/NA	Water	8260C	
LCS 180-154736/7	Lab Control Sample	Total/NA	Water	8260C	
MB 180-154736/4	Method Blank	Total/NA	Water	8260C	

# Lab Chronicle

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

**Client Sample ID: HD-COD-SW-6-0/1-0**

**Date Collected: 09/15/15 10:40**

**Date Received: 09/16/15 09:15**

**Lab Sample ID: 180-47781-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	154425	09/22/15 15:03	DLF	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-COD-SW-7-0/1-0**

**Date Collected: 09/15/15 11:20**

**Date Received: 09/16/15 09:15**

**Lab Sample ID: 180-47781-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	154425	09/22/15 17:28	DLF	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-COD-SW-8-0/1-0**

**Date Collected: 09/15/15 09:23**

**Date Received: 09/16/15 09:15**

**Lab Sample ID: 180-47781-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	154425	09/22/15 17:52	DLF	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-COD-SW-9-0/1-0**

**Date Collected: 09/15/15 12:15**

**Date Received: 09/16/15 09:15**

**Lab Sample ID: 180-47781-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	154425	09/22/15 18:16	DLF	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-COD-SW-12-0/1-0**

**Date Collected: 09/15/15 12:55**

**Date Received: 09/16/15 09:15**

**Lab Sample ID: 180-47781-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	154553	09/23/15 12:53	DLF	TAL PIT
Instrument ID: CHHP6										

**Client Sample ID: HD-COD-SW-13-0/1-0**

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

**Date Received: 09/16/15 09:15**

**Lab Sample ID: 180-47781-6**

**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	154553	09/23/15 16:31	DLF	TAL PIT
Instrument ID: CHHP6										

TestAmerica Pittsburgh



# Lab Chronicle

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

**Client Sample ID: HD-COD-SW-15-0/1-0**

**Lab Sample ID: 180-47781-7**

Date Collected: 09/15/15 13:10

Matrix: Water

Date Received: 09/16/15 09:15

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	154553	09/23/15 16:56	DLF	TAL PIT
Instrument ID: CHHP6										

**Client Sample ID: HD-COD-SW-16-0/1-0**

**Lab Sample ID: 180-47781-8**

Date Collected: 09/15/15 10:05

Matrix: Water

Date Received: 09/16/15 09:15

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	154553	09/23/15 17:20	DLF	TAL PIT
Instrument ID: CHHP6										

**Client Sample ID: HD-COD-SW-17-0/1-0**

**Lab Sample ID: 180-47781-9**

Date Collected: 09/15/15 10:20

Matrix: Water

Date Received: 09/16/15 09:15

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	154121	09/18/15 14:16	DLF	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-COD-SW-26-0/1-0**

**Lab Sample ID: 180-47781-10**

Date Collected: 09/15/15 11:00

Matrix: Water

Date Received: 09/16/15 09:15

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	154553	09/23/15 17:45	DLF	TAL PIT
Instrument ID: CHHP6										

**Client Sample ID: HD-COD-SW-27-0/1-0**

**Lab Sample ID: 180-47781-11**

Date Collected: 09/15/15 13:20

Matrix: Water

Date Received: 09/16/15 09:15

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	154553	09/23/15 18:09	DLF	TAL PIT
Instrument ID: CHHP6										

**Client Sample ID: HD-COD-SW-28-0/1-0**

**Lab Sample ID: 180-47781-12**

Date Collected: 09/15/15 12:40

Matrix: Water

Date Received: 09/16/15 09:15

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	154553	09/23/15 18:33	DLF	TAL PIT
Instrument ID: CHHP6										

TestAmerica Pittsburgh



# Lab Chronicle

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47781-1

**Client Sample ID: HD-COD-SW-29-0/1-0**

**Lab Sample ID: 180-47781-13**

Date Collected: 09/15/15 09:08

Matrix: Water

Date Received: 09/16/15 09:15

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	154553	09/23/15 18:57	DLF	TAL PIT
Instrument ID: CHHP6										

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

**Lab Sample ID: 180-47781-14**

Date Collected: 09/15/15 08:00

Matrix: Water

Date Received: 09/16/15 09:15

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	154553	09/23/15 19:21	DLF	TAL PIT
Instrument ID: CHHP6										

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

**Lab Sample ID: 180-47781-15**

Date Collected: 09/15/15 12:00

Matrix: Water

Date Received: 09/16/15 09:15

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	154121	09/18/15 14:40	DLF	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-MW-136A-459.5/460-0**

**Lab Sample ID: 180-47781-16**

Date Collected: 09/15/15 13:00

Matrix: Water

Date Received: 09/16/15 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	5 mL	5 mL	154736	09/24/15 22:04	DLF	TAL PIT
Instrument ID: CHHP5										
Total/NA	Analysis	8260C	DL	100	5 mL	5 mL	154553	09/23/15 19:46	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: 180-47781-1

## 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: 180-47781-1

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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: 180-47781-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-47781-1	HD-COD-SW-6-0/1-0	Water	09/15/15 10:40	09/16/15 09:15
180-47781-2	HD-COD-SW-7-0/1-0	Water	09/15/15 11:20	09/16/15 09:15
180-47781-3	HD-COD-SW-8-0/1-0	Water	09/15/15 09:23	09/16/15 09:15
180-47781-4	HD-COD-SW-9-0/1-0	Water	09/15/15 12:15	09/16/15 09:15
180-47781-5	HD-COD-SW-12-0/1-0	Water	09/15/15 12:55	09/16/15 09:15
180-47781-6	HD-COD-SW-13-0/1-0	Water	09/15/15 09:45	09/16/15 09:15
180-47781-7	HD-COD-SW-15-0/1-0	Water	09/15/15 13:10	09/16/15 09:15
180-47781-8	HD-COD-SW-16-0/1-0	Water	09/15/15 10:05	09/16/15 09:15
180-47781-9	HD-COD-SW-17-0/1-0	Water	09/15/15 10:20	09/16/15 09:15
180-47781-10	HD-COD-SW-26-0/1-0	Water	09/15/15 11:00	09/16/15 09:15
180-47781-11	HD-COD-SW-27-0/1-0	Water	09/15/15 13:20	09/16/15 09:15
180-47781-12	HD-COD-SW-28-0/1-0	Water	09/15/15 12:40	09/16/15 09:15
180-47781-13	HD-COD-SW-29-0/1-0	Water	09/15/15 09:08	09/16/15 09:15
180-47781-14	HD-QC1-0/1-1	Water	09/15/15 08:00	09/16/15 09:15
180-47781-15	HD-QC1-0/1-2	Water	09/15/15 12:00	09/16/15 09:15
180-47781-16	HD-MW-136A-459.5/460-0	Water	09/15/15 13:00	09/16/15 09:15

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1

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.: 180-47781-1

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

Instrument ID: CHHP5 Analysis Batch Number: 154121Lab Sample ID: 180-47781-9 MS Client Sample ID: HD-COD-SW-17-0/1-0 MSDate Analyzed: 09/18/15 15:31 Lab File ID: 50918010.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	09/18/15 15:48

Lab Sample ID: 180-47781-9 MSD Client Sample ID: HD-COD-SW-17-0/1-0 MSDDate Analyzed: 09/18/15 15:56 Lab File ID: 50918011.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.25	Incomplete Integration	fergusond	09/21/15 07:42
1,4-Dioxane	8.02	Incomplete Integration	fergusond	09/21/15 07:42

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1

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

Instrument ID: CHHP5 Analysis Batch Number: 154425Lab Sample ID: LCS 180-154425/12 Client Sample ID: \_\_\_\_\_Date Analyzed: 09/22/15 15:51 Lab File ID: 50922012.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	09/22/15 16:07

Lab Sample ID: 180-47781-1 MSD Client Sample ID: HD-COD-SW-6-0/1-0 MSDDate Analyzed: 09/22/15 16:39 Lab File ID: 50922014.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	09/23/15 07:56

Lab Sample ID: 180-47781-2 Client Sample ID: HD-COD-SW-7-0/1-0Date Analyzed: 09/22/15 17:28 Lab File ID: 50922016.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.38	Incomplete Integration	fergusond	09/23/15 07:57
Trichloroethene	7.68	Incomplete Integration	fergusond	09/23/15 07:57

Lab Sample ID: 180-47781-3 Client Sample ID: HD-COD-SW-8-0/1-0Date Analyzed: 09/22/15 17:52 Lab File ID: 50922017.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.75	Incomplete Integration	fergusond	09/23/15 07:59
Tetrachloroethene	9.53	Incomplete Integration	fergusond	09/23/15 07:59

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1

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

Instrument ID: CHHP5 Analysis Batch Number: 154736Lab Sample ID: CCVIS 180-154736/2 Client Sample ID: \_\_\_\_\_Date Analyzed: 09/24/15 11:05 Lab File ID: 50924002.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	2.69	Incomplete Integration	fergusond	09/24/15 11:28

Lab Sample ID: 180-47781-16 Client Sample ID: HD-MW-136A-459.5/460-0Date Analyzed: 09/24/15 22:04 Lab File ID: 50924028.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethane	5.20	Missed Peak	fergusond	09/25/15 09:41



## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1

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.: 180-47781-1

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.: 180-47781-1

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

Instrument ID: CHHP6 Analysis Batch Number: 154553Lab Sample ID: CCVIS 180-154553/2 Client Sample ID: \_\_\_\_\_Date Analyzed: 09/23/15 11:04 Lab File ID: 60923002.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	09/23/15 11:36

Lab Sample ID: 180-47781-5 Client Sample ID: HD-COD-SW-12-0/1-0Date Analyzed: 09/23/15 12:53 Lab File ID: 60923005.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.43	Incomplete Integration	fergusond	09/23/15 13:13

Lab Sample ID: 180-47781-5 MS Client Sample ID: HD-COD-SW-12-0/1-0 MSDate Analyzed: 09/23/15 14:06 Lab File ID: 60923008.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	09/23/15 14:33

Lab Sample ID: 180-47781-5 MSD Client Sample ID: HD-COD-SW-12-0/1-0 MSDDate Analyzed: 09/23/15 14:30 Lab File ID: 60923009.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	09/23/15 15:13

Lab Sample ID: LCS 180-154553/10 Client Sample ID: \_\_\_\_\_Date Analyzed: 09/23/15 14:54 Lab File ID: 60923010.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.02	Incomplete Integration	fergusond	09/23/15 15:16

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1

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

Instrument ID: CHHP6 Analysis Batch Number: 154553Lab Sample ID: 180-47781-6 Client Sample ID: HD-COD-SW-13-0/1-0Date Analyzed: 09/23/15 16:31 Lab File ID: 60923014.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.43	Incomplete Integration	fergusond	09/24/15 07:52

Lab Sample ID: 180-47781-7 Client Sample ID: HD-COD-SW-15-0/1-0Date Analyzed: 09/23/15 16:56 Lab File ID: 60923015.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl tert-butyl ether	4.56	Incomplete Integration	fergusond	09/24/15 07:54
trans-1,2-Dichloroethene	4.59	Incomplete Integration	fergusond	09/24/15 07:54
1,1-Dichloroethane	5.20	Missed Peak	fergusond	09/24/15 07:54

Lab Sample ID: 180-47781-8 Client Sample ID: HD-COD-SW-16-0/1-0Date Analyzed: 09/23/15 17:20 Lab File ID: 60923016.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.77	Incomplete Integration	fergusond	09/24/15 07:56
Acetone	3.44	Incomplete Integration	fergusond	09/24/15 07:56

Lab Sample ID: 180-47781-10 Client Sample ID: HD-COD-SW-26-0/1-0Date Analyzed: 09/23/15 17:45 Lab File ID: 60923017.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	3.34	Incomplete Integration	fergusond	09/24/15 07:58
Acetone	3.46	Incomplete Integration	fergusond	09/24/15 07:58

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1

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

Instrument ID: CHHP6 Analysis Batch Number: 154553Lab Sample ID: 180-47781-11 Client Sample ID: HD-COD-SW-27-0/1-0Date Analyzed: 09/23/15 18:09 Lab File ID: 60923018.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.44	Incomplete Integration	fergusond	09/24/15 08:01
Chloroform	6.37	Incomplete Integration	fergusond	09/24/15 08:01

Lab Sample ID: 180-47781-13 Client Sample ID: HD-COD-SW-29-0/1-0Date Analyzed: 09/23/15 18:57 Lab File ID: 60923020.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.77	Incomplete Integration	fergusond	09/24/15 08:04
Acetone	3.43	Incomplete Integration	fergusond	09/24/15 08:04
Tetrachloroethene	9.52	Incomplete Integration	fergusond	09/24/15 08:04

Lab Sample ID: 180-47781-14 Client Sample ID: HD-QC1-0/1-1Date Analyzed: 09/23/15 19:21 Lab File ID: 60923021.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl tert-butyl ether	4.57	Incomplete Integration	fergusond	09/24/15 08:06
1,1-Dichloroethane	5.20	Missed Peak	fergusond	09/24/15 08:06

Lab Sample ID: 180-47781-16 DL Client Sample ID: HD-MW-136A-459.5/460-0 DLDate Analyzed: 09/23/15 19:46 Lab File ID: 60923022.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.43	Missed Peak	fergusond	09/24/15 08:11
Acrylonitrile	4.51	Incomplete Integration	fergusond	09/24/15 08:11

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47781-1

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_00042</b>	10/11/15	09/11/15	Methanol, Lot 99494	10 mL	VOA8260INTRES_00068	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_00068	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>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_00042</b>	10/11/15	09/11/15	Methanol, Lot 99494	100 mL	VOA8260SURRES_00077	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_00077	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.: 180-47781-1

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_00143	09/23/15	09/16/15	Methanol, Lot 99494	10 mL	VOA8260GAS2ND_00113	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOA2ND_00141	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_00113	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_00141	10/03/15	09/03/15	Methanol, Lot 85233	10 mL	VOA8260MEGA2_00036	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.: 180-47781-1

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_00036	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.: 180-47781-1

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					
VOA8260VOA2ND_00144	10/01/15	09/24/15	Methanol, Lot 99494	10 mL	VOA8260GAS2ND_00114	0.1 mL	Bromomethane	25 ug/mL					
							Chloroethane	25 ug/mL					
							Chloromethane	25 ug/mL					
							Vinyl chloride	25 ug/mL					
										VOA8260VOA2ND_00141	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								

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47781-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.VOA8260GAS2ND_00114	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_00141	10/03/15	09/03/15	Methanol, Lot 85233	10 mL	VOA8260MEGA2_00036	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Ethylbenzene	250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylene Chloride	250 ug/mL
							Styrene	250 ug/mL
							Tetrachloroethene	250 ug/mL
Toluene	250 ug/mL							
trans-1,2-Dichloroethene	250 ug/mL							
trans-1,3-Dichloropropene	250 ug/mL							
Trichloroethene	250 ug/mL							
Xylenes, Total	500 ug/mL							
..VOA8260MEGA2_00036	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47781-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration		
					Reagent ID	Volume Added				
							Bromochloromethane	2500 ug/mL		
							Bromodichloromethane	2500 ug/mL		
							Bromoform	2500 ug/mL		
							Carbon disulfide	2500 ug/mL		
							Carbon tetrachloride	2500 ug/mL		
							Chlorobenzene	2500 ug/mL		
							Chloroform	2500 ug/mL		
							cis-1,2-Dichloroethene	2500 ug/mL		
							cis-1,3-Dichloropropene	2500 ug/mL		
							Dibromochloromethane	2500 ug/mL		
							Ethylbenzene	2500 ug/mL		
							Methyl tert-butyl ether	2500 ug/mL		
							Methylene Chloride	2500 ug/mL		
							Styrene	2500 ug/mL		
							Tetrachloroethene	2500 ug/mL		
							Toluene	2500 ug/mL		
							trans-1,2-Dichloroethene	2500 ug/mL		
							trans-1,3-Dichloropropene	2500 ug/mL		
							Trichloroethene	2500 ug/mL		
							Xylenes, Total	5000 ug/mL		
VOA8260VOAPRI_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									

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47781-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dichloropropane	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	500 ug/mL
							2,2-Dichloropropane	25 ug/mL
							2-Chlorotoluene	25 ug/mL
							2-Methyl-2-propanol	250 ug/mL
							3-Chloro-1-propene	25 ug/mL
							4-Chlorotoluene	25 ug/mL
							4-Isopropyltoluene	25 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromobenzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Cyclohexane	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Dibromomethane	25 ug/mL
							Ethyl ether	25 ug/mL
							Ethyl methacrylate	25 ug/mL
							Ethylbenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexane	25 ug/mL
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47781-1

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

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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47781-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Isopropyltoluene	250 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromobenzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Cyclohexane	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Dibromomethane	250 ug/mL
							Ethyl ether	250 ug/mL
							Ethyl methacrylate	250 ug/mL
							Ethylbenzene	250 ug/mL
							Hexachlorobutadiene	250 ug/mL
							Hexane	250 ug/mL
							Iodomethane	250 ug/mL
							Isobutyl alcohol	6250 ug/mL
							Isopropylbenzene	250 ug/mL
							m-Xylene & p-Xylene	250 ug/mL
							Methyl acetate	1250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylcyclohexane	250 ug/mL
							Methylene Chloride	250 ug/mL
							n-Butylbenzene	250 ug/mL
							n-Heptane	250 ug/mL
							N-Propylbenzene	250 ug/mL
							Naphthalene	250 ug/mL
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47781-1

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

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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47781-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	12500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
VOA8260VOAPRI_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
					VOA8260VOAPRI_00136	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	



REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47781-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trimethylbenzene	25 ug/mL
							1,2-Dibromo-3-Chloropropane	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dichloropropane	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	500 ug/mL
							2,2-Dichloropropane	25 ug/mL
							2-Chlorotoluene	25 ug/mL
							2-Methyl-2-propanol	250 ug/mL
							3-Chloro-1-propene	25 ug/mL
							4-Chlorotoluene	25 ug/mL
							4-Isopropyltoluene	25 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromobenzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Cyclohexane	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Dibromomethane	25 ug/mL
							Ethyl ether	25 ug/mL
							Ethyl methacrylate	25 ug/mL
							Ethylbenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexane	25 ug/mL
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47781-1

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

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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47781-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chlorotoluene	250 ug/mL
							2-Methyl-2-propanol	2500 ug/mL
							3-Chloro-1-propene	250 ug/mL
							4-Chlorotoluene	250 ug/mL
							4-Isopropyltoluene	250 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromobenzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Cyclohexane	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Dibromomethane	250 ug/mL
							Ethyl ether	250 ug/mL
							Ethyl methacrylate	250 ug/mL
							Ethylbenzene	250 ug/mL
							Hexachlorobutadiene	250 ug/mL
							Hexane	250 ug/mL
							Iodomethane	250 ug/mL
							Isobutyl alcohol	6250 ug/mL
							Isopropylbenzene	250 ug/mL
							m-Xylene & p-Xylene	250 ug/mL
							Methyl acetate	1250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylcyclohexane	250 ug/mL
							Methylene Chloride	250 ug/mL
							n-Butylbenzene	250 ug/mL
							n-Heptane	250 ug/mL
							N-Propylbenzene	250 ug/mL
							Naphthalene	250 ug/mL
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47781-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..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
							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-Dichloropropane	2500 ug/mL
							Cyclohexane	2500 ug/mL
Dibromochloromethane	2500 ug/mL							
Dibromomethane	2500 ug/mL							

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47781-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	12500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
VOA8260VOAPRI_00144	09/23/15	09/16/15	Methanol, Lot 99494	10 mL	VOA8260GAS1ST_00116	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00142	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47781-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260GAS1ST_00116	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_00142	10/03/15	09/03/15	Methanol, Lot 85233	10 mL	VOA8260MEGA1_00033	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47781-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00033	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
							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-Dichloropropene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VOA8260VOAPRI_00145	10/01/15	09/24/15	Methanol, Lot 99494	10 mL	VOA8260GAS1ST_00117	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00142	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47781-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260GAS1ST_00117	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_00142	10/03/15	09/03/15	Methanol, Lot 85233	10 mL	VOA8260MEGA1_00033	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



REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47781-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00033	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
							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
VOAACROLEINPR_00006	09/11/15	08/11/15	Methanol, Lot 85233	100 mL	VOAACRORES_00077	0.125 mL	Acrolein	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47781-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.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-(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_00021	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
<b>voaWeemix1Res_00001</b>	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47781-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.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							
<b>voaWket1 Rest_00001</b>	09/11/15	08/11/15	Methanol, Lot 85233	50 mL	VOA8260KET1ST_00049	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_00049	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
<b>voaWket1Reste_00001</b>	08/02/15	07/02/15	Methanol, Lot 85233	50 mL	VOA8260KET1ST_00046	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_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
<b>voaWket1stRes_00001</b>	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
<b>voaWketmix2nd_00002</b>	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
<b>voaWVA1st Res 00003</b>	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

www.restek.com

## Certificate of Analysis



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

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

**Catalog No. :** 569722 **Lot No.:** 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)

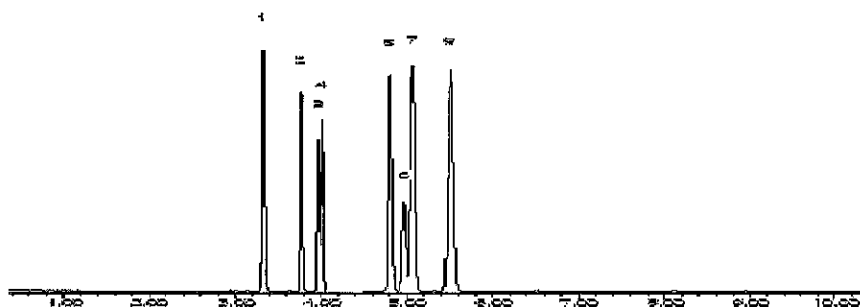
**Carrier Gas:**  
helium-constant flow 2.0 mL/min.

**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>
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Reagent

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**VOA8260GAS1ST\_00113**





# 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)

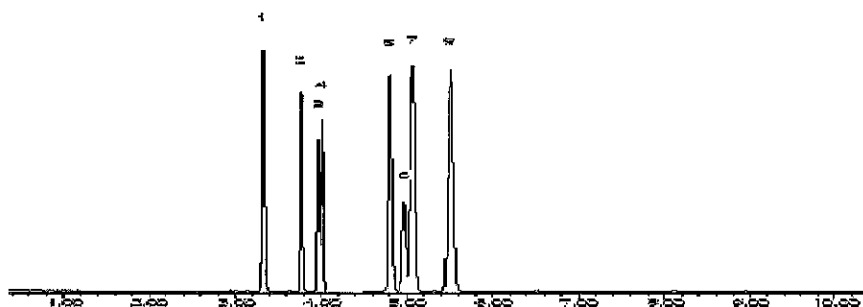
**Carrier Gas:**  
helium-constant flow 2.0 mL/min.

**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

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

Reagent

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**VOA8260GAS1ST\_00116**



# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## Certificate of Analysis



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

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

**Catalog No. :** 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)

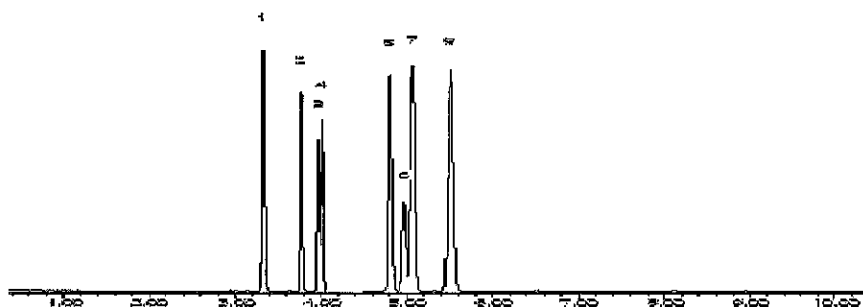
**Carrier Gas:**  
helium-constant flow 2.0 mL/min.

**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

---

**VOA8260GAS1ST\_00117**



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
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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)

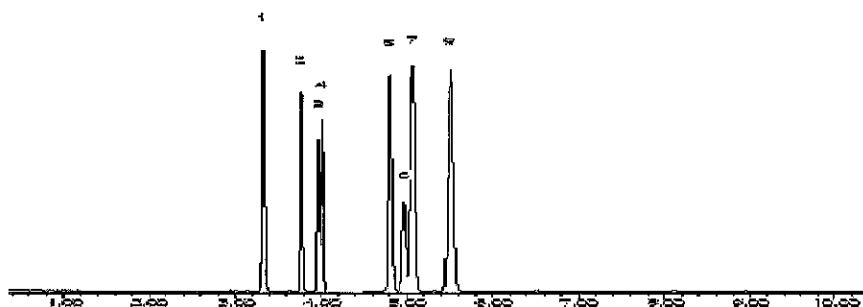
**Carrier Gas:**  
helium-constant flow 2.0 mL/min.

**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\_00113**



# 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. :** 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 mi/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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**VOA8260GAS2ND\_00114**



# 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**



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 MSDS PRIOR TO USE.**

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

**Catalog No. :** 567649 **Lot No.:** A093504  
**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 :** February 2018 **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	5,000.0 µg/mL	+/-	29.0689	µg/mL	Gravimetric
	CAS # 25725-11-5		+/-	110.6323	µg/mL	Unstressed
	Purity 99%		+/-	111.0833	µg/mL	Stressed
2	Fluorobenzene	250.0 µg/mL	+/-	1.4535	µg/mL	Gravimetric
	CAS # 462-06-6		+/-	5.5316	µg/mL	Unstressed
	Purity 99%		+/-	5.5542	µg/mL	Stressed
3	1,4-Dioxane-d8	5,000.0 µg/mL	+/-	29.0689	µg/mL	Gravimetric
	CAS # 17647-74-4		+/-	110.6323	µg/mL	Unstressed
	Purity 99%		+/-	111.0833	µg/mL	Stressed
4	Chlorobenzene-d5	250.0 µg/mL	+/-	1.4535	µg/mL	Gravimetric
	CAS # 3114-55-4		+/-	5.5316	µg/mL	Unstressed
	Purity 99%		+/-	5.5542	µg/mL	Stressed
5	1,4-Dichlorobenzene-d4	250.0 µg/mL	+/-	1.4535	µg/mL	Gravimetric
	CAS # 3855-82-1		+/-	5.5316	µg/mL	Unstressed
	Purity 99%		+/-	5.5542	µg/mL	Stressed

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

Reagent

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**VOA8260INTRES\_00068**



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 MSDS PRIOR TO USE.**

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

Catalog No. : 567649 Lot No.: A093504  
 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 : February 2018 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	5,000.0 $\mu\text{g/mL}$	+/- 29.0689	$\mu\text{g/mL}$	Gravimetric
	CAS # 25725-11-5		+/- 110.6323	$\mu\text{g/mL}$	Unstressed
	Purity 99%		+/- 111.0833	$\mu\text{g/mL}$	Stressed
2	Fluorobenzene	250.0 $\mu\text{g/mL}$	+/- 1.4535	$\mu\text{g/mL}$	Gravimetric
	CAS # 462-06-6		+/- 5.5316	$\mu\text{g/mL}$	Unstressed
	Purity 99%		+/- 5.5542	$\mu\text{g/mL}$	Stressed
3	1,4-Dioxane-d8	5,000.0 $\mu\text{g/mL}$	+/- 29.0689	$\mu\text{g/mL}$	Gravimetric
	CAS # 17647-74-4		+/- 110.6323	$\mu\text{g/mL}$	Unstressed
	Purity 99%		+/- 111.0833	$\mu\text{g/mL}$	Stressed
4	Chlorobenzene-d5	250.0 $\mu\text{g/mL}$	+/- 1.4535	$\mu\text{g/mL}$	Gravimetric
	CAS # 3114-55-4		+/- 5.5316	$\mu\text{g/mL}$	Unstressed
	Purity 99%		+/- 5.5542	$\mu\text{g/mL}$	Stressed
5	1,4-Dichlorobenzene-d4	250.0 $\mu\text{g/mL}$	+/- 1.4535	$\mu\text{g/mL}$	Gravimetric
	CAS # 3855-82-1		+/- 5.5316	$\mu\text{g/mL}$	Unstressed
	Purity 99%		+/- 5.5542	$\mu\text{g/mL}$	Stressed

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



Reagent

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**VOA8260INTRES\_00088**



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
 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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**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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 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. :** 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**

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 Fax: (814)353-1309

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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\_00049**

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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**



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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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**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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**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)

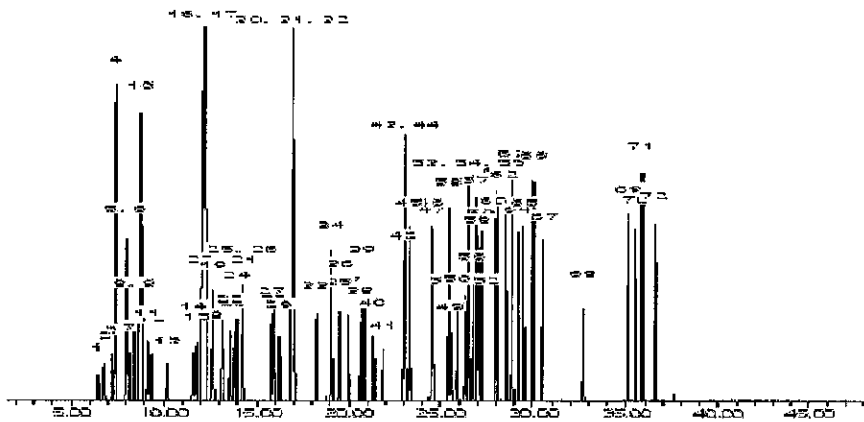
**Carrier Gas:**  
helium-constant pressure 30 psi

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

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

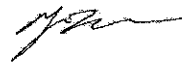
**Det. Type:**  
MSD



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

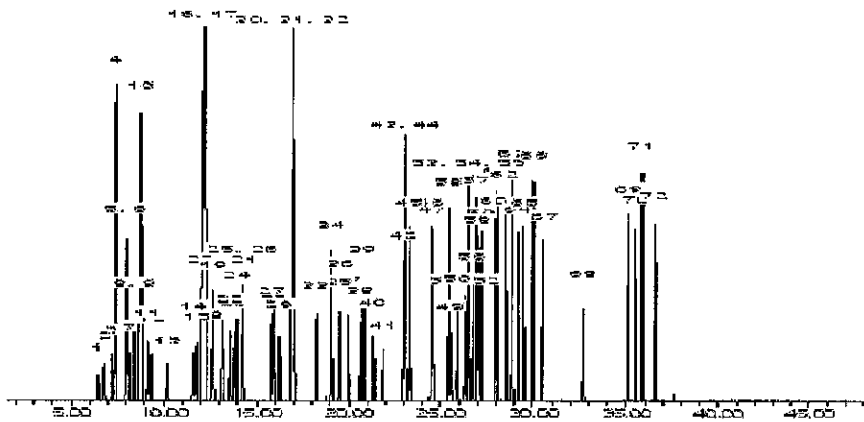
**Carrier Gas:**  
helium-constant pressure 30 psi

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

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

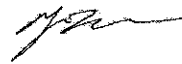
**Det. Type:**  
MSD



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

<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\_00033**



# 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)

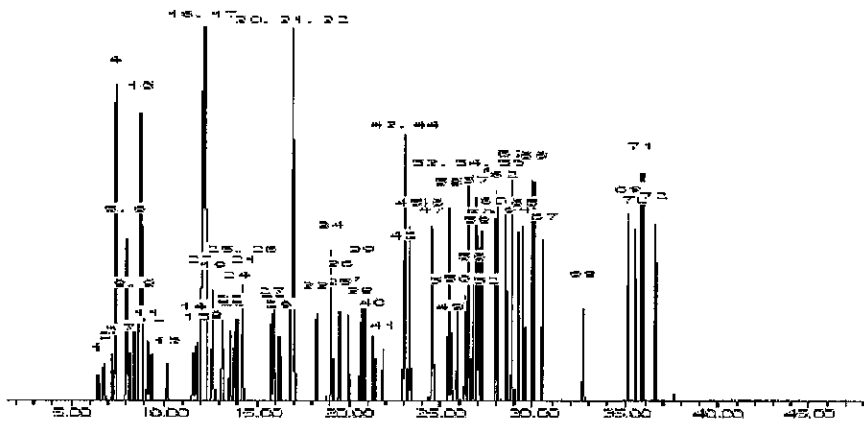
**Carrier Gas:**  
helium-constant pressure 30 psi

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

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

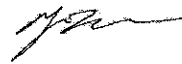
**Det. Type:**  
MSD



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

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

Reagent

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**VOA8260MEGA2\_00036**

# RESTEK<sup>®</sup> CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
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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)

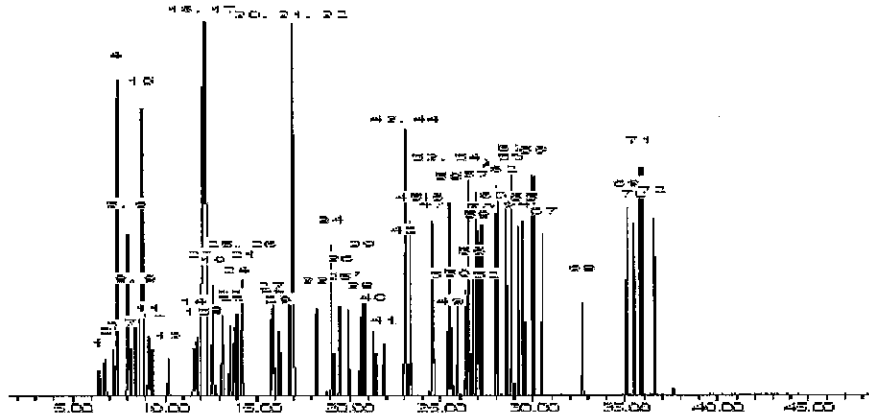
**Carrier Gas:**  
helium-constant pressure 30 psi

**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

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

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**VOA8260SURRES\_00066**

# RESTEK 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. :** 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\_00067**

# RESTEK CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## Certificate of Analysis



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

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

**Catalog No. :** 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\_00077**

# 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. :** 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

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. :** 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

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. :** 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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**VOAACRORES\_00077**



# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## Certificate of Analysis



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

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

Catalog No. : 568720 Lot No.: 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

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

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



Reagent

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**VOARESEE1ST\_00021**



# CERTIFIED REFERENCE MATERIAL



110 Benner Circle  
Bellefonte, PA 16823-8812

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	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%

Reagent

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**VOARESEE1ST\_00025**

# RESTEK® CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## Certificate of Analysis



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

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

Catalog No. : 568363-FL Lot No.: 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 CAS # 98-15-7 Purity 99% (Lot 21324DO)	5,000.0 µg/mL	+/- 29.3428	µg/mL	Gravimetric
			+/- 56.5231	µg/mL	Unstressed
			+/- 65.0021	µg/mL	Stressed
2	4-Chlorobenzotrifluoride CAS # 98-56-6 Purity 99% (Lot 08507BO)	5,003.0 µg/mL	+/- 29.3604	µg/mL	Gravimetric
			+/- 56.5570	µg/mL	Unstressed
			+/- 65.0411	µg/mL	Stressed
3	2-Chlorobenzotrifluoride CAS # 88-16-4 Purity 99% (Lot I0316DQ)	5,009.0 µg/mL	+/- 29.3956	µg/mL	Gravimetric
			+/- 56.6248	µg/mL	Unstressed
			+/- 65.1191	µg/mL	Stressed
4	3-Chlorotoluene CAS # 108-41-8 Purity 99% (Lot 13528LX)	5,012.0 µg/mL	+/- 29.4132	µg/mL	Gravimetric
			+/- 56.6587	µg/mL	Unstressed
			+/- 65.1581	µg/mL	Stressed
5	2,4-Dichlorobenzotrifluoride CAS # 320-60-5 Purity 99% (Lot MKBL3552V)	5,013.0 µg/mL	+/- 29.4191	µg/mL	Gravimetric
			+/- 56.6701	µg/mL	Unstressed
			+/- 65.1711	µg/mL	Stressed
6	3,4-Dichlorobenzotrifluoride CAS # 328-84-7 Purity 99% (Lot 11105EJV)	5,018.0 µg/mL	+/- 29.4484	µg/mL	Gravimetric
			+/- 56.7266	µg/mL	Unstressed
			+/- 65.2361	µg/mL	Stressed
7	2,5-Dichlorobenzotrifluoride CAS # 320-50-3 Purity 99% (Lot 04415DSV)	5,015.0 µg/mL	+/- 29.4308	µg/mL	Gravimetric
			+/- 56.6927	µg/mL	Unstressed
			+/- 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.: 180-47781-1

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-COD-SW-6-0/1-0	180-47781-1	102	106	97	94
HD-COD-SW-7-0/1-0	180-47781-2	100	108	97	98
HD-COD-SW-8-0/1-0	180-47781-3	105	105	96	93
HD-COD-SW-9-0/1-0	180-47781-4	102	108	96	91
HD-COD-SW-12-0/1-0	180-47781-5	111	111	99	84
HD-COD-SW-13-0/1-0	180-47781-6	110	114	101	88
HD-COD-SW-15-0/1-0	180-47781-7	112	113	102	89
HD-COD-SW-16-0/1-0	180-47781-8	114	114	99	86
HD-COD-SW-17-0/1-0	180-47781-9	113	119	100	96
HD-COD-SW-26-0/1-0	180-47781-10	115	113	101	90
HD-COD-SW-27-0/1-0	180-47781-11	112	112	97	83
HD-COD-SW-28-0/1-0	180-47781-12	116	114	102	89
HD-COD-SW-29-0/1-0	180-47781-13	113	112	98	88
HD-QC1-0/1-1	180-47781-14	112	114	103	90
HD-QC1-0/1-2	180-47781-15	106	114	85	87
HD-MW-136A-459.5/4 60-0	180-47781-16	105	113	98	102
HD-MW-136A-459.5/4 60-0 DL	180-47781-16 DL	117	114	98	86
	MB 180-154121/6	95	98	99	99
	MB 180-154425/9	99	108	105	102
	MB 180-154553/4	115	112	100	89
	MB 180-154736/4	101	107	98	91
	LCS 180-154121/9	85	88	95	83
	LCS 180-154425/12	89	93	93	93
	LCS 180-154553/10	95	100	96	90
	LCS 180-154736/7	88	92	96	93
HD-COD-SW-6-0/1-0 MS	180-47781-1 MS	89	93	100	103
HD-COD-SW-12-0/1-0 MS	180-47781-5 MS	99	97	100	91
HD-COD-SW-17-0/1-0 MS	180-47781-9 MS	84	86	105	90
HD-COD-SW-6-0/1-0 MSD	180-47781-1 MSD	87	90	95	96
HD-COD-SW-12-0/1-0 MSD	180-47781-5 MSD	105	104	103	95

QC LIMITS

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

70-128  
64-135  
71-118  
70-118

# Column to be used to flag recovery values



FORM II  
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1

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-COD-SW-17-0/1-0 MSD	180-47781-9 MSD	88	89	101	103

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 II 8260C

FORM III  
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47781-1

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

Matrix: Water Level: Low

Lab File ID: 50918009.D

Lab ID: LCS 180-154121/9

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

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	9.06	91	50-139	
Vinyl chloride	10.0	7.96	80	53-138	
Bromomethane	10.0	7.75	78	33-150	
Chloroethane	10.0	6.42	64	36-142	
1,1-Dichloroethene	10.0	9.09	91	65-136	
Acetone	20.0	21.8	109	22-150	
Carbon disulfide	10.0	7.13	71	54-132	
Methylene Chloride	10.0	9.07	91	63-129	
trans-1,2-Dichloroethene	10.0	9.03	90	73-126	
Methyl tert-butyl ether	10.0	8.73	87	64-123	
1,1-Dichloroethane	10.0	8.81	88	73-126	
cis-1,2-Dichloroethene	10.0	8.86	89	70-120	
Bromochloromethane	10.0	9.30	93	70-127	
2-Butanone (MEK)	20.0	20.7	104	39-138	
Chloroform	10.0	9.35	94	72-127	
1,1,1-Trichloroethane	10.0	9.13	91	63-133	
Carbon tetrachloride	10.0	9.59	96	55-150	
Benzene	10.0	9.35	94	80-120	
1,2-Dichloroethane	10.0	9.83	98	68-132	
Trichloroethene	10.0	8.87	89	73-120	
1,2-Dichloropropane	10.0	9.48	95	76-124	
Bromodichloromethane	10.0	9.14	91	66-130	
cis-1,3-Dichloropropene	10.0	9.23	92	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	20.0	100	45-145	
Toluene	10.0	10.5	105	80-123	
trans-1,3-Dichloropropene	10.0	9.65	96	65-125	
1,1,2-Trichloroethane	10.0	10.5	105	77-127	
Tetrachloroethene	10.0	9.45	95	70-135	
2-Hexanone	20.0	19.3	97	25-132	
Dibromochloromethane	10.0	9.15	92	60-140	
1,2-Dibromoethane (EDB)	10.0	10.3	103	74-123	
Chlorobenzene	10.0	10.3	103	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.90	99	63-140	
Ethylbenzene	10.0	10.2	102	72-126	
Xylenes, Total	20.0	20.4	102	76-128	
Styrene	10.0	10.6	106	71-127	
Bromoform	10.0	9.11	91	46-150	
1,1,2,2-Tetrachloroethane	10.0	8.84	88	62-125	
Acrylonitrile	100	93.4	93	30-140	
1,4-Dioxane	200	205	102	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.: 180-47781-1

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

Matrix: Water Level: Low

Lab File ID: 50922012.D

Lab ID: LCS 180-154425/12

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

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	11.6	116	50-139	
Vinyl chloride	10.0	10.3	103	53-138	
Bromomethane	10.0	9.42	94	33-150	
Chloroethane	10.0	9.27	93	36-142	
1,1-Dichloroethene	10.0	8.31	83	65-136	
Acetone	20.0	23.2	116	22-150	
Carbon disulfide	10.0	8.73	87	54-132	
Methylene Chloride	10.0	9.18	92	63-129	
trans-1,2-Dichloroethene	10.0	8.79	88	73-126	
Methyl tert-butyl ether	10.0	9.32	93	64-123	
1,1-Dichloroethane	10.0	9.19	92	73-126	
cis-1,2-Dichloroethene	10.0	8.72	87	70-120	
Bromochloromethane	10.0	8.91	89	70-127	
2-Butanone (MEK)	20.0	22.0	110	39-138	
Chloroform	10.0	9.26	93	72-127	
1,1,1-Trichloroethane	10.0	8.39	84	63-133	
Carbon tetrachloride	10.0	8.82	88	55-150	
Benzene	10.0	9.45	94	80-120	
1,2-Dichloroethane	10.0	9.47	95	68-132	
Trichloroethene	10.0	9.17	92	73-120	
1,2-Dichloropropane	10.0	9.92	99	76-124	
Bromodichloromethane	10.0	9.62	96	66-130	
cis-1,3-Dichloropropene	10.0	9.24	92	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	19.2	96	45-145	
Toluene	10.0	9.86	99	80-123	
trans-1,3-Dichloropropene	10.0	8.87	89	65-125	
1,1,2-Trichloroethane	10.0	9.71	97	77-127	
Tetrachloroethene	10.0	9.99	100	70-135	
2-Hexanone	20.0	18.9	95	25-132	
Dibromochloromethane	10.0	9.94	99	60-140	
1,2-Dibromoethane (EDB)	10.0	10.0	100	74-123	
Chlorobenzene	10.0	9.79	98	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.48	95	63-140	
Ethylbenzene	10.0	10.0	100	72-126	
Xylenes, Total	20.0	20.5	103	76-128	
Styrene	10.0	10.6	106	71-127	
Bromoform	10.0	10.5	105	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.5	105	62-125	
Acrylonitrile	100	108	108	30-140	
1,4-Dioxane	200	248	124	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.: 180-47781-1

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

Matrix: Water Level: Low

Lab File ID: 60923010.D

Lab ID: LCS 180-154553/10

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	9.12	91	53-138	
Bromomethane	10.0	7.85	78	33-150	
Chloroethane	10.0	8.40	84	36-142	
1,1-Dichloroethene	10.0	8.17	82	65-136	
Acetone	20.0	21.7	108	22-150	
Carbon disulfide	10.0	7.36	74	54-132	
Methylene Chloride	10.0	8.39	84	63-129	
trans-1,2-Dichloroethene	10.0	8.64	86	73-126	
Methyl tert-butyl ether	10.0	8.86	89	64-123	
1,1-Dichloroethane	10.0	9.67	97	73-126	
cis-1,2-Dichloroethene	10.0	8.57	86	70-120	
Bromochloromethane	10.0	10.4	104	70-127	
2-Butanone (MEK)	20.0	22.9	115	39-138	
Chloroform	10.0	8.99	90	72-127	
1,1,1-Trichloroethane	10.0	8.42	84	63-133	
Carbon tetrachloride	10.0	8.68	87	55-150	
Benzene	10.0	9.54	95	80-120	
1,2-Dichloroethane	10.0	9.91	99	68-132	
Trichloroethene	10.0	10.6	106	73-120	
1,2-Dichloropropane	10.0	10.7	107	76-124	
Bromodichloromethane	10.0	8.79	88	66-130	
cis-1,3-Dichloropropene	10.0	9.10	91	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	21.3	106	45-145	
Toluene	10.0	9.56	96	80-123	
trans-1,3-Dichloropropene	10.0	8.53	85	65-125	
1,1,2-Trichloroethane	10.0	9.58	96	77-127	
Tetrachloroethene	10.0	10.3	103	70-135	
2-Hexanone	20.0	23.3	117	25-132	
Dibromochloromethane	10.0	9.16	92	60-140	
1,2-Dibromoethane (EDB)	10.0	9.96	100	74-123	
Chlorobenzene	10.0	9.85	99	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.30	93	63-140	
Ethylbenzene	10.0	9.64	96	72-126	
Xylenes, Total	20.0	18.7	93	76-128	
Styrene	10.0	9.86	99	71-127	
Bromoform	10.0	9.74	97	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.51	95	62-125	
Acrylonitrile	100	114	114	30-140	
1,4-Dioxane	200	183 J	92	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.: 180-47781-1

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

Matrix: Water Level: Low

Lab File ID: 50924007.D

Lab ID: LCS 180-154736/7

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

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	12.9	129	50-139	
Vinyl chloride	10.0	11.0	110	53-138	
Bromomethane	10.0	9.36	94	33-150	
Chloroethane	10.0	10.6	106	36-142	
1,1-Dichloroethene	10.0	7.97	80	65-136	
Acetone	20.0	19.0	95	22-150	
Carbon disulfide	10.0	8.54	85	54-132	
Methylene Chloride	10.0	9.06	91	63-129	
trans-1,2-Dichloroethene	10.0	8.26	83	73-126	
Methyl tert-butyl ether	10.0	8.33	83	64-123	
1,1-Dichloroethane	10.0	8.77	88	73-126	
cis-1,2-Dichloroethene	10.0	8.15	81	70-120	
Bromochloromethane	10.0	8.20	82	70-127	
2-Butanone (MEK)	20.0	20.9	105	39-138	
Chloroform	10.0	9.03	90	72-127	
1,1,1-Trichloroethane	10.0	8.20	82	63-133	
Carbon tetrachloride	10.0	8.54	85	55-150	
Benzene	10.0	8.91	89	80-120	
1,2-Dichloroethane	10.0	9.39	94	68-132	
Trichloroethene	10.0	8.49	85	73-120	
1,2-Dichloropropane	10.0	9.65	96	76-124	
Bromodichloromethane	10.0	10.1	101	66-130	
cis-1,3-Dichloropropene	10.0	9.72	97	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	20.6	103	45-145	
Toluene	10.0	9.89	99	80-123	
trans-1,3-Dichloropropene	10.0	10.4	104	65-125	
1,1,2-Trichloroethane	10.0	11.3	113	77-127	
Tetrachloroethene	10.0	10.4	104	70-135	
2-Hexanone	20.0	20.7	103	25-132	
Dibromochloromethane	10.0	11.2	112	60-140	
1,2-Dibromoethane (EDB)	10.0	11.0	110	74-123	
Chlorobenzene	10.0	10.6	106	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.9	109	63-140	
Ethylbenzene	10.0	10.8	108	72-126	
Xylenes, Total	20.0	22.0	110	76-128	
Styrene	10.0	11.9	119	71-127	
Bromoform	10.0	12.0	120	46-150	
1,1,2,2-Tetrachloroethane	10.0	12.5	125	62-125	
Acrylonitrile	100	101	101	30-140	
1,4-Dioxane	200	251	125	10-160	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47781-1

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

Matrix: Water Level: Low

Lab File ID: 50922013.D

Lab ID: 180-47781-1 MS

Client ID: HD-COD-SW-6-0/1-0 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Chloromethane	10.0	1.0 U	11.4	114	50-139	
Vinyl chloride	10.0	1.0 U	10.1	101	53-138	
Bromomethane	10.0	1.0 U	9.86	99	33-150	
Chloroethane	10.0	1.0 U	8.97	90	36-142	
1,1-Dichloroethene	10.0	1.0 U	8.35	84	65-136	
Acetone	20.0	5.0 U	19.9	100	22-150	
Carbon disulfide	10.0	1.0 U	8.75	88	54-132	
Methylene Chloride	10.0	1.0 U	9.42	94	63-129	
trans-1,2-Dichloroethene	10.0	1.0 U	8.96	90	73-126	
Methyl tert-butyl ether	10.0	1.0 U	9.75	97	64-123	
1,1-Dichloroethane	10.0	1.0 U	9.47	95	73-126	
cis-1,2-Dichloroethene	10.0	1.0 U	9.12	91	70-120	
Bromochloromethane	10.0	1.0 U	9.17	92	70-127	
2-Butanone (MEK)	20.0	5.0 U	22.1	111	39-138	
Chloroform	10.0	1.0 U	9.13	91	72-127	
1,1,1-Trichloroethane	10.0	1.0 U	8.73	87	63-133	
Carbon tetrachloride	10.0	1.0 U	8.83	88	55-150	
Benzene	10.0	1.0 U	9.36	94	80-120	
1,2-Dichloroethane	10.0	1.0 U	9.61	96	68-132	
Trichloroethene	10.0	1.0 U	9.30	93	73-120	
1,2-Dichloropropane	10.0	1.0 U	9.93	99	76-124	
Bromodichloromethane	10.0	1.0 U	9.37	94	66-130	
cis-1,3-Dichloropropene	10.0	1.0 U	8.89	89	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	5.0 U	21.9	109	45-145	
Toluene	10.0	1.0 U	10.3	103	80-123	
trans-1,3-Dichloropropene	10.0	1.0 U	9.63	96	65-125	
1,1,2-Trichloroethane	10.0	1.0 U	10.3	103	77-127	
Tetrachloroethene	10.0	1.0 U	10.2	102	70-135	
2-Hexanone	20.0	5.0 U	21.6	108	25-132	
Dibromochloromethane	10.0	1.0 U	10.6	106	60-140	
1,2-Dibromoethane (EDB)	10.0	1.0 U	10.9	109	74-123	
Chlorobenzene	10.0	1.0 U	10.4	104	80-120	
1,1,1,2-Tetrachloroethane	10.0	1.0 U	10.0	100	63-140	
Ethylbenzene	10.0	1.0 U	10.6	106	72-126	
Xylenes, Total	20.0	3.0 U	22.0	110	76-128	
Styrene	10.0	1.0 U	11.4	114	71-127	
Bromoform	10.0	1.0 U	10.3	103	46-150	
1,1,2,2-Tetrachloroethane	10.0	1.0 U	11.2	112	62-125	
Acrylonitrile	100	20 U	108	108	30-140	
1,4-Dioxane	200	200 U	227	114	10-160	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47781-1

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

Matrix: Water Level: Low

Lab File ID: 60923008.D

Lab ID: 180-47781-5 MS

Client ID: HD-COD-SW-12-0/1-0 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Chloromethane	10.0	1.0 U	10.7	107	50-139	
Vinyl chloride	10.0	1.0 U	9.73	97	53-138	
Bromomethane	10.0	1.0 U	7.54	75	33-150	
Chloroethane	10.0	1.0 U	9.24	92	36-142	
1,1-Dichloroethene	10.0	1.0 U	8.82	88	65-136	
Acetone	20.0	5.0 U	21.7	108	22-150	
Carbon disulfide	10.0	1.0 U	7.82	78	54-132	
Methylene Chloride	10.0	1.0 U	8.44	84	63-129	
trans-1,2-Dichloroethene	10.0	1.0 U	9.12	91	73-126	
Methyl tert-butyl ether	10.0	1.0 U	8.69	87	64-123	
1,1-Dichloroethane	10.0	1.0 U	9.78	98	73-126	
cis-1,2-Dichloroethene	10.0	1.0 U	8.81	88	70-120	
Bromochloromethane	10.0	1.0 U	10.4	104	70-127	
2-Butanone (MEK)	20.0	5.0 U	23.4	117	39-138	
Chloroform	10.0	0.20 J	9.65	94	72-127	
1,1,1-Trichloroethane	10.0	1.0 U	8.95	89	63-133	
Carbon tetrachloride	10.0	1.0 U	9.62	96	55-150	
Benzene	10.0	1.0 U	9.73	97	80-120	
1,2-Dichloroethane	10.0	1.0 U	9.93	99	68-132	
Trichloroethene	10.0	1.0 U	10.9	109	73-120	
1,2-Dichloropropane	10.0	1.0 U	10.3	103	76-124	
Bromodichloromethane	10.0	1.0 U	8.82	88	66-130	
cis-1,3-Dichloropropene	10.0	1.0 U	8.85	88	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	5.0 U	20.8	104	45-145	
Toluene	10.0	1.0 U	9.70	97	80-123	
trans-1,3-Dichloropropene	10.0	1.0 U	8.63	86	65-125	
1,1,2-Trichloroethane	10.0	1.0 U	9.54	95	77-127	
Tetrachloroethene	10.0	1.0 U	10.7	107	70-135	
2-Hexanone	20.0	5.0 U	22.9	114	25-132	
Dibromochloromethane	10.0	1.0 U	9.22	92	60-140	
1,2-Dibromoethane (EDB)	10.0	1.0 U	10.2	102	74-123	
Chlorobenzene	10.0	1.0 U	10.1	101	80-120	
1,1,1,2-Tetrachloroethane	10.0	1.0 U	9.88	99	63-140	
Ethylbenzene	10.0	1.0 U	9.98	100	72-126	
Xylenes, Total	20.0	3.0 U	19.5	98	76-128	
Styrene	10.0	1.0 U	10.3	103	71-127	
Bromoform	10.0	1.0 U	10.1	101	46-150	
1,1,2,2-Tetrachloroethane	10.0	1.0 U	9.53	95	62-125	
Acrylonitrile	100	20 U	112	112	30-140	
1,4-Dioxane	200	200 U	238	119	10-160	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47781-1

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

Matrix: Water Level: Low

Lab File ID: 50918010.D

Lab ID: 180-47781-9 MS

Client ID: HD-COD-SW-17-0/1-0 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Chloromethane	10.0	1.0 U	8.37	84	50-139	
Vinyl chloride	10.0	1.0 U	7.53	75	53-138	
Bromomethane	10.0	1.0 U	6.98	70	33-150	
Chloroethane	10.0	1.0 U	6.73	67	36-142	
1,1-Dichloroethene	10.0	0.84 J	8.70	79	65-136	
Acetone	20.0	5.0 U	21.4	107	22-150	
Carbon disulfide	10.0	1.0 U	6.91	69	54-132	
Methylene Chloride	10.0	1.0 U	8.69	87	63-129	
trans-1,2-Dichloroethene	10.0	1.0 U	8.36	84	73-126	
Methyl tert-butyl ether	10.0	1.0 U	8.79	88	64-123	
1,1-Dichloroethane	10.0	0.67 J	8.78	81	73-126	
cis-1,2-Dichloroethene	10.0	15	20.2	51	70-120	F1
Bromochloromethane	10.0	1.0 U	8.43	84	70-127	
2-Butanone (MEK)	20.0	5.0 U	21.1	106	39-138	
Chloroform	10.0	0.20 J	8.83	86	72-127	
1,1,1-Trichloroethane	10.0	2.8	10.7	79	63-133	
Carbon tetrachloride	10.0	1.0 U	9.04	90	55-150	
Benzene	10.0	1.0 U	8.89	89	80-120	
1,2-Dichloroethane	10.0	1.0 U	9.10	91	68-132	
Trichloroethene	10.0	16	21.3	56	73-120	F1
1,2-Dichloropropane	10.0	1.0 U	8.74	87	76-124	
Bromodichloromethane	10.0	1.0 U	8.77	88	66-130	
cis-1,3-Dichloropropene	10.0	1.0 U	8.25	83	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	5.0 U	20.5	103	45-145	
Toluene	10.0	1.0 U	10.3	103	80-123	
trans-1,3-Dichloropropene	10.0	1.0 U	9.35	93	65-125	
1,1,2-Trichloroethane	10.0	1.0 U	9.82	98	77-127	
Tetrachloroethene	10.0	42	42.8	10	70-135	4
2-Hexanone	20.0	5.0 U	19.8	99	25-132	
Dibromochloromethane	10.0	1.0 U	9.42	94	60-140	
1,2-Dibromoethane (EDB)	10.0	1.0 U	10.5	105	74-123	
Chlorobenzene	10.0	1.0 U	9.76	98	80-120	
1,1,1,2-Tetrachloroethane	10.0	1.0 U	8.28	83	63-140	
Ethylbenzene	10.0	1.0 U	8.88	89	72-126	
Xylenes, Total	20.0	3.0 U	17.5	87	76-128	
Styrene	10.0	1.0 U	9.10	91	71-127	
Bromoform	10.0	1.0 U	8.42	84	46-150	
1,1,2,2-Tetrachloroethane	10.0	1.0 U	9.05	90	62-125	
Acrylonitrile	100	20 U	91.9	92	30-140	
1,4-Dioxane	200	200 U	186 J	93	10-160	

# Column to be used to flag recovery and RPD values



FORM III  
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47781-1

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

Matrix: Water Level: Low

Lab File ID: 50922014.D

Lab ID: 180-47781-1 MSD

Client ID: HD-COD-SW-6-0/1-0 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Chloromethane	10.0	11.0	110	4	35	50-139	
Vinyl chloride	10.0	9.52	95	6	35	53-138	
Bromomethane	10.0	9.62	96	2	35	33-150	
Chloroethane	10.0	9.02	90	1	35	36-142	
1,1-Dichloroethene	10.0	8.01	80	4	35	65-136	
Acetone	20.0	19.8	99	1	35	22-150	
Carbon disulfide	10.0	8.18	82	7	35	54-132	
Methylene Chloride	10.0	8.96	90	5	35	63-129	
trans-1,2-Dichloroethene	10.0	8.52	85	5	35	73-126	
Methyl tert-butyl ether	10.0	9.52	95	2	35	64-123	
1,1-Dichloroethane	10.0	8.83	88	7	35	73-126	
cis-1,2-Dichloroethene	10.0	8.78	88	4	35	70-120	
Bromochloromethane	10.0	9.02	90	2	35	70-127	
2-Butanone (MEK)	20.0	21.1	105	5	35	39-138	
Chloroform	10.0	8.70	87	5	35	72-127	
1,1,1-Trichloroethane	10.0	8.19	82	6	35	63-133	
Carbon tetrachloride	10.0	8.39	84	5	35	55-150	
Benzene	10.0	9.01	90	4	32	80-120	
1,2-Dichloroethane	10.0	9.37	94	3	32	68-132	
Trichloroethene	10.0	8.76	88	6	35	73-120	
1,2-Dichloropropane	10.0	9.47	95	5	34	76-124	
Bromodichloromethane	10.0	9.04	90	4	35	66-130	
cis-1,3-Dichloropropene	10.0	8.31	83	7	35	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	20.9	104	5	35	45-145	
Toluene	10.0	9.63	96	7	35	80-123	
trans-1,3-Dichloropropene	10.0	8.74	87	10	35	65-125	
1,1,2-Trichloroethane	10.0	9.80	98	5	35	77-127	
Tetrachloroethene	10.0	9.62	96	6	35	70-135	
2-Hexanone	20.0	19.9	100	8	35	25-132	
Dibromochloromethane	10.0	9.54	95	11	35	60-140	
1,2-Dibromoethane (EDB)	10.0	10.0	100	9	35	74-123	
Chlorobenzene	10.0	9.81	98	6	29	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.68	97	4	34	63-140	
Ethylbenzene	10.0	9.84	98	8	33	72-126	
Xylenes, Total	20.0	20.3	102	8	32	76-128	
Styrene	10.0	10.8	108	6	34	71-127	
Bromoform	10.0	10.2	102	1	35	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.6	106	5	35	62-125	
Acrylonitrile	100	108	108	1	35	30-140	
1,4-Dioxane	200	229	115	1	35	10-160	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47781-1

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

Matrix: Water Level: Low

Lab File ID: 60923009.D

Lab ID: 180-47781-5 MSD

Client ID: HD-COD-SW-12-0/1-0 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Chloromethane	10.0	11.0	110	3	35	50-139	
Vinyl chloride	10.0	9.76	98	0	35	53-138	
Bromomethane	10.0	7.61	76	1	35	33-150	
Chloroethane	10.0	8.25	83	11	35	36-142	
1,1-Dichloroethene	10.0	9.13	91	3	35	65-136	
Acetone	20.0	22.9	115	6	35	22-150	
Carbon disulfide	10.0	7.87	79	1	35	54-132	
Methylene Chloride	10.0	9.31	93	10	35	63-129	
trans-1,2-Dichloroethene	10.0	9.44	94	3	35	73-126	
Methyl tert-butyl ether	10.0	9.33	93	7	35	64-123	
1,1-Dichloroethane	10.0	10.3	103	6	35	73-126	
cis-1,2-Dichloroethene	10.0	9.31	93	5	35	70-120	
Bromochloromethane	10.0	10.6	106	1	35	70-127	
2-Butanone (MEK)	20.0	23.9	119	2	35	39-138	
Chloroform	10.0	9.78	96	1	35	72-127	
1,1,1-Trichloroethane	10.0	9.17	92	2	35	63-133	
Carbon tetrachloride	10.0	9.55	96	1	35	55-150	
Benzene	10.0	10.0	100	3	32	80-120	
1,2-Dichloroethane	10.0	10.5	105	6	32	68-132	
Trichloroethene	10.0	11.1	111	2	35	73-120	
1,2-Dichloropropane	10.0	11.1	111	7	34	76-124	
Bromodichloromethane	10.0	9.39	94	6	35	66-130	
cis-1,3-Dichloropropene	10.0	9.40	94	6	35	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	24.1	121	15	35	45-145	
Toluene	10.0	9.87	99	2	35	80-123	
trans-1,3-Dichloropropene	10.0	8.98	90	4	35	65-125	
1,1,2-Trichloroethane	10.0	10.2	102	6	35	77-127	
Tetrachloroethene	10.0	10.5	105	2	35	70-135	
2-Hexanone	20.0	26.3	132	14	35	25-132	
Dibromochloromethane	10.0	10.0	100	9	35	60-140	
1,2-Dibromoethane (EDB)	10.0	10.9	109	7	35	74-123	
Chlorobenzene	10.0	10.5	105	4	29	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.2	102	3	34	63-140	
Ethylbenzene	10.0	10.4	104	4	33	72-126	
Xylenes, Total	20.0	20.1	101	3	32	76-128	
Styrene	10.0	10.6	106	3	34	71-127	
Bromoform	10.0	10.7	107	5	35	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.84	98	3	35	62-125	
Acrylonitrile	100	122	122	9	35	30-140	
1,4-Dioxane	200	235	117	1	35	10-160	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47781-1

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

Matrix: Water Level: Low

Lab File ID: 50918011.D

Lab ID: 180-47781-9 MSD

Client ID: HD-COD-SW-17-0/1-0 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Chloromethane	10.0	8.17	82	2	35	50-139	
Vinyl chloride	10.0	7.53	75	0	35	53-138	
Bromomethane	10.0	6.93	69	1	35	33-150	
Chloroethane	10.0	5.92	59	13	35	36-142	
1,1-Dichloroethene	10.0	7.48	66	15	35	65-136	
Acetone	20.0	17.6	88	20	35	22-150	
Carbon disulfide	10.0	5.92	59	15	35	54-132	
Methylene Chloride	10.0	7.21	72	19	35	63-129	
trans-1,2-Dichloroethene	10.0	7.76	78	7	35	73-126	
Methyl tert-butyl ether	10.0	8.14	81	8	35	64-123	
1,1-Dichloroethane	10.0	9.04	84	3	35	73-126	
cis-1,2-Dichloroethene	10.0	20.7	56	3	35	70-120	F1
Bromochloromethane	10.0	8.66	87	3	35	70-127	
2-Butanone (MEK)	20.0	21.2	106	1	35	39-138	
Chloroform	10.0	9.23	90	4	35	72-127	
1,1,1-Trichloroethane	10.0	11.2	84	5	35	63-133	
Carbon tetrachloride	10.0	9.44	94	4	35	55-150	
Benzene	10.0	9.00	90	1	32	80-120	
1,2-Dichloroethane	10.0	9.56	96	5	32	68-132	
Trichloroethene	10.0	21.9	62	3	35	73-120	F1
1,2-Dichloropropane	10.0	8.92	89	2	34	76-124	
Bromodichloromethane	10.0	8.64	86	2	35	66-130	
cis-1,3-Dichloropropene	10.0	8.69	87	5	35	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	19.9	99	3	35	45-145	
Toluene	10.0	10.4	104	2	35	80-123	
trans-1,3-Dichloropropene	10.0	9.47	95	1	35	65-125	
1,1,2-Trichloroethane	10.0	10.3	103	4	35	77-127	
Tetrachloroethene	10.0	42.4	6	1	35	70-135	4
2-Hexanone	20.0	19.4	97	2	35	25-132	
Dibromochloromethane	10.0	9.44	94	0	35	60-140	
1,2-Dibromoethane (EDB)	10.0	10.4	104	1	35	74-123	
Chlorobenzene	10.0	10.4	104	6	29	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.88	99	18	34	63-140	
Ethylbenzene	10.0	10.1	101	13	33	72-126	
Xylenes, Total	20.0	20.3	101	15	32	76-128	
Styrene	10.0	10.4	104	13	34	71-127	
Bromoform	10.0	9.17	92	9	35	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.7	107	17	35	62-125	
Acrylonitrile	100	85.7	86	7	35	30-140	
1,4-Dioxane	200	202	101	8	35	10-160	

# Column to be used to flag recovery and RPD values

FORM IV  
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 50918006.D Lab Sample ID: MB 180-154121/6  
 Matrix: Water Heated Purge: (Y/N) N  
 Instrument ID: CHHP5 Date Analyzed: 09/18/2015 13:41  
 GC Column: DB-624 ID: 0.18 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
HD-COD-SW-17-0/1-0	180-47781-9	50918007.D	09/18/2015 14:16
HD-QC1-0/1-2	180-47781-15	50918008.D	09/18/2015 14:40
	LCS 180-154121/9	50918009.D	09/18/2015 15:07
HD-COD-SW-17-0/1-0 MS	180-47781-9 MS	50918010.D	09/18/2015 15:31
HD-COD-SW-17-0/1-0 MSD	180-47781-9 MSD	50918011.D	09/18/2015 15:56

FORM IV  
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 50922009.D Lab Sample ID: MB 180-154425/9  
 Matrix: Water Heated Purge: (Y/N) N  
 Instrument ID: CHHP5 Date Analyzed: 09/22/2015 14:26  
 GC Column: DB-624 ID: 0.18 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
HD-COD-SW-6-0/1-0	180-47781-1	50922010.D	09/22/2015 15:03
	LCS 180-154425/12	50922012.D	09/22/2015 15:51
HD-COD-SW-6-0/1-0 MS	180-47781-1 MS	50922013.D	09/22/2015 16:15
HD-COD-SW-6-0/1-0 MSD	180-47781-1 MSD	50922014.D	09/22/2015 16:39
HD-COD-SW-7-0/1-0	180-47781-2	50922016.D	09/22/2015 17:28
HD-COD-SW-8-0/1-0	180-47781-3	50922017.D	09/22/2015 17:52
HD-COD-SW-9-0/1-0	180-47781-4	50922018.D	09/22/2015 18:16

FORM IV  
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 60923004.D Lab Sample ID: MB 180-154553/4  
 Matrix: Water Heated Purge: (Y/N) N  
 Instrument ID: CHHP6 Date Analyzed: 09/23/2015 12:14  
 GC Column: DB-624 ID: 0.18 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
HD-COD-SW-12-0/1-0	180-47781-5	60923005.D	09/23/2015 12:53
HD-COD-SW-12-0/1-0 MS	180-47781-5 MS	60923008.D	09/23/2015 14:06
HD-COD-SW-12-0/1-0 MSD	180-47781-5 MSD	60923009.D	09/23/2015 14:30
	LCS 180-154553/10	60923010.D	09/23/2015 14:54
HD-COD-SW-13-0/1-0	180-47781-6	60923014.D	09/23/2015 16:31
HD-COD-SW-15-0/1-0	180-47781-7	60923015.D	09/23/2015 16:56
HD-COD-SW-16-0/1-0	180-47781-8	60923016.D	09/23/2015 17:20
HD-COD-SW-26-0/1-0	180-47781-10	60923017.D	09/23/2015 17:45
HD-COD-SW-27-0/1-0	180-47781-11	60923018.D	09/23/2015 18:09
HD-COD-SW-28-0/1-0	180-47781-12	60923019.D	09/23/2015 18:33
HD-COD-SW-29-0/1-0	180-47781-13	60923020.D	09/23/2015 18:57
HD-QC1-0/1-1	180-47781-14	60923021.D	09/23/2015 19:21
HD-MW-136A-459.5/460-0 DL	180-47781-16 DL	60923022.D	09/23/2015 19:46

FORM IV  
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
SDG No.: \_\_\_\_\_  
Lab File ID: 50924004.D Lab Sample ID: MB 180-154736/4  
Matrix: Water Heated Purge: (Y/N) N  
Instrument ID: CHHP5 Date Analyzed: 09/24/2015 12:10  
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 180-154736/7	50924007.D	09/24/2015 13:37
HD-MW-136A-459.5/460-0	180-47781-16	50924028.D	09/24/2015 22:04

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 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.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 50918005.D BFB Injection Date: 09/18/2015  
 Instrument ID: CHHP5 BFB Injection Time: 11:38  
 Analysis Batch No.: 154121

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	23.3
75	30.0 - 60.0 % of mass 95	47.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.0
173	Less than 2.0 % of mass 174	0.0 (0.0)1
174	50.0 - 120.00 % of mass 95	67.2
175	5.0 - 9.0 % of mass 174	6.0 (9.0)1
176	95.0 - 101.0 % of mass 174	65.0 (96.8)1
177	5.0 - 9.0 % of mass 176	3.8 (5.8)2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-154121/2	50918002.D	09/18/2015	12:26
	MB 180-154121/6	50918006.D	09/18/2015	13:41
HD-COD-SW-17-0/1-0	180-47781-9	50918007.D	09/18/2015	14:16
HD-QC1-0/1-2	180-47781-15	50918008.D	09/18/2015	14:40
	LCS 180-154121/9	50918009.D	09/18/2015	15:07
HD-COD-SW-17-0/1-0 MS	180-47781-9 MS	50918010.D	09/18/2015	15:31
HD-COD-SW-17-0/1-0 MSD	180-47781-9 MSD	50918011.D	09/18/2015	15:56

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 50922008.D BFB Injection Date: 09/22/2015  
 Instrument ID: CHHP5 BFB Injection Time: 12:41  
 Analysis Batch No.: 154425

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	23.9
75	30.0 - 60.0 % of mass 95	45.9
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.9
173	Less than 2.0 % of mass 174	0.3 (0.4)1
174	50.0 - 120.00 % of mass 95	80.4
175	5.0 - 9.0 % of mass 174	6.2 (7.7)1
176	95.0 - 101.0 % of mass 174	79.0 (98.3)1
177	5.0 - 9.0 % of mass 176	4.8 (6.1)2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-154425/2	50922002.D	09/22/2015	13:22
	MB 180-154425/9	50922009.D	09/22/2015	14:26
HD-COD-SW-6-0/1-0	180-47781-1	50922010.D	09/22/2015	15:03
	LCS 180-154425/12	50922012.D	09/22/2015	15:51
HD-COD-SW-6-0/1-0 MS	180-47781-1 MS	50922013.D	09/22/2015	16:15
HD-COD-SW-6-0/1-0 MSD	180-47781-1 MSD	50922014.D	09/22/2015	16:39
HD-COD-SW-7-0/1-0	180-47781-2	50922016.D	09/22/2015	17:28
HD-COD-SW-8-0/1-0	180-47781-3	50922017.D	09/22/2015	17:52
HD-COD-SW-9-0/1-0	180-47781-4	50922018.D	09/22/2015	18:16

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 50924001.D BFB Injection Date: 09/24/2015  
 Instrument ID: CHHP5 BFB Injection Time: 10:23  
 Analysis Batch No.: 154736

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	23.0
75	30.0 - 60.0 % of mass 95	50.3
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.6
173	Less than 2.0 % of mass 174	0.4 (0.6)1
174	50.0 - 120.00 % of mass 95	80.2
175	5.0 - 9.0 % of mass 174	6.8 (8.5)1
176	95.0 - 101.0 % of mass 174	79.3 (98.9)1
177	5.0 - 9.0 % of mass 176	5.4 (6.8)2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-154736/2	50924002.D	09/24/2015	11:05
	MB 180-154736/4	50924004.D	09/24/2015	12:10
	LCS 180-154736/7	50924007.D	09/24/2015	13:37
HD-MW-136A-459.5/460-0	180-47781-16	50924028.D	09/24/2015	22:04

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 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.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 60923001.D BFB Injection Date: 09/23/2015  
 Instrument ID: CHHP6 BFB Injection Time: 10:18  
 Analysis Batch No.: 154553

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	22.7
75	30.0 - 60.0 % of mass 95	53.8
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.3
173	Less than 2.0 % of mass 174	0.4 (0.6)1
174	50.0 - 120.00 % of mass 95	80.6
175	5.0 - 9.0 % of mass 174	5.7 (7.0)1
176	95.0 - 101.0 % of mass 174	77.1 (95.6)1
177	5.0 - 9.0 % of mass 176	4.6 (5.9)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 180-154553/2	60923002.D	09/23/2015	11:04
	MB 180-154553/4	60923004.D	09/23/2015	12:14
HD-COD-SW-12-0/1-0	180-47781-5	60923005.D	09/23/2015	12:53
HD-COD-SW-12-0/1-0 MS	180-47781-5 MS	60923008.D	09/23/2015	14:06
HD-COD-SW-12-0/1-0 MSD	180-47781-5 MSD	60923009.D	09/23/2015	14:30
	LCS 180-154553/10	60923010.D	09/23/2015	14:54
HD-COD-SW-13-0/1-0	180-47781-6	60923014.D	09/23/2015	16:31
HD-COD-SW-15-0/1-0	180-47781-7	60923015.D	09/23/2015	16:56
HD-COD-SW-16-0/1-0	180-47781-8	60923016.D	09/23/2015	17:20
HD-COD-SW-26-0/1-0	180-47781-10	60923017.D	09/23/2015	17:45
HD-COD-SW-27-0/1-0	180-47781-11	60923018.D	09/23/2015	18:09
HD-COD-SW-28-0/1-0	180-47781-12	60923019.D	09/23/2015	18:33
HD-COD-SW-29-0/1-0	180-47781-13	60923020.D	09/23/2015	18:57
HD-QC1-0/1-1	180-47781-14	60923021.D	09/23/2015	19:21
HD-MW-136A-459.5/460-0 DL	180-47781-16 DL	60923022.D	09/23/2015	19:46

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-154121/2 Date Analyzed: 09/18/2015 12:26  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 50918002.D Heated Purge: (Y/N) N  
 Calibration ID: 25113

	TBA		FB		CBZ		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	102733	4.27	305756	7.29	68394	10.39	
UPPER LIMIT	205466	4.77	611512	7.79	136788	10.89	
LOWER LIMIT	51367	3.77	152878	6.79	34197	9.89	
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-154121/6		113231	4.26	302318	7.29	73384	10.39
180-47781-9	HD-COD-SW-17-0/1-0	122262	4.26	301862	7.29	64730	10.39
180-47781-15	HD-QC1-0/1-2	116927	4.26	299921	7.29	70684	10.39
LCS 180-154121/9		129705	4.27	360973	7.29	82008	10.39
180-47781-9 MS	HD-COD-SW-17-0/1-0 MS	130979	4.28	375880	7.29	81875	10.39
180-47781-9 MSD	HD-COD-SW-17-0/1-0 MSD	115437	4.28	382479	7.29	82803	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.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-154121/2 Date Analyzed: 09/18/2015 12:26  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 50918002.D Heated Purge: (Y/N) N  
 Calibration ID: 25113

	DCB					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD	104854	12.73				
UPPER LIMIT	209708	13.23				
LOWER LIMIT	52427	12.23				
LAB SAMPLE ID	CLIENT SAMPLE ID					
MB 180-154121/6		104861	12.73			
180-47781-9	HD-COD-SW-17-0/1-0	102424	12.73			
180-47781-15	HD-QC1-0/1-2	92984	12.73			
LCS 180-154121/9		107107	12.73			
180-47781-9 MS	HD-COD-SW-17-0/1-0 MS	125506	12.73			
180-47781-9 MSD	HD-COD-SW-17-0/1-0 MSD	121303	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.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-154425/2 Date Analyzed: 09/22/2015 13:22  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 50922002.D Heated Purge: (Y/N) N  
 Calibration ID: 25113

	TBA		FB		CBZ		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	149622	4.27	366314	7.29	85398	10.39	
UPPER LIMIT	299244	4.77	732628	7.79	170796	10.89	
LOWER LIMIT	74811	3.77	183157	6.79	42699	9.89	
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-154425/9		144735	4.27	360052	7.29	81897	10.39
180-47781-1	HD-COD-SW-6-0/1-0	150171	4.27	340840	7.29	84860	10.39
LCS 180-154425/12		139831	4.28	361632	7.29	86425	10.39
180-47781-1 MS	HD-COD-SW-6-0/1-0 MS	111877	4.27	367735	7.29	83137	10.39
180-47781-1 MSD	HD-COD-SW-6-0/1-0 MSD	125947	4.28	384486	7.29	87363	10.39
180-47781-2	HD-COD-SW-7-0/1-0	139708	4.26	334807	7.29	79979	10.38
180-47781-3	HD-COD-SW-8-0/1-0	140453	4.26	326153	7.29	79807	10.39
180-47781-4	HD-COD-SW-9-0/1-0	145924	4.26	320592	7.29	76322	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.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-154425/2 Date Analyzed: 09/22/2015 13:22  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 50922002.D Heated Purge: (Y/N) N  
 Calibration ID: 25113

	DCB		AREA #	RT #	AREA #	RT #
	AREA #	RT #				
12/24 HOUR STD	125251	12.73				
UPPER LIMIT	250502	13.23				
LOWER LIMIT	62626	12.23				
LAB SAMPLE ID	CLIENT SAMPLE ID					
MB 180-154425/9		129170	12.73			
180-47781-1	HD-COD-SW-6-0/1-0	116566	12.73			
LCS 180-154425/12		130084	12.73			
180-47781-1 MS	HD-COD-SW-6-0/1-0 MS	126734	12.73			
180-47781-1 MSD	HD-COD-SW-6-0/1-0 MSD	134602	12.73			
180-47781-2	HD-COD-SW-7-0/1-0	113458	12.73			
180-47781-3	HD-COD-SW-8-0/1-0	110876	12.73			
180-47781-4	HD-COD-SW-9-0/1-0	107617	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.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-154736/2 Date Analyzed: 09/24/2015 11:05  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 50924002.D Heated Purge: (Y/N) N  
 Calibration ID: 25113

	TBA		FB		CBZ		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	159608	4.29	388764	7.29	88837	10.39	
UPPER LIMIT	319216	4.79	777528	7.79	177674	10.89	
LOWER LIMIT	79804	3.79	194382	6.79	44419	9.89	
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-154736/4	168117	4.26	369878	7.29	87072	10.39	
LCS 180-154736/7	155467	4.28	413476	7.30	96374	10.39	
180-47781-16	HD-MW-136A-459.5/460-0	172515	4.26	357388	7.29	82493	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.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-154736/2 Date Analyzed: 09/24/2015 11:05  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 50924002.D Heated Purge: (Y/N) N  
 Calibration ID: 25113

	DCB		AREA #	RT #	AREA #	RT #
	AREA #	RT #				
12/24 HOUR STD	146526	12.73				
UPPER LIMIT	293052	13.23				
LOWER LIMIT	73263	12.23				
LAB SAMPLE ID	CLIENT SAMPLE ID					
MB 180-154736/4		119209	12.73			
LCS 180-154736/7		152102	12.73			
180-47781-16	HD-MW-136A-459.5/460-0	121922	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.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-154553/2 Date Analyzed: 09/23/2015 11:04  
 Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 60923002.D Heated Purge: (Y/N) N  
 Calibration ID: 25315

	TBA		FB		CBZ		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	154606	4.24	462910	7.28	107940	10.40	
UPPER LIMIT	309212	4.74	925820	7.78	215880	10.90	
LOWER LIMIT	77303	3.74	231455	6.78	53970	9.90	
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-154553/4		182934	4.22	460586	7.28	111554	10.40
180-47781-5	HD-COD-SW-12-0/1-0	151800	4.23	461914	7.29	114984	10.40
180-47781-5 MS	HD-COD-SW-12-0/1-0 MS	202660	4.24	505393	7.29	115285	10.40
180-47781-5 MSD	HD-COD-SW-12-0/1-0 MSD	218153	4.25	483144	7.29	110671	10.40
LCS 180-154553/10		218938	4.24	488161	7.28	112436	10.40
180-47781-6	HD-COD-SW-13-0/1-0	179508	4.24	457244	7.29	112375	10.40
180-47781-7	HD-COD-SW-15-0/1-0	184238	4.24	462116	7.29	113948	10.40
180-47781-8	HD-COD-SW-16-0/1-0	178858	4.23	442621	7.29	110740	10.40
180-47781-10	HD-COD-SW-26-0/1-0	164900	4.23	441132	7.29	108842	10.40
180-47781-11	HD-COD-SW-27-0/1-0	176053	4.23	453940	7.29	113399	10.40
180-47781-12	HD-COD-SW-28-0/1-0	183202	4.23	435032	7.29	104529	10.40
180-47781-13	HD-COD-SW-29-0/1-0	174333	4.24	439163	7.29	108713	10.40
180-47781-14	HD-QC1-0/1-1	171283	4.24	444163	7.29	106287	10.39
180-47781-16 DL	HD-MW-136A-459.5/460- 0 DL	178312	4.23	437019	7.29	106876	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.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-154553/2 Date Analyzed: 09/23/2015 11:04  
 Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 60923002.D Heated Purge: (Y/N) N  
 Calibration ID: 25315

	DCB		AREA #	RT #	AREA #	RT #	AREA #	RT #
	AREA #	RT #						
12/24 HOUR STD	198533	12.75						
UPPER LIMIT	397066	13.25						
LOWER LIMIT	99267	12.25						
LAB SAMPLE ID	CLIENT SAMPLE ID							
MB 180-154553/4		178864	12.75					
180-47781-5	HD-COD-SW-12-0/1-0	183272	12.74					
180-47781-5 MS	HD-COD-SW-12-0/1-0 MS	203578	12.75					
180-47781-5 MSD	HD-COD-SW-12-0/1-0 MSD	196321	12.75					
LCS 180-154553/10		196340	12.75					
180-47781-6	HD-COD-SW-13-0/1-0	186174	12.75					
180-47781-7	HD-COD-SW-15-0/1-0	179752	12.75					
180-47781-8	HD-COD-SW-16-0/1-0	178493	12.75					
180-47781-10	HD-COD-SW-26-0/1-0	171012	12.75					
180-47781-11	HD-COD-SW-27-0/1-0	175133	12.75					
180-47781-12	HD-COD-SW-28-0/1-0	170901	12.75					
180-47781-13	HD-COD-SW-29-0/1-0	179127	12.75					
180-47781-14	HD-QC1-0/1-1	173374	12.75					
180-47781-16 DL	HD-MW-136A-459.5/460- 0 DL	171309	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.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 180-47781-1  
 Matrix: Water Lab File ID: 50922010.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 10:40  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/22/2015 15:03  
 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.: 154425 Units: ug/L

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

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 180-47781-1  
 Matrix: Water Lab File ID: 50922010.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 10:40  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/22/2015 15:03  
 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.: 154425 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20
107-13-1	Acrylonitrile	20	U	20	0.55
123-91-1	1,4-Dioxane	200	U ^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)	97		71-118
460-00-4	4-Bromofluorobenzene (Surr)	94		70-118
1868-53-7	Dibromofluoromethane (Surr)	102		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922010.D  
 Lims ID: 180-47781-A-1 Lab Sample ID: 180-47781-1  
 Client ID: HD-COD-SW-6-0/1-0  
 Sample Type: Client  
 Inject. Date: 22-Sep-2015 15:03:30 ALS Bottle#: 5 Worklist Smp#: 10  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-47781-A-1  
 Misc. Info.: 180-0008620-010  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 22-Sep-2015 16:04:34 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: XAWRK019

First Level Reviewer: fergusond

Date: 22-Sep-2015 16:04:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.267	4.273	-0.006	0	150171	1000.0	
* 2 Fluorobenzene (IS)	96	7.291	7.290	0.001	97	340840	50.0	
* 3 Chlorobenzene-d5	119	10.387	10.393	-0.006	89	84860	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.729	12.729	0.000	97	116566	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.567	6.566	0.001	93	85292	51.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.932	6.937	-0.005	0	121626	52.9	
\$ 7 Toluene-d8 (Surr)	98	8.939	8.939	0.000	95	317784	48.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.568	11.573	-0.005	87	115959	47.0	
11 Dichlorodifluoromethane	85		1.614				ND	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.906				ND	
14 Butadiene	39		1.943				ND	
15 Bromomethane	94		2.247				ND	
16 Chloroethane	64		2.405				ND	
17 Dichlorofluoromethane	67		2.673				ND	
18 Trichlorofluoromethane	101		2.709				ND	
19 Ethanol	45		2.957				ND	
20 Ethyl ether	59		3.050				ND	
21 Acrolein	56		3.226				ND	
22 1,1-Dichloroethene	96		3.348				ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.421				ND	
24 Acetone	43	3.470	3.439	0.031	51	6397	9.30	
25 Iodomethane	142		3.543				ND	
26 Carbon disulfide	76	3.641	3.634	0.007	71	3323	0.7538	
27 Isopropyl alcohol	45		3.706				ND	
29 Acetonitrile	40		3.870				ND	
28 3-Chloro-1-propene	76		3.920				ND	
30 Methyl acetate	43		3.938				ND	
31 Methylene Chloride	84		4.133				ND	
32 2-Methyl-2-propanol	59		4.394				ND	
33 Acrylonitrile	53		4.516				ND	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	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		4.991				ND	
37 1,1-Dichloroethane	63		5.204				ND	
38 Vinyl acetate	43		5.252				ND	
41 Isopropyl ether	45		5.299				ND	
39 2-Chloro-1,3-butadiene	53		5.299				ND	
40 Isopropyl ether TIC	45		5.409				ND	
42 Tert-butyl ethyl ether	59		5.780				ND	
44 2,2-Dichloropropane	77		5.946				ND	
45 cis-1,2-Dichloroethene	96		5.952				ND	
43 Tert-butyl ethyl ether (TI	59		5.961				ND	
46 2-Butanone (MEK)	43		5.964				ND	
47 Propionitrile	54		6.036				ND	
48 Ethyl acetate	43		6.036				ND	
50 Methacrylonitrile	41		6.212				ND	
49 Chlorobromomethane	128		6.238				ND	
51 Tetrahydrofuran	42		6.250				ND	
52 Chloroform	83		6.384				ND	
53 1,1,1-Trichloroethane	97		6.542				ND	
54 Cyclohexane	56		6.615				ND	
56 Carbon tetrachloride	117		6.712				ND	
55 1,1-Dichloropropene	75		6.730				ND	
57 Isobutyl alcohol	41		6.925				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.022				ND	
61 Tert-amyl methyl ether	73		7.125				ND	
60 Tert-amyl methyl ether (TI	73		7.262				ND	
62 n-Heptane	43		7.308				ND	
63 n-Butanol	56		7.629				ND	
64 Trichloroethene	130		7.679				ND	
65 Ethyl acrylate	55		7.800				ND	
66 Methylcyclohexane	83		7.917				ND	
67 1,2-Dichloropropane	63		7.947				ND	
69 Methyl methacrylate	69		8.031				ND	
68 Dibromomethane	93		8.032				ND	
70 1,4-Dioxane	88		8.032				ND	
71 Dichlorobromomethane	83		8.233				ND	
72 2-Nitropropane	41		8.451				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		8.829				ND	
76 Toluene	91		9.006				ND	
77 trans-1,3-Dichloropropene	75		9.249				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		9.657				ND	
83 n-Butyl acetate	43		9.783				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	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.387				ND	
87 Chlorobenzene	112		10.417				ND	
88 4-Chlorobenzotrifluoride	180		10.478				ND	
89 1,1,1,2-Tetrachloroethane	131		10.508				ND	
90 Ethylbenzene	106		10.514				ND	
91 m-Xylene & p-Xylene	106		10.648				ND	
92 o-Xylene	106		11.025				ND	
93 Styrene	104		11.050				ND	
94 Bromoform	173		11.232				ND	
95 Cyclohexanol	57		11.245				ND	
96 2-Chlorobenzotrifluoride	180		11.299				ND	
97 Isopropylbenzene	105		11.396				ND	
98 Cyclohexanone	55		11.480				ND	
99 1,1,2,2-Tetrachloroethane	83		11.707				ND	
100 Bromobenzene	156		11.713				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		11.810				ND	
104 2-Chlorotoluene	126		11.901				ND	
105 3-Chlorotoluene	126		11.962				ND	
106 1,3,5-Trimethylbenzene	105		11.993				ND	
107 4-Chlorotoluene	126		12.023				ND	
108 tert-Butylbenzene	119		12.309				ND	
109 Pentachloroethane	167		12.338				ND	
110 1,2,4-Trimethylbenzene	105		12.370				ND	
111 1,2-dichloro-4-(trifluorom	214		12.406				ND	
112 sec-Butylbenzene	105		12.534				ND	
113 1,3-Dichlorobenzene	146		12.650				ND	
114 4-Isopropyltoluene	119		12.686				ND	
115 1,4-Dichlorobenzene	146		12.753				ND	
117 1,2,3-Trimethylbenzene	105		12.776				ND	
116 2,4-Dichloro-1-(triflourom	214		12.777				ND	
118 2,5-Dichlorobenzotrifluori	214		12.820				ND	
119 Benzyl chloride	91		12.867				ND	
120 n-Butylbenzene	91		13.100				ND	
121 1,2-Dichlorobenzene	146		13.106				ND	
122 1,2-Dibromo-3-Chloropropan	75		13.897				ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.043				ND	
124 1,3,5-Trichlorobenzene	180		14.090				ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.456				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		15.990				ND	
130 2,3,6-Trichlorotoluene	159		16.087				ND	
132 2-Methylnaphthalene	142		16.134				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.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
147 2,4-Dichlorotoluene	1		0.000				ND	
148 2,3-Dichlorotoluene	1		0.000				ND	
S 133 Xylenes, Total	106		1.000				ND	
S 134 1,2-Dichloroethene, Total	96		1.000				ND	
S 135 1,3-Dichloropropene, Total	1		0.000				ND	
T 136 Mesityl oxide TIC	83		0.000				ND	
T 138 Methyl n-amyl ketone TIC	43		0.000				ND	
T 137 Tetrahydrofuran TIC	42		6.253				ND	
T 153 1,2 Epoxybutane TIC	42		6.253				ND	

**Reagents:**

VOA8260INT\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922010.D

Injection Date: 22-Sep-2015 15:03:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-47781-A-1

Lab Sample ID: 180-47781-1

Worklist Smp#: 10

Client ID: HD-COD-SW-6-0/1-0

Purge Vol: 5.000 mL

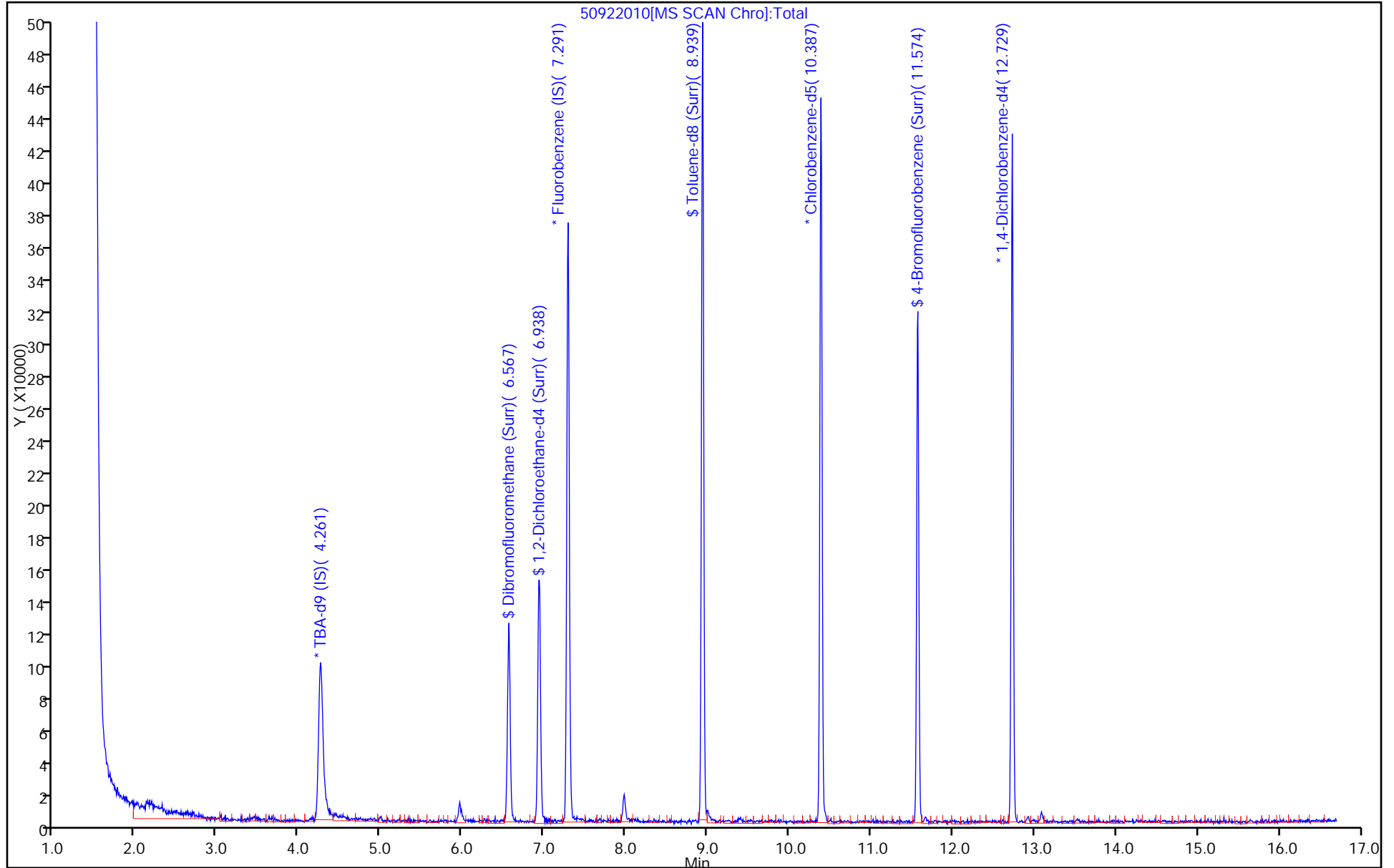
Dil. Factor: 1.0000

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.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 180-47781-2  
 Matrix: Water Lab File ID: 50922016.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 11:20  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/22/2015 17:28  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154425 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U ^c	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	2.8	J ^c	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U ^c	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	0.16	J	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U ^c	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 180-47781-2  
 Matrix: Water Lab File ID: 50922016.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 11:20  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/22/2015 17:28  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154425 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		64-135
2037-26-5	Toluene-d8 (Surr)	97		71-118
460-00-4	4-Bromofluorobenzene (Surr)	98		70-118
1868-53-7	Dibromofluoromethane (Surr)	100		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922016.D  
 Lims ID: 180-47781-A-2 Lab Sample ID: 180-47781-2  
 Client ID: HD-COD-SW-7-0/1-0  
 Sample Type: Client  
 Inject. Date: 22-Sep-2015 17:28:30 ALS Bottle#: 11 Worklist Smp#: 16  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-47781-A-2  
 Misc. Info.: 180-0008620-016  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 23-Sep-2015 07:57:57 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: XAWRK005

First Level Reviewer: fergusond

Date: 23-Sep-2015 07:57:57

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.263	4.273	-0.010	0	139708	1000.0	
* 2 Fluorobenzene (IS)	96	7.293	7.290	0.003	97	334807	50.0	
* 3 Chlorobenzene-d5	119	10.383	10.393	-0.010	90	79979	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.725	12.729	-0.004	98	113458	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.563	6.566	-0.003	94	81885	49.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.934	6.937	-0.003	0	121584	53.8	
\$ 7 Toluene-d8 (Surr)	98	8.935	8.939	-0.004	95	299412	48.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.569	11.573	-0.004	88	113994	49.0	
12 Chloromethane	50	1.763	1.766	-0.003	1	3208	1.16	
13 Vinyl chloride	62		1.906				ND	
15 Bromomethane	94		2.247				ND	
16 Chloroethane	64		2.405				ND	
22 1,1-Dichloroethene	96		3.348				ND	
24 Acetone	43	3.424	3.439	-0.015	80	9305	13.8	
26 Carbon disulfide	76		3.634				ND	
31 Methylene Chloride	84		4.133				ND	
33 Acrylonitrile	53		4.516				ND	
34 trans-1,2-Dichloroethene	96		4.565				ND	
35 Methyl tert-butyl ether	73		4.577				ND	
37 1,1-Dichloroethane	63		5.204				ND	
45 cis-1,2-Dichloroethene	96	5.960	5.952	0.008	1	1092	0.5048	
46 2-Butanone (MEK)	43		5.964				ND	
49 Chlorobromomethane	128		6.238				ND	
52 Chloroform	83	6.380	6.384	-0.004	9	1684	0.4887	M
53 1,1,1-Trichloroethane	97		6.542				ND	
56 Carbon tetrachloride	117		6.712				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.022				ND	
64 Trichloroethene	130	7.682	7.679	0.003	91	1587	0.7858	M
67 1,2-Dichloropropane	63		7.947				ND	
70 1,4-Dioxane	88		8.032				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		8.829				ND	
76 Toluene	91		9.006				ND	
77 trans-1,3-Dichloropropene	75		9.249				ND	
79 1,1,2-Trichloroethane	97		9.444				ND	
80 Tetrachloroethene	164	9.519	9.517	0.002	37	839	0.5459	
82 2-Hexanone	43		9.657				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		10.508				ND	
90 Ethylbenzene	106		10.514				ND	
91 m-Xylene & p-Xylene	106		10.648				ND	
92 o-Xylene	106		11.025				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

Review Flags

M - Manually Integrated

### Reagents:

VOA8260INT\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922016.D

Injection Date: 22-Sep-2015 17:28:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-47781-A-2

Lab Sample ID: 180-47781-2

Worklist Smp#: 16

Client ID: HD-COD-SW-7-0/1-0

Purge Vol: 5.000 mL

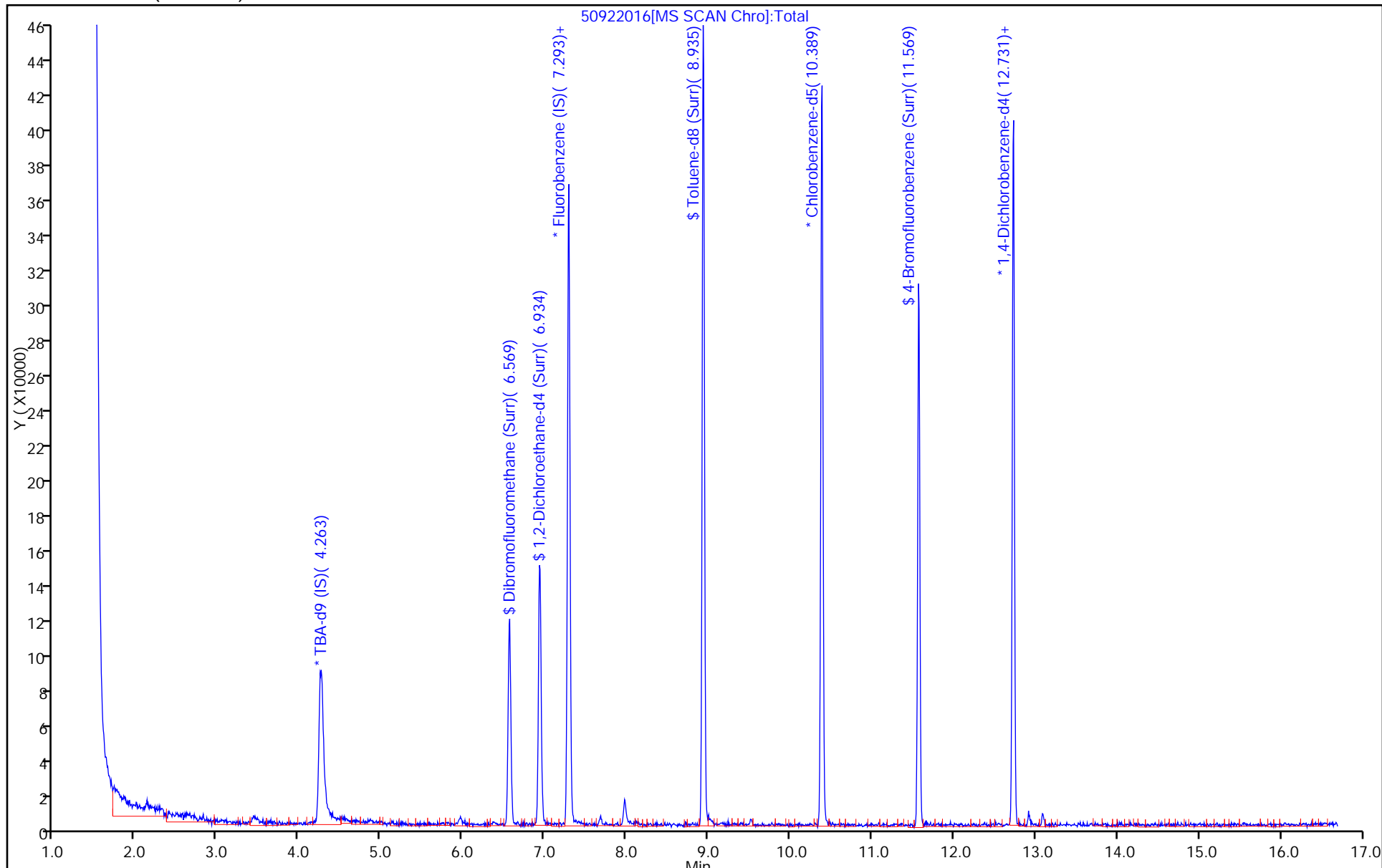
Dil. Factor: 1.0000

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\20150922-8620.b\50922016.D

Injection Date: 22-Sep-2015 17:28:30

Instrument ID: CHHP5

Lims ID: 180-47781-A-2

Lab Sample ID: 180-47781-2

Client ID: HD-COD-SW-7-0/1-0

Operator ID: 001562

ALS Bottle#: 11

Worklist Smp#: 16

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

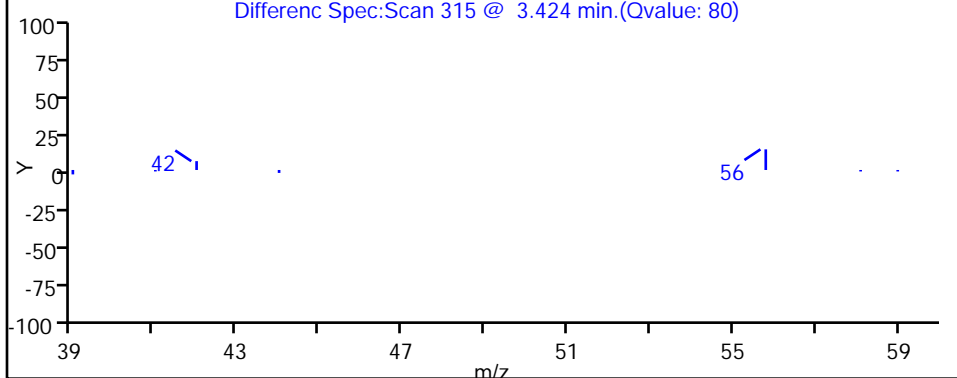
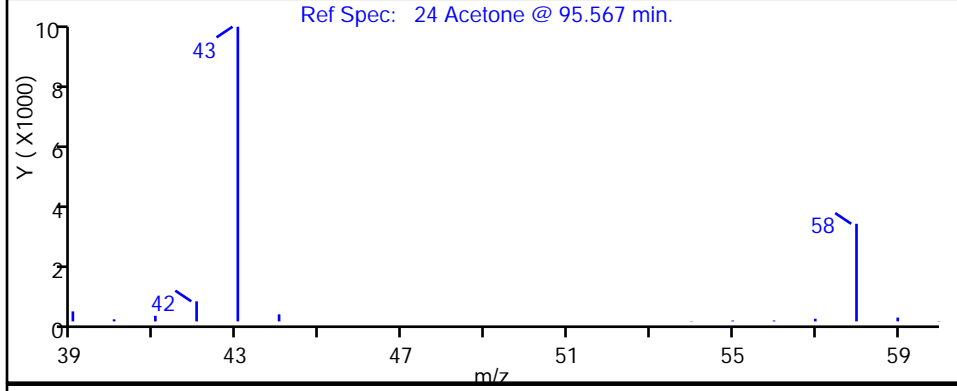
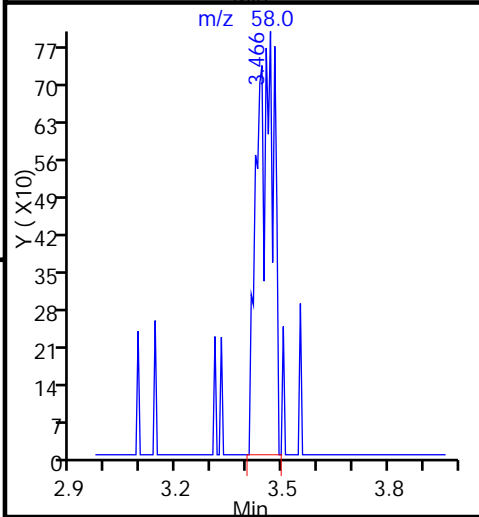
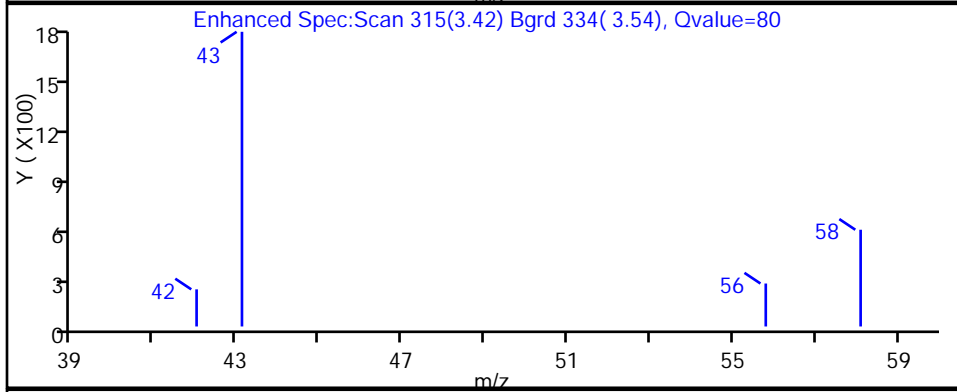
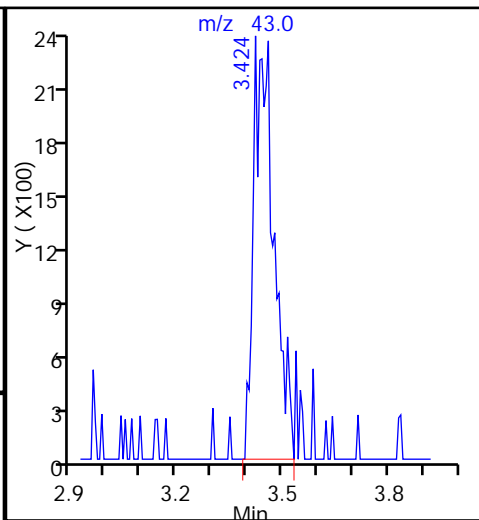
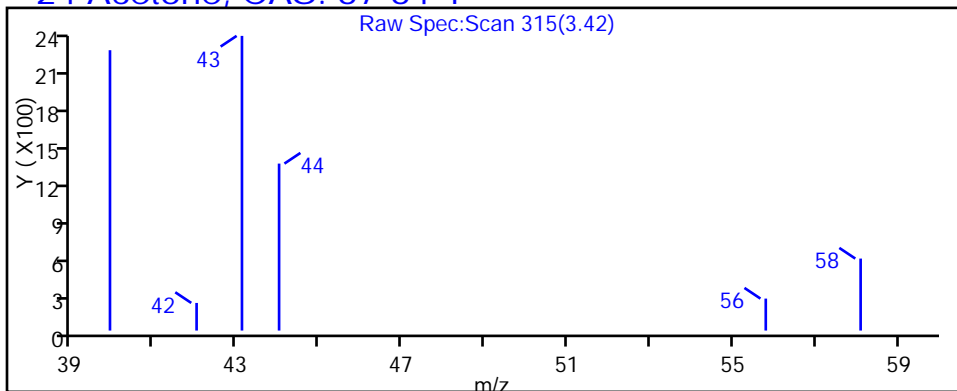
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

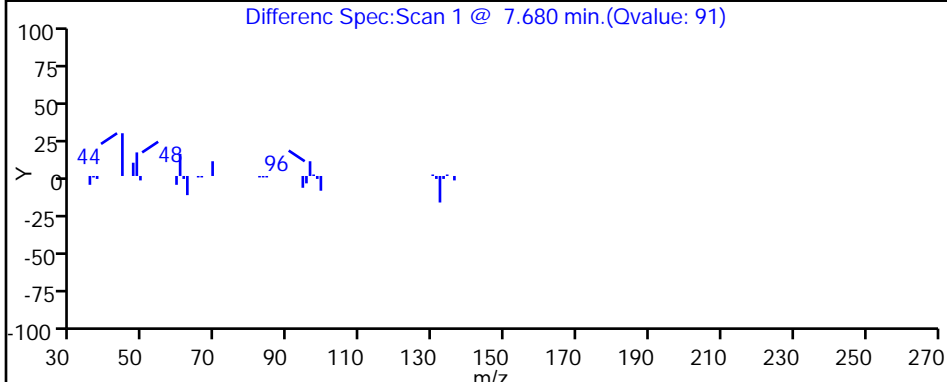
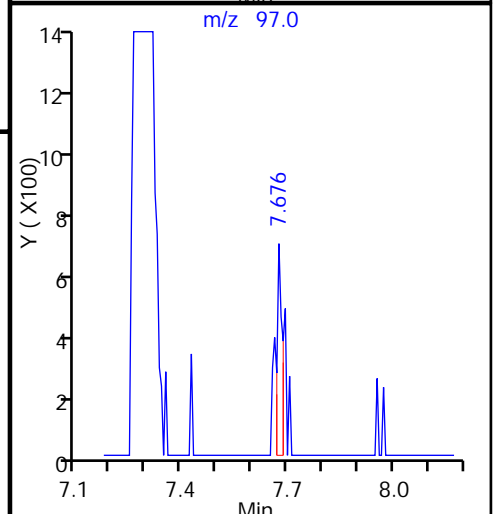
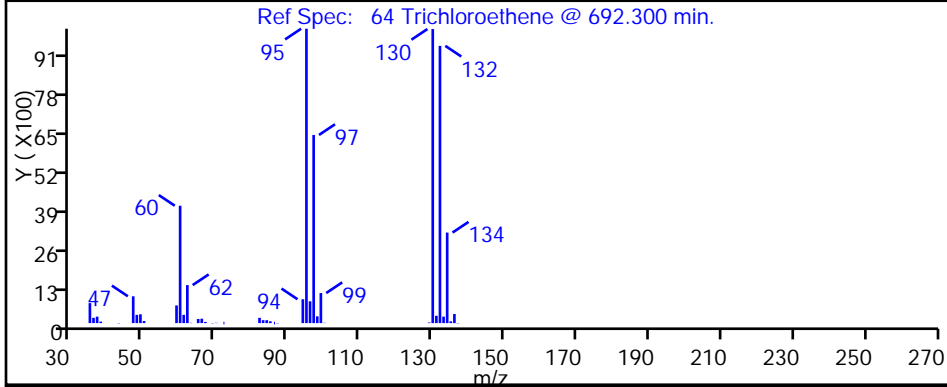
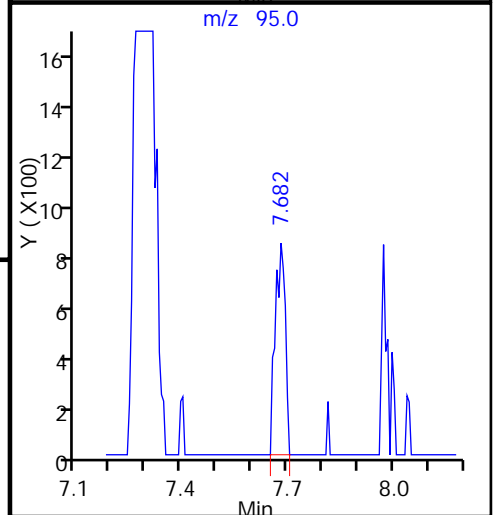
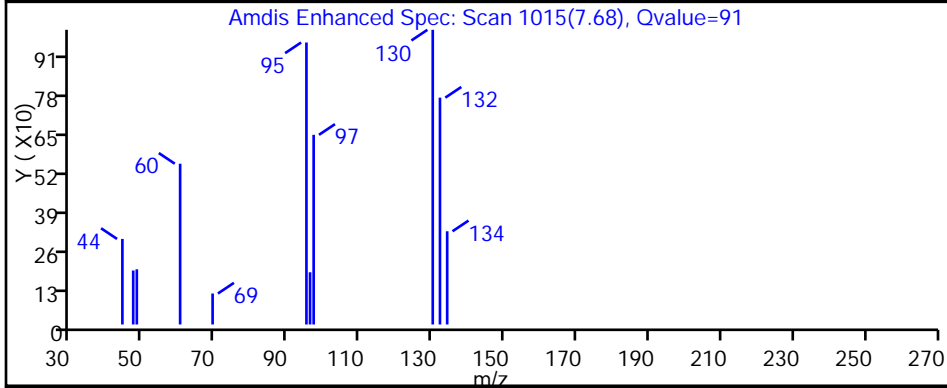
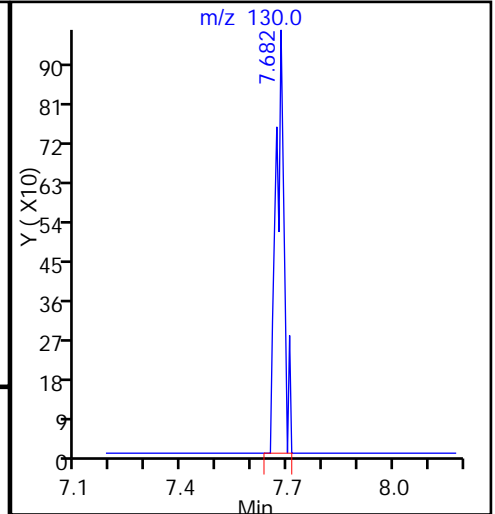
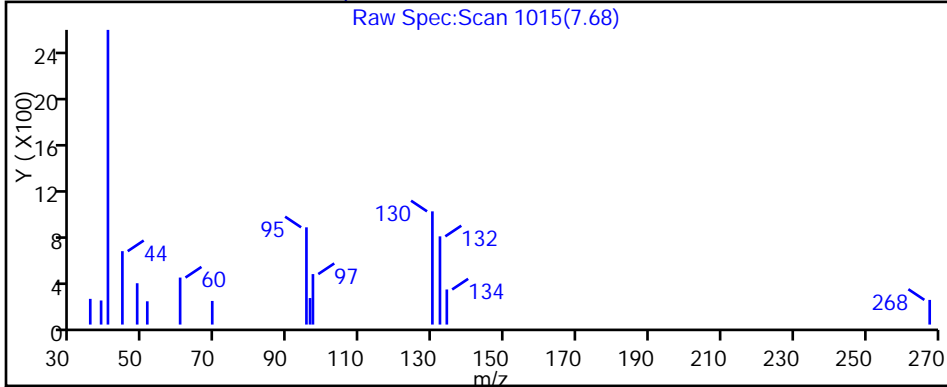
24 Acetone, CAS: 67-64-1



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922016.D  
Injection Date: 22-Sep-2015 17:28:30 Instrument ID: CHHP5  
Lims ID: 180-47781-A-2 Lab Sample ID: 180-47781-2  
Client ID: HD-COD-SW-7-0/1-0  
Operator ID: 001562 ALS Bottle#: 11 Worklist Smp#: 16  
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



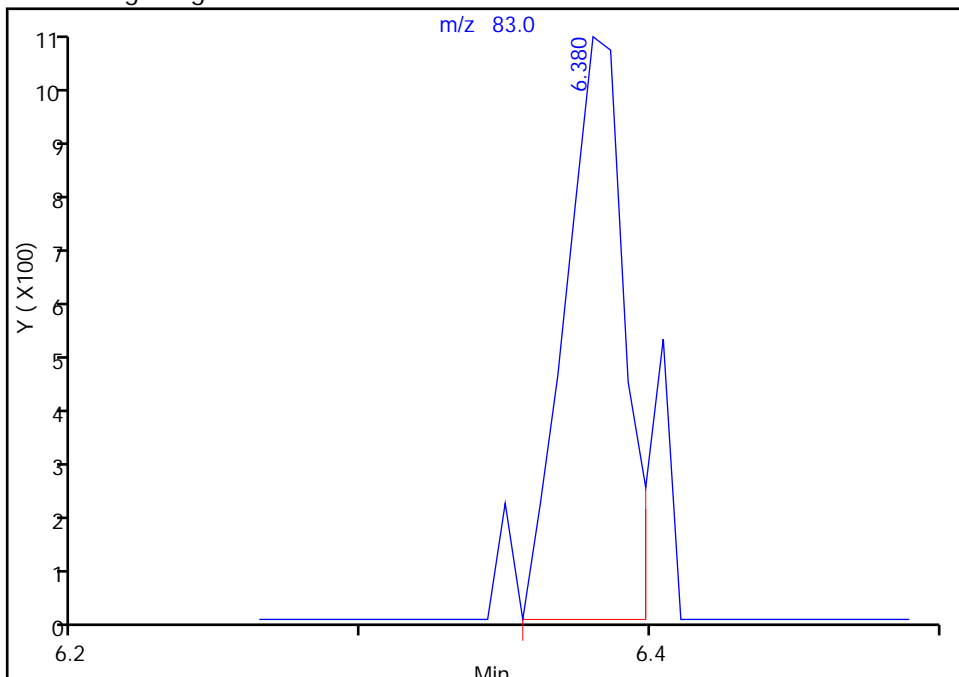
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922016.D  
Injection Date: 22-Sep-2015 17:28:30 Instrument ID: CHHP5  
Lims ID: 180-47781-A-2 Lab Sample ID: 180-47781-2  
Client ID: HD-COD-SW-7-0/1-0  
Operator ID: 001562 ALS Bottle#: 11 Worklist Smp#: 16  
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

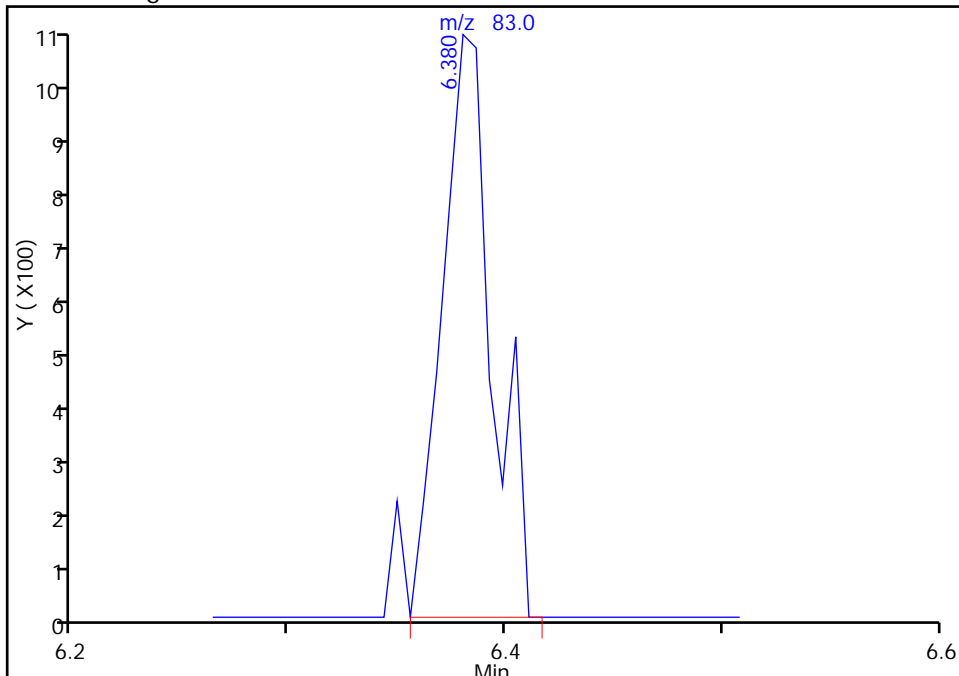
RT: 6.38  
Area: 1501  
Amount: 0.435581  
Amount Units: ng

Processing Integration Results



RT: 6.38  
Area: 1684  
Amount: 0.488686  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 23-Sep-2015 07:57:57  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

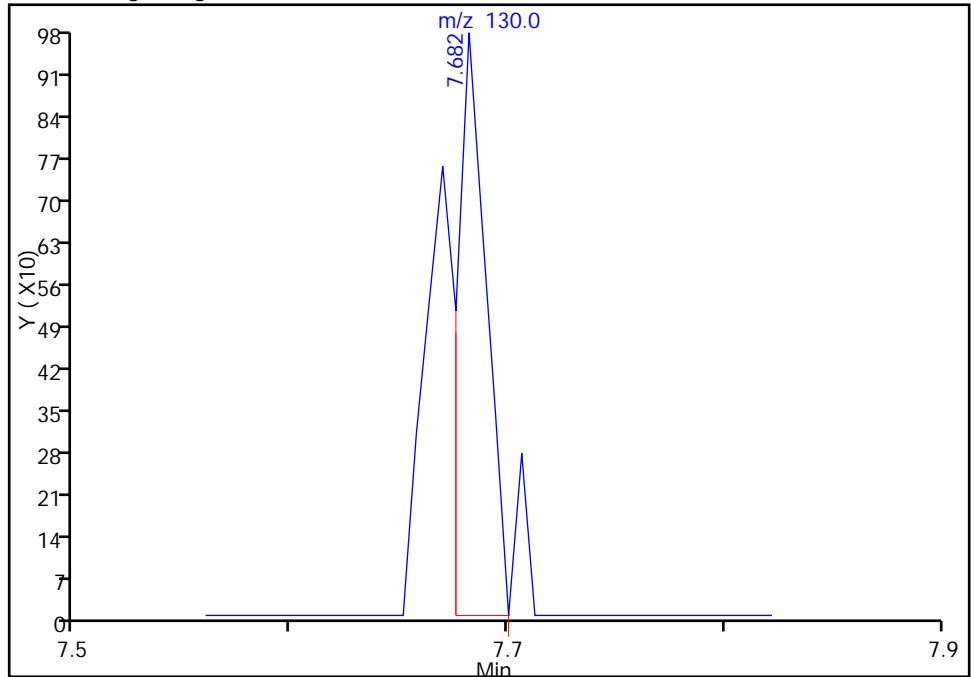
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922016.D  
Injection Date: 22-Sep-2015 17:28:30 Instrument ID: CHHP5  
Lims ID: 180-47781-A-2 Lab Sample ID: 180-47781-2  
Client ID: HD-COD-SW-7-0/1-0  
Operator ID: 001562 ALS Bottle#: 11 Worklist Smp#: 16  
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

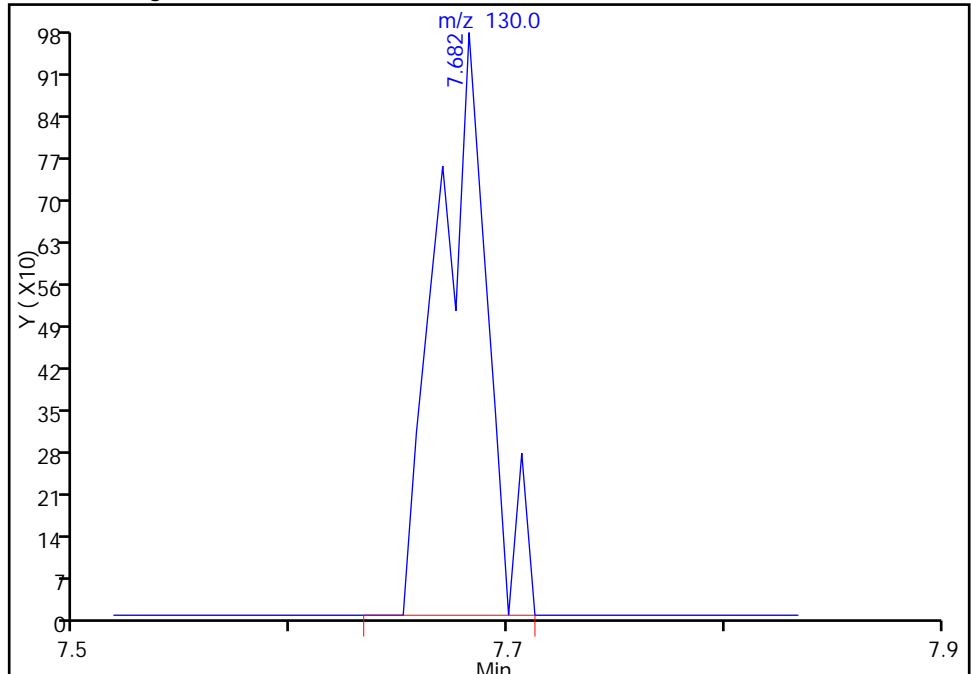
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Area: 906  
Amount: 0.448587  
Amount Units: ng

Processing Integration Results



RT: 7.68  
Area: 1587  
Amount: 0.785770  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 23-Sep-2015 07:57:57  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 180-47781-3  
 Matrix: Water Lab File ID: 50922017.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 09:23  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/22/2015 17:52  
 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.: 154425 Units: ug/L

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

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 180-47781-3  
 Matrix: Water Lab File ID: 50922017.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 09:23  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/22/2015 17:52  
 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.: 154425 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20
107-13-1	Acrylonitrile	20	U	20	0.55
123-91-1	1,4-Dioxane	200	U ^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)	96		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922017.D  
 Lims ID: 180-47781-A-3 Lab Sample ID: 180-47781-3  
 Client ID: HD-COD-SW-8-0/1-0  
 Sample Type: Client  
 Inject. Date: 22-Sep-2015 17:52:30 ALS Bottle#: 12 Worklist Smp#: 17  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-47781-A-3  
 Misc. Info.: 180-0008620-017  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 23-Sep-2015 07:59:11 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: XAWRK005

First Level Reviewer: fergusond

Date: 23-Sep-2015 07:59:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.260	4.273	-0.013	0	140453	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	97	326153	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.393	-0.007	89	79807	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.729	-0.001	97	110876	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.566	6.566	0.000	94	84285	52.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	115516	52.5	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.939	-0.001	95	296723	48.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.573	11.573	0.000	87	108411	46.7	
12 Chloromethane	50	1.754	1.766	-0.012	12	1760	0.6505	M
13 Vinyl chloride	62		1.906				ND	
15 Bromomethane	94		2.247				ND	
16 Chloroethane	64		2.405				ND	
22 1,1-Dichloroethene	96		3.348				ND	
24 Acetone	43	3.457	3.439	0.018	66	6893	10.5	
26 Carbon disulfide	76		3.634				ND	
31 Methylene Chloride	84		4.133				ND	
33 Acrylonitrile	53		4.516				ND	
34 trans-1,2-Dichloroethene	96		4.565				ND	
35 Methyl tert-butyl ether	73		4.577				ND	
37 1,1-Dichloroethane	63		5.204				ND	
45 cis-1,2-Dichloroethene	96	5.951	5.952	-0.001	55	2214	1.05	
46 2-Butanone (MEK)	43		5.964				ND	
49 Chlorobromomethane	128		6.238				ND	
52 Chloroform	83	6.377	6.384	-0.007	11	902	0.2687	
53 1,1,1-Trichloroethane	97		6.542				ND	
56 Carbon tetrachloride	117		6.712				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.022				ND	
64 Trichloroethene	130	7.679	7.679	0.000	89	2349	1.19	
67 1,2-Dichloropropane	63		7.947				ND	
70 1,4-Dioxane	88		8.032				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		8.829				ND	
76 Toluene	91		9.006				ND	
77 trans-1,3-Dichloropropene	75		9.249				ND	
79 1,1,2-Trichloroethane	97		9.444				ND	
80 Tetrachloroethene	164	9.529	9.517	0.012	85	1741	1.14	M
82 2-Hexanone	43		9.657				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		10.508				ND	
90 Ethylbenzene	106		10.514				ND	
91 m-Xylene & p-Xylene	106		10.648				ND	
92 o-Xylene	106		11.025				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

Review Flags

M - Manually Integrated

### Reagents:

VOA8260INT\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922017.D

Injection Date: 22-Sep-2015 17:52:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-47781-A-3

Lab Sample ID: 180-47781-3

Worklist Smp#: 17

Client ID: HD-COD-SW-8-0/1-0

Purge Vol: 5.000 mL

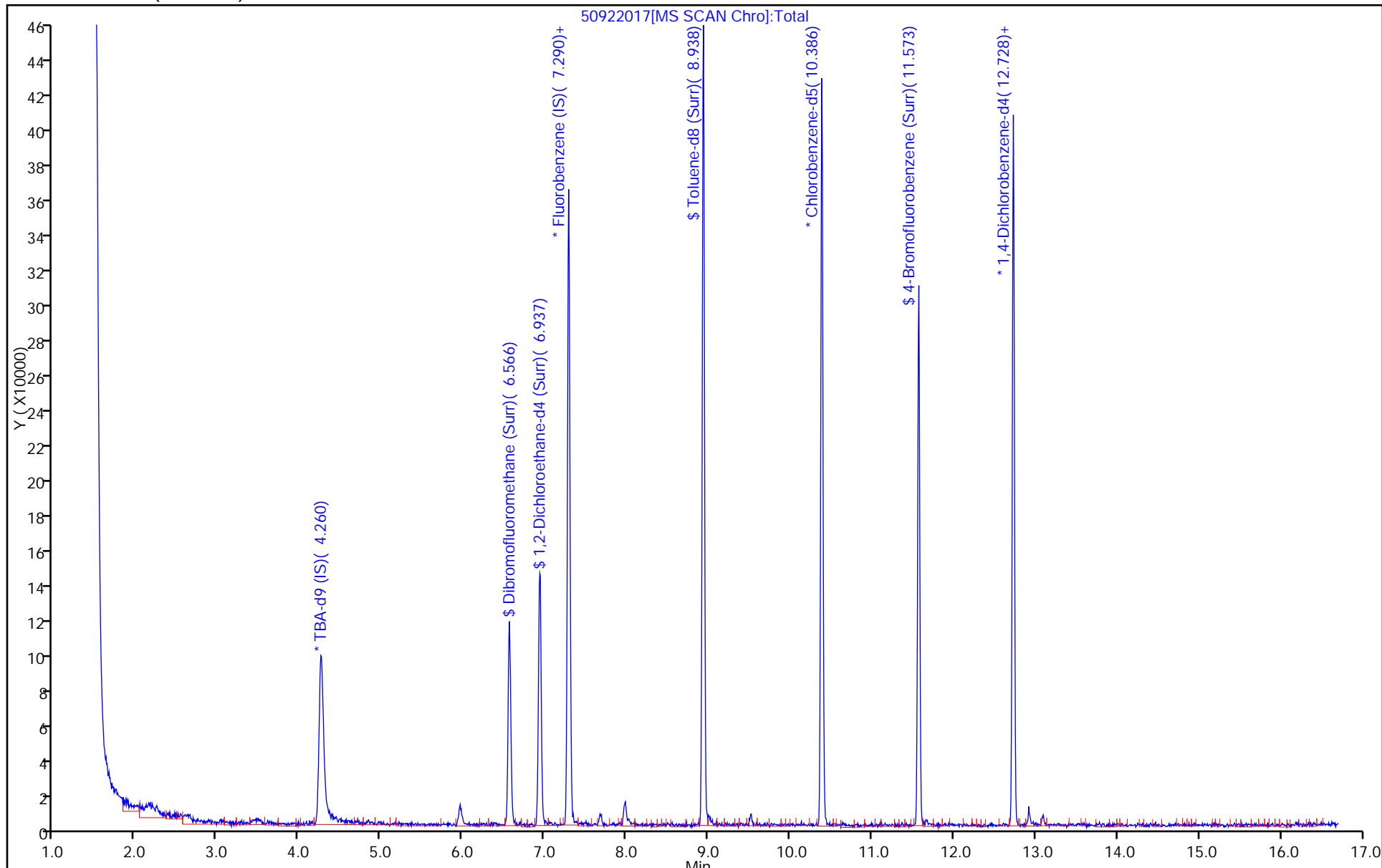
Dil. Factor: 1.0000

ALS Bottle#: 12

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922017.D

Injection Date: 22-Sep-2015 17:52:30

Instrument ID: CHHP5

Lims ID: 180-47781-A-3

Lab Sample ID: 180-47781-3

Client ID: HD-COD-SW-8-0/1-0

Operator ID: 001562

ALS Bottle#: 12

Worklist Smp#: 17

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

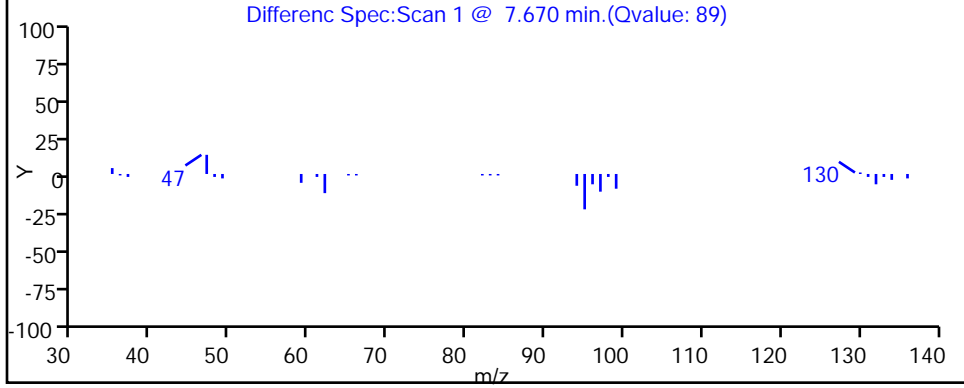
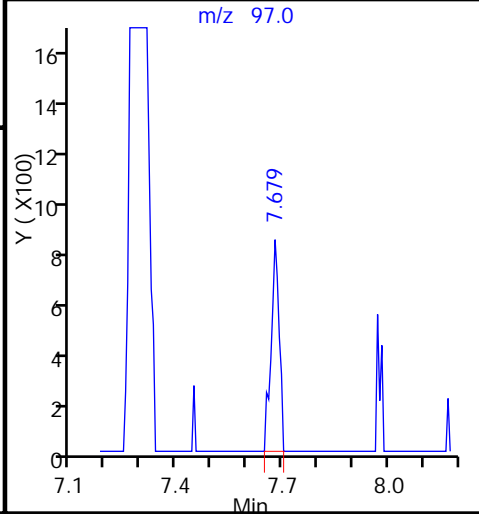
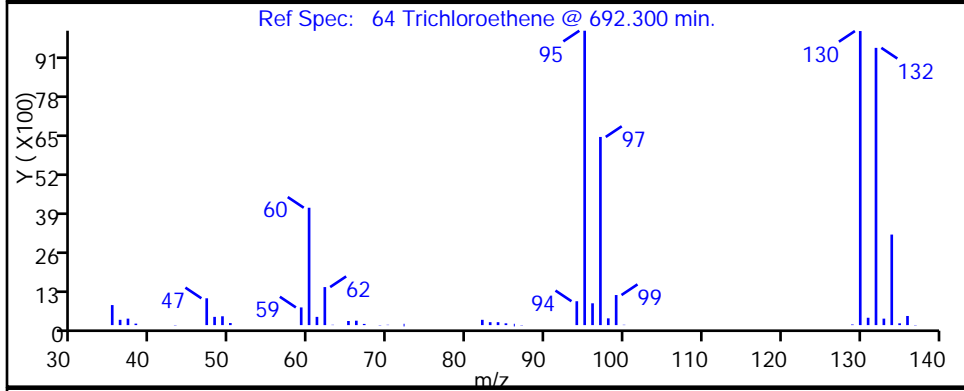
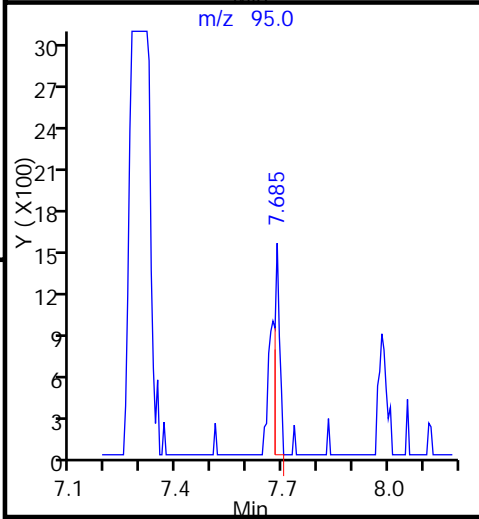
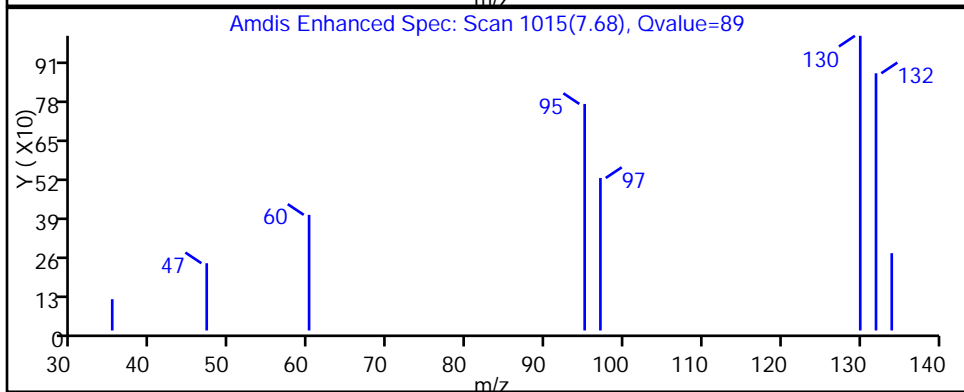
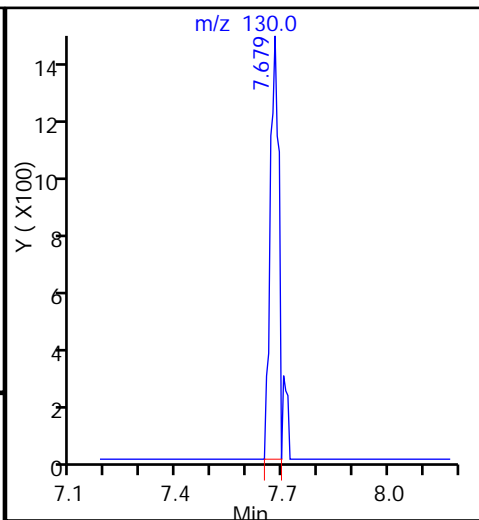
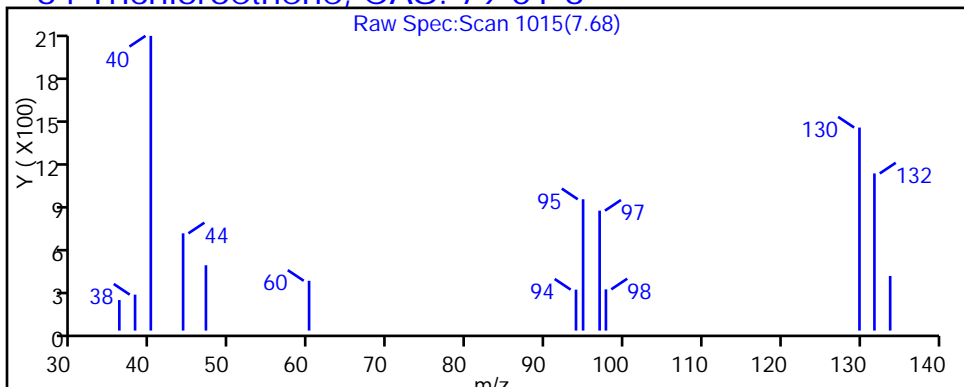
Method: MSVOA\_LL\_CHHP5

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\20150922-8620.b\50922017.D

Injection Date: 22-Sep-2015 17:52:30

Instrument ID: CHHP5

Lims ID: 180-47781-A-3

Lab Sample ID: 180-47781-3

Client ID: HD-COD-SW-8-0/1-0

Operator ID: 001562

ALS Bottle#: 12

Worklist Smp#: 17

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

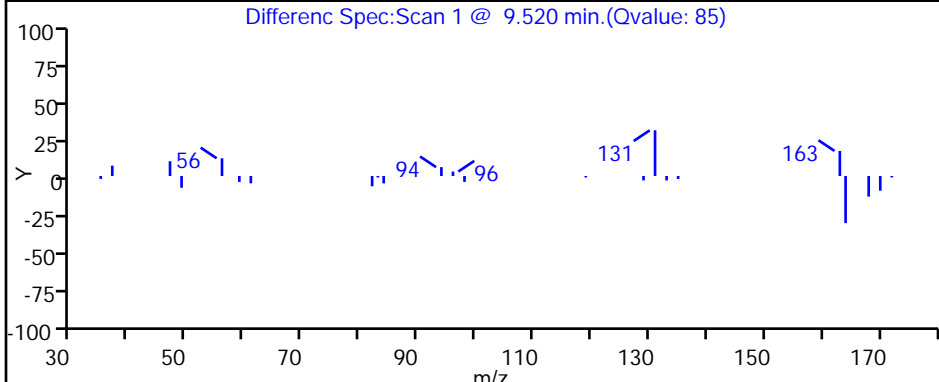
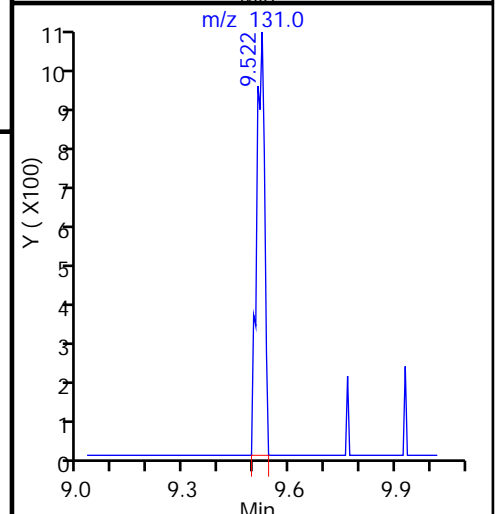
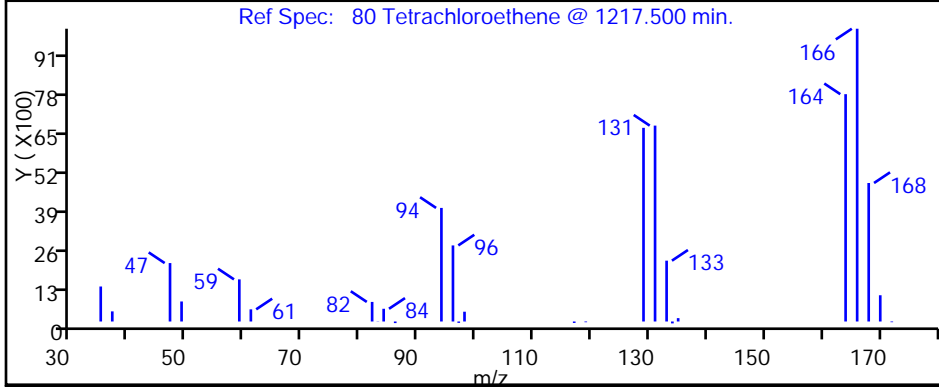
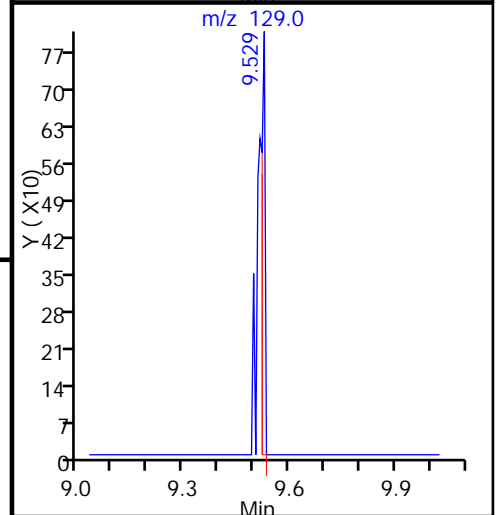
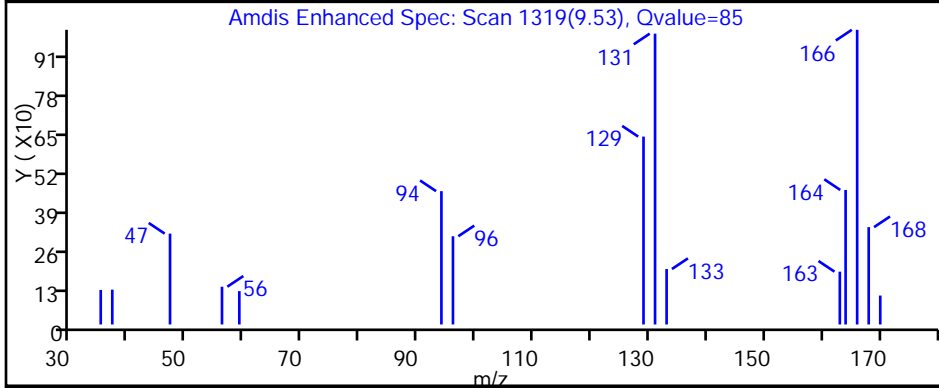
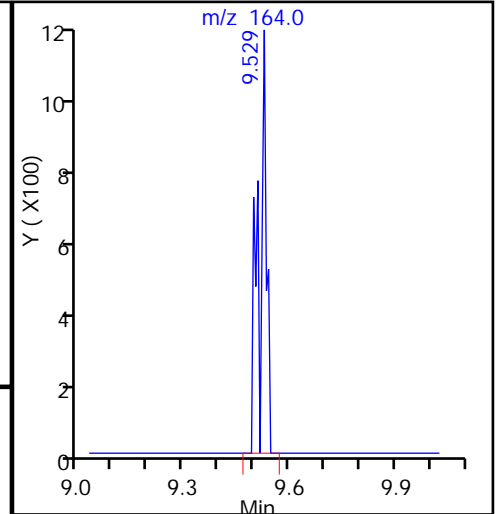
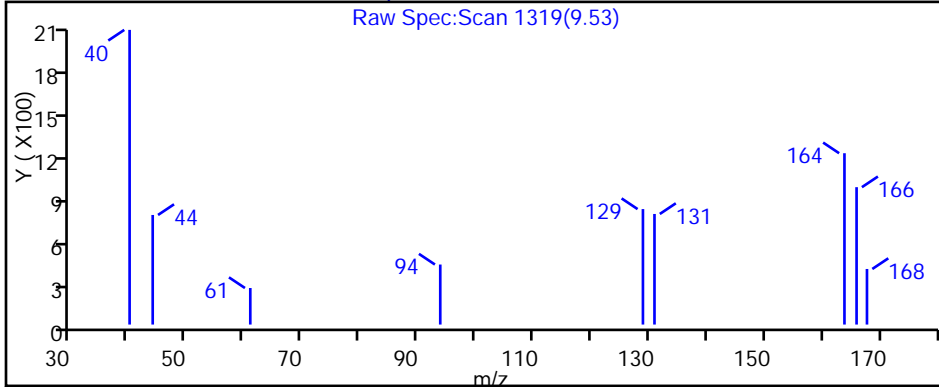
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



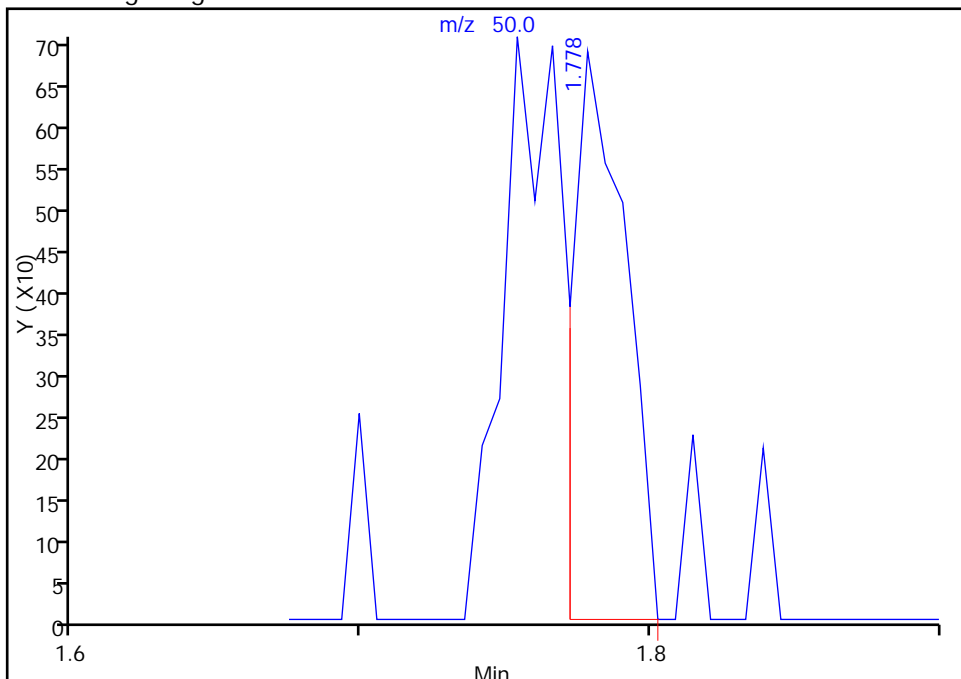
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922017.D  
Injection Date: 22-Sep-2015 17:52:30 Instrument ID: CHHP5  
Lims ID: 180-47781-A-3 Lab Sample ID: 180-47781-3  
Client ID: HD-COD-SW-8-0/1-0  
Operator ID: 001562 ALS Bottle#: 12 Worklist Smp#: 17  
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

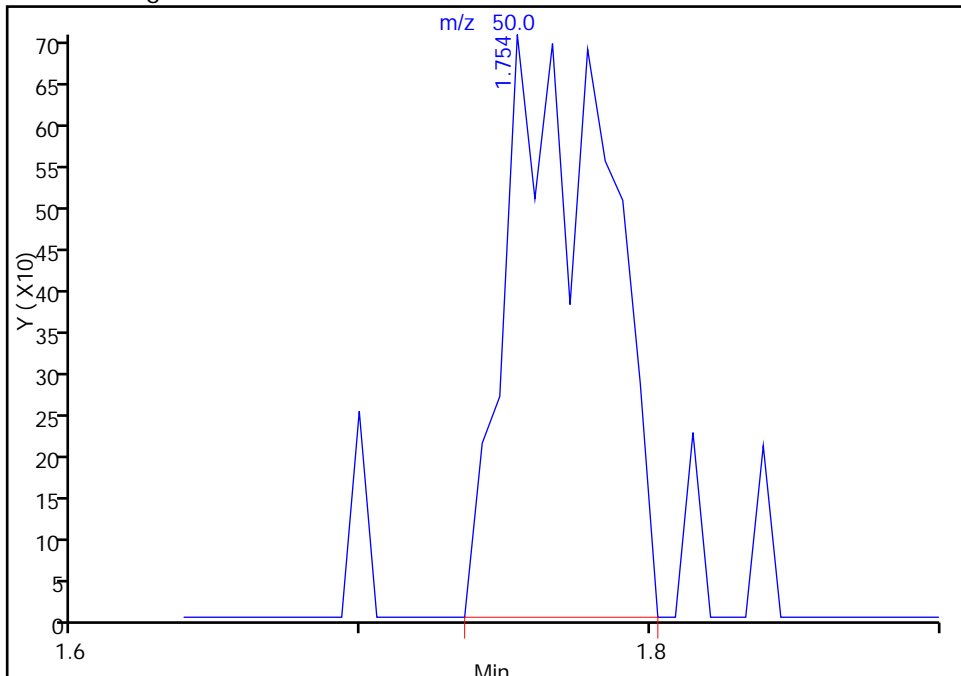
RT: 1.78  
Area: 884  
Amount: 0.326740  
Amount Units: ng

Processing Integration Results



RT: 1.75  
Area: 1760  
Amount: 0.650523  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 23-Sep-2015 07:59:11  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

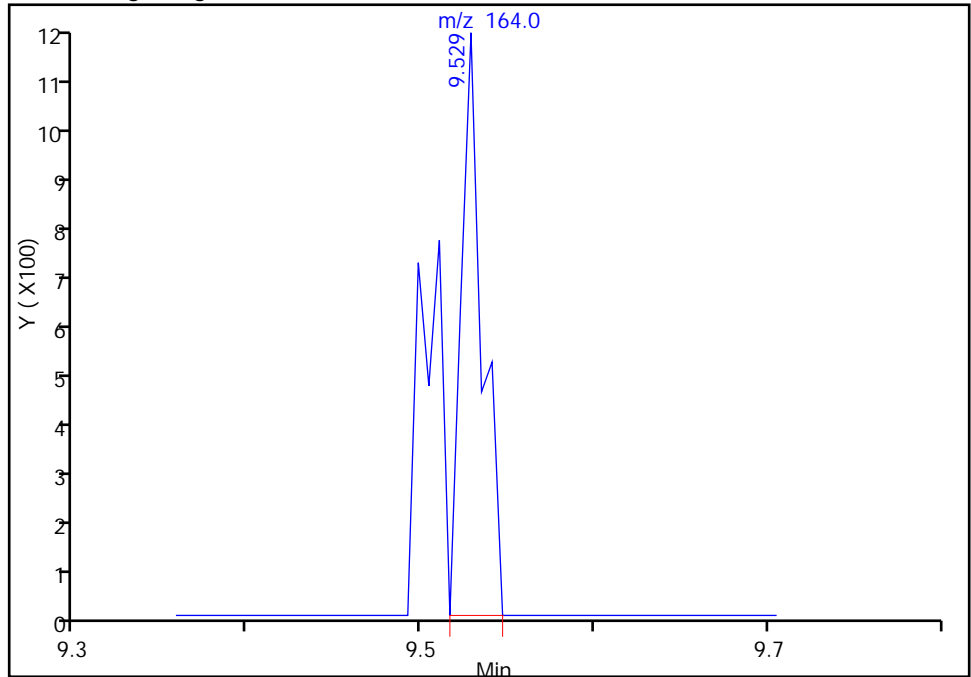
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922017.D  
Injection Date: 22-Sep-2015 17:52:30 Instrument ID: CHHP5  
Lims ID: 180-47781-A-3 Lab Sample ID: 180-47781-3  
Client ID: HD-COD-SW-8-0/1-0  
Operator ID: 001562 ALS Bottle#: 12 Worklist Smp#: 17  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4

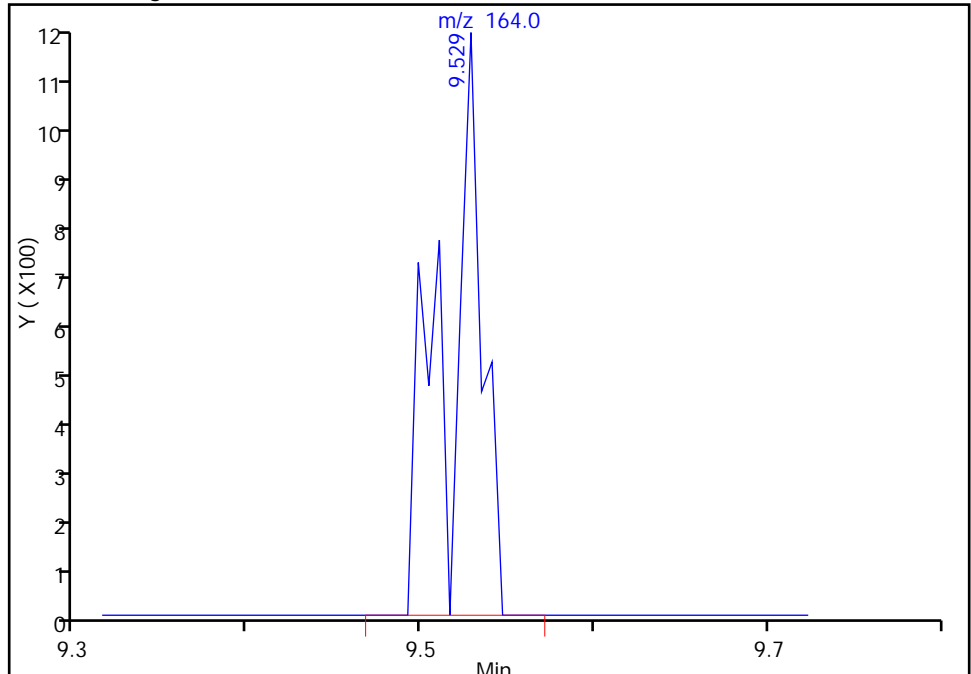
RT: 9.53  
Area: 1024  
Amount: 0.667674  
Amount Units: ng

Processing Integration Results



RT: 9.53  
Area: 1741  
Amount: 1.135176  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 23-Sep-2015 07:59:11  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-9-0/1-0 Lab Sample ID: 180-47781-4  
 Matrix: Water Lab File ID: 50922018.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 12:15  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/22/2015 18:16  
 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.: 154425 Units: ug/L

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

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-9-0/1-0 Lab Sample ID: 180-47781-4  
 Matrix: Water Lab File ID: 50922018.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 12:15  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/22/2015 18:16  
 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.: 154425 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		64-135
2037-26-5	Toluene-d8 (Surr)	96		71-118
460-00-4	4-Bromofluorobenzene (Surr)	91		70-118
1868-53-7	Dibromofluoromethane (Surr)	102		70-128



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922018.D  
 Lims ID: 180-47781-A-4 Lab Sample ID: 180-47781-4  
 Client ID: HD-COD-SW-9-0/1-0  
 Sample Type: Client  
 Inject. Date: 22-Sep-2015 18:16:30 ALS Bottle#: 13 Worklist Smp#: 18  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-47781-A-4  
 Misc. Info.: 180-0008620-018  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 23-Sep-2015 08:00:04 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: XAWRK005

First Level Reviewer: fergusond

Date: 23-Sep-2015 08:00:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.256	4.273	-0.017	0	145924	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.290	0.002	98	320592	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.393	-0.005	90	76322	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.729	0.001	97	107617	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.562	6.566	-0.004	94	80488	51.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.939	6.937	0.002	0	117166	54.2	
\$ 7 Toluene-d8 (Surr)	98	8.940	8.939	0.001	95	282694	48.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.575	11.573	0.002	87	101357	45.6	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.906				ND	
15 Bromomethane	94		2.247				ND	
16 Chloroethane	64		2.405				ND	
22 1,1-Dichloroethene	96		3.348				ND	
24 Acetone	43	3.447	3.439	0.008	78	8798	13.6	
26 Carbon disulfide	76		3.634				ND	
31 Methylene Chloride	84		4.133				ND	
33 Acrylonitrile	53		4.516				ND	
34 trans-1,2-Dichloroethene	96		4.565				ND	
35 Methyl tert-butyl ether	73		4.577				ND	
37 1,1-Dichloroethane	63		5.204				ND	
45 cis-1,2-Dichloroethene	96	5.953	5.952	0.001	89	5540	2.67	
46 2-Butanone (MEK)	43		5.964				ND	
49 Chlorobromomethane	128		6.238				ND	
52 Chloroform	83	6.398	6.384	0.014	26	2815	0.8531	
53 1,1,1-Trichloroethane	97		6.542				ND	
56 Carbon tetrachloride	117		6.712				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.022				ND	
64 Trichloroethene	130	7.681	7.679	0.002	93	5102	2.64	
67 1,2-Dichloropropane	63		7.947				ND	
70 1,4-Dioxane	88		8.032				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff 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		8.829				ND	
76 Toluene	91		9.006				ND	
77 trans-1,3-Dichloropropene	75		9.249				ND	
79 1,1,2-Trichloroethane	97		9.444				ND	
80 Tetrachloroethene	164	9.512	9.517	-0.005	86	2098	1.43	
82 2-Hexanone	43		9.657				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		10.508				ND	
90 Ethylbenzene	106		10.514				ND	
91 m-Xylene & p-Xylene	106		10.648				ND	
92 o-Xylene	106		11.025				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	

**Reagents:**

VOA8260INT\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922018.D

Injection Date: 22-Sep-2015 18:16:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-47781-A-4

Lab Sample ID: 180-47781-4

Worklist Smp#: 18

Client ID: HD-COD-SW-9-0/1-0

Purge Vol: 5.000 mL

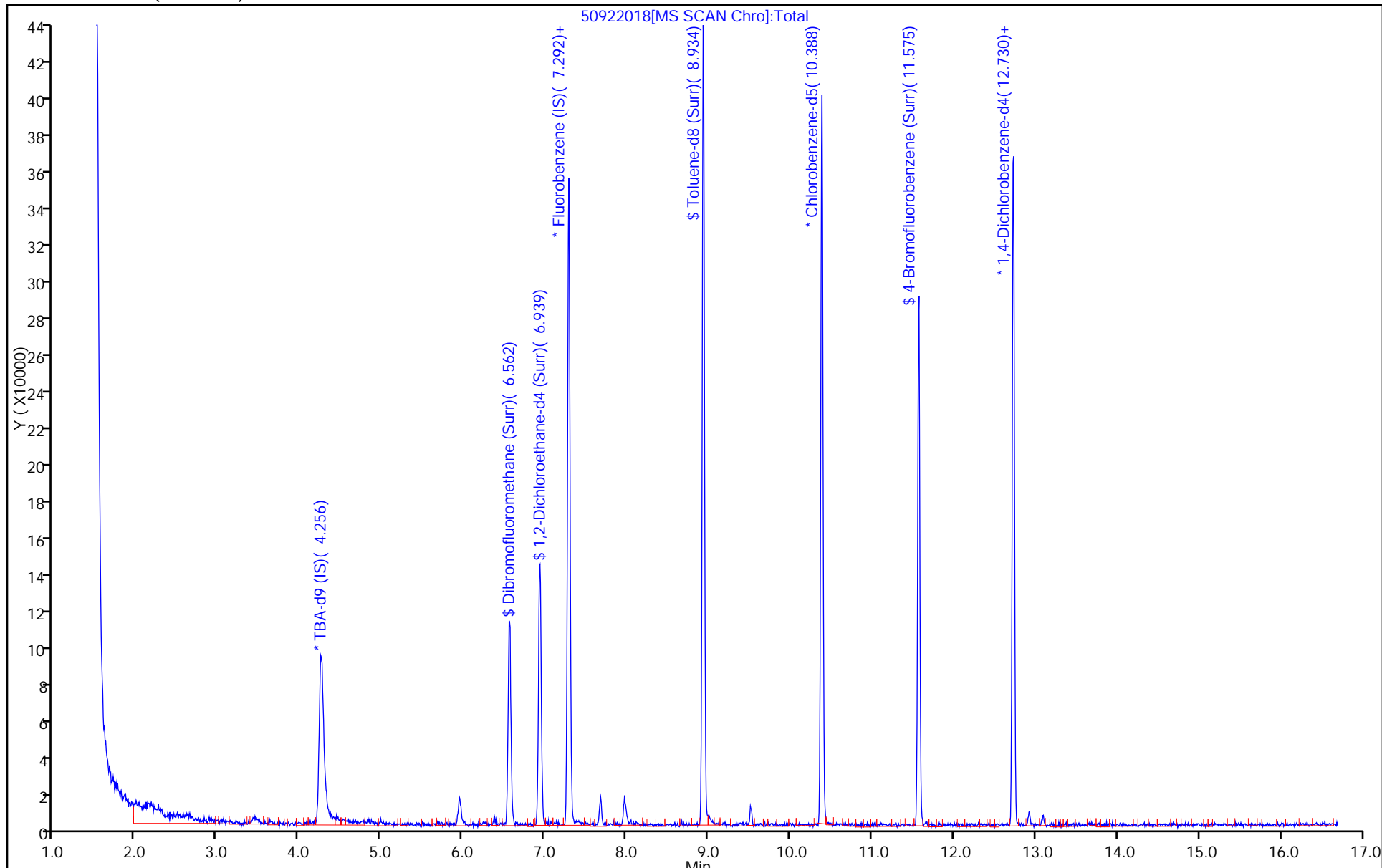
Dil. Factor: 1.0000

ALS Bottle#: 13

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922018.D

Injection Date: 22-Sep-2015 18:16:30

Instrument ID: CHHP5

Lims ID: 180-47781-A-4

Lab Sample ID: 180-47781-4

Client ID: HD-COD-SW-9-0/1-0

Operator ID: 001562

ALS Bottle#: 13

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

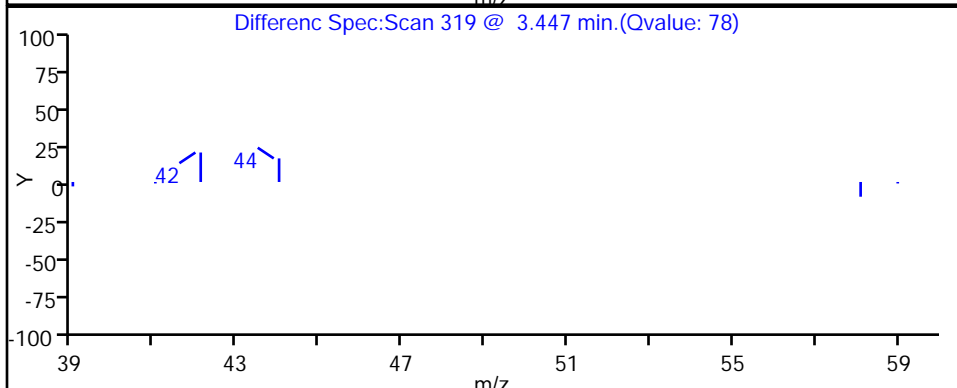
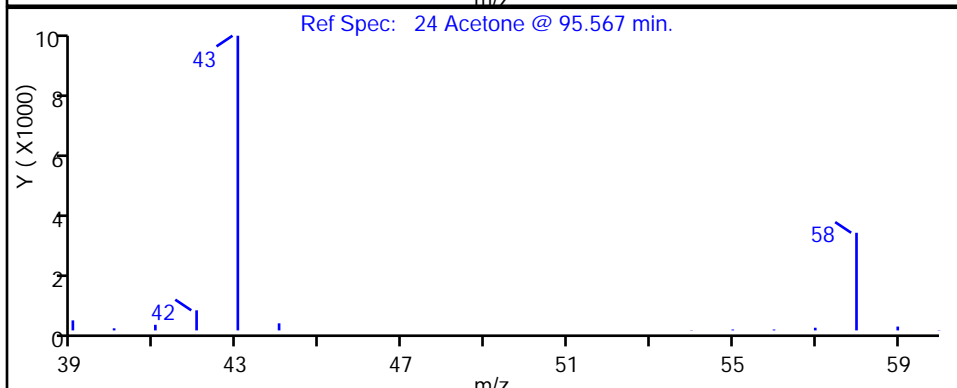
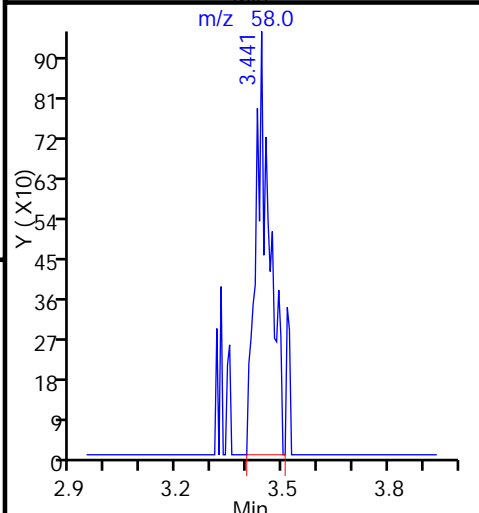
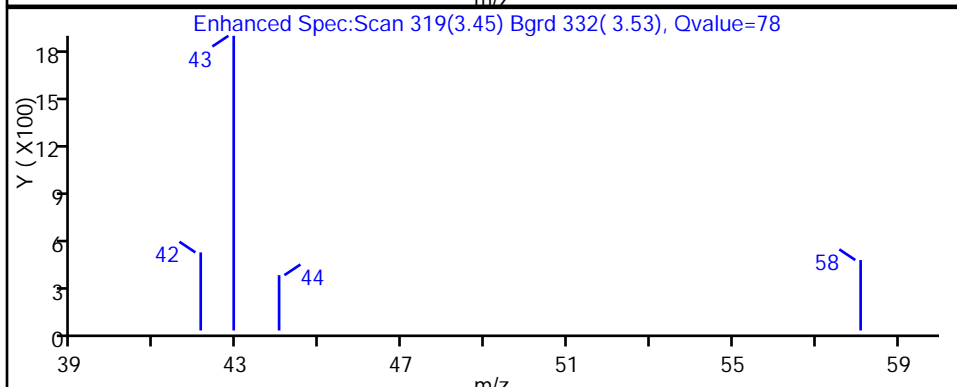
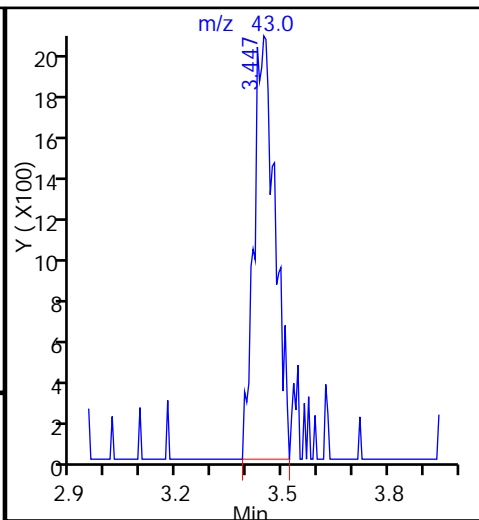
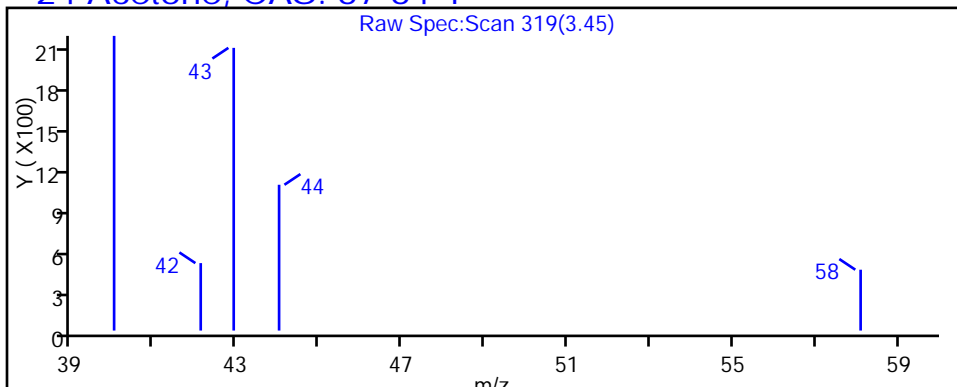
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

24 Acetone, CAS: 67-64-1



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922018.D

Injection Date: 22-Sep-2015 18:16:30

Instrument ID: CHHP5

Lims ID: 180-47781-A-4

Lab Sample ID: 180-47781-4

Client ID: HD-COD-SW-9-0/1-0

Operator ID: 001562

ALS Bottle#: 13

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

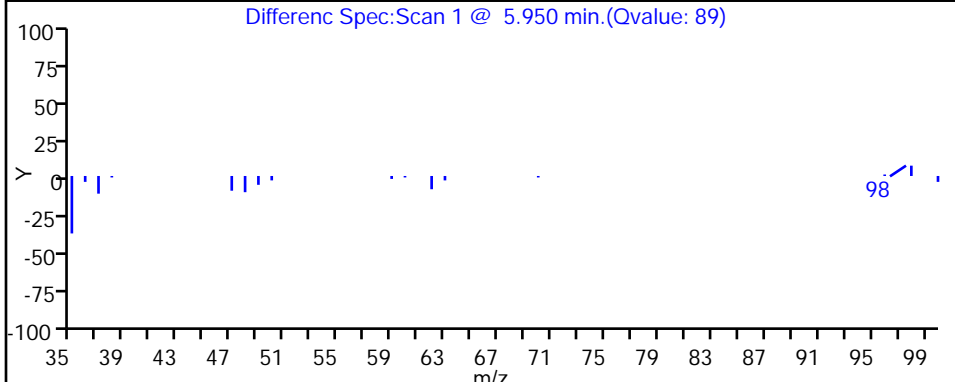
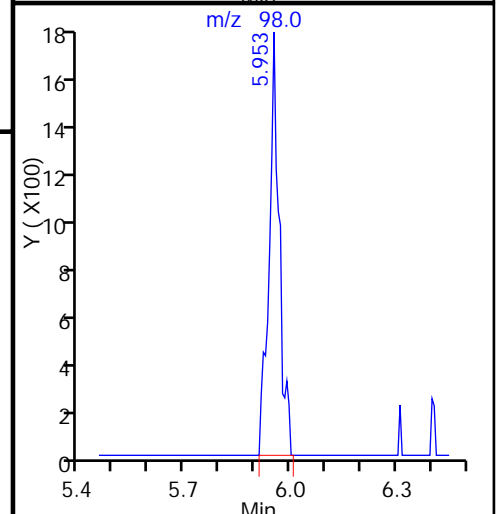
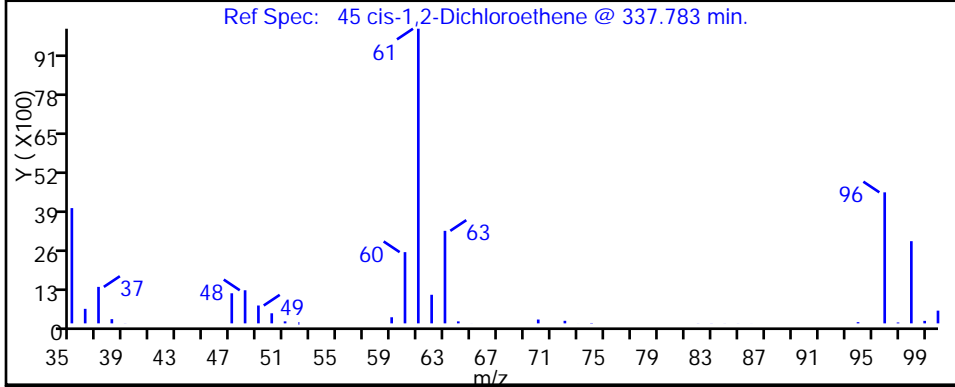
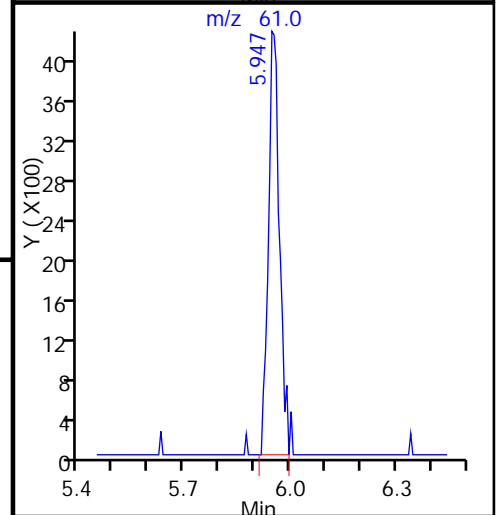
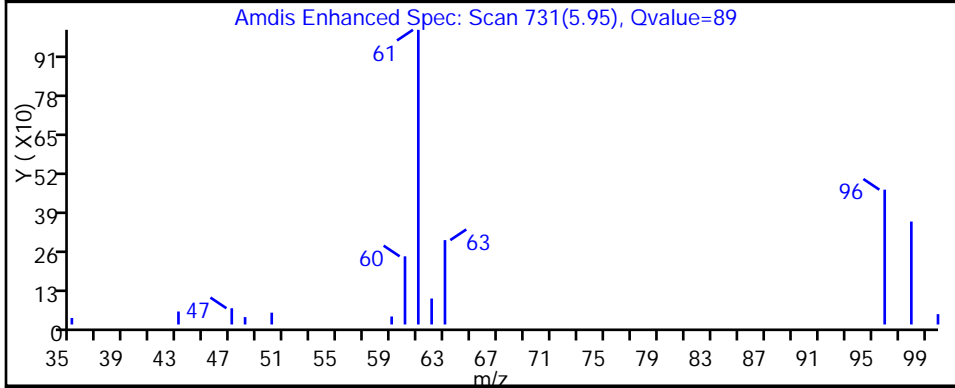
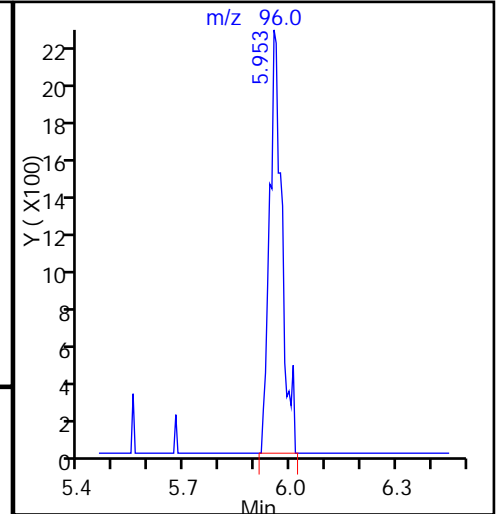
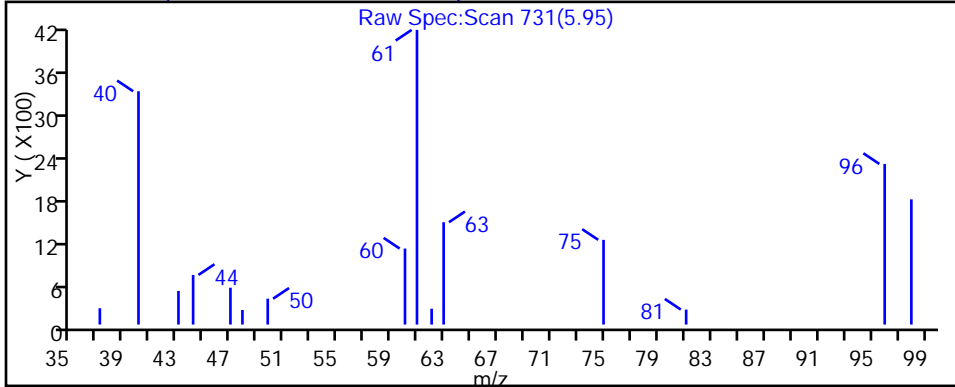
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922018.D

Injection Date: 22-Sep-2015 18:16:30

Instrument ID: CHHP5

Lims ID: 180-47781-A-4

Lab Sample ID: 180-47781-4

Client ID: HD-COD-SW-9-0/1-0

Operator ID: 001562

ALS Bottle#: 13 Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

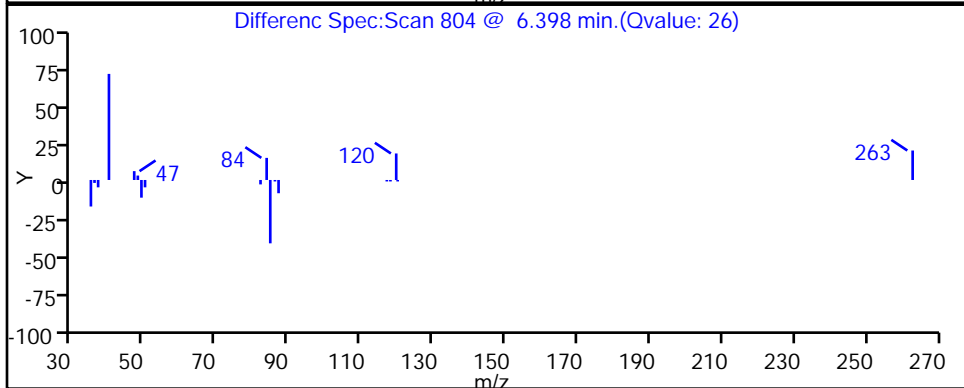
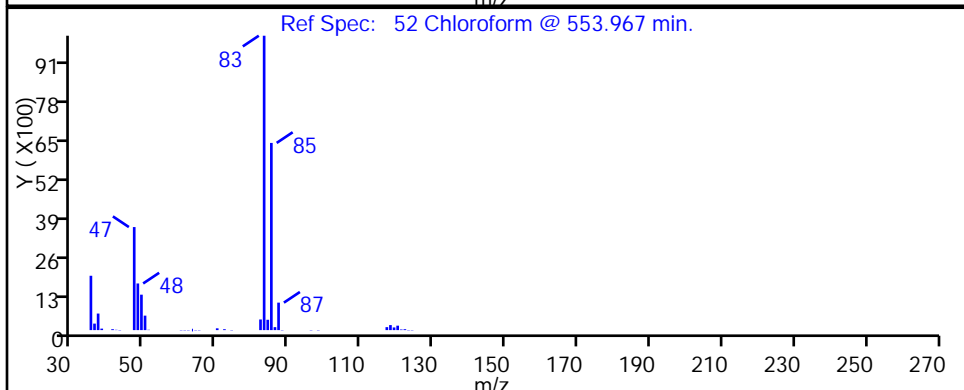
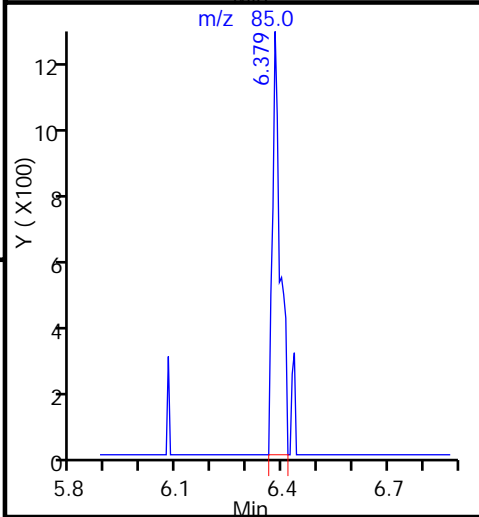
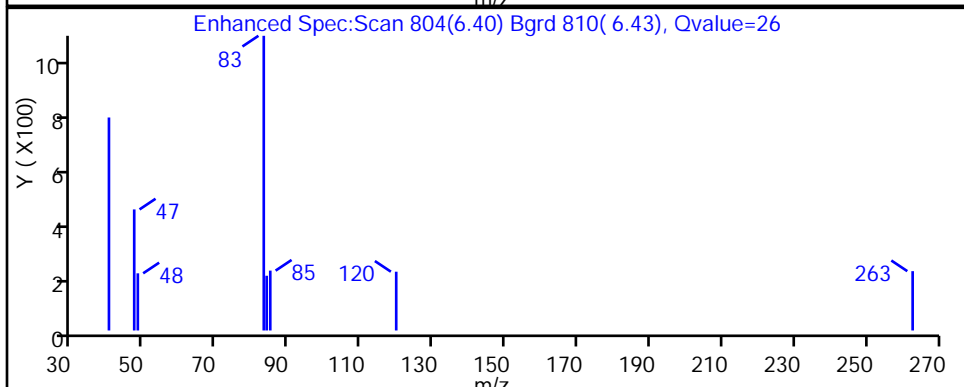
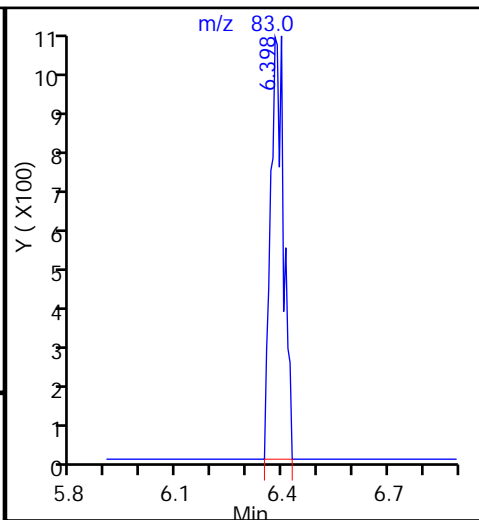
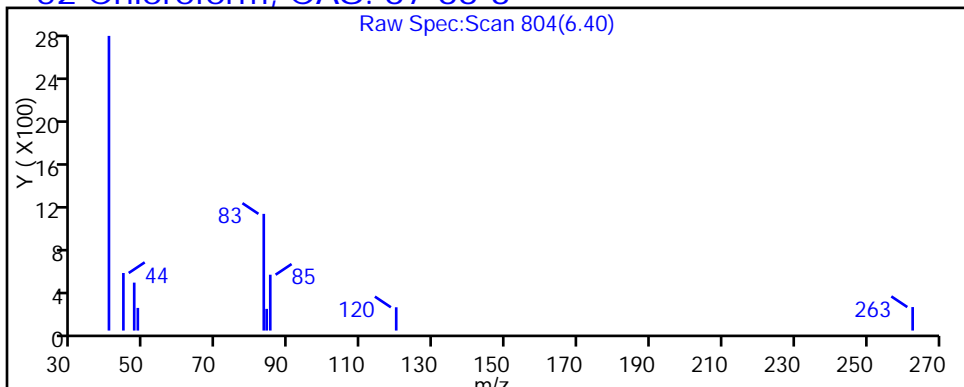
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

52 Chloroform, CAS: 67-66-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922018.D

Injection Date: 22-Sep-2015 18:16:30

Instrument ID: CHHP5

Lims ID: 180-47781-A-4

Lab Sample ID: 180-47781-4

Client ID: HD-COD-SW-9-0/1-0

Operator ID: 001562

ALS Bottle#: 13

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

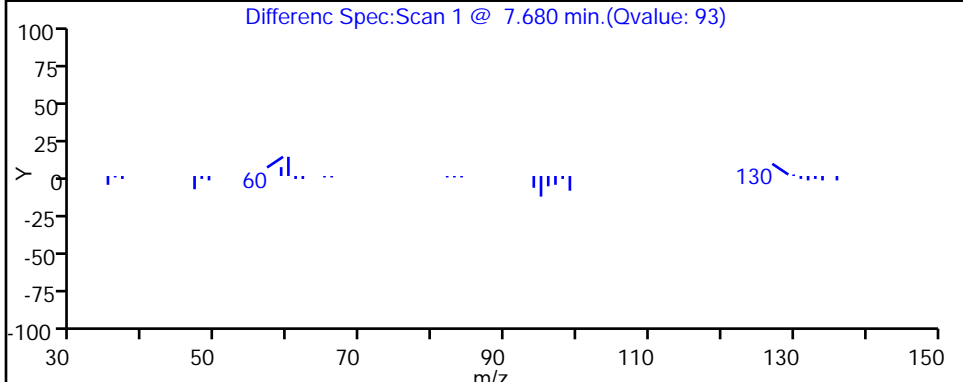
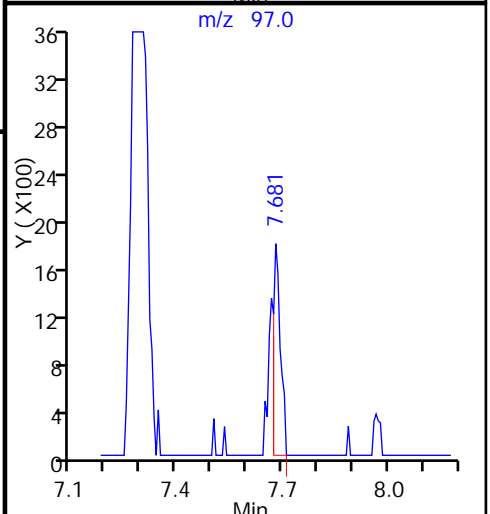
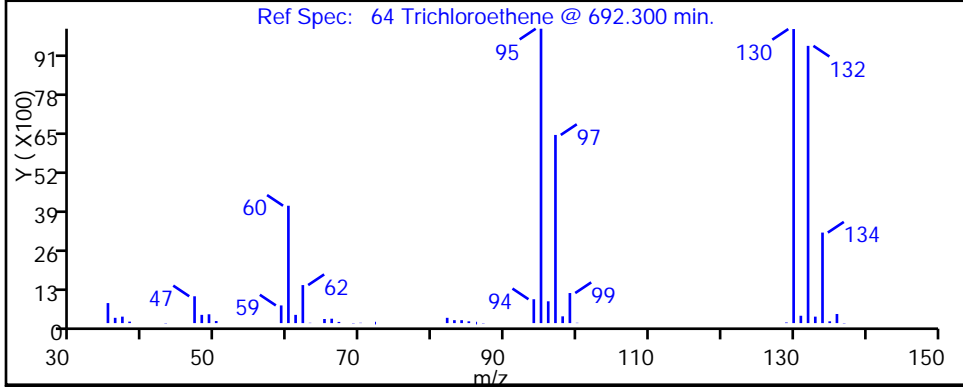
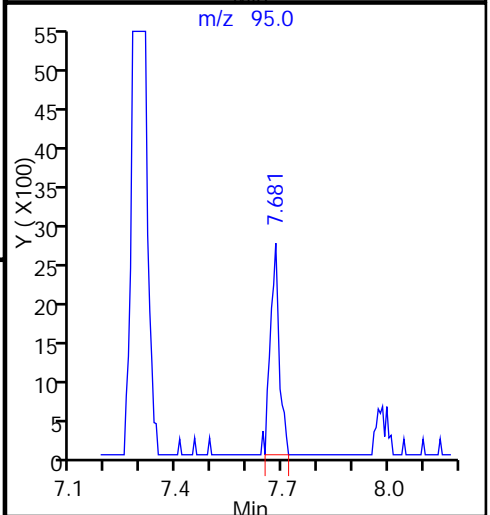
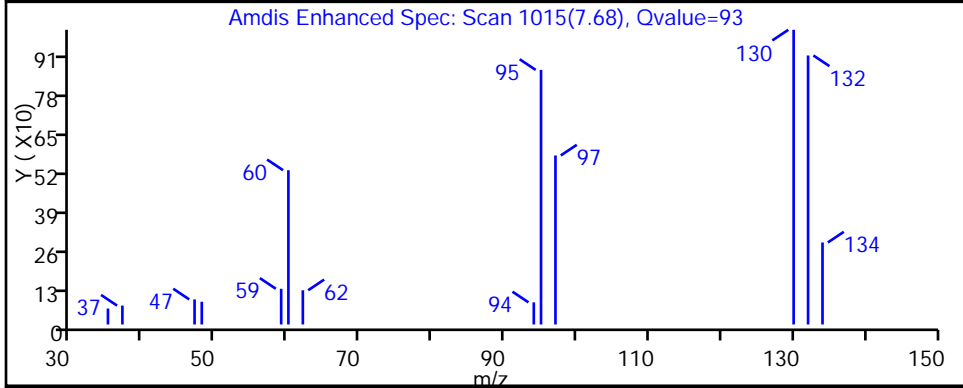
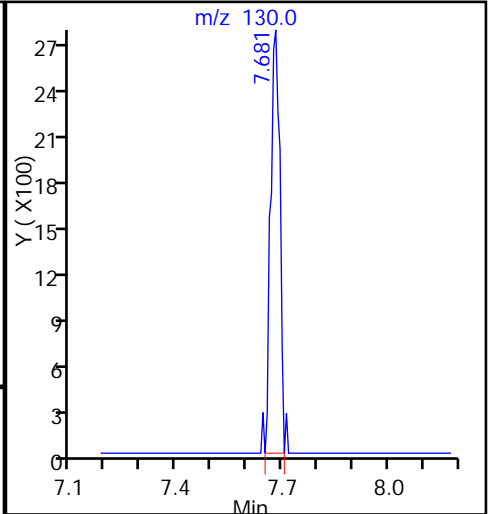
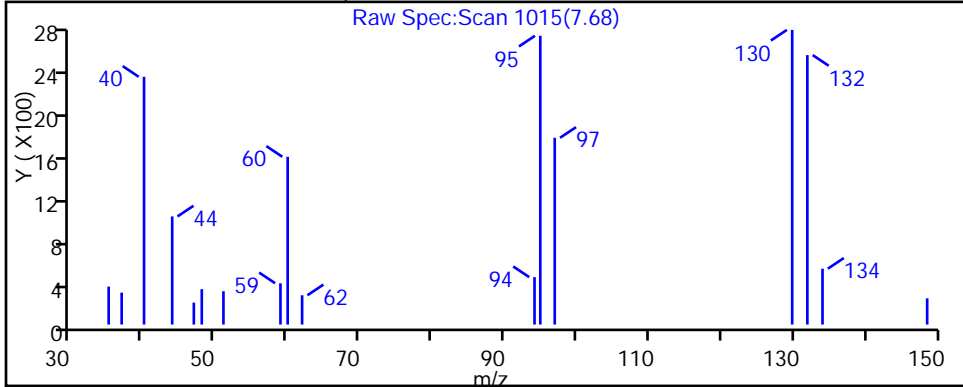
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922018.D

Injection Date: 22-Sep-2015 18:16:30

Instrument ID: CHHP5

Lims ID: 180-47781-A-4

Lab Sample ID: 180-47781-4

Client ID: HD-COD-SW-9-0/1-0

Operator ID: 001562

ALS Bottle#: 13

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

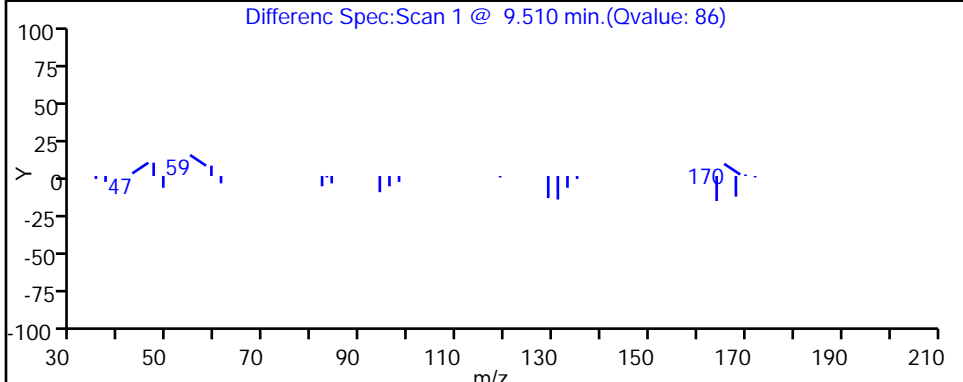
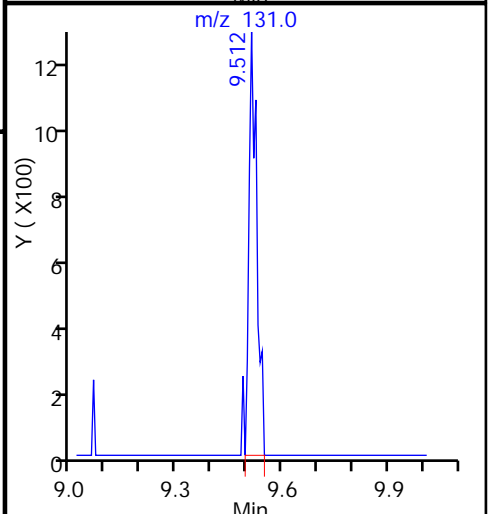
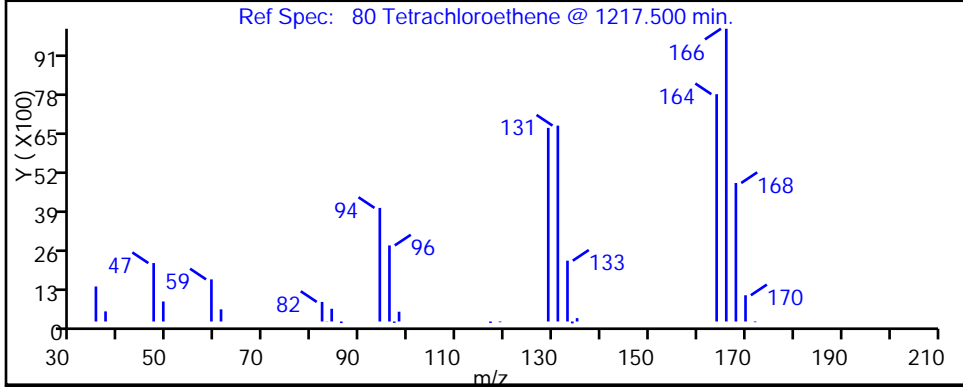
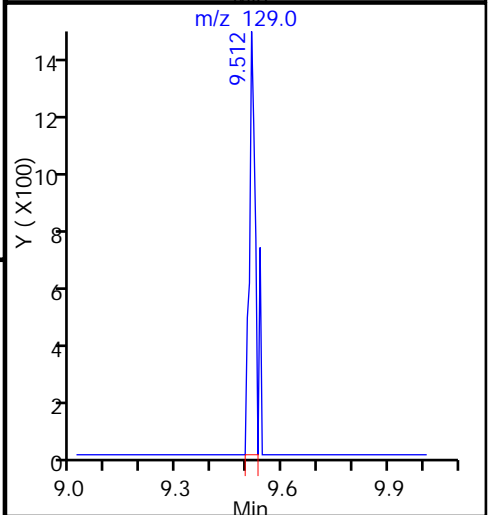
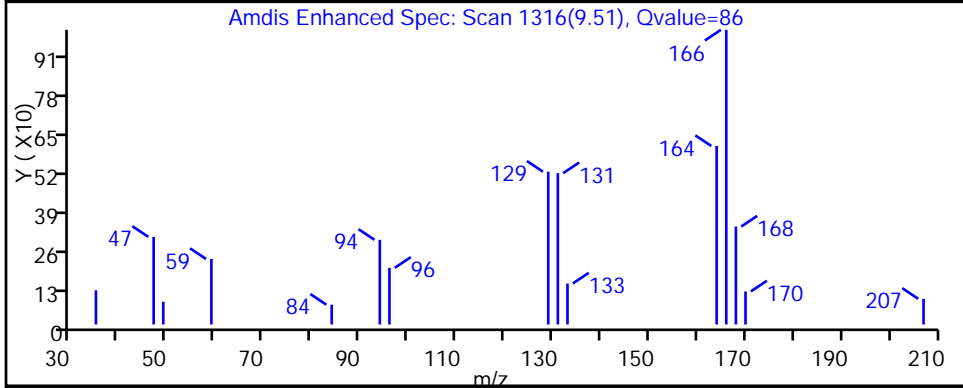
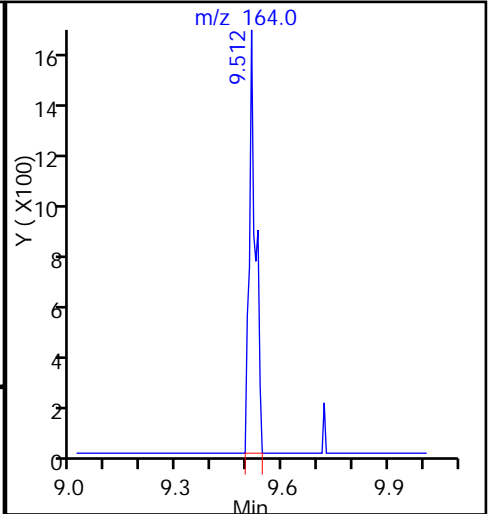
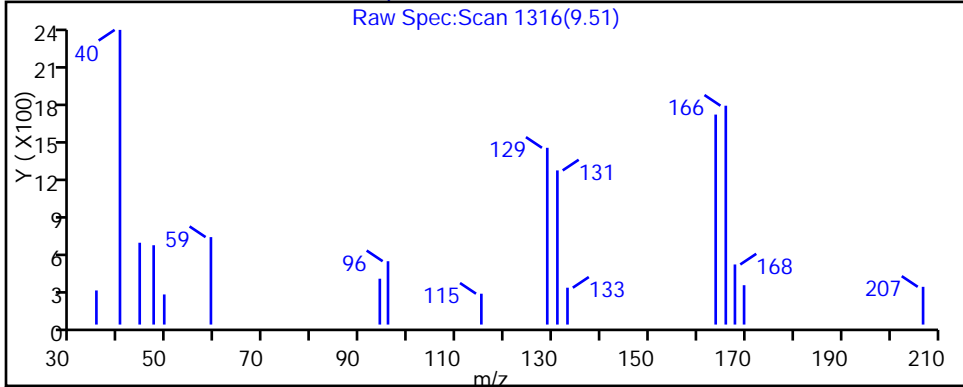
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4





FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-12-0/1-0 Lab Sample ID: 180-47781-5  
 Matrix: Water Lab File ID: 60923005.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 12:55  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 12:53  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154553 Units: ug/L

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

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-12-0/1-0 Lab Sample ID: 180-47781-5  
 Matrix: Water Lab File ID: 60923005.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 12:55  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 12:53  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154553 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		64-135
2037-26-5	Toluene-d8 (Surr)	99		71-118
460-00-4	4-Bromofluorobenzene (Surr)	84		70-118
1868-53-7	Dibromofluoromethane (Surr)	111		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923005.D  
 Lims ID: 180-47781-C-5 Lab Sample ID: 180-47781-5  
 Client ID: HD-COD-SW-12-0/1-0  
 Sample Type: Client  
 Inject. Date: 23-Sep-2015 12:53:30 ALS Bottle#: 5 Worklist Smp#: 5  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-47781-C-5  
 Misc. Info.: 180-0008638-005  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 23-Sep-2015 13:13:40 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: XAWRK005

First Level Reviewer: fergusond

Date: 23-Sep-2015 13:13:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.232	4.236	-0.004	84	151800	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.284	0.008	98	461914	50.0	
* 3 Chlorobenzene-d5	119	10.401	10.398	0.003	91	114984	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.743	12.747	-0.004	97	183272	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.550	6.548	0.002	93	118361	55.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.925	0.008	70	189761	55.3	
\$ 7 Toluene-d8 (Surr)	98	8.941	8.938	0.003	95	450575	49.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.587	11.585	0.002	84	169040	42.0	
11 Dichlorodifluoromethane	85		1.602				ND	
12 Chloromethane	50		1.760				ND	
13 Vinyl chloride	62		1.900				ND	
14 Butadiene	39		1.930				ND	
15 Bromomethane	94		2.222				ND	
16 Chloroethane	64		2.374				ND	
17 Dichlorofluoromethane	67		2.654				ND	
18 Trichlorofluoromethane	101		2.672				ND	
19 Ethanol	45		2.915				ND	
20 Ethyl ether	59		3.044				ND	
21 Acrolein	56		3.214				ND	
22 1,1-Dichloroethene	96		3.336				ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.396				ND	
24 Acetone	43	3.429	3.415	0.014	24	3061	3.75	M
25 Iodomethane	142		3.536				ND	
26 Carbon disulfide	76		3.634				ND	
27 Isopropyl alcohol	45		3.670				ND	
28 Acetonitrile	40		3.834				ND	
29 3-Chloro-1-propene	76		3.913				ND	
30 Methyl acetate	43		3.926				ND	
31 Methylene Chloride	84		4.126				ND	
32 2-Methyl-2-propanol	59		4.364				ND	
33 Acrylonitrile	53		4.497				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
35 Methyl tert-butyl ether	73		4.564				ND	
34 trans-1,2-Dichloroethene	96		4.564				ND	
36 Hexane	57		4.990				ND	
37 1,1-Dichloroethane	63		5.197				ND	
38 Vinyl acetate	43		5.240				ND	
39 2-Chloro-1,3-butadiene	53		5.294				ND	
40 Isopropyl ether	45		5.294				ND	
41 Tert-butyl ethyl ether	59		5.768				ND	
42 2,2-Dichloropropane	77		5.939				ND	
43 cis-1,2-Dichloroethene	96		5.939				ND	
44 2-Butanone (MEK)	43		5.945				ND	
45 Propionitrile	54		6.012				ND	
46 Ethyl acetate	43		6.024				ND	
47 Methacrylonitrile	41		6.194				ND	
48 Chlorobromomethane	128		6.225				ND	
50 Chloroform	83	6.361	6.377	-0.016	51	4842	1.02	
51 1,1,1-Trichloroethane	97		6.535				ND	
52 Cyclohexane	56		6.615				ND	
49 Tetrahydrofuran	42		6.615				ND	
53 Carbon tetrachloride	117		6.712				ND	
54 1,1-Dichloropropene	75		6.724				ND	
55 Isobutyl alcohol	41		6.894				ND	
56 Benzene	78		6.937				ND	
57 1,2-Dichloroethane	62		7.010				ND	
148 Isooctane	57		7.101				ND	
58 Tert-amyl methyl ether	73		7.119				ND	
59 n-Heptane	43		7.308				ND	
60 n-Butanol	56		7.612				ND	
61 Trichloroethene	130		7.673				ND	
62 Ethyl acrylate	55		7.794				ND	
63 Methylcyclohexane	83		7.922				ND	
64 1,2-Dichloropropane	63		7.953				ND	
66 Methyl methacrylate	69		8.025				ND	
65 1,4-Dioxane	88		8.032				ND	
67 Dibromomethane	93		8.038				ND	
68 Dichlorobromomethane	83		8.227				ND	
69 2-Nitropropane	41		8.445				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		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
75 Ethyl methacrylate	69		9.316				ND	
76 1,1,2-Trichloroethane	97		9.443				ND	
77 Tetrachloroethene	164		9.529				ND	
78 1,3-Dichloropropane	76		9.608				ND	
79 2-Hexanone	43		9.662				ND	
80 n-Butyl acetate	43		9.783				ND	
81 Chlorodibromomethane	129		9.827				ND	
82 Ethylene Dibromide	107		9.942				ND	
83 3-Chlorobenzotrifluoride	180		10.392				ND	
84 Chlorobenzene	112		10.429				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	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		11.037				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
129 Cyclohexanol	57		11.246				ND	
92 2-Chlorobenzotrifluoride	180		11.299				ND	
93 Isopropylbenzene	105		11.408				ND	
94 Cyclohexanone	55		11.493				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				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		12.418				ND	
108 sec-Butylbenzene	105		12.546				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		12.880				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		14.474				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		16.007				ND	
127 2,3,6-Trichlorotoluene	159		16.111				ND	
128 2-Methylnaphthalene	142		16.153				ND	
150 Tert-butyl ethyl ether (TI	1		0.000				ND	
152 Formaldehyde TIC	1		0.000				ND	
151 Tert-amyl methyl ether (TI	1		0.000				ND	
143 2,5-Dichlorotoluene	1		0.000				ND	
149 Isopropyl ether TIC	1		0.000				ND	
144 2,4-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	OnCol Amt ng	Flags
146 3,4-Dichlorotoluene	1		0.000				ND	
153 1,2 Epoxybutane TIC	1		0.000				ND	
145 2,3-Dichlorotoluene	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**

Review Flags

M - Manually Integrated

**Reagents:**

VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923005.D

Injection Date: 23-Sep-2015 12:53:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-47781-C-5

Lab Sample ID: 180-47781-5

Worklist Smp#: 5

Client ID: HD-COD-SW-12-0/1-0

Purge Vol: 5.000 mL

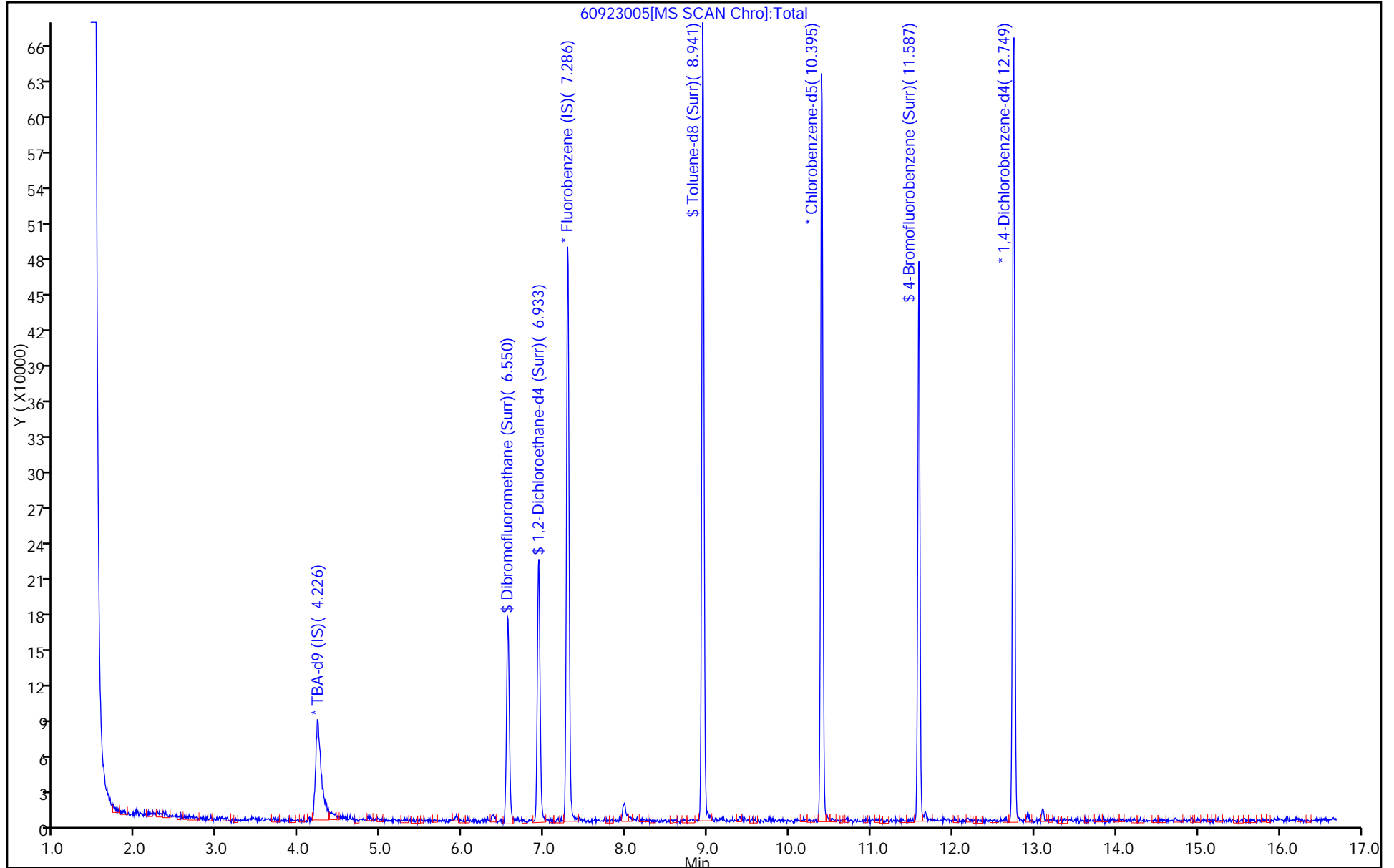
Dil. Factor: 1.0000

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\20150923-8638.b\60923005.D

Injection Date: 23-Sep-2015 12:53:30

Instrument ID: CHHP6

Lims ID: 180-47781-C-5

Lab Sample ID: 180-47781-5

Client ID: HD-COD-SW-12-0/1-0

Operator ID: 001562

ALS Bottle#: 5 Worklist Smp#: 5

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

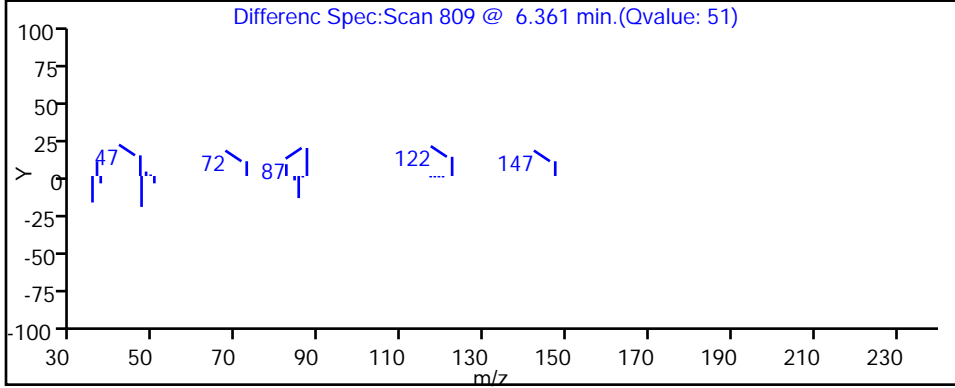
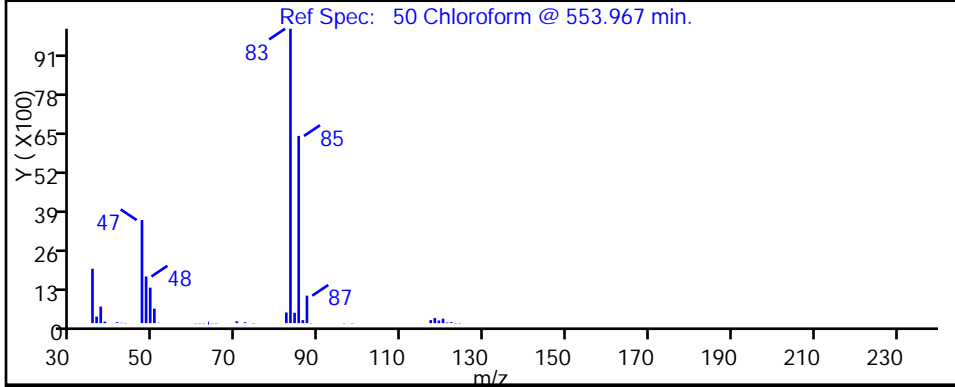
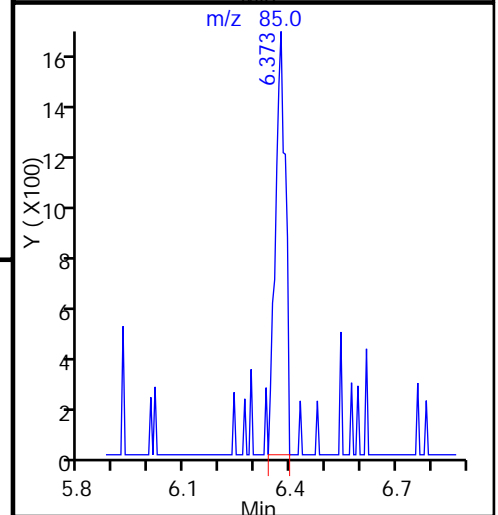
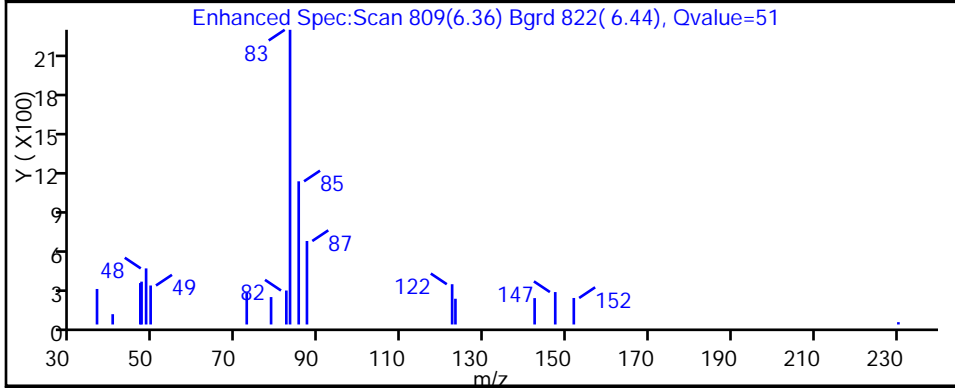
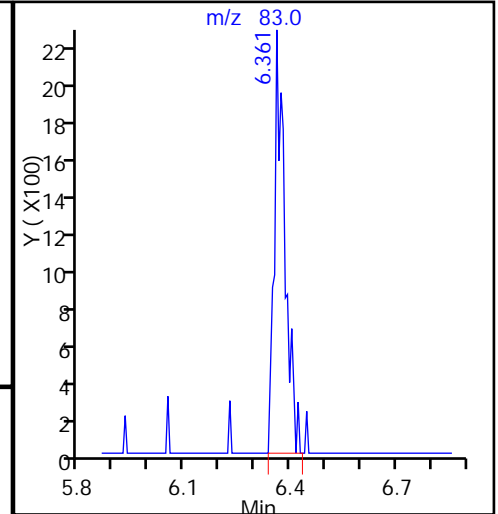
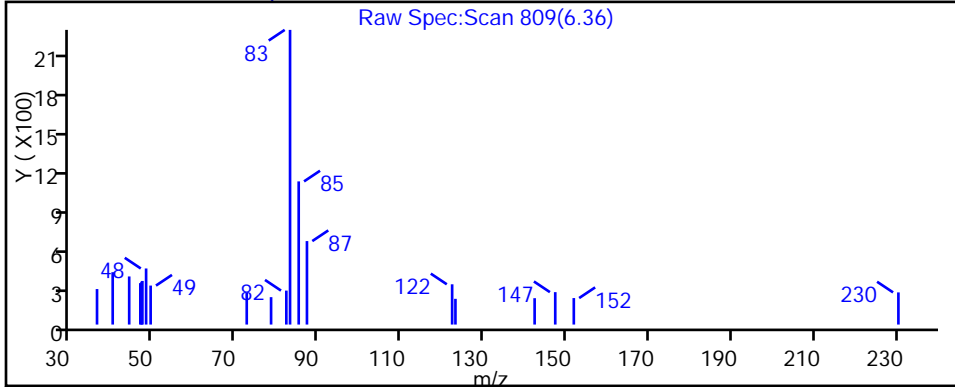
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

50 Chloroform, CAS: 67-66-3





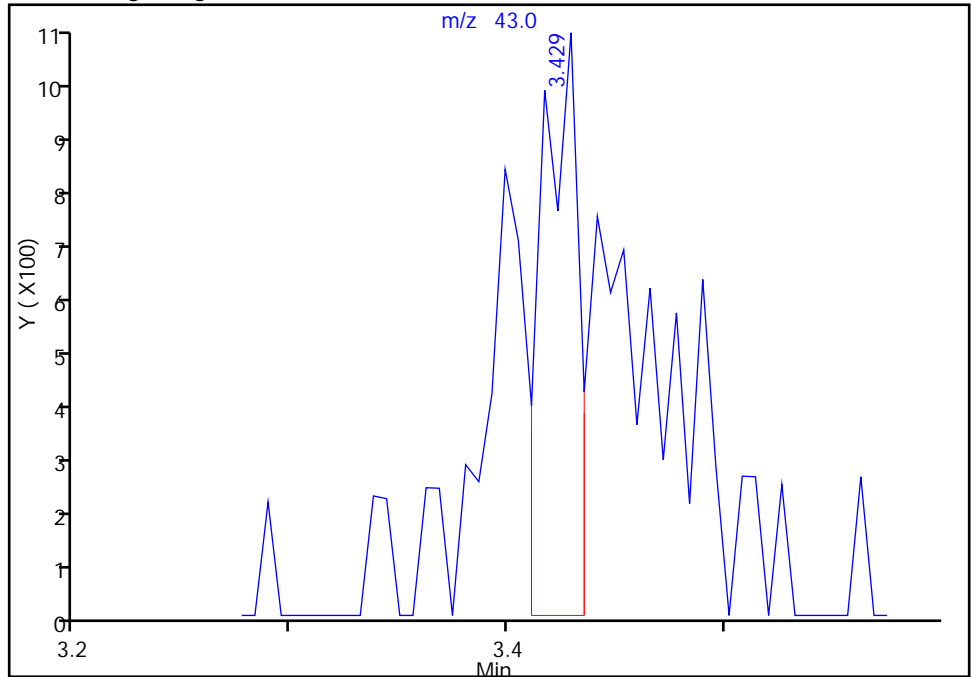
TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923005.D				
Injection Date:	23-Sep-2015 12:53:30	Instrument ID:	CHHP6		
Lims ID:	180-47781-C-5	Lab Sample ID:	180-47781-5		
Client ID:	HD-COD-SW-12-0/1-0				
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		

24 Acetone, CAS: 67-64-1

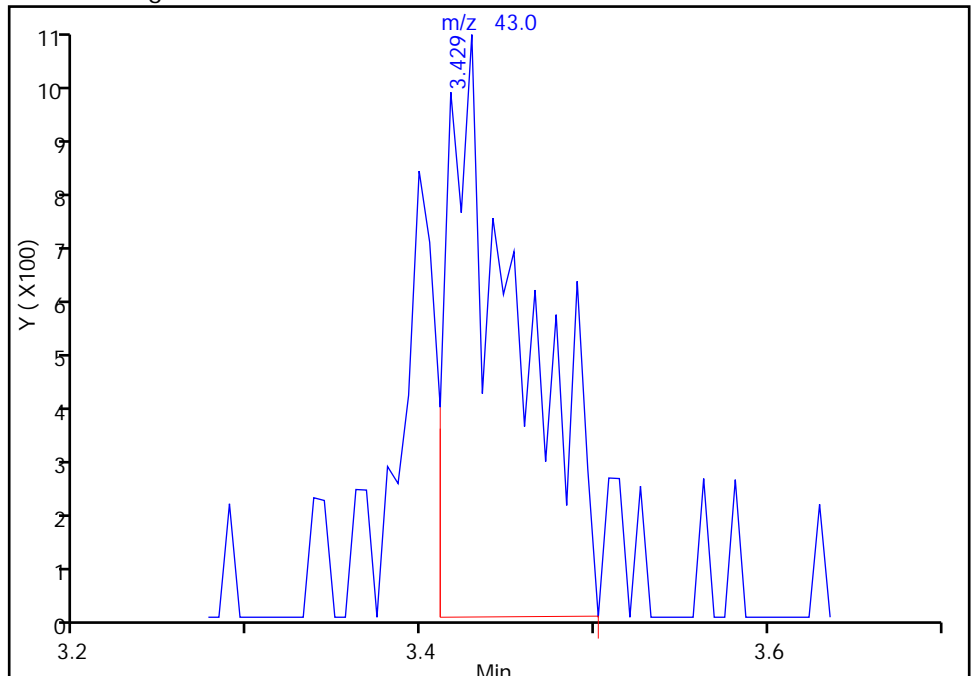
RT: 3.43  
Area: 1296  
Amount: 1.585902  
Amount Units: ng

Processing Integration Results



RT: 3.43  
Area: 3061  
Amount: 3.745715  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 23-Sep-2015 13:13:40  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 180-47781-6  
 Matrix: Water Lab File ID: 60923014.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 09:45  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 16:31  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154553 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	0.35	J	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	0.57	J	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	0.37	J	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 180-47781-6  
 Matrix: Water Lab File ID: 60923014.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 09:45  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 16:31  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154553 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	114		64-135
2037-26-5	Toluene-d8 (Surr)	101		71-118
460-00-4	4-Bromofluorobenzene (Surr)	88		70-118
1868-53-7	Dibromofluoromethane (Surr)	110		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923014.D  
 Lims ID: 180-47781-C-6 Lab Sample ID: 180-47781-6  
 Client ID: HD-COD-SW-13-0/1-0  
 Sample Type: Client  
 Inject. Date: 23-Sep-2015 16:31:30 ALS Bottle#: 14 Worklist Smp#: 14  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-47781-C-6  
 Misc. Info.: 180-0008638-014  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 24-Sep-2015 07:52:29 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: XAWRK003

First Level Reviewer: fergusond

Date: 24-Sep-2015 07:52:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.241	4.236	0.005	87	179508	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.284	0.005	97	457244	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	91	112375	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.747	-0.001	98	186174	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.559	6.548	0.011	93	115639	54.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.925	0.011	71	193893	57.1	
\$ 7 Toluene-d8 (Surr)	98	8.944	8.938	0.006	95	448018	50.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.585	-0.001	84	172961	44.0	
12 Chloromethane	50	1.765	1.760	0.005	13	859	0.3148	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.222				ND	
16 Chloroethane	64		2.374				ND	
22 1,1-Dichloroethene	96		3.336				ND	
24 Acetone	43	3.426	3.415	0.011	28	6527	8.07	M
26 Carbon disulfide	76		3.634				ND	
31 Methylene Chloride	84		4.126				ND	
33 Acrylonitrile	53		4.497				ND	
35 Methyl tert-butyl ether	73		4.564				ND	
34 trans-1,2-Dichloroethene	96		4.564				ND	
37 1,1-Dichloroethane	63		5.197				ND	
43 cis-1,2-Dichloroethene	96	5.951	5.939	0.012	86	5067	1.75	
44 2-Butanone (MEK)	43		5.945				ND	
48 Chlorobromomethane	128		6.225				ND	
50 Chloroform	83	6.383	6.377	0.006	5	1269	0.2689	
51 1,1,1-Trichloroethane	97		6.535				ND	
53 Carbon tetrachloride	117		6.712				ND	
56 Benzene	78		6.937				ND	
57 1,2-Dichloroethane	62		7.010				ND	
61 Trichloroethene	130	7.684	7.673	0.011	95	6335	2.85	
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		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.443				ND	
77 Tetrachloroethene	164	9.528	9.529	0.000	93	3682	1.86	
79 2-Hexanone	43		9.662				ND	
81 Chlorodibromomethane	129		9.827				ND	
82 Ethylene Dibromide	107		9.942				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		11.037				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				ND	
S 131 Xylenes, Total	106		1.000				ND	

### QC Flag Legend

Review Flags

M - Manually Integrated

### Reagents:

VOA8260INT\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923014.D

Injection Date: 23-Sep-2015 16:31:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-47781-C-6

Lab Sample ID: 180-47781-6

Worklist Smp#: 14

Client ID: HD-COD-SW-13-0/1-0

Purge Vol: 5.000 mL

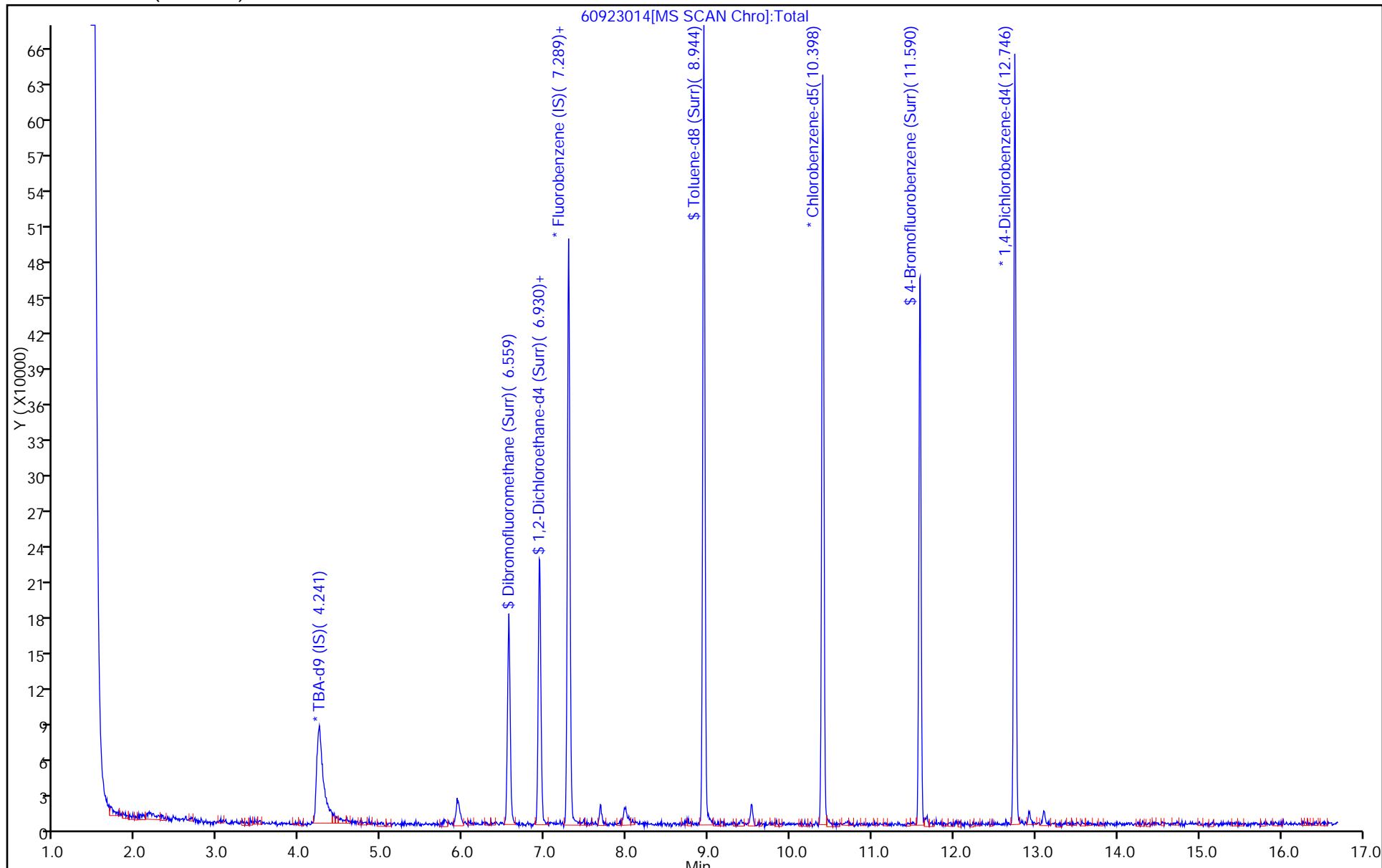
Dil. Factor: 1.0000

ALS Bottle#: 14

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923014.D

Injection Date: 23-Sep-2015 16:31:30

Instrument ID: CHHP6

Lims ID: 180-47781-C-6

Lab Sample ID: 180-47781-6

Client ID: HD-COD-SW-13-0/1-0

Operator ID: 001562

ALS Bottle#: 14

Worklist Smp#: 14

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

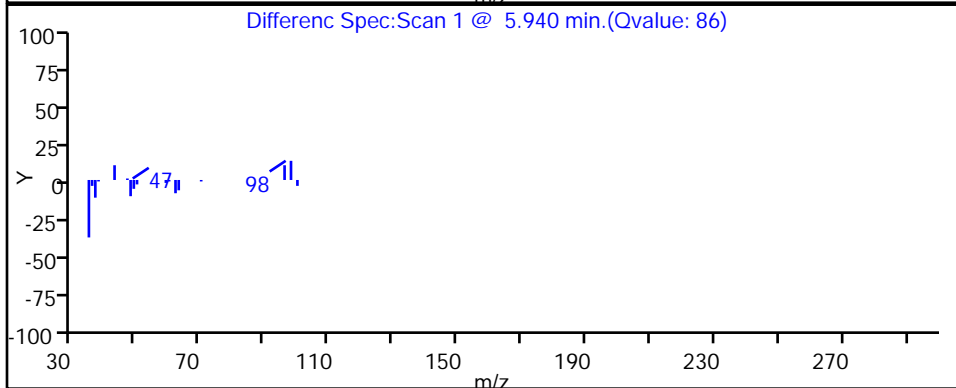
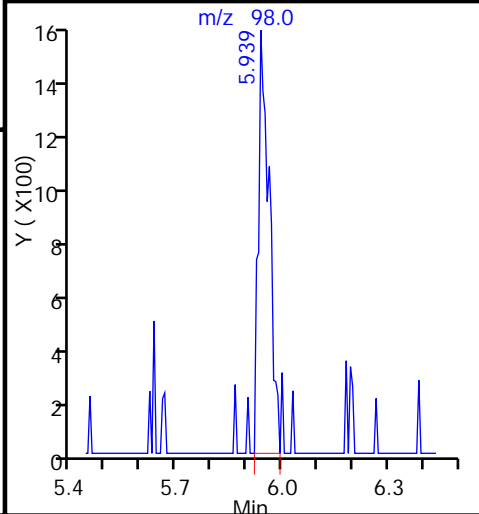
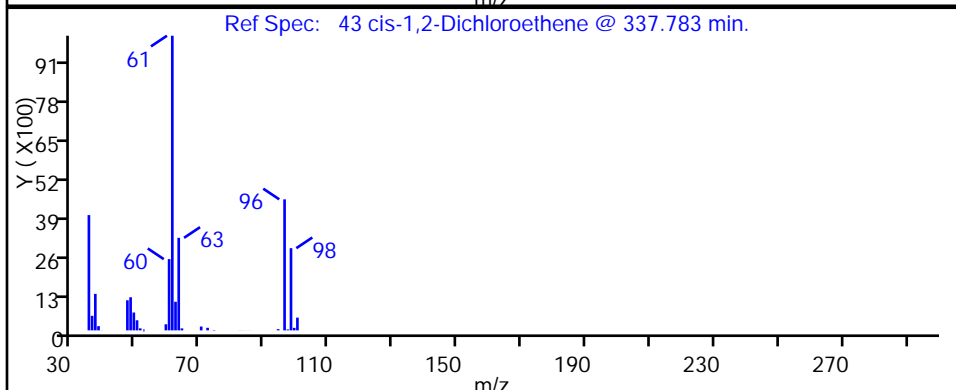
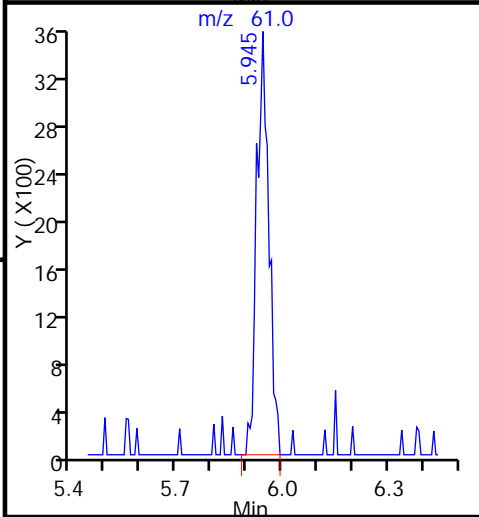
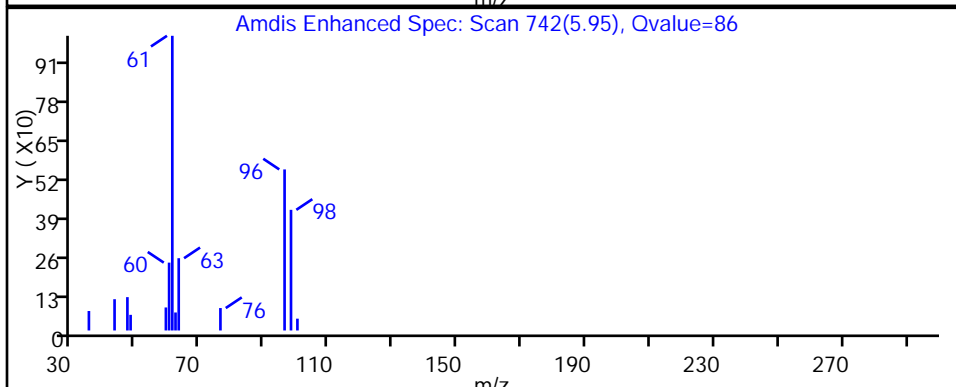
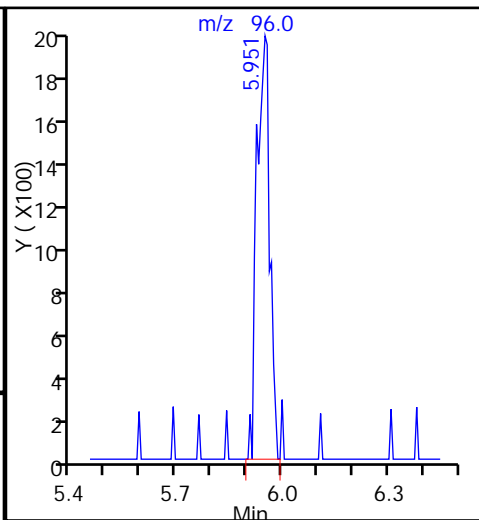
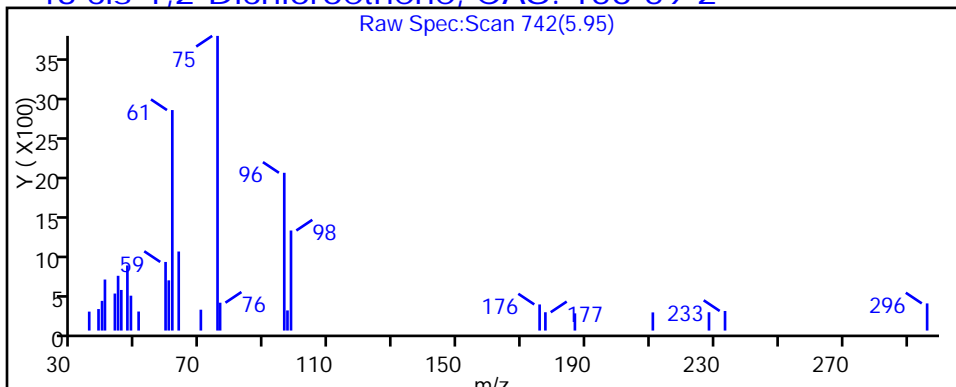
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923014.D

Injection Date: 23-Sep-2015 16:31:30

Instrument ID: CHHP6

Lims ID: 180-47781-C-6

Lab Sample ID: 180-47781-6

Client ID: HD-COD-SW-13-0/1-0

Operator ID: 001562

ALS Bottle#: 14

Worklist Smp#: 14

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

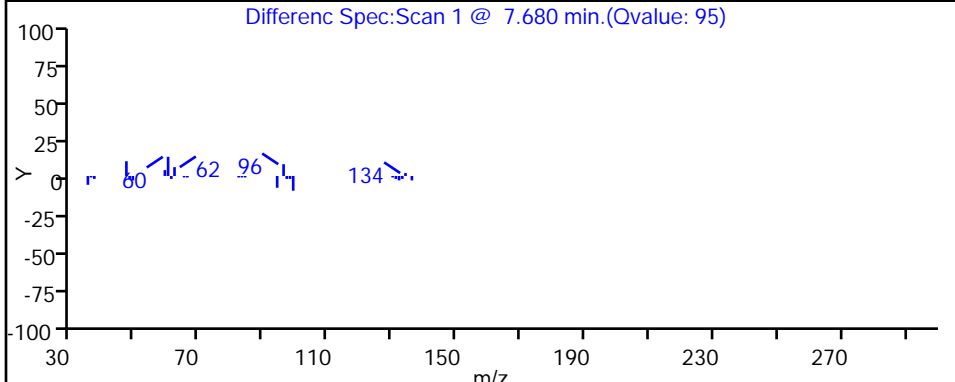
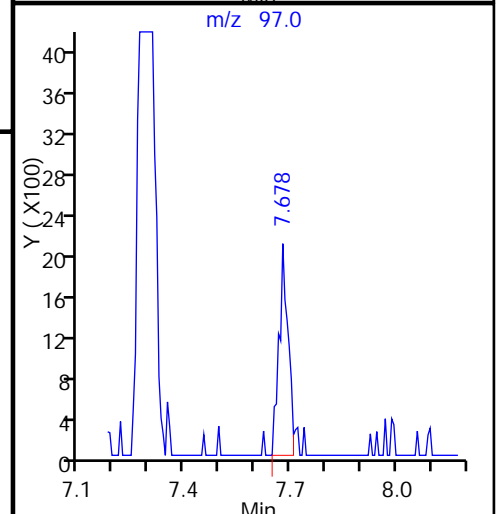
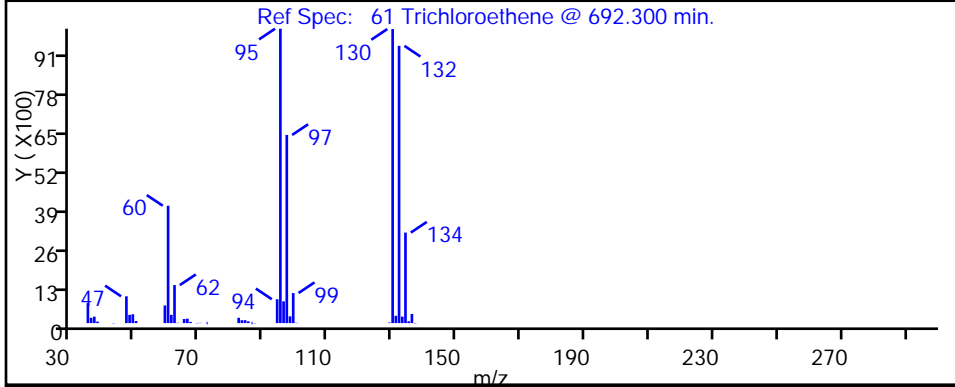
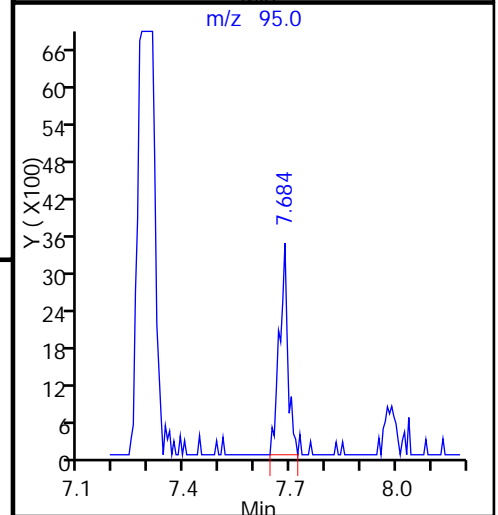
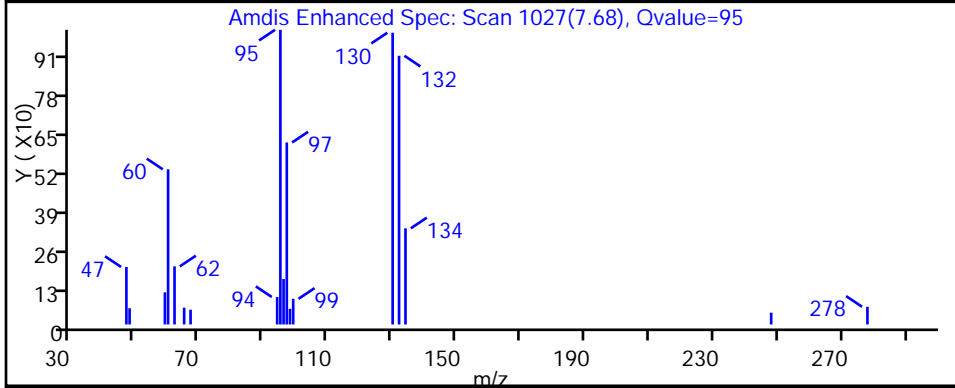
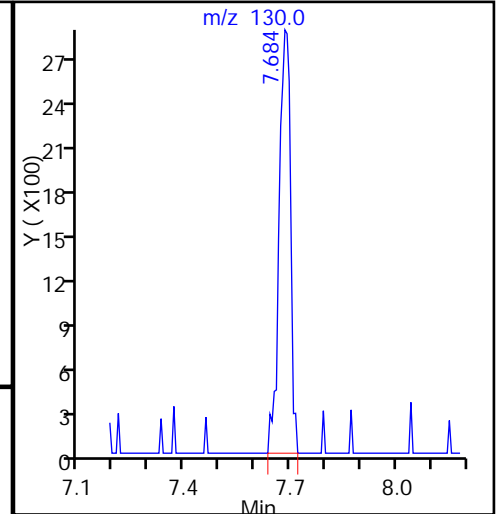
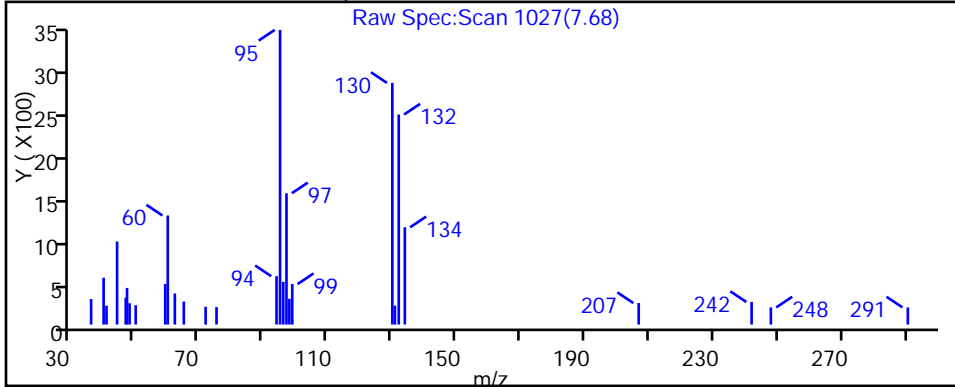
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

61 Trichloroethene, CAS: 79-01-6

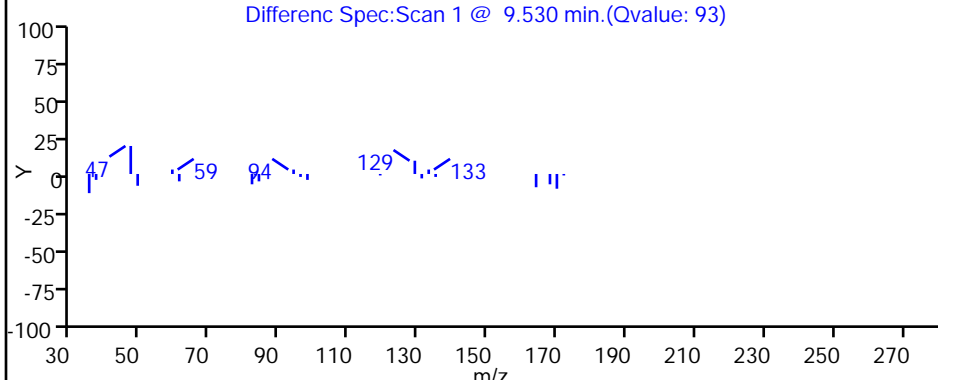
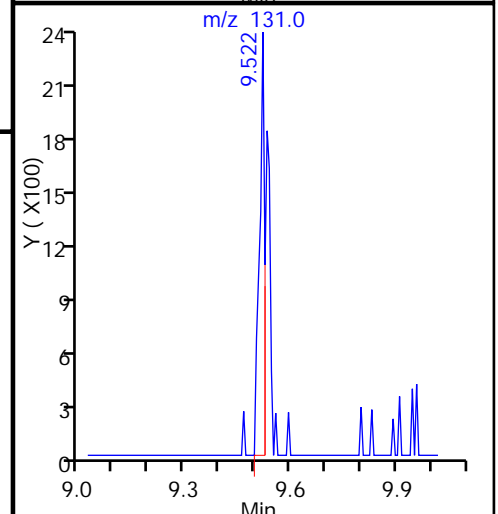
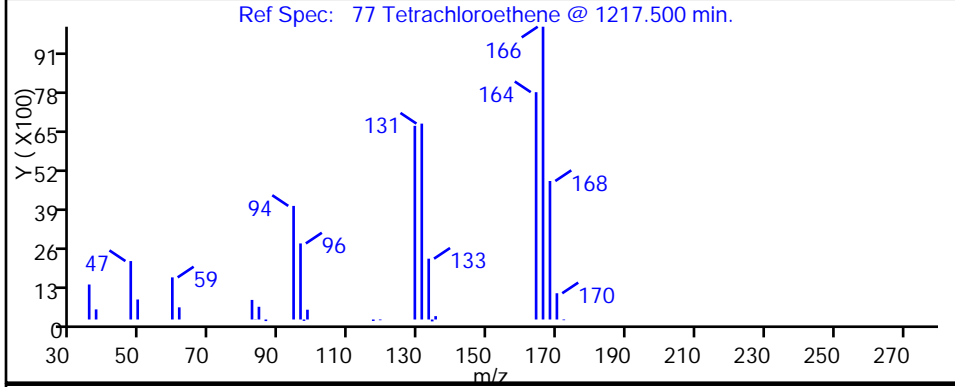
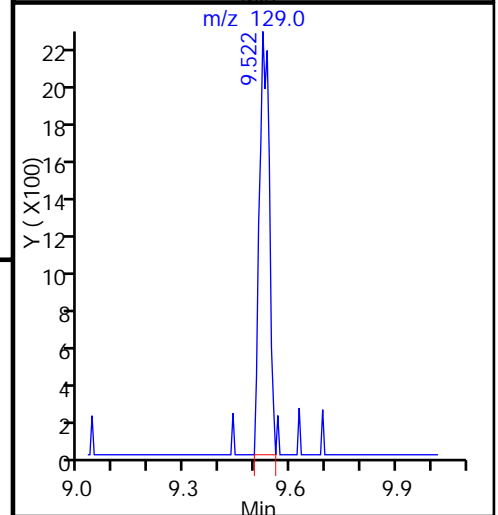
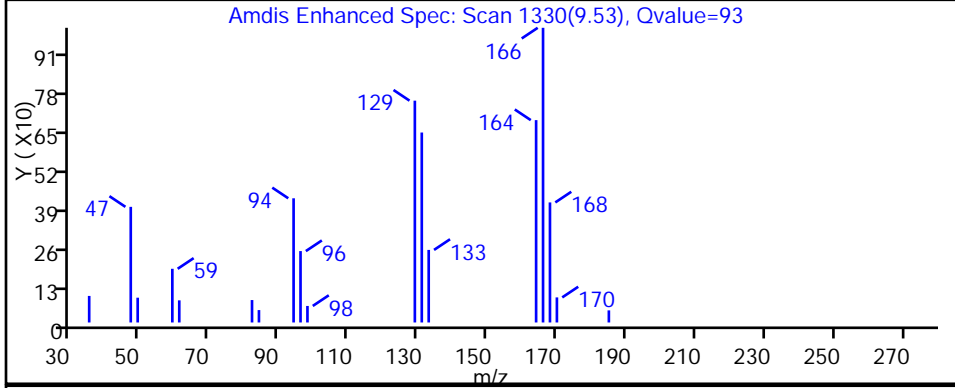
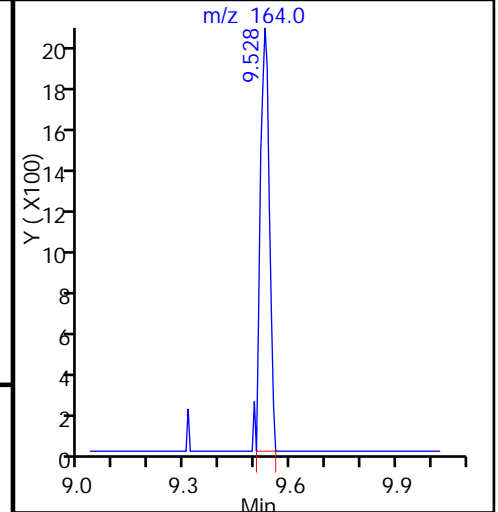
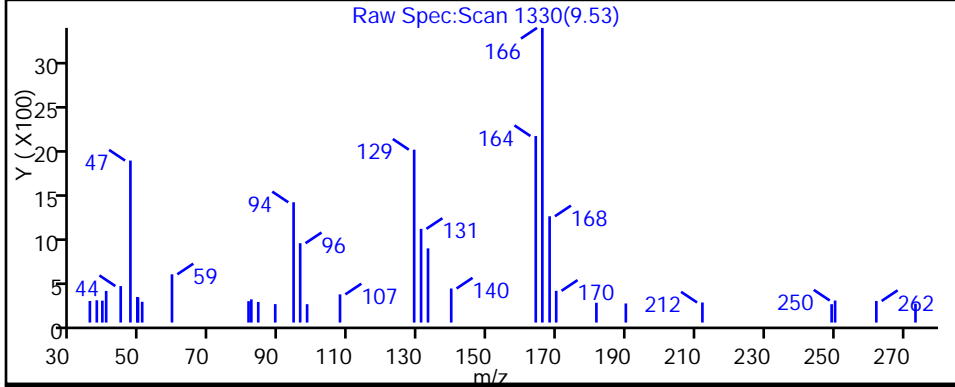




TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923014.D  
Injection Date: 23-Sep-2015 16:31:30 Instrument ID: CHHP6  
Lims ID: 180-47781-C-6 Lab Sample ID: 180-47781-6  
Client ID: HD-COD-SW-13-0/1-0  
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

77 Tetrachloroethene, CAS: 127-18-4



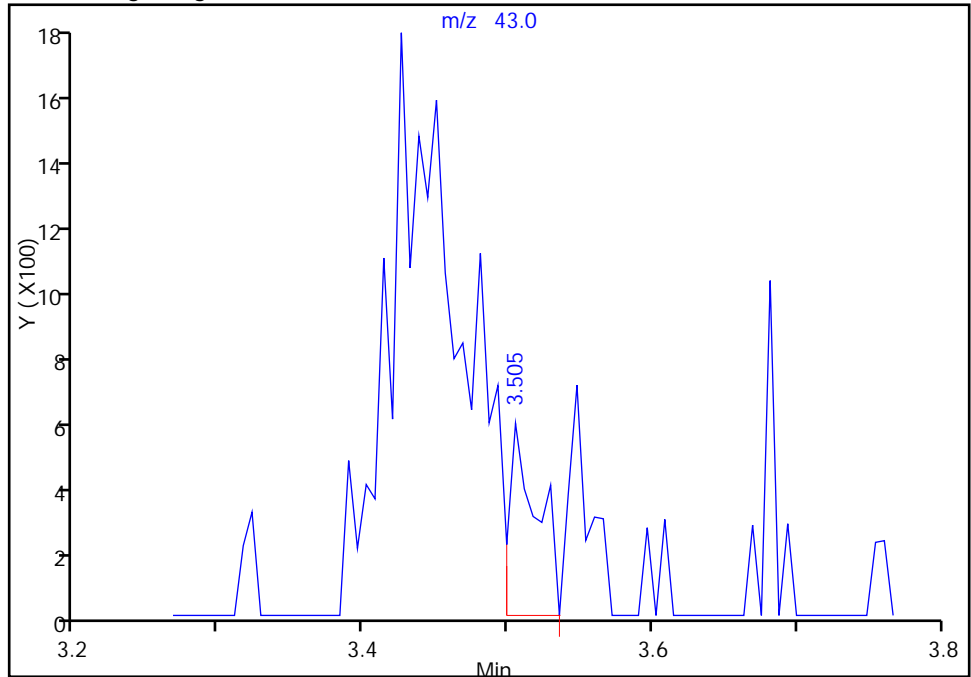
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923014.D  
Injection Date: 23-Sep-2015 16:31:30 Instrument ID: CHHP6  
Lims ID: 180-47781-C-6 Lab Sample ID: 180-47781-6  
Client ID: HD-COD-SW-13-0/1-0  
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

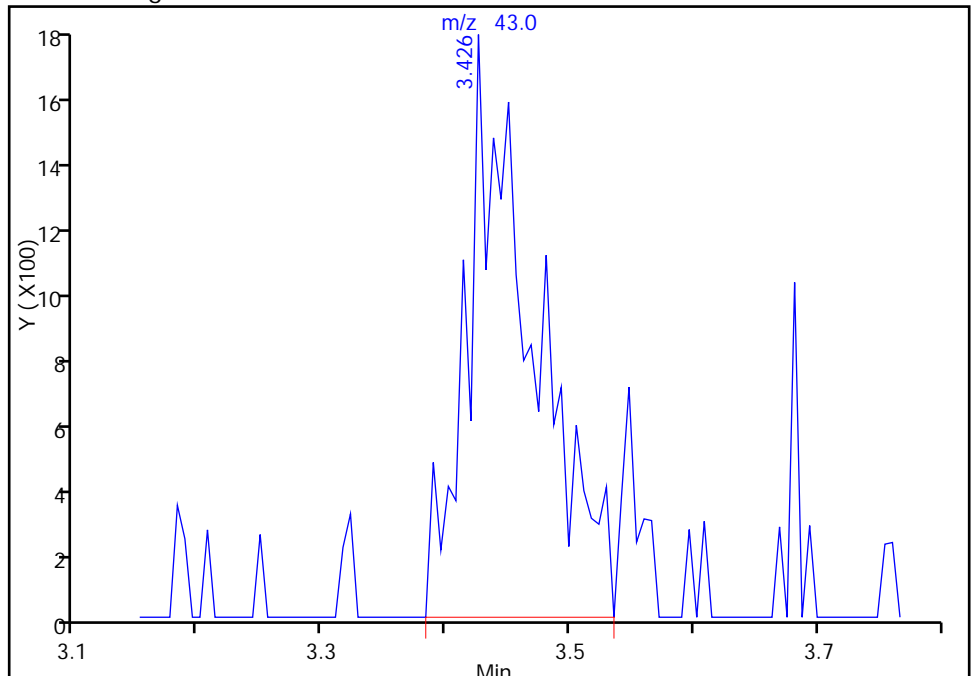
RT: 3.51  
Area: 782  
Amount: 0.966699  
Amount Units: ng

Processing Integration Results



RT: 3.43  
Area: 6527  
Amount: 8.068600  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 24-Sep-2015 07:52:28  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-15-0/1-0 Lab Sample ID: 180-47781-7  
 Matrix: Water Lab File ID: 60923015.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 13:10  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 16:56  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154553 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	0.77	J	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	0.26	J	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	15		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	0.21	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	0.57	J	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	17		1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	9.2		1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-15-0/1-0 Lab Sample ID: 180-47781-7  
 Matrix: Water Lab File ID: 60923015.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 13:10  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 16:56  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154553 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	113		64-135
2037-26-5	Toluene-d8 (Surr)	102		71-118
460-00-4	4-Bromofluorobenzene (Surr)	89		70-118
1868-53-7	Dibromofluoromethane (Surr)	112		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923015.D  
 Lims ID: 180-47781-C-7 Lab Sample ID: 180-47781-7  
 Client ID: HD-COD-SW-15-0/1-0  
 Sample Type: Client  
 Inject. Date: 23-Sep-2015 16:56:30 ALS Bottle#: 15 Worklist Smp#: 15  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-47781-C-7  
 Misc. Info.: 180-0008638-015  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 24-Sep-2015 07:54:55 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: XAWRK003

First Level Reviewer: fergusond

Date: 24-Sep-2015 07:54:55

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.241	4.236	0.005	87	184238	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.284	0.005	97	462116	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	91	113948	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.747	-0.001	98	179752	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.559	6.548	0.011	91	119589	56.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.925	0.005	71	193676	56.4	
\$ 7 Toluene-d8 (Surr)	98	8.944	8.938	0.006	94	459480	51.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.590	11.585	0.005	84	177591	44.5	
12 Chloromethane	50	1.771	1.760	0.011	9	883	0.3202	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.222				ND	
16 Chloroethane	64		2.374				ND	
22 1,1-Dichloroethene	96	3.353	3.336	0.017	96	8954	3.85	
24 Acetone	43	3.438	3.415	0.023	71	2895	3.54	
26 Carbon disulfide	76		3.634				ND	
31 Methylene Chloride	84		4.126				ND	
33 Acrylonitrile	53		4.497				ND	
35 Methyl tert-butyl ether	73	4.564	4.564	0.000	1	2924	0.3635	M
34 trans-1,2-Dichloroethene	96	4.588	4.564	0.024	1	977	0.3639	M
37 1,1-Dichloroethane	63	5.202	5.197	0.005	1	6145	1.28	M
43 cis-1,2-Dichloroethene	96	5.945	5.939	0.006	83	219076	75.0	
44 2-Butanone (MEK)	43		5.945				ND	
48 Chlorobromomethane	128		6.225				ND	
50 Chloroform	83	6.383	6.377	0.006	61	4942	1.04	
51 1,1,1-Trichloroethane	97	6.553	6.535	0.018	86	10116	2.87	
53 Carbon tetrachloride	117		6.712				ND	
56 Benzene	78		6.937				ND	
57 1,2-Dichloroethane	62		7.010				ND	
61 Trichloroethene	130	7.678	7.673	0.005	96	189973	84.6	
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		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97	9.443	9.443	0.000	1	1010	0.4154	
77 Tetrachloroethene	164	9.528	9.529	0.000	94	92442	46.1	
79 2-Hexanone	43		9.662				ND	
81 Chlorodibromomethane	129		9.827				ND	
82 Ethylene Dibromide	107		9.942				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		11.037				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				ND	
S 131 Xylenes, Total	106		1.000				ND	

**QC Flag Legend**

Review Flags

M - Manually Integrated

**Reagents:**

VOA8260INT\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923015.D

Injection Date: 23-Sep-2015 16:56:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-47781-C-7

Lab Sample ID: 180-47781-7

Worklist Smp#: 15

Client ID: HD-COD-SW-15-0/1-0

Purge Vol: 5.000 mL

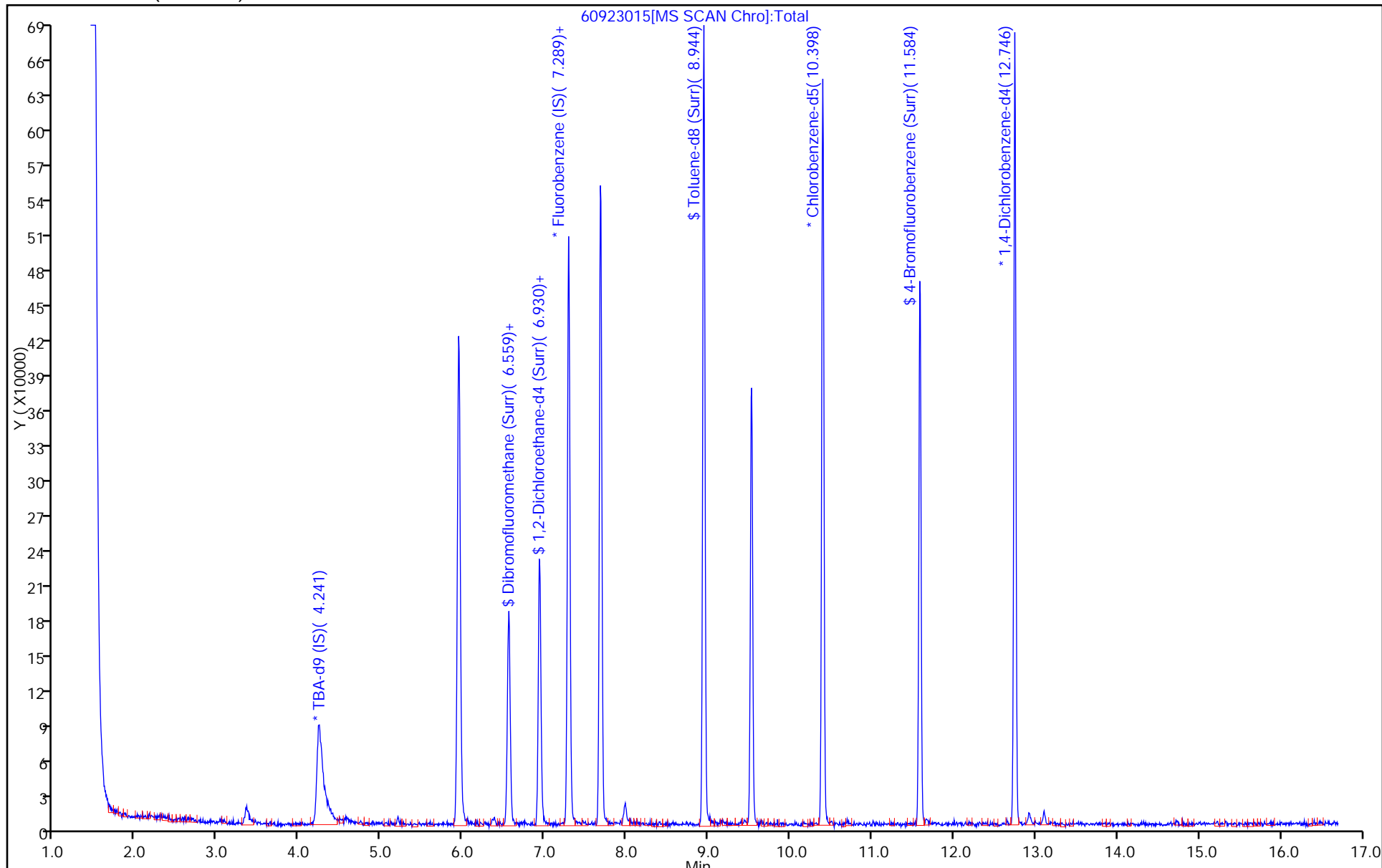
Dil. Factor: 1.0000

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\20150923-8638.b\60923015.D

Injection Date: 23-Sep-2015 16:56:30

Instrument ID: CHHP6

Lims ID: 180-47781-C-7

Lab Sample ID: 180-47781-7

Client ID: HD-COD-SW-15-0/1-0

Operator ID: 001562

ALS Bottle#: 15 Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

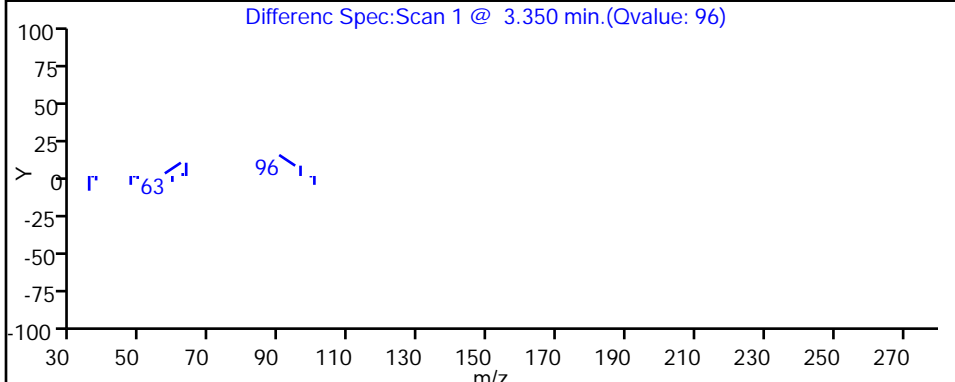
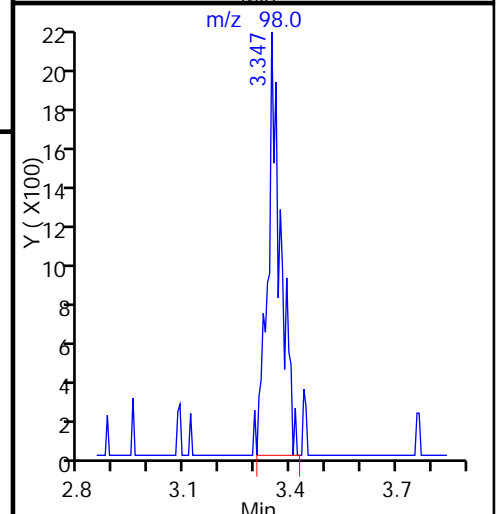
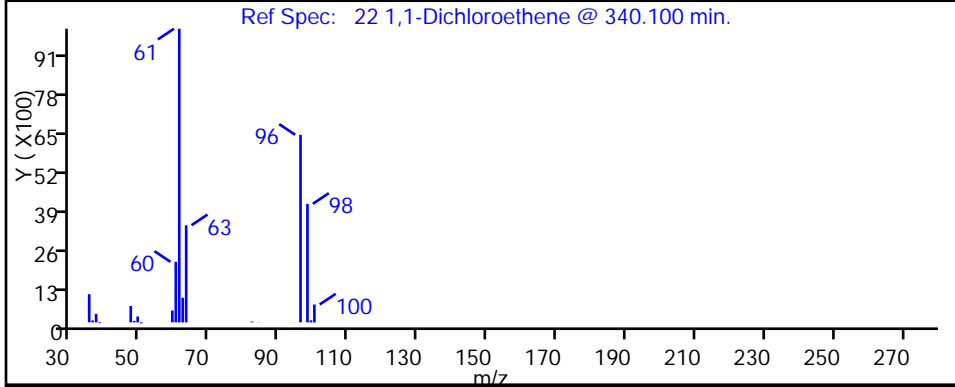
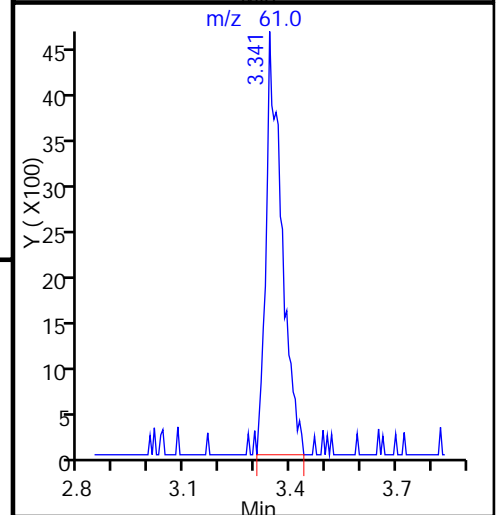
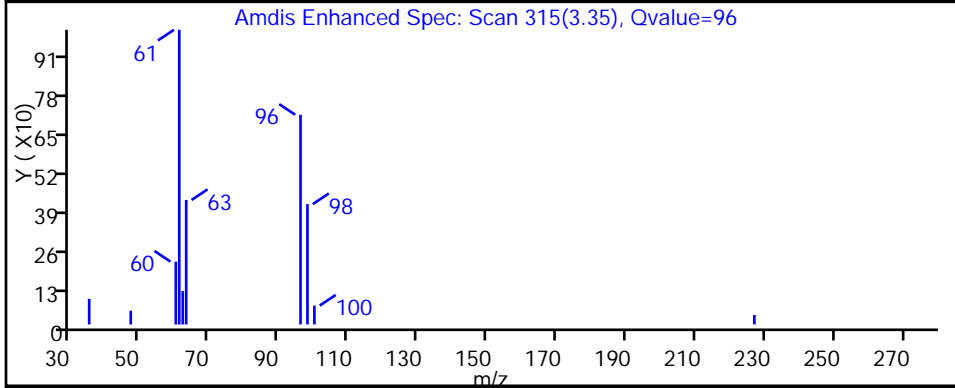
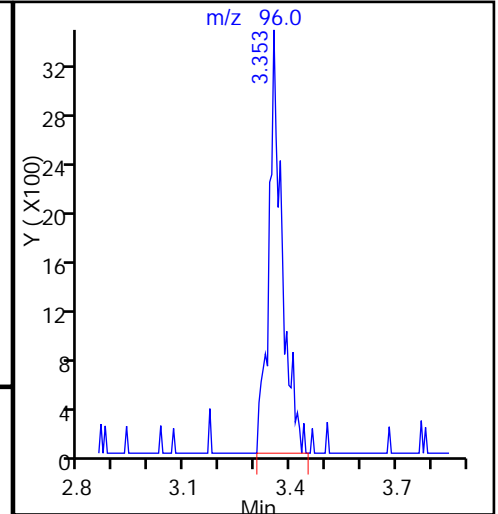
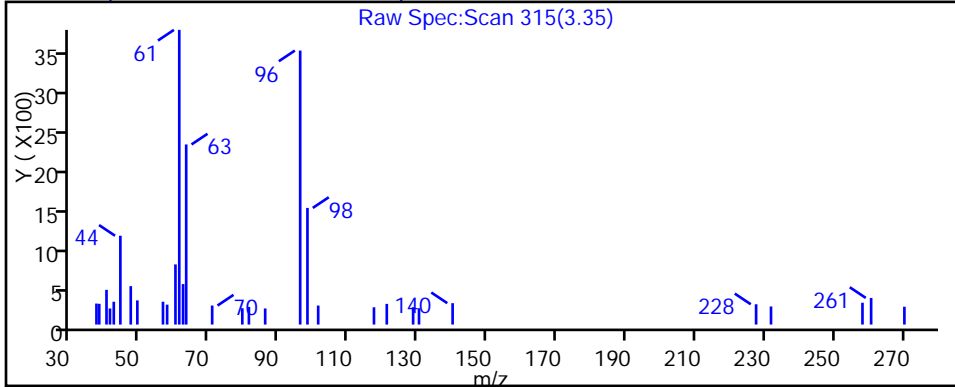
Method: MSVOA\_LL\_CHHP6

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\20150923-8638.b\60923015.D

Injection Date: 23-Sep-2015 16:56:30

Instrument ID: CHHP6

Lims ID: 180-47781-C-7

Lab Sample ID: 180-47781-7

Client ID: HD-COD-SW-15-0/1-0

Operator ID: 001562

ALS Bottle#: 15 Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

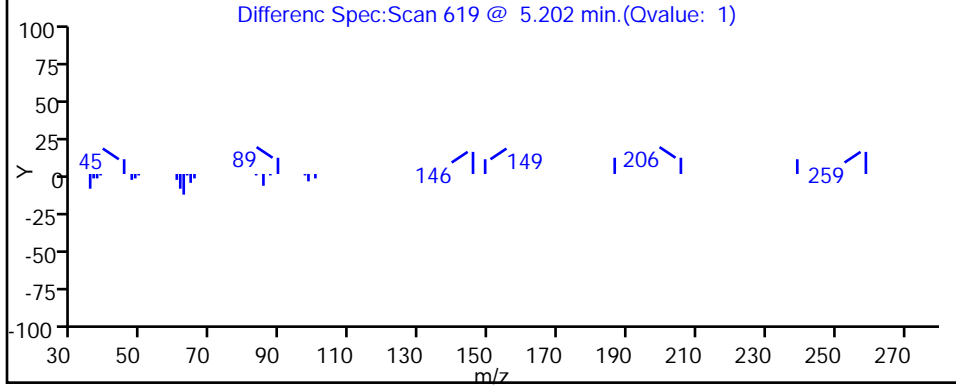
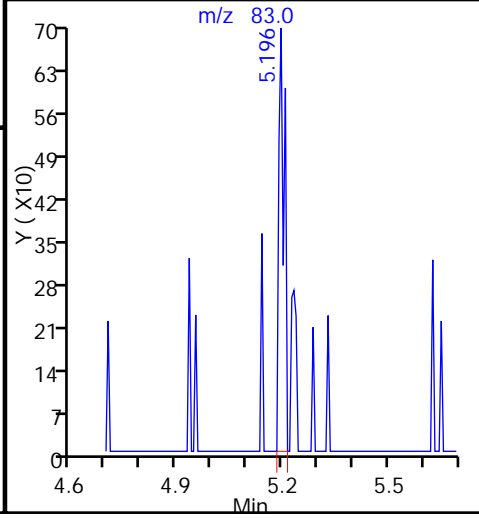
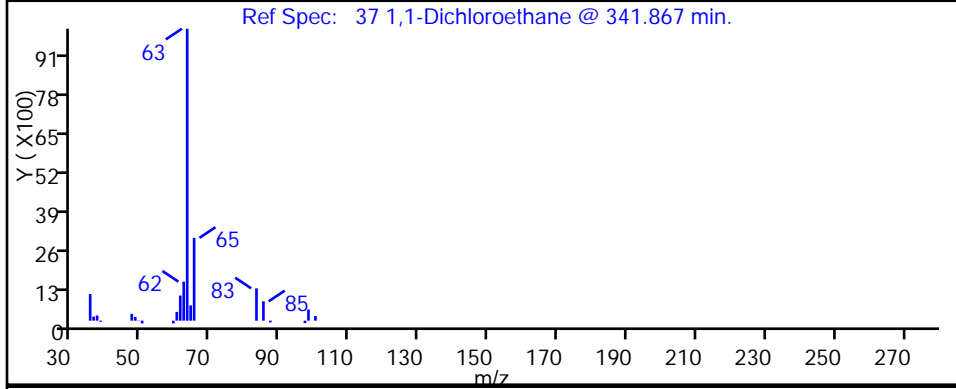
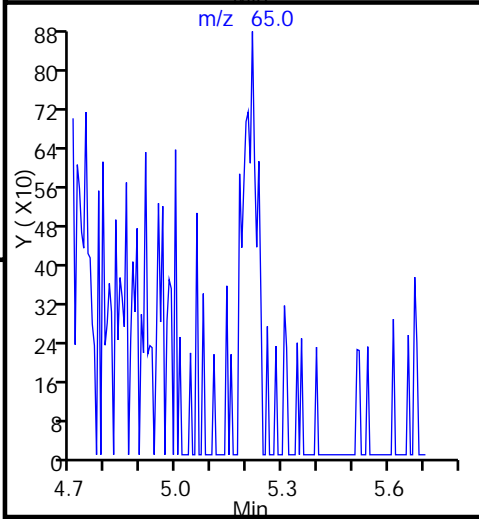
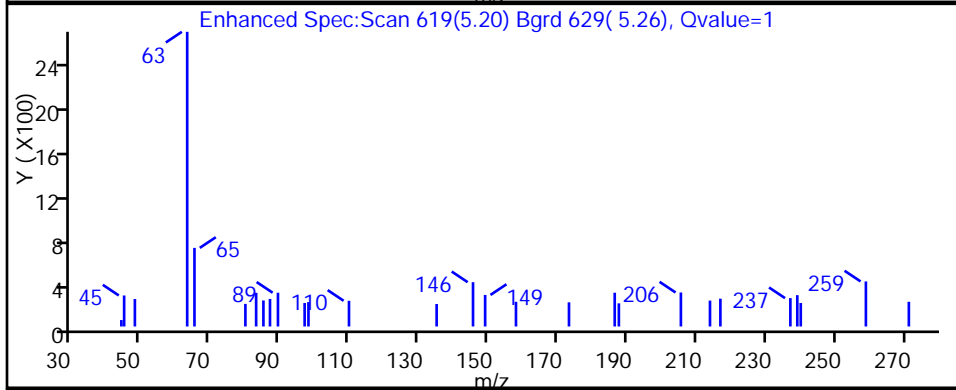
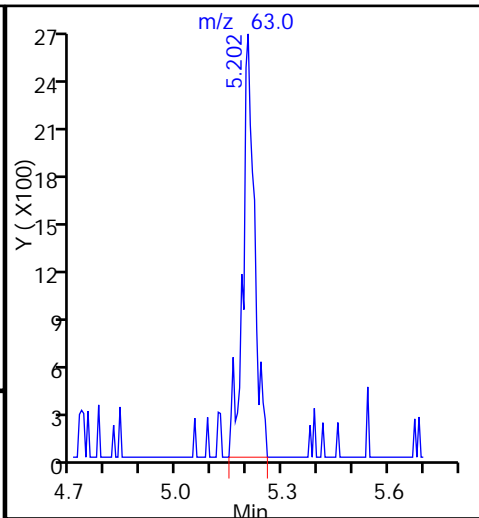
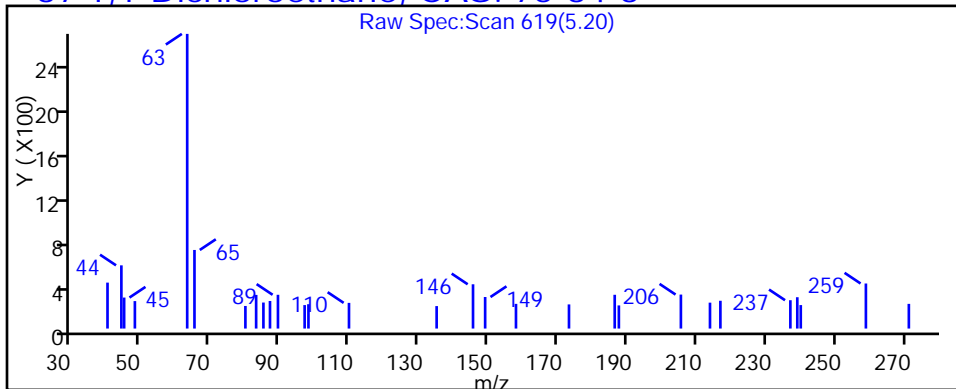
Method: MSVOA\_LL\_CHHP6

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\20150923-8638.b\60923015.D

Injection Date: 23-Sep-2015 16:56:30

Instrument ID: CHHP6

Lims ID: 180-47781-C-7

Lab Sample ID: 180-47781-7

Client ID: HD-COD-SW-15-0/1-0

Operator ID: 001562

ALS Bottle#: 15

Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

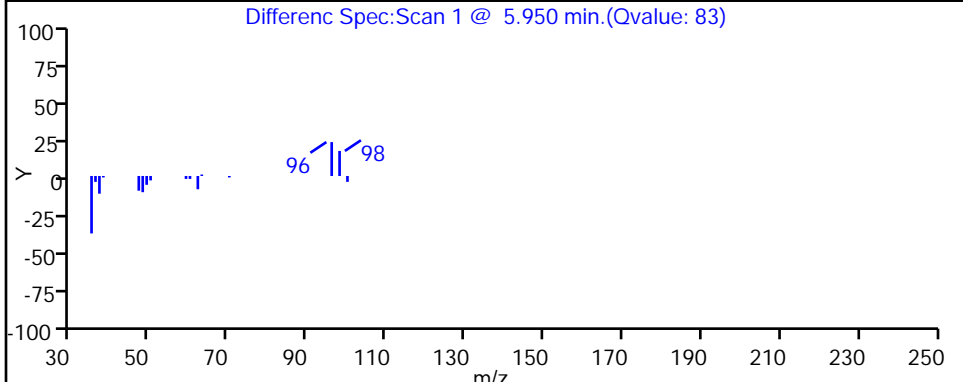
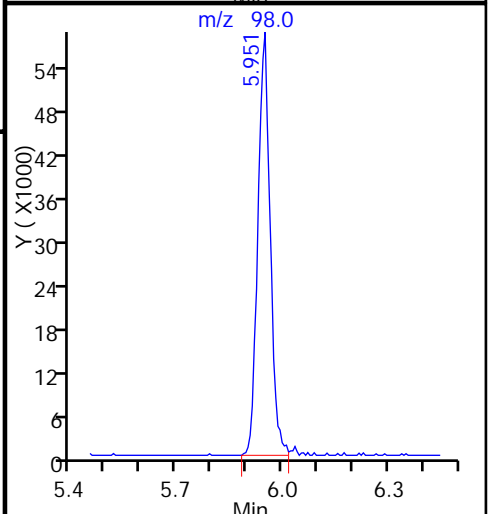
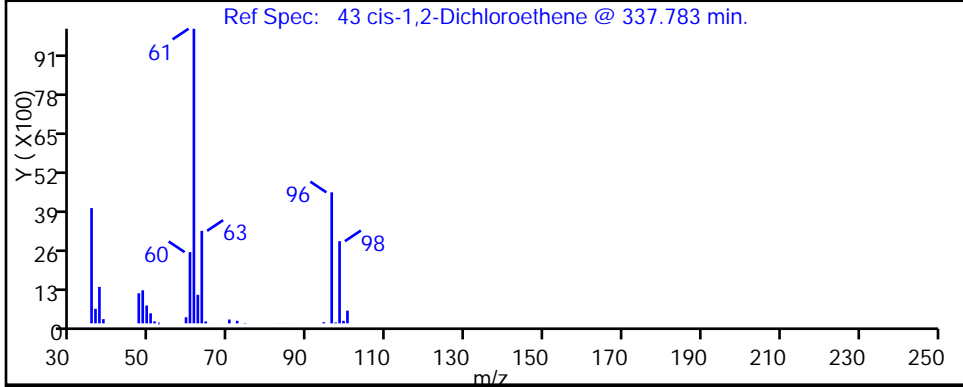
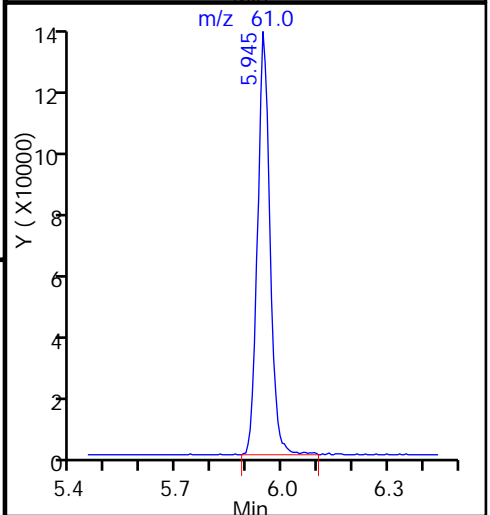
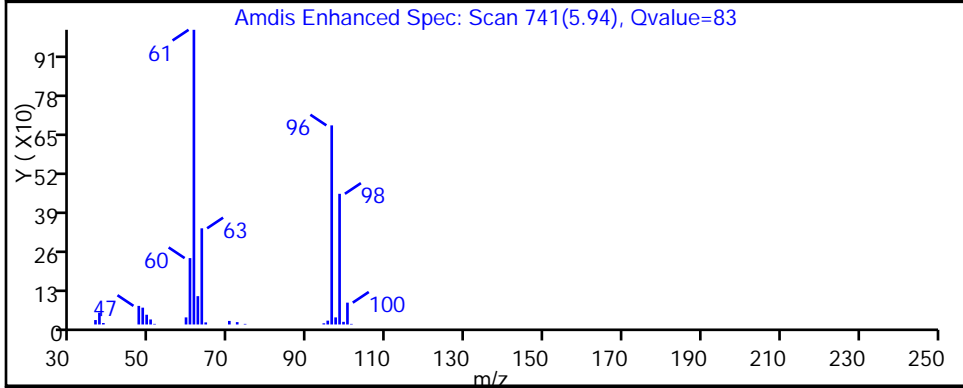
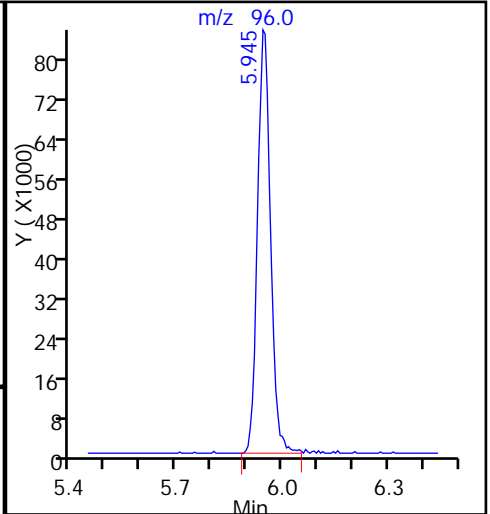
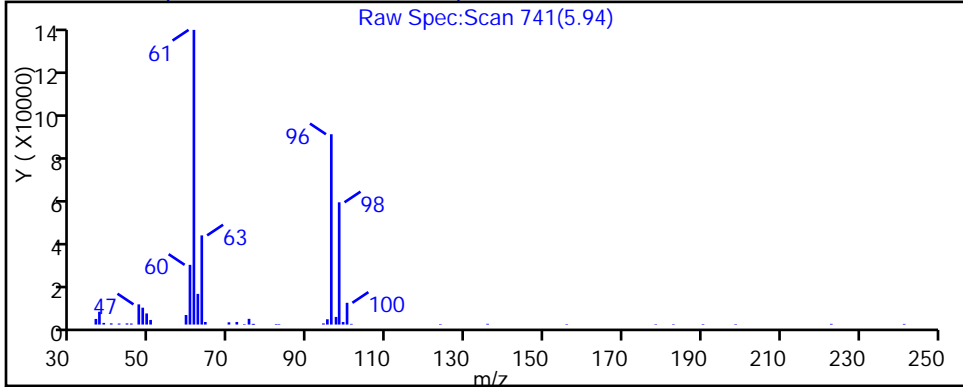
Method: MSVOA\_LL\_CHHP6

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\20150923-8638.b\60923015.D

Injection Date: 23-Sep-2015 16:56:30

Instrument ID: CHHP6

Lims ID: 180-47781-C-7

Lab Sample ID: 180-47781-7

Client ID: HD-COD-SW-15-0/1-0

Operator ID: 001562

ALS Bottle#: 15 Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

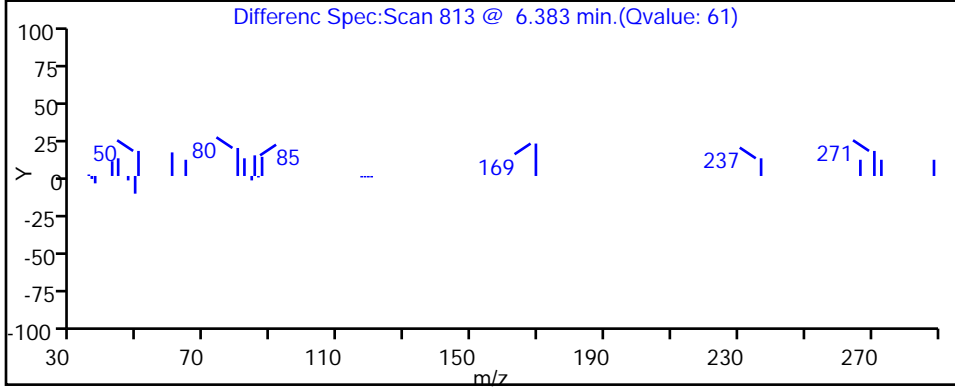
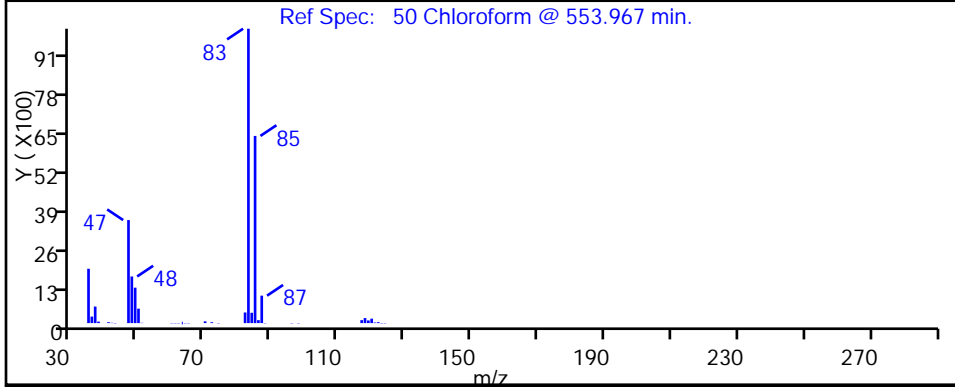
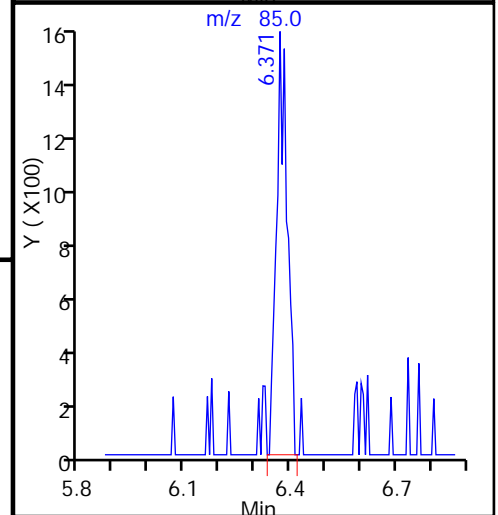
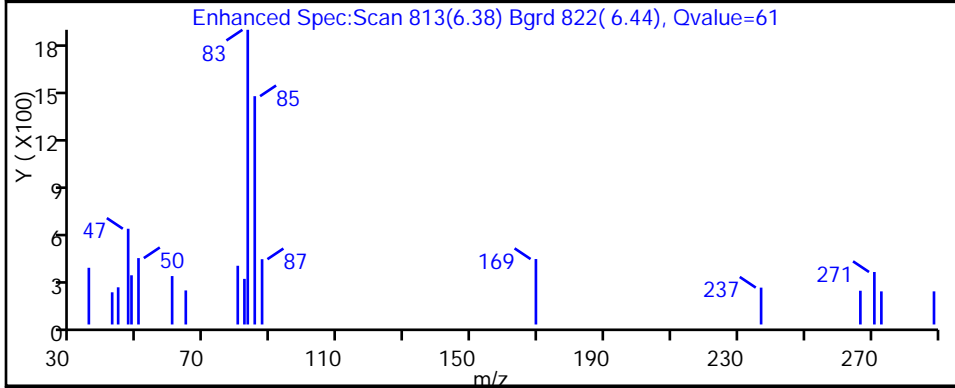
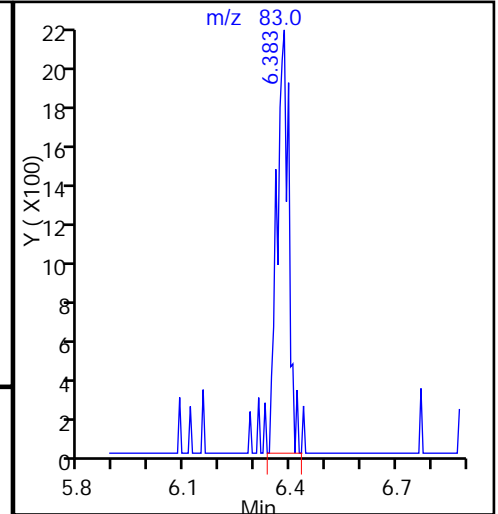
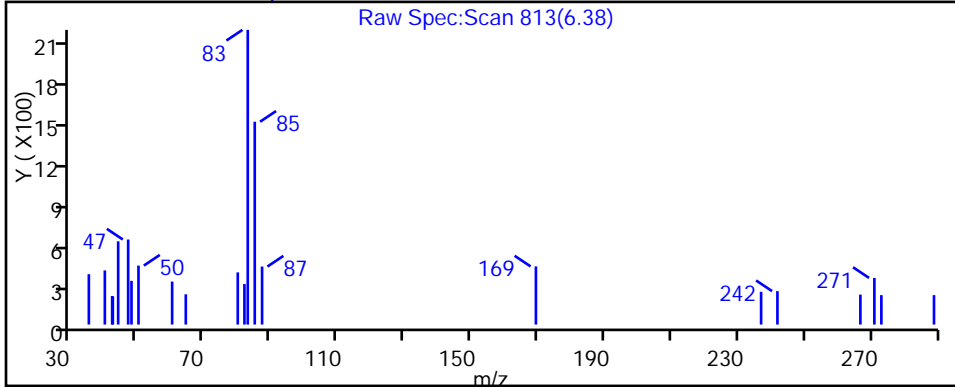
Method: MSVOA\_LL\_CHHP6

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\20150923-8638.b\60923015.D

Injection Date: 23-Sep-2015 16:56:30

Instrument ID: CHHP6

Lims ID: 180-47781-C-7

Lab Sample ID: 180-47781-7

Client ID: HD-COD-SW-15-0/1-0

Operator ID: 001562

ALS Bottle#: 15

Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

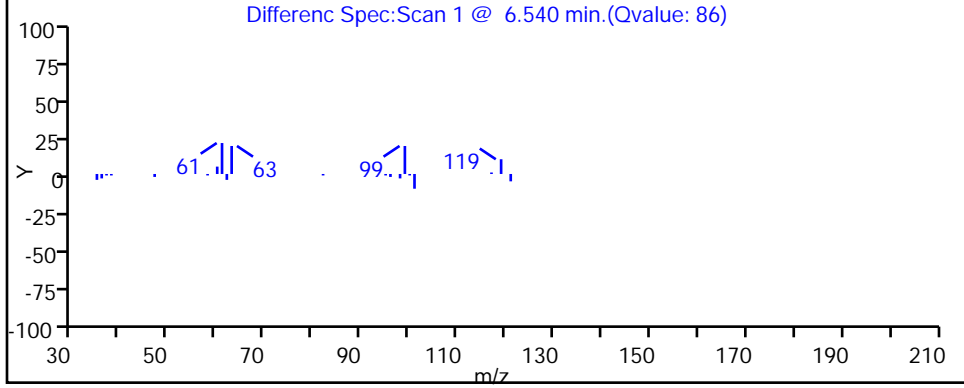
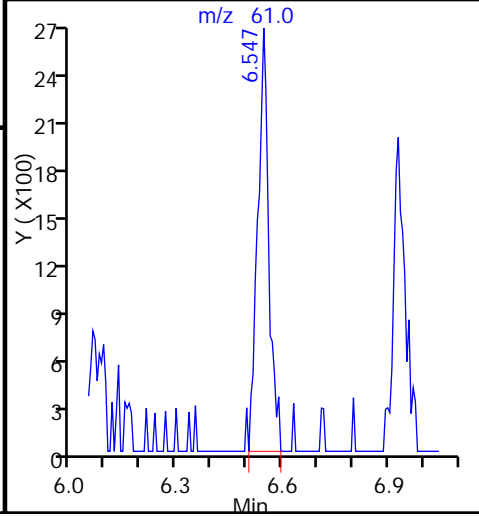
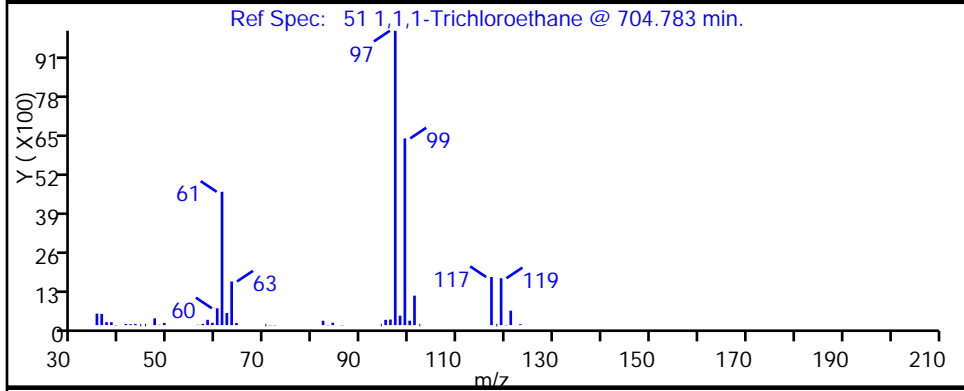
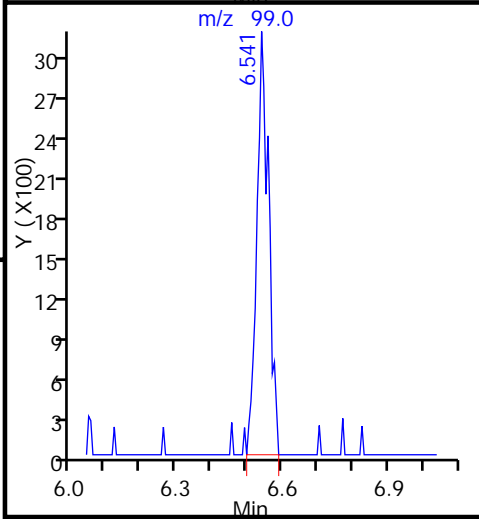
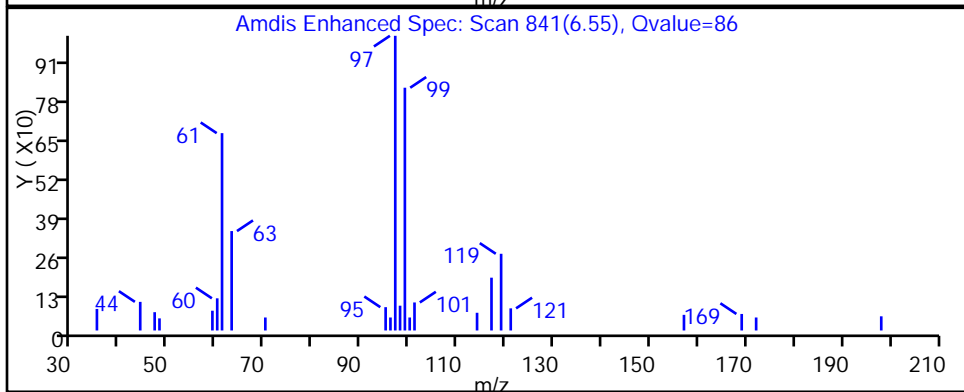
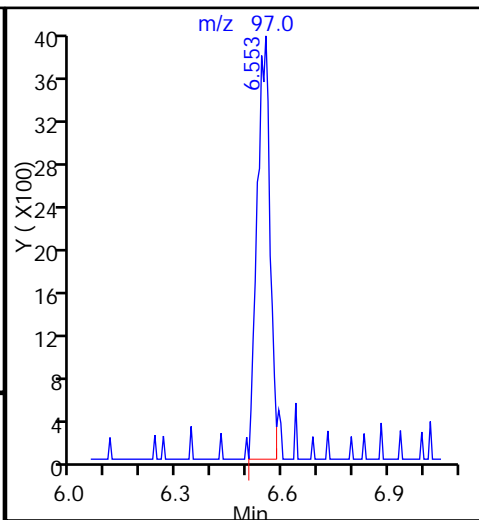
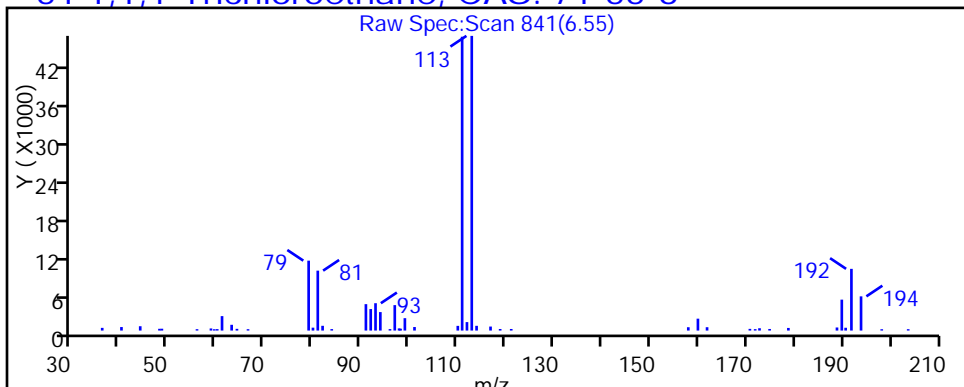
Method: MSVOA\_LL\_CHHP6

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\20150923-8638.b\60923015.D

Injection Date: 23-Sep-2015 16:56:30

Instrument ID: CHHP6

Lims ID: 180-47781-C-7

Lab Sample ID: 180-47781-7

Client ID: HD-COD-SW-15-0/1-0

Operator ID: 001562

ALS Bottle#: 15 Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

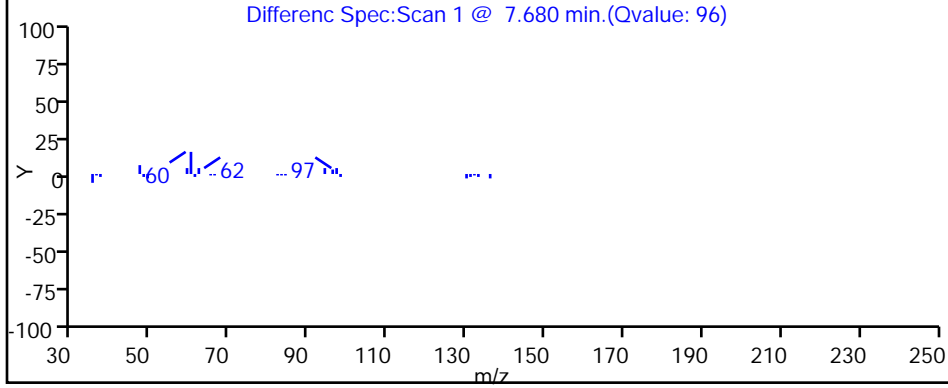
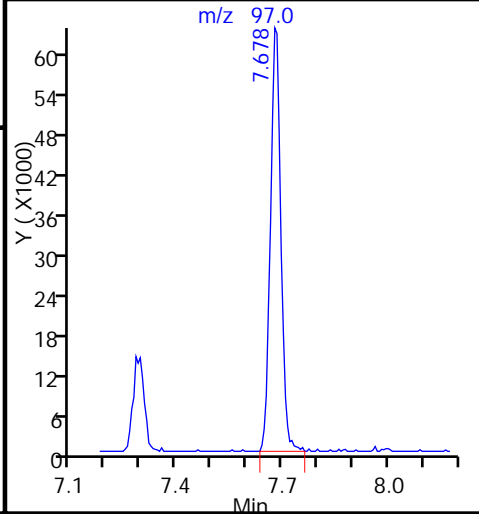
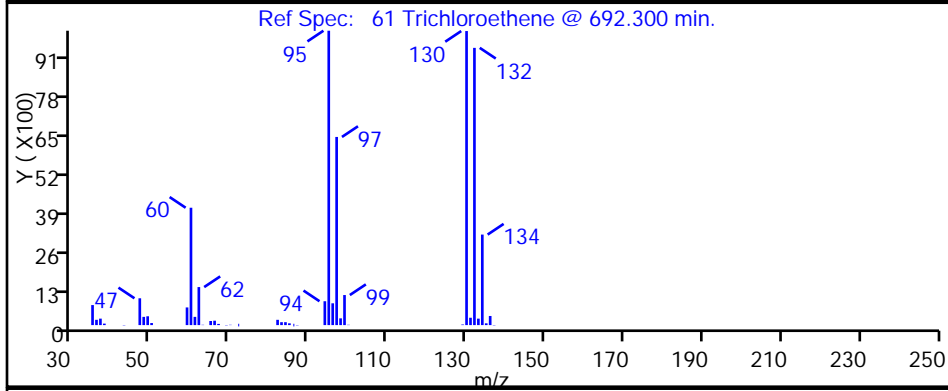
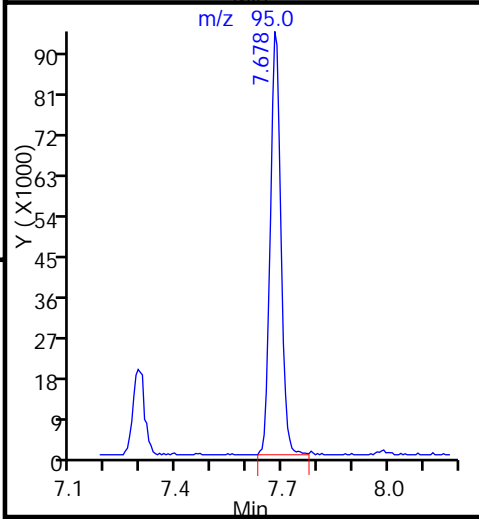
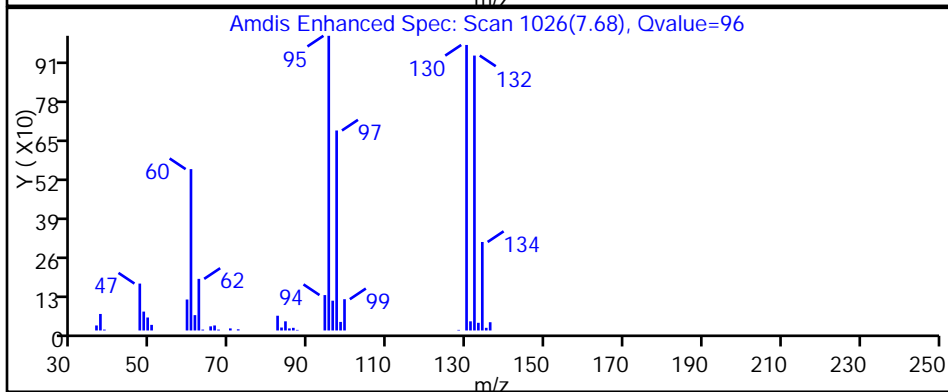
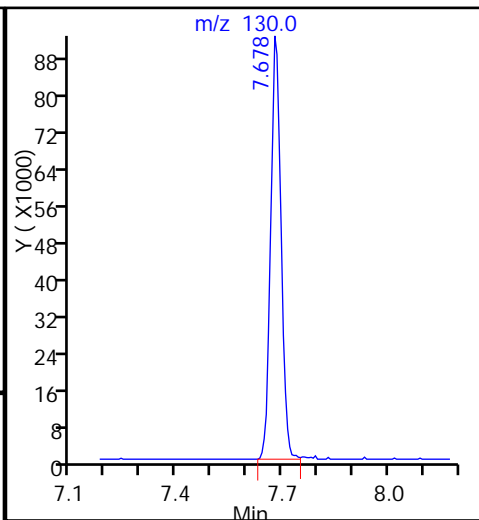
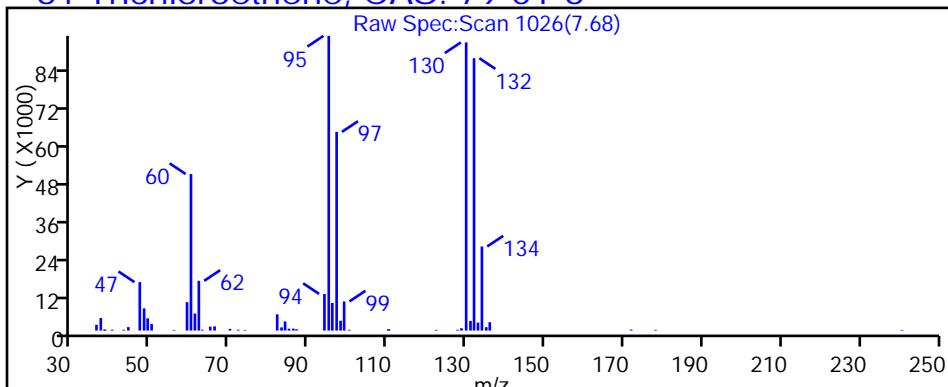
Method: MSVOA\_LL\_CHHP6

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\20150923-8638.b\60923015.D

Injection Date: 23-Sep-2015 16:56:30

Instrument ID: CHHP6

Lims ID: 180-47781-C-7

Lab Sample ID: 180-47781-7

Client ID: HD-COD-SW-15-0/1-0

Operator ID: 001562

ALS Bottle#: 15

Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

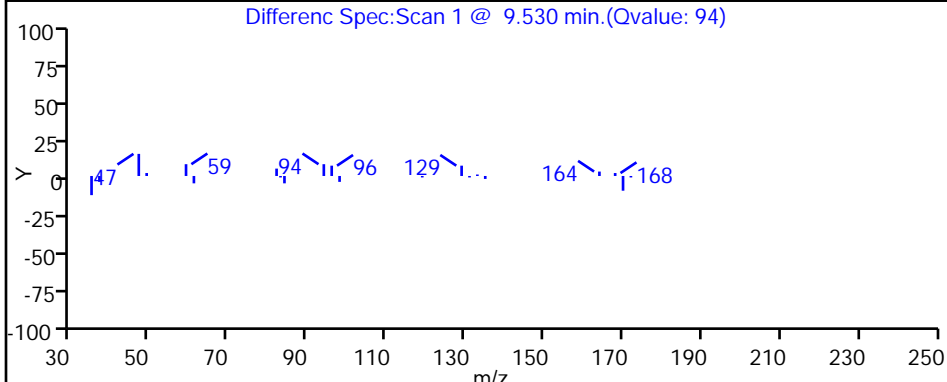
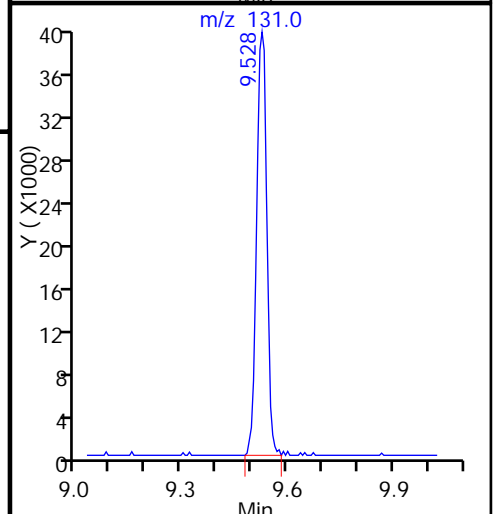
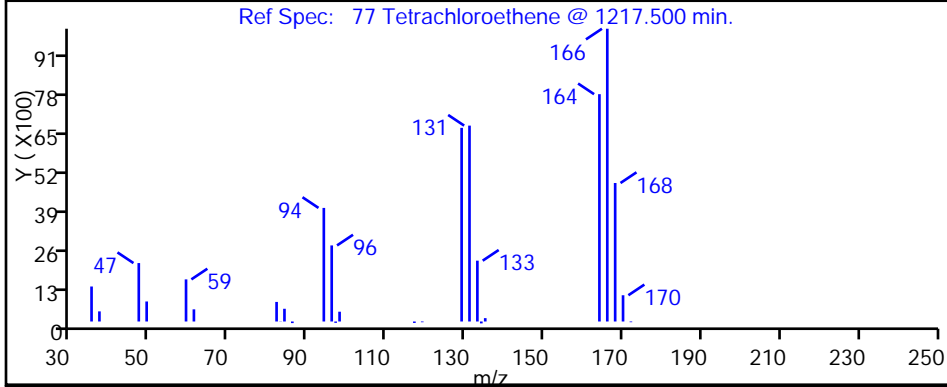
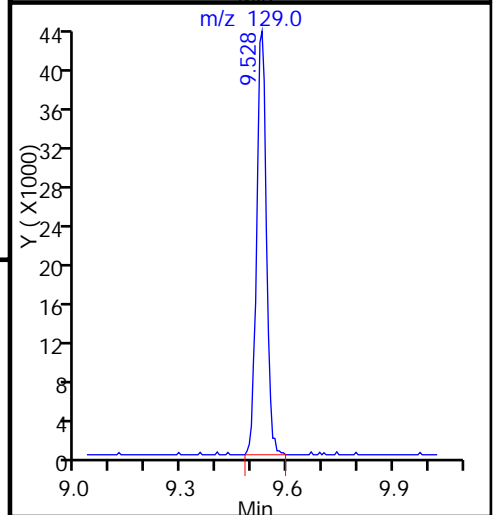
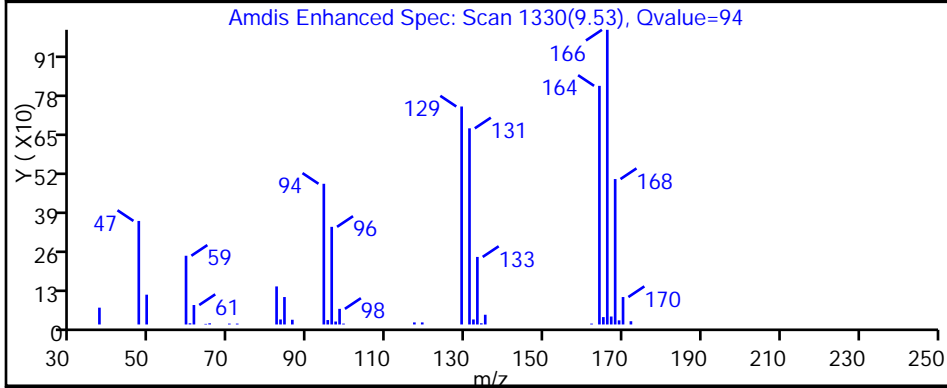
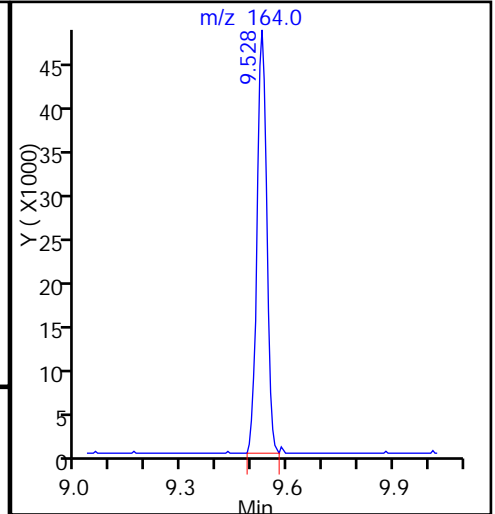
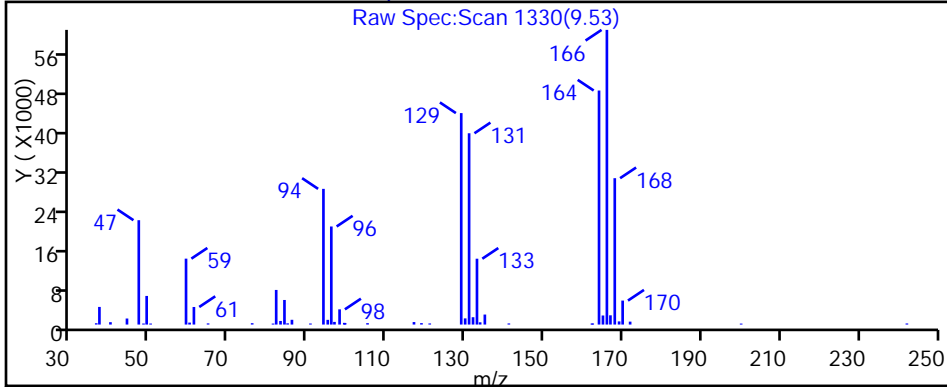
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

77 Tetrachloroethene, CAS: 127-18-4



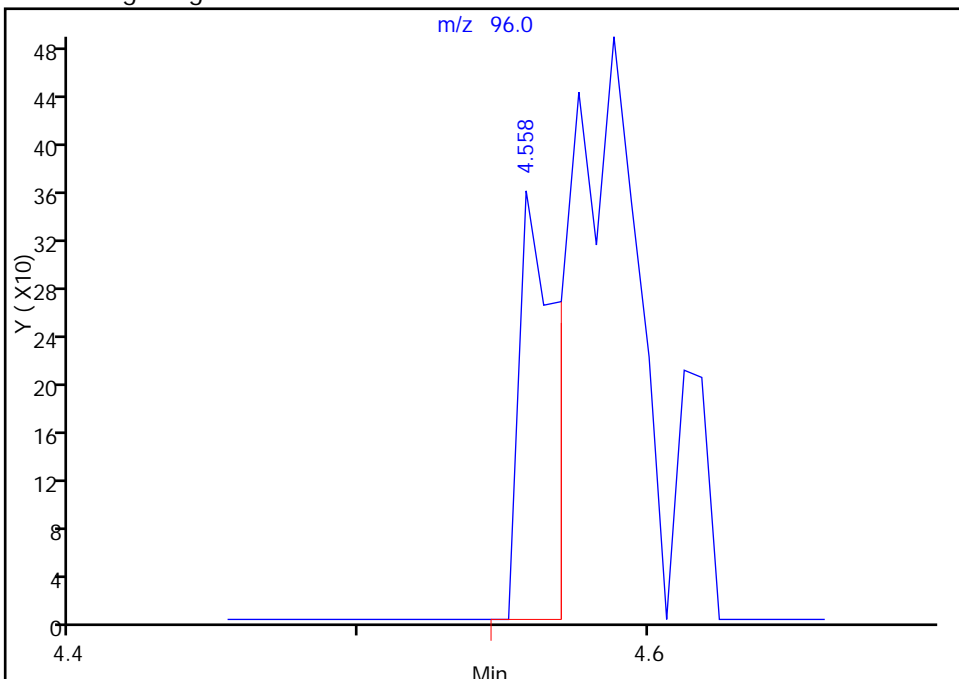
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923015.D  
Injection Date: 23-Sep-2015 16:56:30 Instrument ID: CHHP6  
Lims ID: 180-47781-C-7 Lab Sample ID: 180-47781-7  
Client ID: HD-COD-SW-15-0/1-0  
Operator ID: 001562 ALS Bottle#: 15 Worklist Smp#: 15  
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

34 trans-1,2-Dichloroethene, CAS: 156-60-5

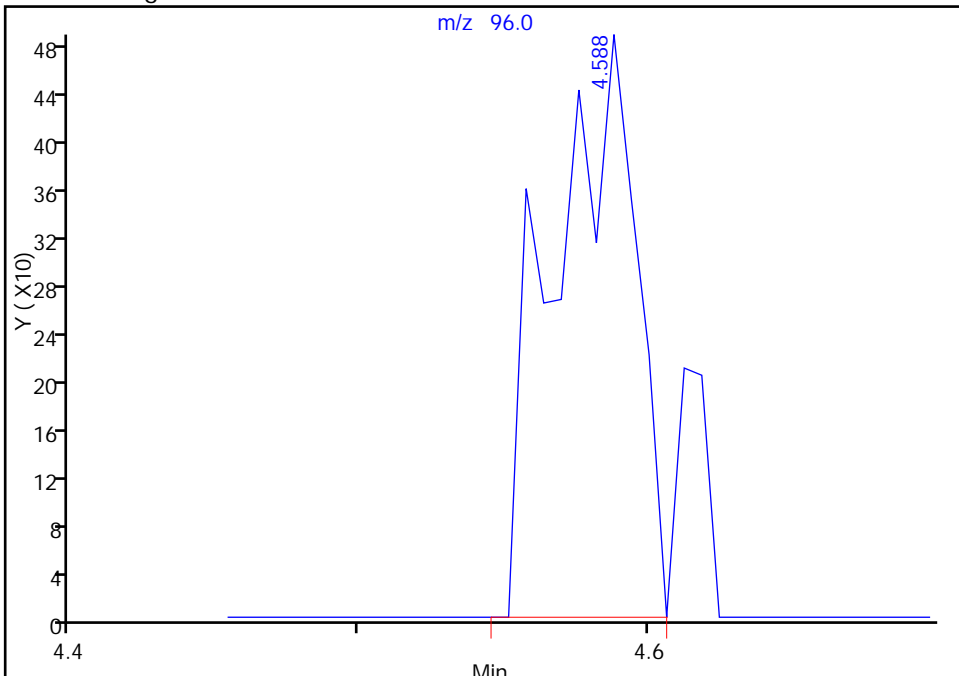
RT: 4.56  
Area: 322  
Amount: 0.119945  
Amount Units: ng

Processing Integration Results



RT: 4.59  
Area: 977  
Amount: 0.363933  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 24-Sep-2015 07:54:55  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

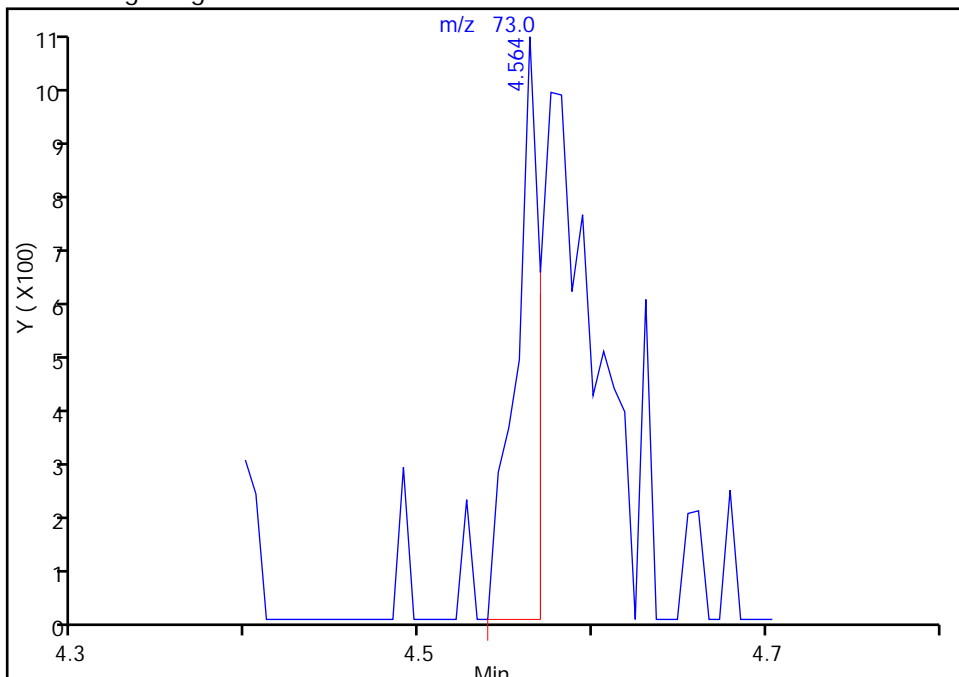
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923015.D  
Injection Date: 23-Sep-2015 16:56:30 Instrument ID: CHHP6  
Lims ID: 180-47781-C-7 Lab Sample ID: 180-47781-7  
Client ID: HD-COD-SW-15-0/1-0  
Operator ID: 001562 ALS Bottle#: 15 Worklist Smp#: 15  
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

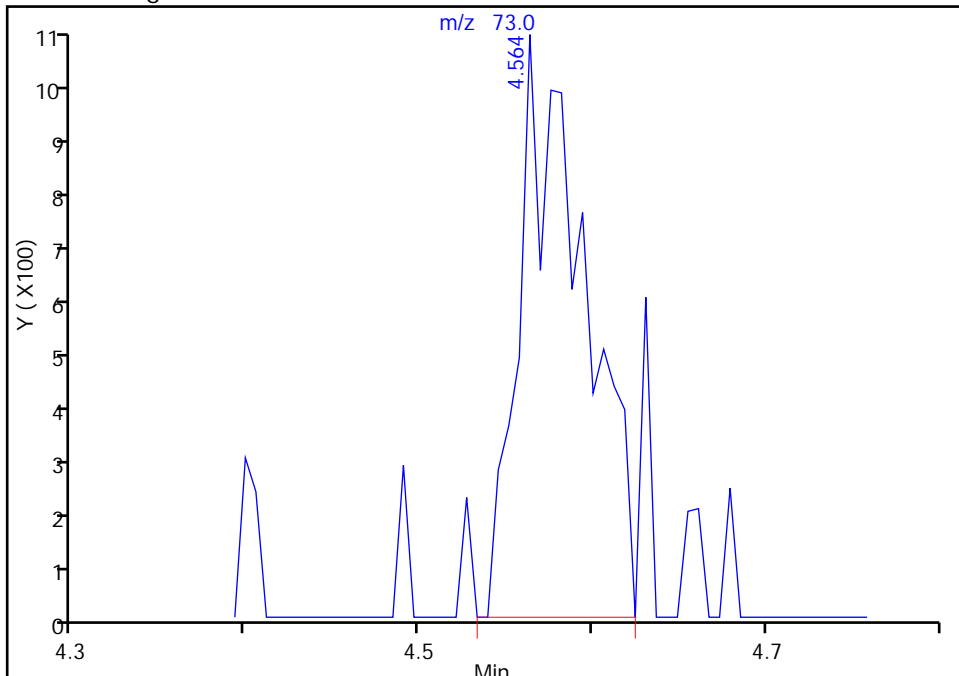
RT: 4.56  
Area: 1053  
Amount: 0.130907  
Amount Units: ng

Processing Integration Results



RT: 4.56  
Area: 2924  
Amount: 0.363506  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 24-Sep-2015 07:54:55  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration



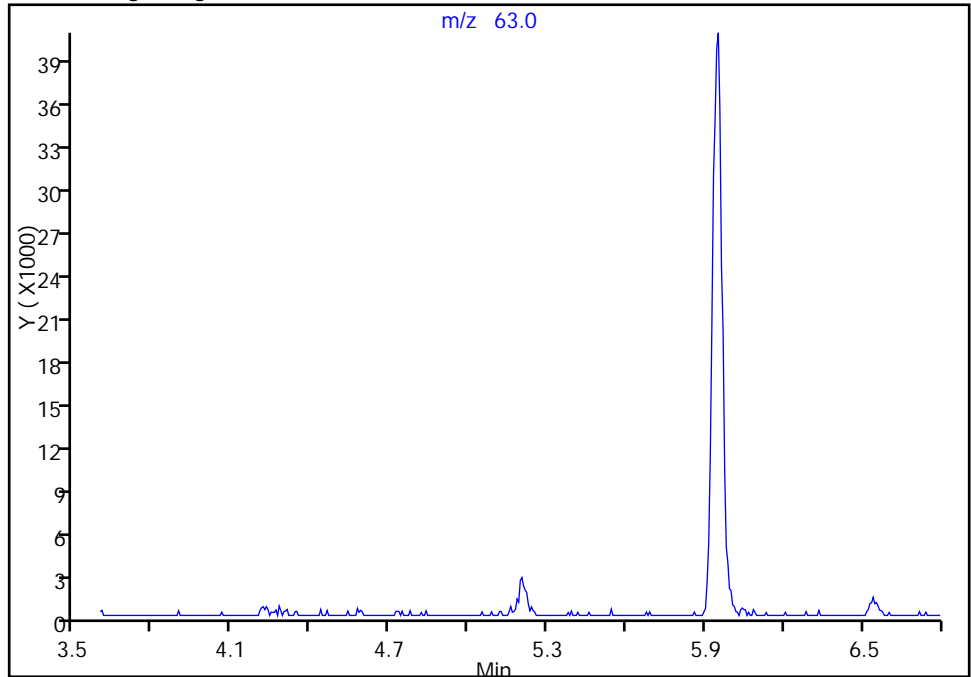
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923015.D  
Injection Date: 23-Sep-2015 16:56:30 Instrument ID: CHHP6  
Lims ID: 180-47781-C-7 Lab Sample ID: 180-47781-7  
Client ID: HD-COD-SW-15-0/1-0  
Operator ID: 001562 ALS Bottle#: 15 Worklist Smp#: 15  
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

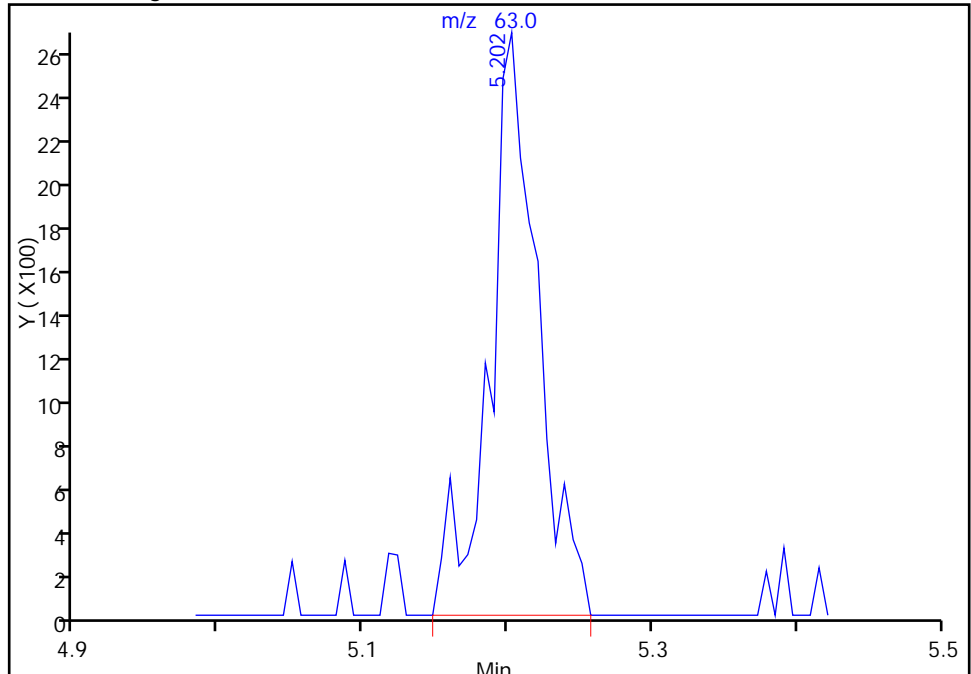
Not Detected  
Expected RT: 5.20

Processing Integration Results



RT: 5.20  
Area: 6145  
Amount: 1.278632  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 24-Sep-2015 07:54:55  
Audit Action: Manually Integrated  
Audit Reason: Missed Peak

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-16-0/1-0 Lab Sample ID: 180-47781-8  
 Matrix: Water Lab File ID: 60923016.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 10:05  
 Sample wt/vol: 5(mL) Date Analyzed: 09/23/2015 17:20  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154553 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	0.37	J	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	0.40	J	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-16-0/1-0 Lab Sample ID: 180-47781-8  
 Matrix: Water Lab File ID: 60923016.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 10:05  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 17:20  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154553 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	114		64-135
2037-26-5	Toluene-d8 (Surr)	99		71-118
460-00-4	4-Bromofluorobenzene (Surr)	86		70-118
1868-53-7	Dibromofluoromethane (Surr)	114		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923016.D  
 Lims ID: 180-47781-B-8 Lab Sample ID: 180-47781-8  
 Client ID: HD-COD-SW-16-0/1-0  
 Sample Type: Client  
 Inject. Date: 23-Sep-2015 17:20:30 ALS Bottle#: 16 Worklist Smp#: 16  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-47781-B-8  
 Misc. Info.: 180-0008638-016  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 24-Sep-2015 07:56:33 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: XAWRK003

First Level Reviewer: fergusond

Date: 24-Sep-2015 07:56:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.225	4.236	-0.011	89	178858	1000.0	
* 2 Fluorobenzene (IS)	96	7.285	7.284	0.001	97	442621	50.0	
* 3 Chlorobenzene-d5	119	10.400	10.398	0.002	90	110740	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.748	12.747	0.001	98	178493	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.555	6.548	0.007	93	116390	57.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.925	0.008	71	188283	57.2	
\$ 7 Toluene-d8 (Surr)	98	8.940	8.938	0.002	94	433491	49.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.593	11.585	0.007	84	166787	43.0	
12 Chloromethane	50	1.774	1.760	0.014	1	1822	0.6897	M
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.222				ND	
16 Chloroethane	64		2.374				ND	
22 1,1-Dichloroethene	96		3.336				ND	
24 Acetone	43	3.435	3.415	0.020	61	6737	8.60	M
26 Carbon disulfide	76		3.634				ND	
31 Methylene Chloride	84		4.126				ND	
33 Acrylonitrile	53		4.497				ND	
35 Methyl tert-butyl ether	73		4.564				ND	
34 trans-1,2-Dichloroethene	96		4.564				ND	
37 1,1-Dichloroethane	63		5.197				ND	
43 cis-1,2-Dichloroethene	96	5.953	5.939	0.014	73	2935	1.05	
44 2-Butanone (MEK)	43		5.945				ND	
48 Chlorobromomethane	128		6.225				ND	
50 Chloroform	83	6.373	6.377	-0.004	19	1273	0.2786	
51 1,1,1-Trichloroethane	97		6.535				ND	
53 Carbon tetrachloride	117		6.712				ND	
56 Benzene	78		6.937				ND	
57 1,2-Dichloroethane	62		7.010				ND	
61 Trichloroethene	130	7.681	7.673	0.008	90	3944	1.83	
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		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.443				ND	
77 Tetrachloroethene	164	9.536	9.529	0.008	84	3880	1.99	
79 2-Hexanone	43		9.662				ND	
81 Chlorodibromomethane	129		9.827				ND	
82 Ethylene Dibromide	107		9.942				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		11.037				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				ND	
S 131 Xylenes, Total	106		1.000				ND	

### QC Flag Legend

Review Flags

M - Manually Integrated

### Reagents:

VOA8260INT\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923016.D

Injection Date: 23-Sep-2015 17:20:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-47781-B-8

Lab Sample ID: 180-47781-8

Worklist Smp#: 16

Client ID: HD-COD-SW-16-0/1-0

Purge Vol: 5.000 mL

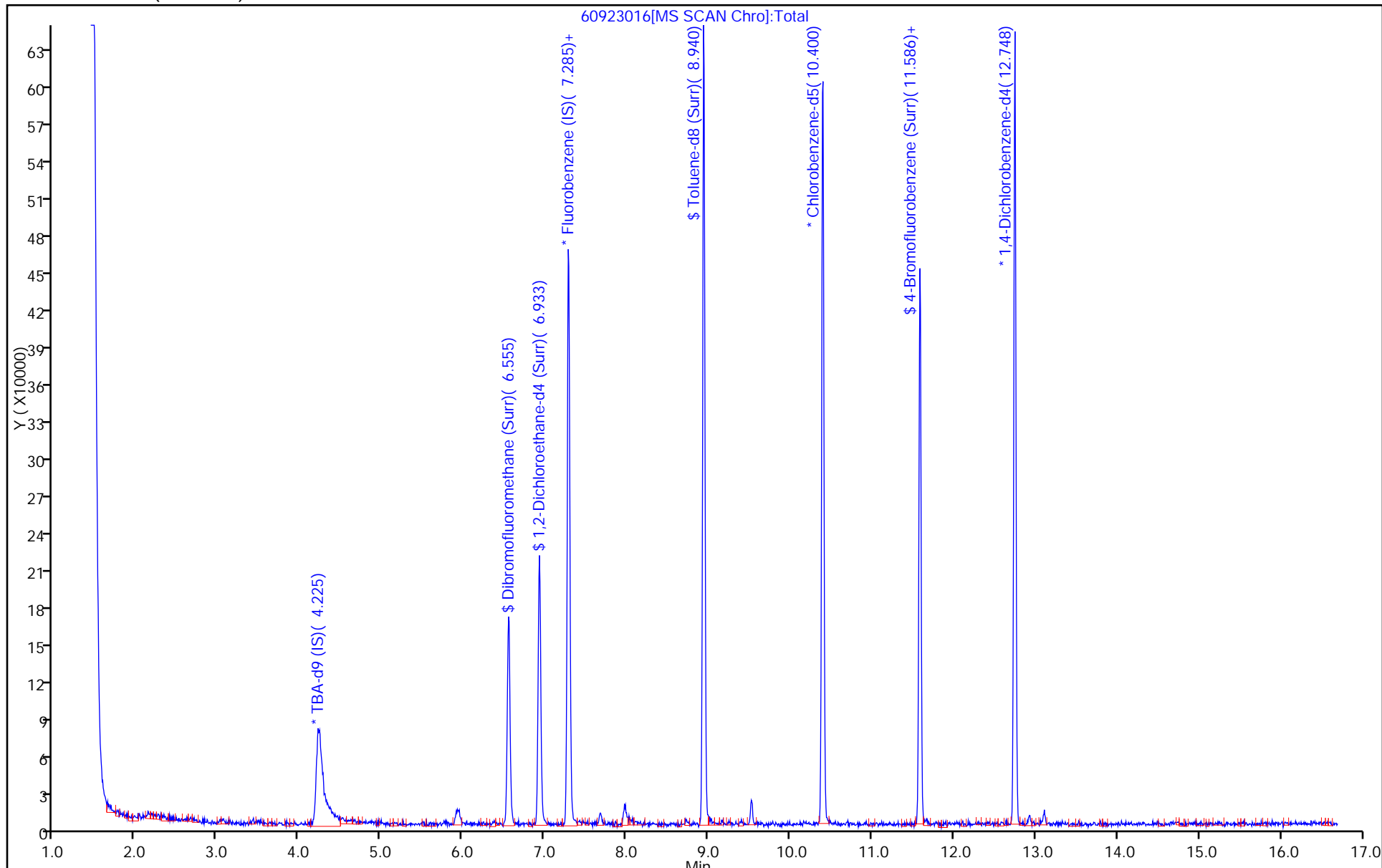
Dil. Factor: 1.0000

ALS Bottle#: 16

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

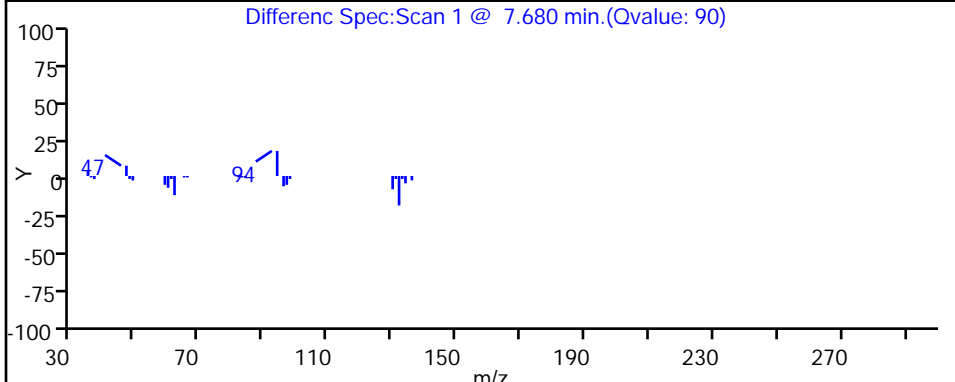
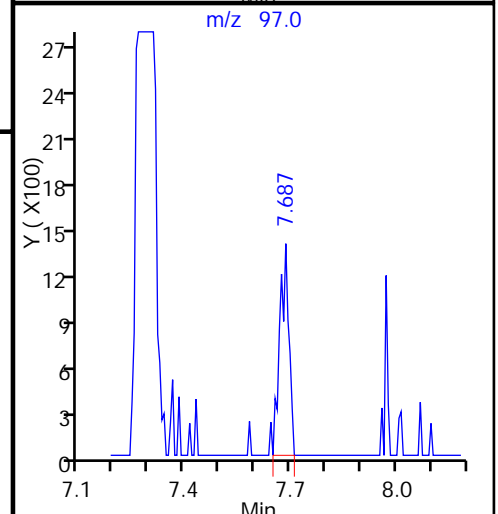
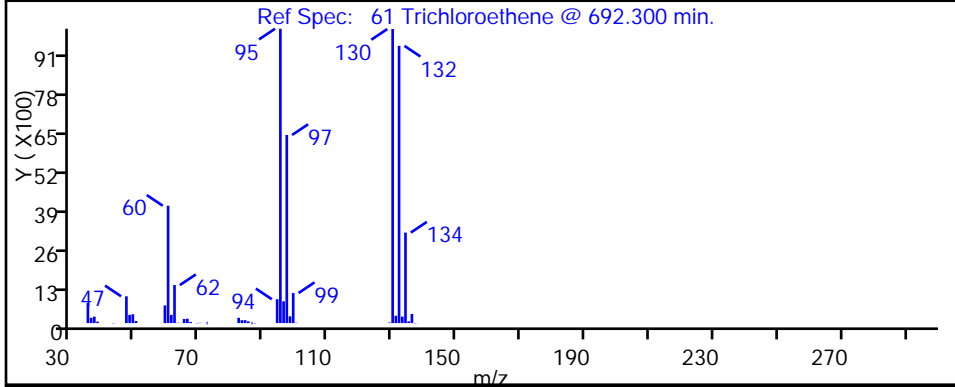
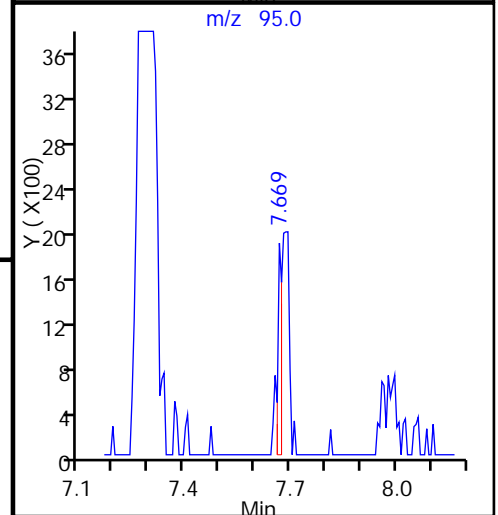
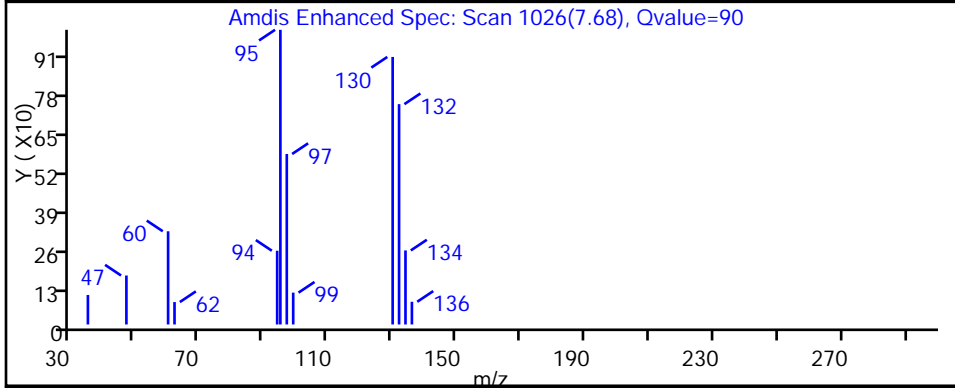
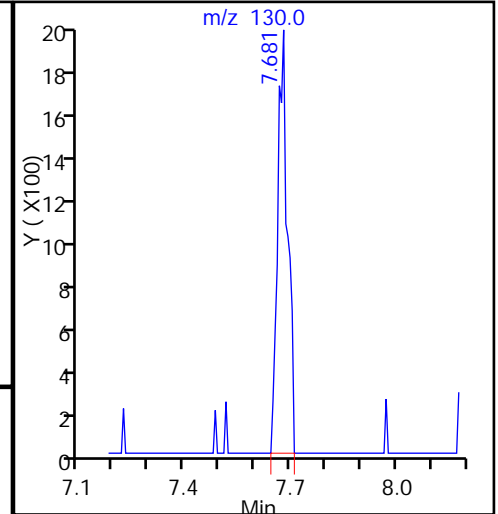
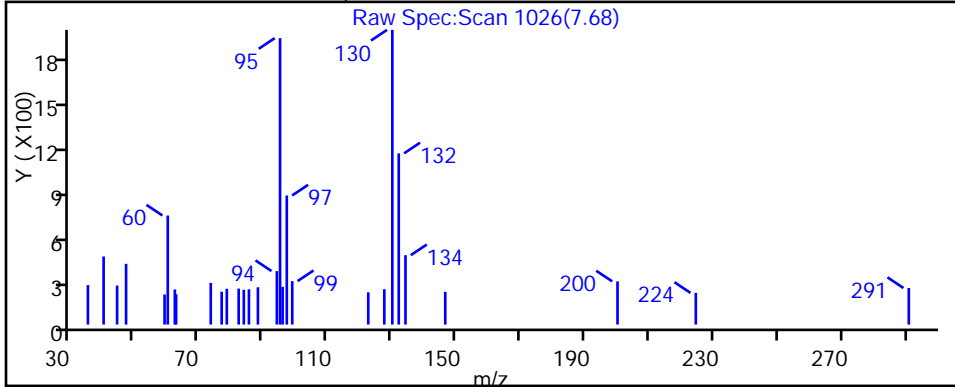
Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923016.D  
Injection Date: 23-Sep-2015 17:20:30 Instrument ID: CHHP6  
Lims ID: 180-47781-B-8 Lab Sample ID: 180-47781-8  
Client ID: HD-COD-SW-16-0/1-0  
Operator ID: 001562 ALS Bottle#: 16 Worklist Smp#: 16  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

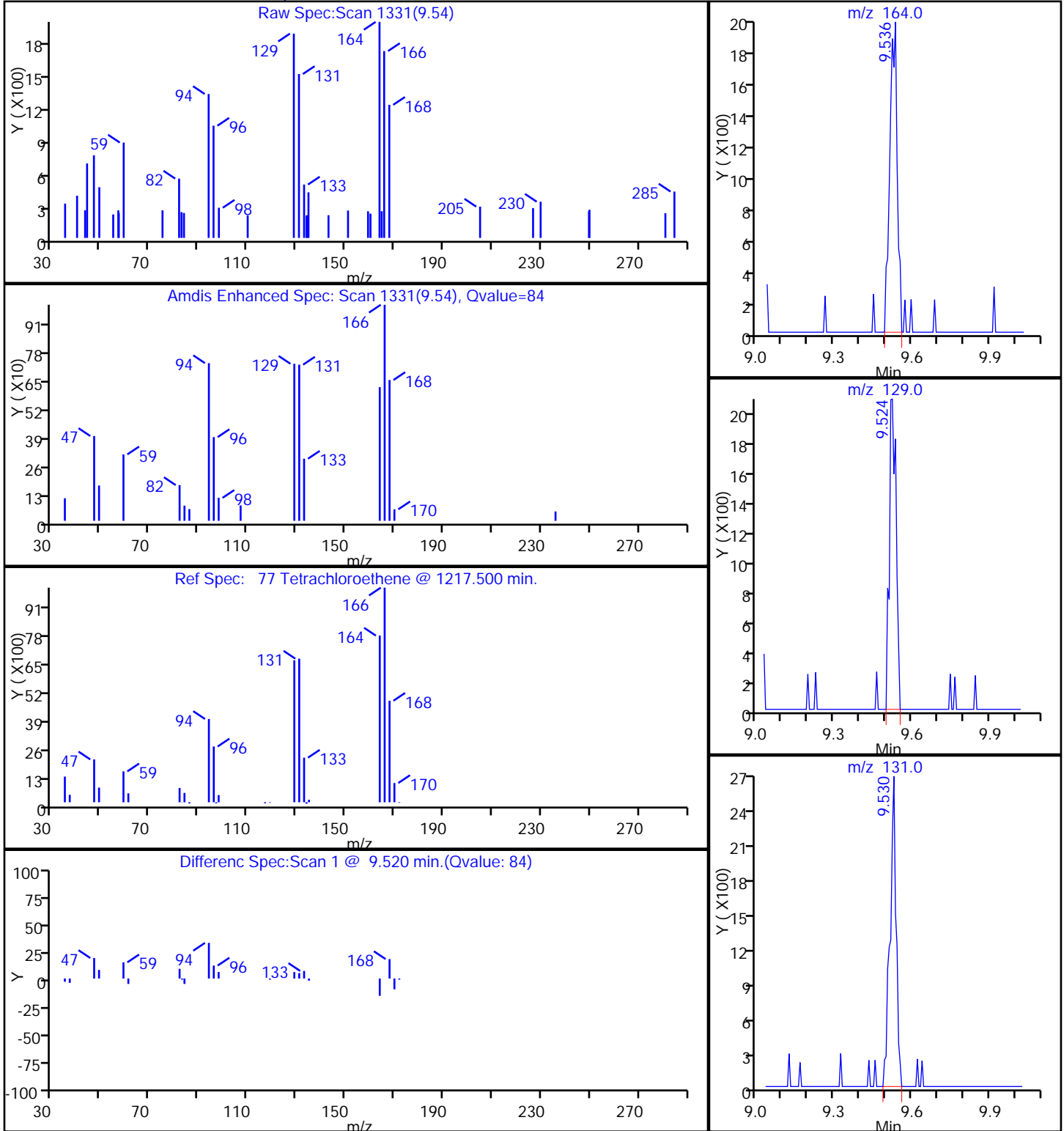
61 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923016.D  
Injection Date: 23-Sep-2015 17:20:30 Instrument ID: CHHP6  
Lims ID: 180-47781-B-8 Lab Sample ID: 180-47781-8  
Client ID: HD-COD-SW-16-0/1-0  
Operator ID: 001562 ALS Bottle#: 16 Worklist Smp#: 16  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector MS SCAN

77 Tetrachloroethene, CAS: 127-18-4





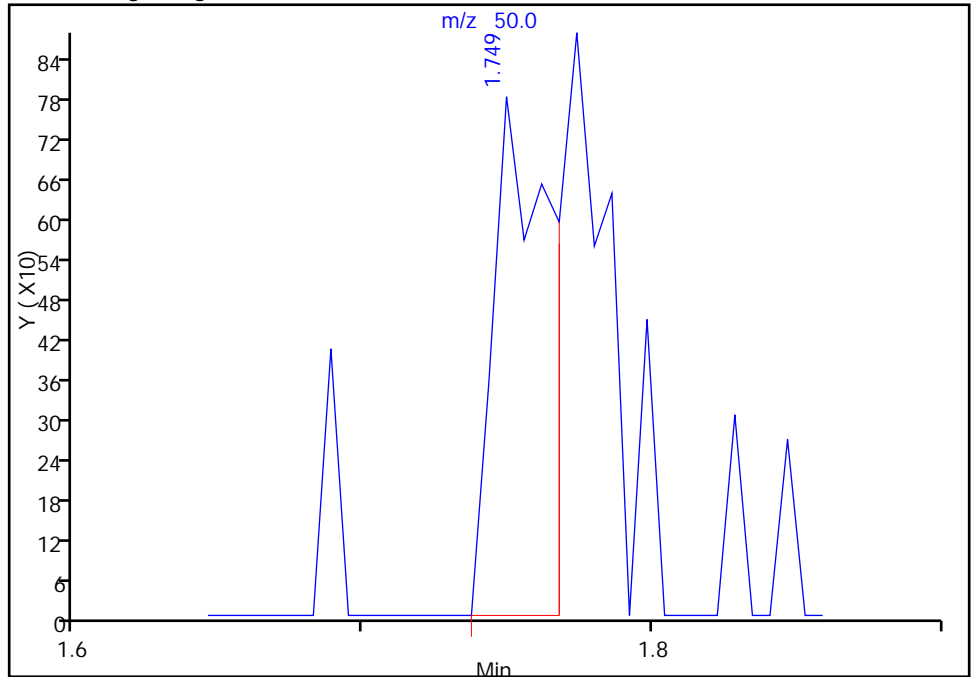
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923016.D  
Injection Date: 23-Sep-2015 17:20:30 Instrument ID: CHHP6  
Lims ID: 180-47781-B-8 Lab Sample ID: 180-47781-8  
Client ID: HD-COD-SW-16-0/1-0  
Operator ID: 001562 ALS Bottle#: 16 Worklist Smp#: 16  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

12 Chloromethane, CAS: 74-87-3

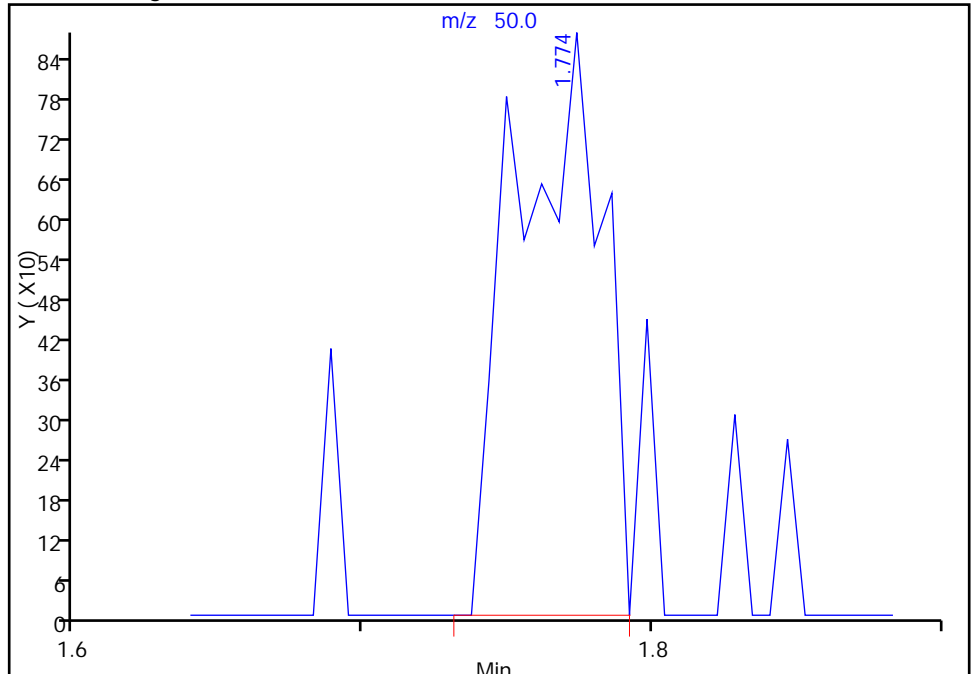
RT: 1.75  
Area: 1069  
Amount: 0.404680  
Amount Units: ng

Processing Integration Results



RT: 1.77  
Area: 1822  
Amount: 0.689735  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 24-Sep-2015 07:56:33  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

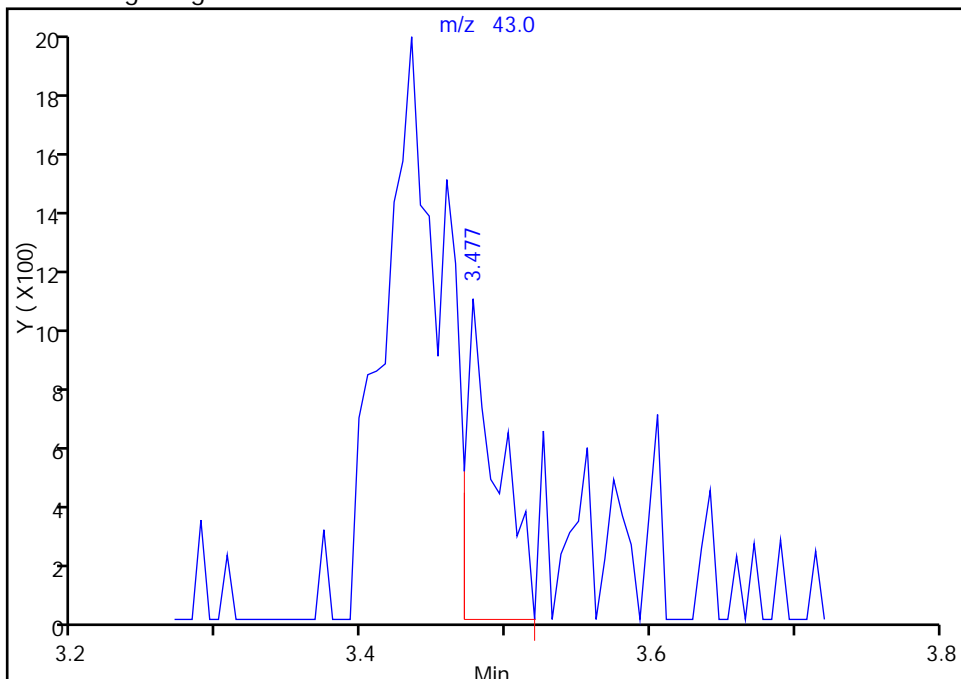
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923016.D  
Injection Date: 23-Sep-2015 17:20:30 Instrument ID: CHHP6  
Lims ID: 180-47781-B-8 Lab Sample ID: 180-47781-8  
Client ID: HD-COD-SW-16-0/1-0  
Operator ID: 001562 ALS Bottle#: 16 Worklist Smp#: 16  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

24 Acetone, CAS: 67-64-1

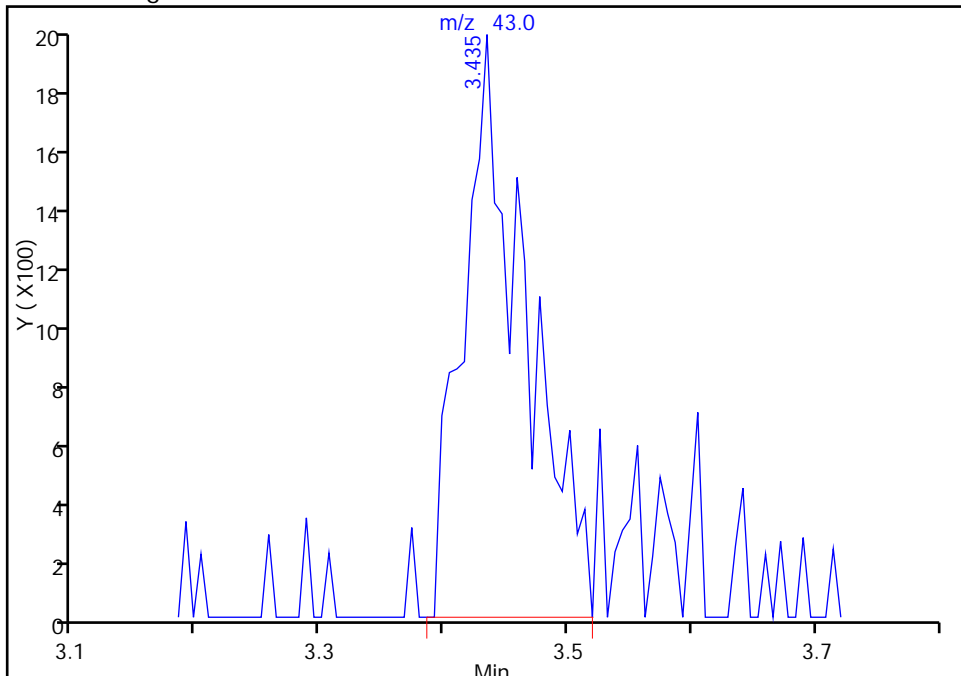
RT: 3.48  
Area: 1591  
Amount: 2.031752  
Amount Units: ng

Processing Integration Results



RT: 3.43  
Area: 6737  
Amount: 8.603340  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 24-Sep-2015 07:56:33  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 180-47781-9  
 Matrix: Water Lab File ID: 50918007.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 10:20  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/18/2015 14:16  
 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.: 154121 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U ^c	1.0	0.23
74-83-9	Bromomethane	1.0	U ^c	1.0	0.31
75-00-3	Chloroethane	1.0	U ^c	1.0	0.21
75-35-4	1,1-Dichloroethene	0.84	J	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	0.67	J	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	15	F1	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	0.20	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	2.8		1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	16	F1	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	42		1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 180-47781-9  
 Matrix: Water Lab File ID: 50918007.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 10:20  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/18/2015 14:16  
 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.: 154121 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	119		64-135
2037-26-5	Toluene-d8 (Surr)	100		71-118
460-00-4	4-Bromofluorobenzene (Surr)	96		70-118
1868-53-7	Dibromofluoromethane (Surr)	113		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918007.D  
 Lims ID: 180-47781-C-9 Lab Sample ID: 180-47781-9  
 Client ID: HD-COD-SW-17-0/1-0  
 Sample Type: Client  
 Inject. Date: 18-Sep-2015 14:16:30 ALS Bottle#: 6 Worklist Smp#: 7  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-47781-C-9  
 Misc. Info.: 180-0008580-007  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Sep-2015 15:00:48 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: XAWRK010

First Level Reviewer: fergusond

Date: 18-Sep-2015 15:00:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.255	4.271	-0.016	0	122262	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.294	-0.004	98	301862	50.0	
* 3 Chlorobenzene-d5	119	10.393	10.385	0.008	88	64730	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.729	12.727	0.002	98	102424	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.560	6.564	-0.004	93	83751	56.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.938	6.929	0.009	0	121378	59.6	
\$ 7 Toluene-d8 (Surr)	98	8.933	8.937	-0.004	94	249899	50.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.573	11.571	0.002	93	90035	47.8	
11 Dichlorodifluoromethane	85		1.612				ND	
12 Chloromethane	50		1.764				ND	
13 Vinyl chloride	62		1.904				ND	
14 Butadiene	39		1.941				ND	
15 Bromomethane	94		2.239				ND	
16 Chloroethane	64		2.385				ND	
17 Dichlorofluoromethane	67		2.671				ND	
18 Trichlorofluoromethane	101		2.695				ND	
19 Ethanol	45		2.957				ND	
20 Ethyl ether	59		3.054				ND	
21 Acrolein	56		3.231				ND	
22 1,1-Dichloroethene	96	3.354	3.346	0.008	93	7072	4.21	
23 1,1,2-Trichloro-1,2,2-trif	101		3.425				ND	
24 Acetone	43		3.437				ND	
25 Iodomethane	142		3.541				ND	
26 Carbon disulfide	76		3.638				ND	
27 Isopropyl alcohol	45		3.706				ND	
29 Acetonitrile	40		3.870				ND	
28 3-Chloro-1-propene	76		3.924				ND	
30 Methyl acetate	43		3.936				ND	
31 Methylene Chloride	84		4.131				ND	
32 2-Methyl-2-propanol	59		4.405				ND	
33 Acrylonitrile	53		4.526				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.563				ND	
35 Methyl tert-butyl ether	73	4.583	4.581	0.002	1	1266	0.2996	
36 Hexane	57		4.995				ND	
37 1,1-Dichloroethane	63	5.204	5.202	0.002	96	11993	3.33	
38 Vinyl acetate	43		5.250				ND	
41 Isopropyl ether	45		5.299				ND	
39 2-Chloro-1,3-butadiene	53		5.299				ND	
40 Isopropyl ether TIC	45		5.409				ND	
42 Tert-butyl ethyl ether	59		5.780				ND	
45 cis-1,2-Dichloroethene	96	5.952	5.950	0.002	82	147320	75.5	
44 2,2-Dichloropropane	77		5.950				ND	
46 2-Butanone (MEK)	43		5.956				ND	
43 Tert-butyl ethyl ether (TI	59		5.961				ND	
48 Ethyl acetate	43		6.036				ND	
47 Propionitrile	54		6.036				ND	
50 Methacrylonitrile	41		6.212				ND	
49 Chlorobromomethane	128		6.236				ND	
51 Tetrahydrofuran	42		6.248				ND	
52 Chloroform	83	6.378	6.382	-0.004	67	3104	1.00	
53 1,1,1-Trichloroethane	97	6.542	6.540	0.002	95	32549	14.2	
54 Cyclohexane	56		6.619				ND	
56 Carbon tetrachloride	117		6.716				ND	
55 1,1-Dichloropropene	75		6.729				ND	
57 Isobutyl alcohol	41		6.929				ND	
58 Benzene	78		6.948				ND	
59 1,2-Dichloroethane	62		7.015				ND	
61 Tert-amyl methyl ether	73		7.125				ND	
60 Tert-amyl methyl ether (TI	73		7.262				ND	
62 n-Heptane	43		7.313				ND	
63 n-Butanol	56		7.629				ND	
64 Trichloroethene	130	7.674	7.672	0.002	96	142945	78.5	
65 Ethyl acrylate	55		7.800				ND	
66 Methylcyclohexane	83		7.915				ND	
67 1,2-Dichloropropane	63		7.951				ND	
70 1,4-Dioxane	88		8.030				ND	
69 Methyl methacrylate	69		8.031				ND	
68 Dibromomethane	93		8.037				ND	
71 Dichlorobromomethane	83		8.231				ND	
72 2-Nitropropane	41		8.451				ND	
73 2-Chloroethyl vinyl ether	63		8.529				ND	
74 cis-1,3-Dichloropropene	75		8.675				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.827				ND	
76 Toluene	91		9.004				ND	
77 trans-1,3-Dichloropropene	75		9.253				ND	
78 Ethyl methacrylate	69		9.308				ND	
79 1,1,2-Trichloroethane	97		9.448				ND	
80 Tetrachloroethene	164	9.517	9.515	0.002	96	259803	208.9	
81 1,3-Dichloropropane	76		9.600				ND	
82 2-Hexanone	43		9.661				ND	
83 n-Butyl acetate	43		9.783				ND	
84 Chlorodibromomethane	129		9.813				ND	
85 Ethylene Dibromide	107		9.929				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.391				ND	
87 Chlorobenzene	112		10.415				ND	
88 4-Chlorobenzotrifluoride	180		10.476				ND	
89 1,1,1,2-Tetrachloroethane	131		10.506				ND	
90 Ethylbenzene	106		10.513				ND	
91 m-Xylene & p-Xylene	106		10.652				ND	
92 o-Xylene	106		11.030				ND	
93 Styrene	104		11.048				ND	
94 Bromoform	173		11.230				ND	
95 Cyclohexanol	57		11.245				ND	
96 2-Chlorobenzotrifluoride	180		11.297				ND	
97 Isopropylbenzene	105		11.395				ND	
98 Cyclohexanone	55		11.480				ND	
99 1,1,2,2-Tetrachloroethane	83		11.705				ND	
100 Bromobenzene	156		11.711				ND	
102 trans-1,4-Dichloro-2-buten	53		11.741				ND	
101 1,2,3-Trichloropropane	110		11.766				ND	
103 N-Propylbenzene	120		11.814				ND	
104 2-Chlorotoluene	126		11.900				ND	
105 3-Chlorotoluene	126		11.966				ND	
106 1,3,5-Trimethylbenzene	105		11.997				ND	
107 4-Chlorotoluene	126		12.021				ND	
108 tert-Butylbenzene	119		12.307				ND	
109 Pentachloroethane	167		12.338				ND	
110 1,2,4-Trimethylbenzene	105		12.368				ND	
111 1,2-dichloro-4-(trifluorom	214		12.411				ND	
112 sec-Butylbenzene	105		12.532				ND	
113 1,3-Dichlorobenzene	146		12.648				ND	
114 4-Isopropyltoluene	119		12.690				ND	
115 1,4-Dichlorobenzene	146		12.751				ND	
117 1,2,3-Trimethylbenzene	105		12.776				ND	
116 2,4-Dichloro-1-(triflourom	214		12.782				ND	
118 2,5-Dichlorobenzotrifluori	214		12.824				ND	
119 Benzyl chloride	91		12.867				ND	
120 n-Butylbenzene	91		13.098				ND	
121 1,2-Dichlorobenzene	146		13.110				ND	
122 1,2-Dibromo-3-Chloropropan	75		13.901				ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.047				ND	
124 1,3,5-Trichlorobenzene	180		14.090				ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.461				ND	
126 1,2,4-Trichlorobenzene	180		14.728				ND	
127 Hexachlorobutadiene	225		14.868				ND	
128 Naphthalene	128		14.990				ND	
129 1,2,3-Trichlorobenzene	180		15.215				ND	
131 2,4,5-Trichlorotoluene	159		15.994				ND	
130 2,3,6-Trichlorotoluene	159		16.091				ND	
132 2-Methylnaphthalene	142		16.134				ND	
151 Isooctane	57		0.000				ND	
146 2,5-Dichlorotoluene	1		0.000				ND	
148 2,3-Dichlorotoluene	1		0.000				ND	
147 2,4-Dichlorotoluene	1		0.000				ND	
149 3,4-Dichlorotoluene	1		0.000				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
152 Formaldehyde TIC	1		0.000				ND	
150 2,6-Dichlorotoluene	1		0.000				ND	
S 133 Xylenes, Total	106		1.000				ND	
S 134 1,2-Dichloroethene, Total	96				0		75.5	
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_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918007.D

Injection Date: 18-Sep-2015 14:16:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-47781-C-9

Lab Sample ID: 180-47781-9

Worklist Smp#: 7

Client ID: HD-COD-SW-17-0/1-0

Purge Vol: 5.000 mL

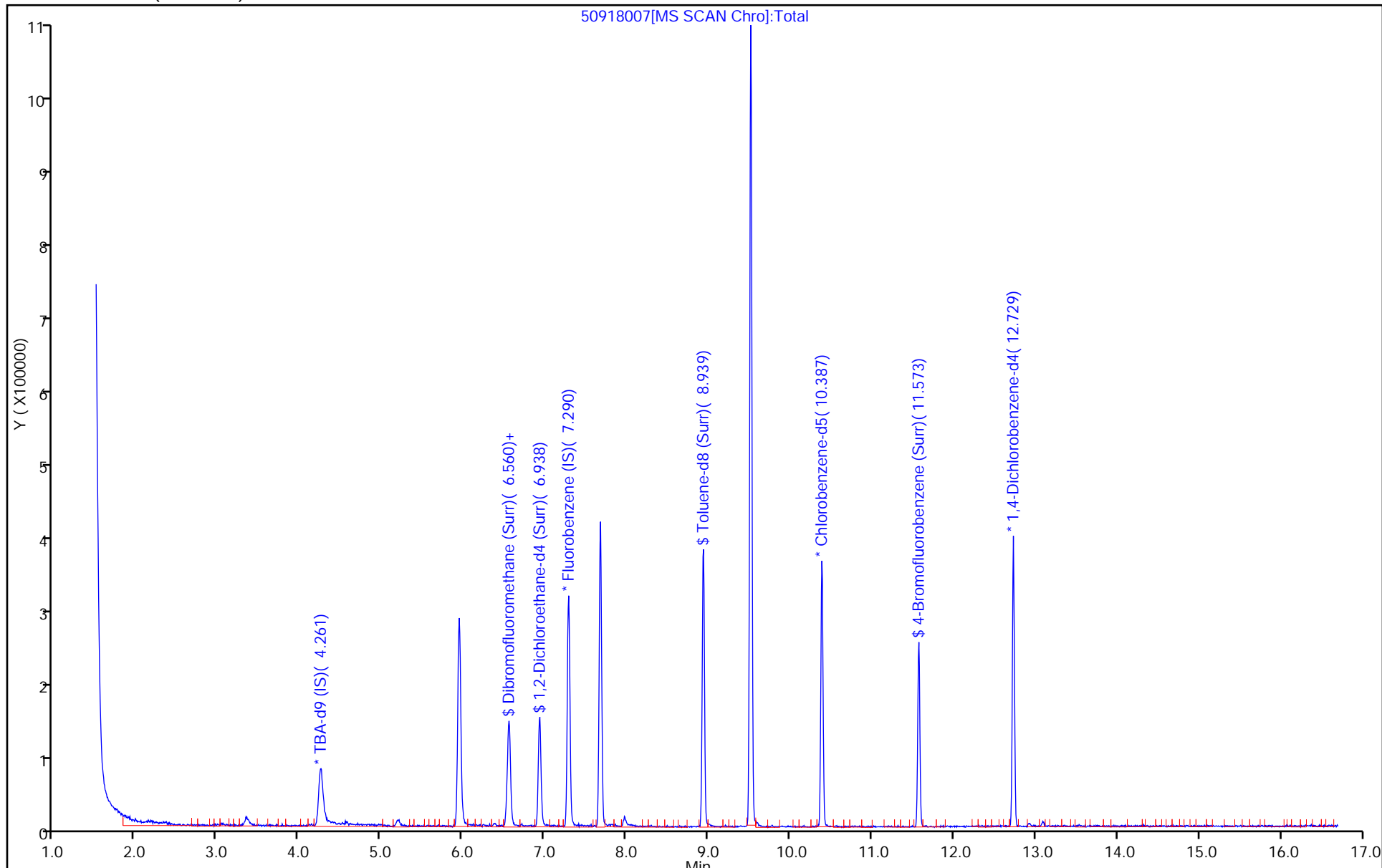
Dil. Factor: 1.0000

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\20150918-8580.b\50918007.D

Injection Date: 18-Sep-2015 14:16:30

Instrument ID: CHHP5

Lims ID: 180-47781-C-9

Lab Sample ID: 180-47781-9

Client ID: HD-COD-SW-17-0/1-0

Operator ID: 001562

ALS Bottle#: 6

Worklist Smp#: 7

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

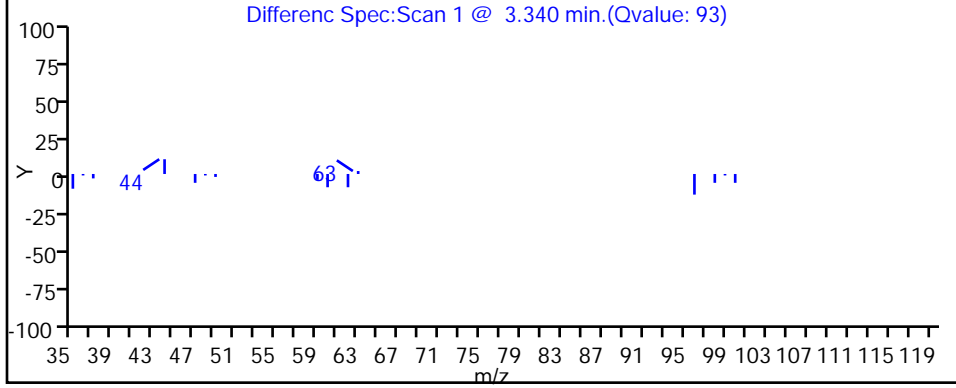
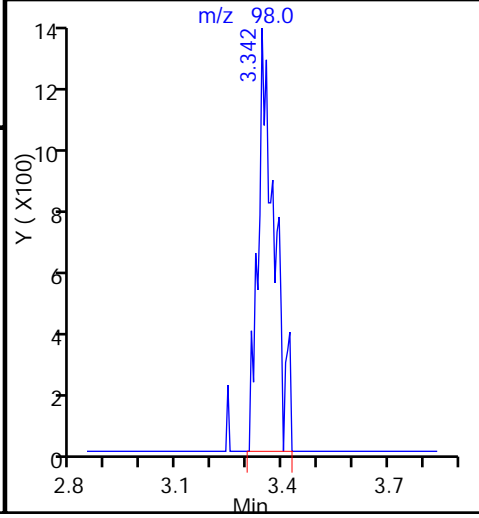
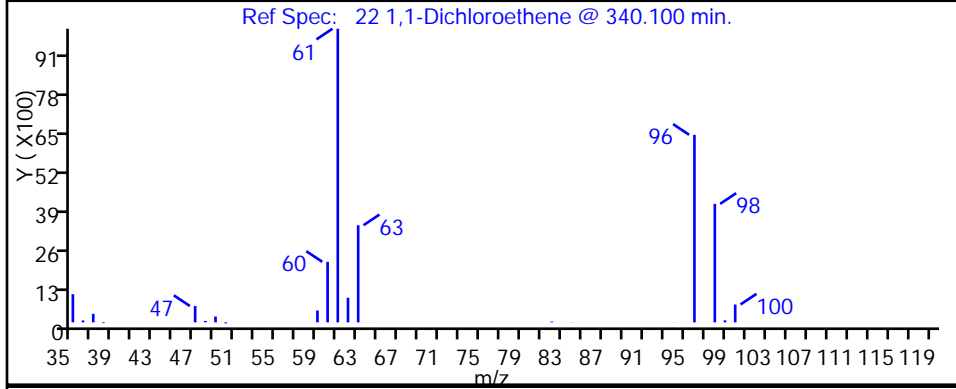
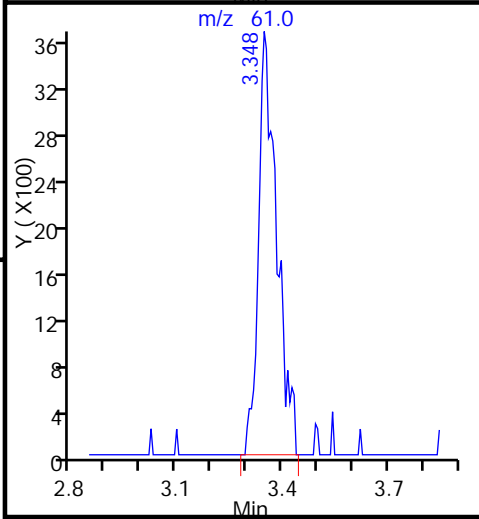
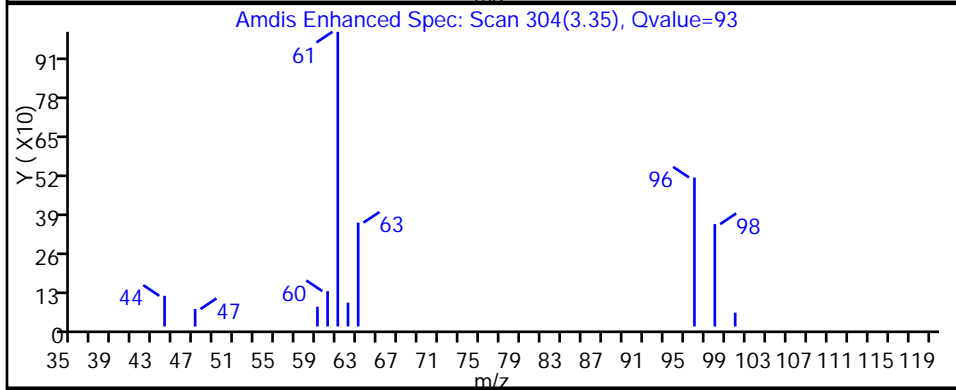
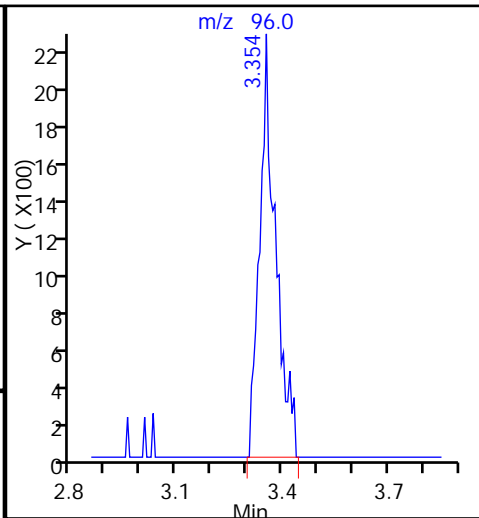
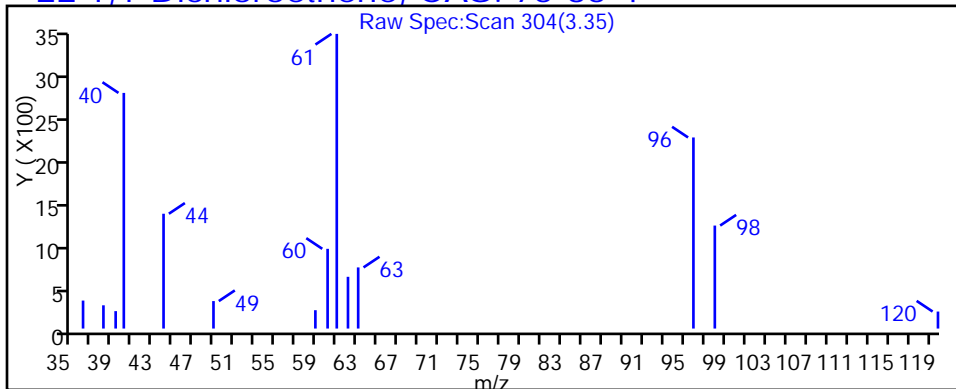
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918007.D

Injection Date: 18-Sep-2015 14:16:30

Instrument ID: CHHP5

Lims ID: 180-47781-C-9

Lab Sample ID: 180-47781-9

Client ID: HD-COD-SW-17-0/1-0

Operator ID: 001562

ALS Bottle#: 6

Worklist Smp#: 7

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

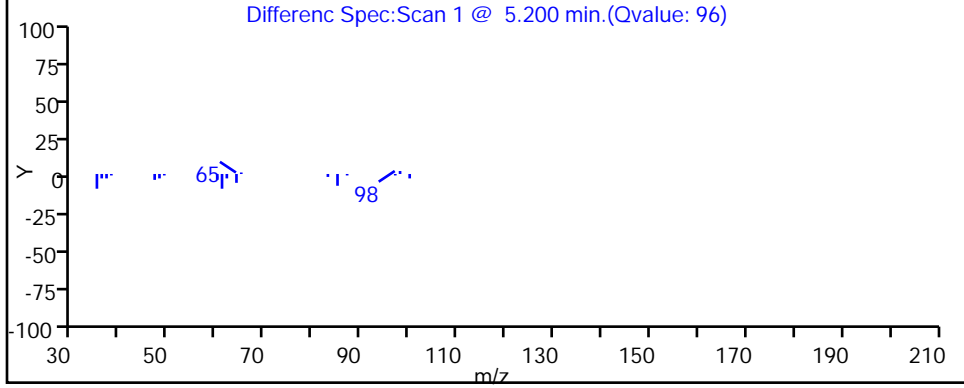
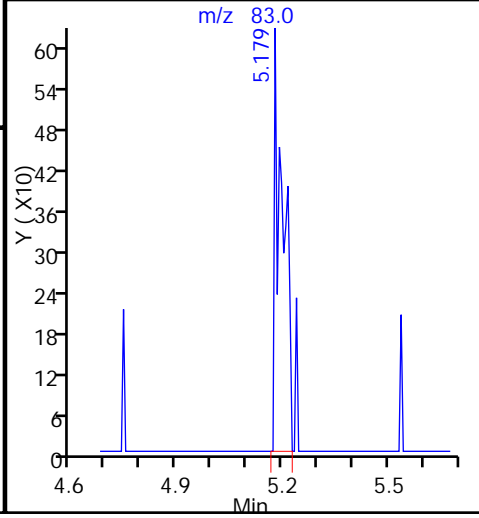
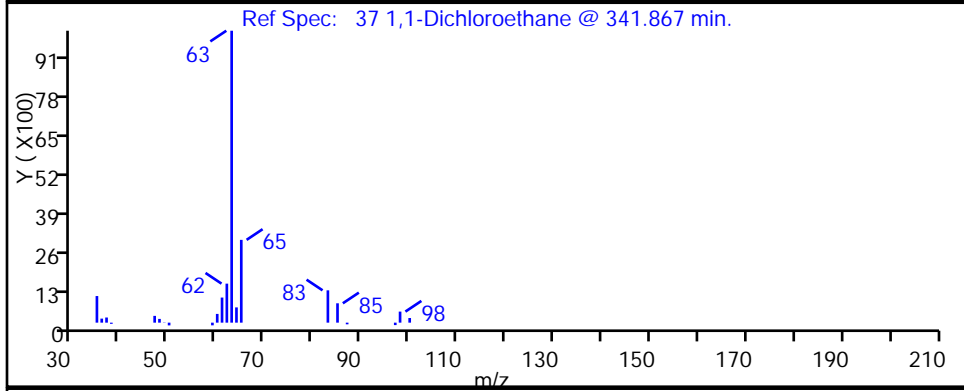
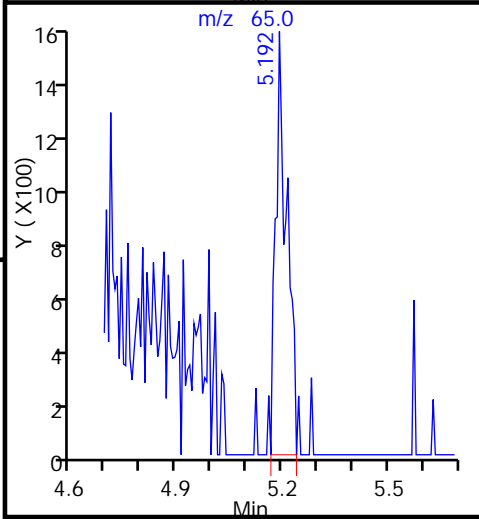
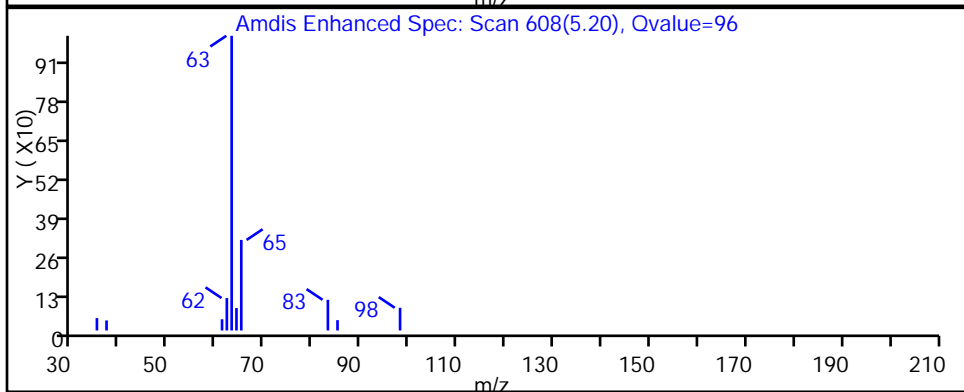
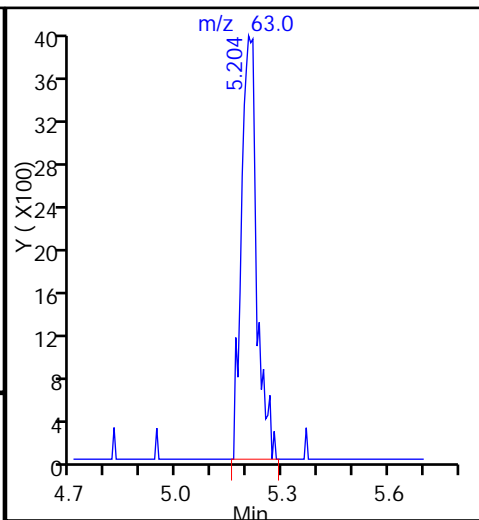
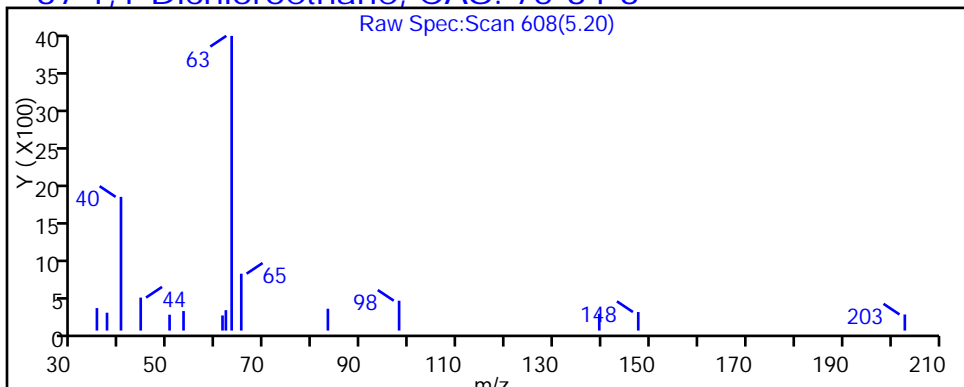
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918007.D

Injection Date: 18-Sep-2015 14:16:30

Instrument ID: CHHP5

Lims ID: 180-47781-C-9

Lab Sample ID: 180-47781-9

Client ID: HD-COD-SW-17-0/1-0

Operator ID: 001562

ALS Bottle#: 6

Worklist Smp#: 7

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

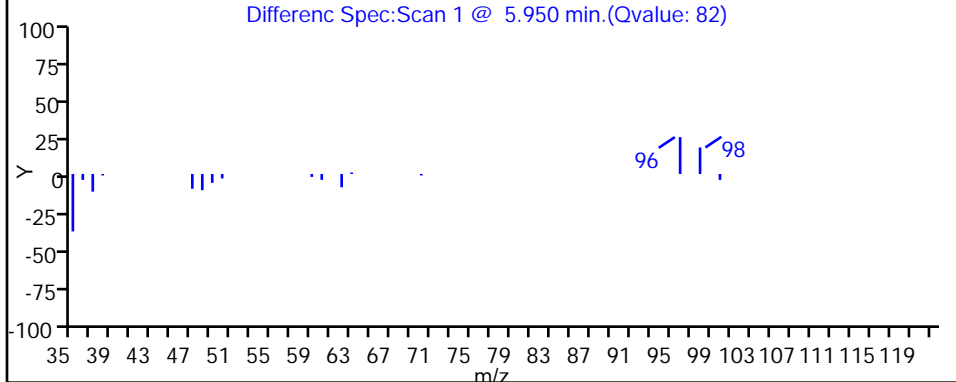
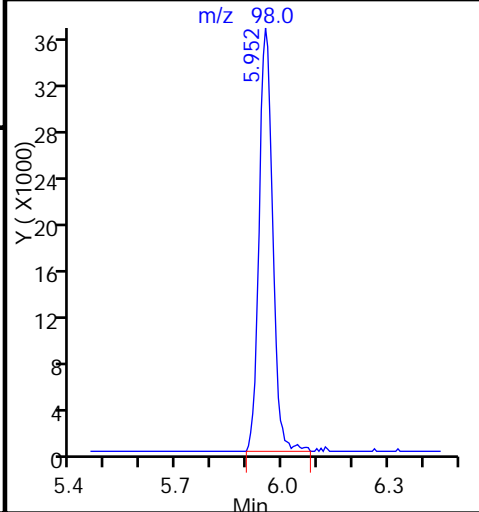
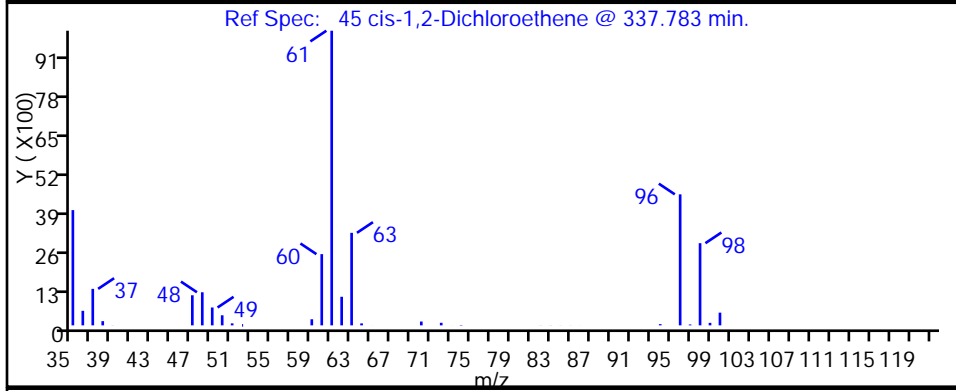
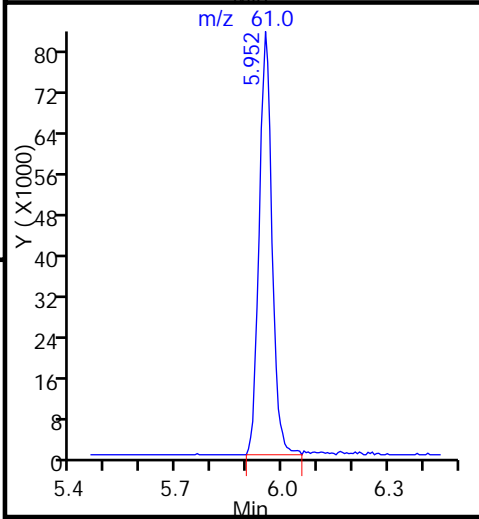
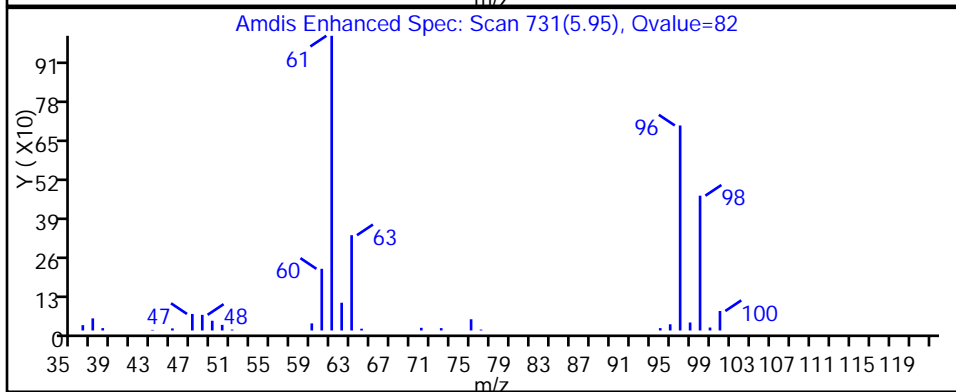
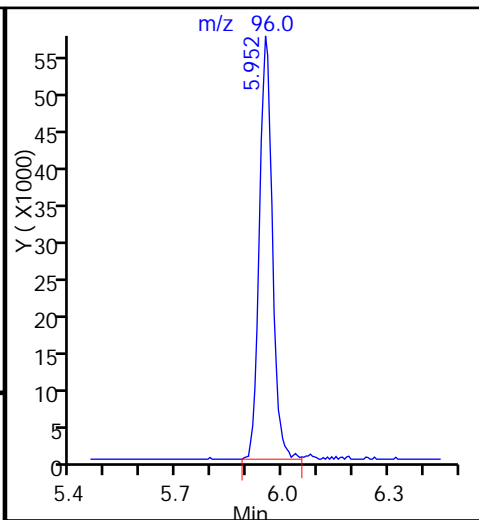
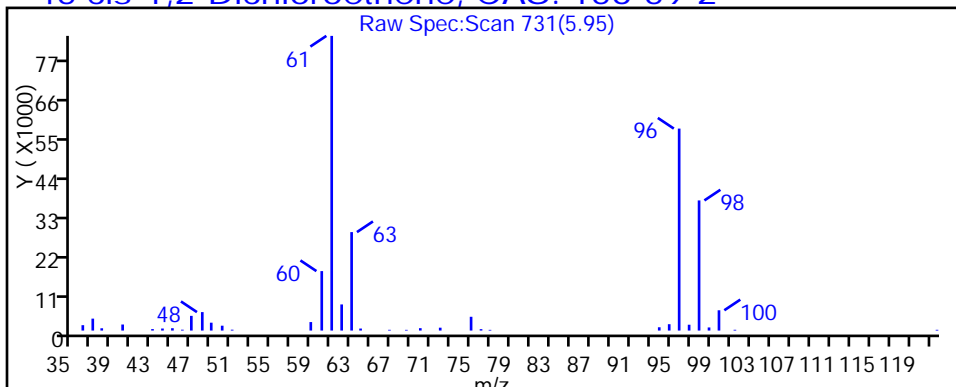
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918007.D

Injection Date: 18-Sep-2015 14:16:30

Instrument ID: CHHP5

Lims ID: 180-47781-C-9

Lab Sample ID: 180-47781-9

Client ID: HD-COD-SW-17-0/1-0

Operator ID: 001562

ALS Bottle#: 6

Worklist Smp#: 7

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

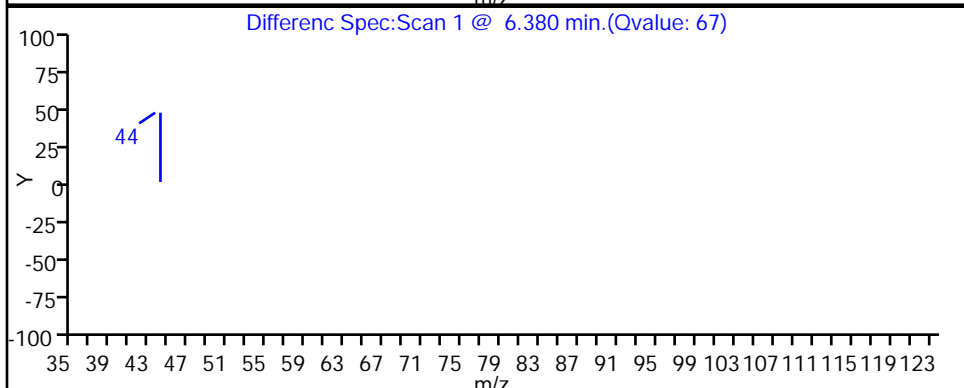
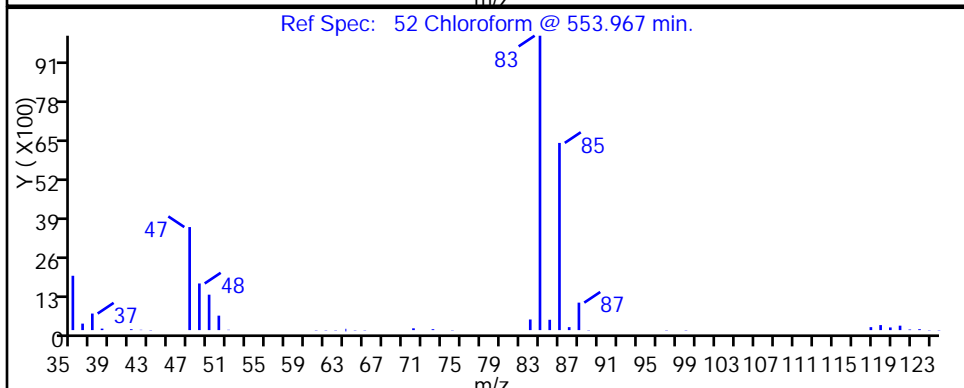
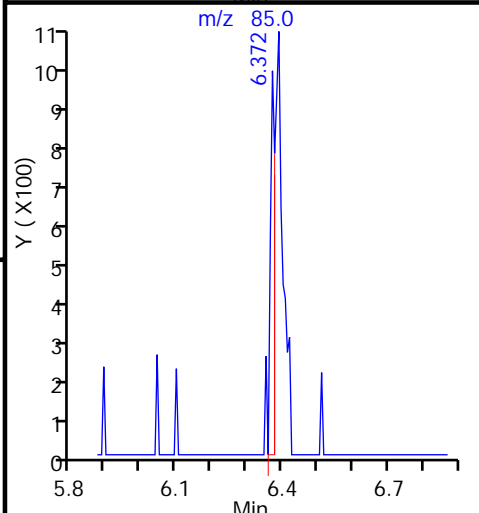
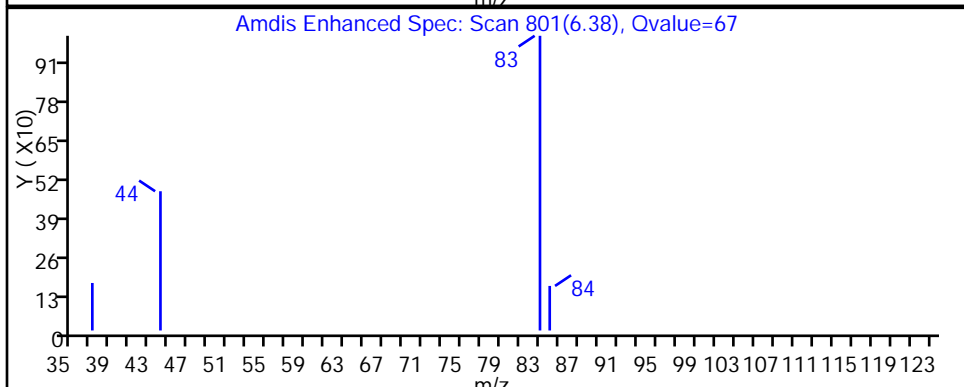
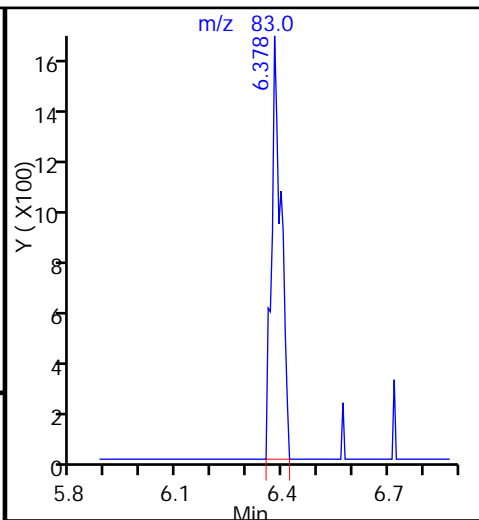
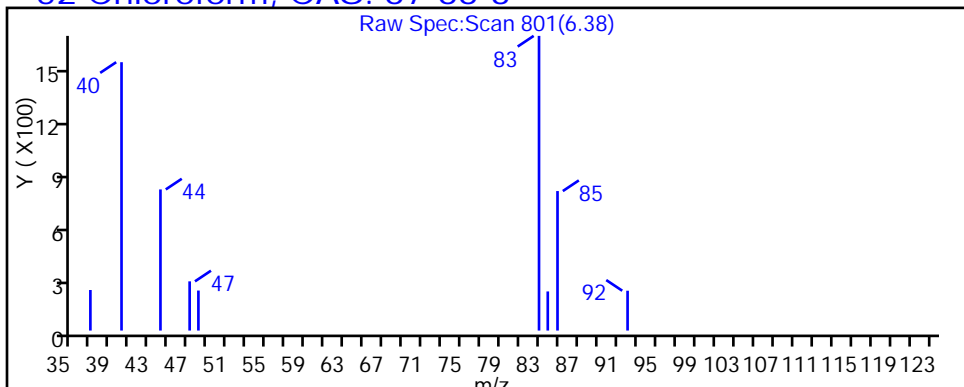
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

52 Chloroform, CAS: 67-66-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918007.D

Injection Date: 18-Sep-2015 14:16:30

Instrument ID: CHHP5

Lims ID: 180-47781-C-9

Lab Sample ID: 180-47781-9

Client ID: HD-COD-SW-17-0/1-0

Operator ID: 001562

ALS Bottle#: 6

Worklist Smp#: 7

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

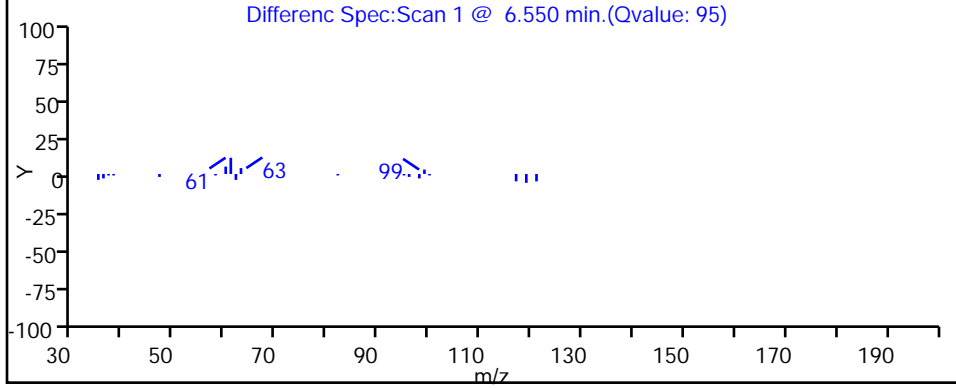
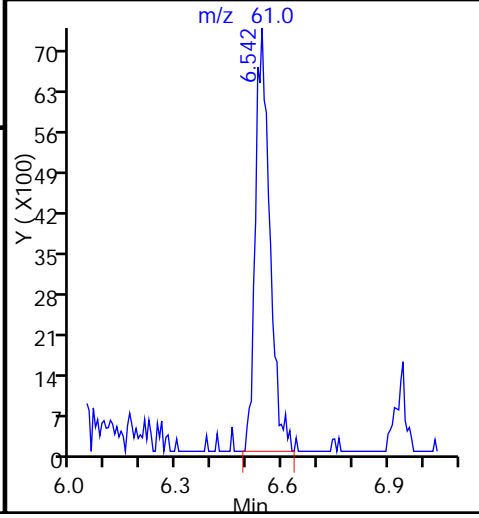
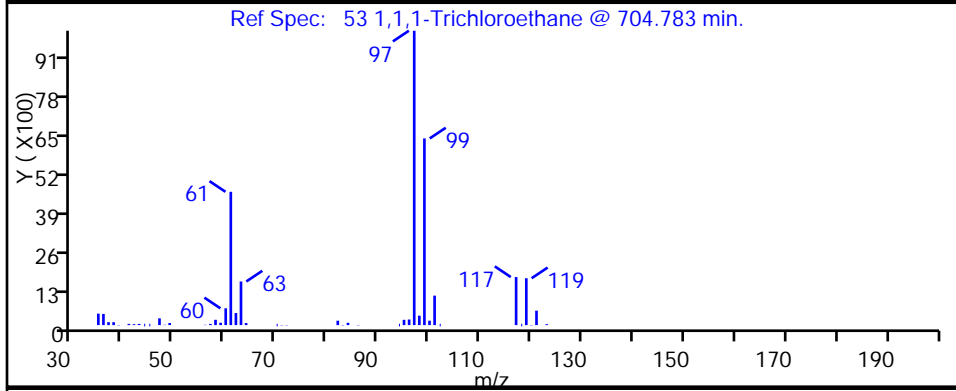
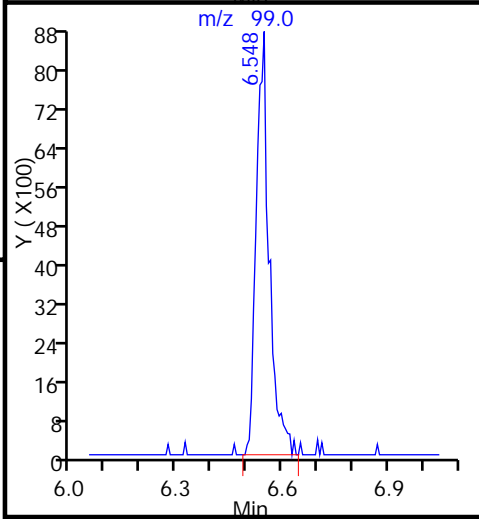
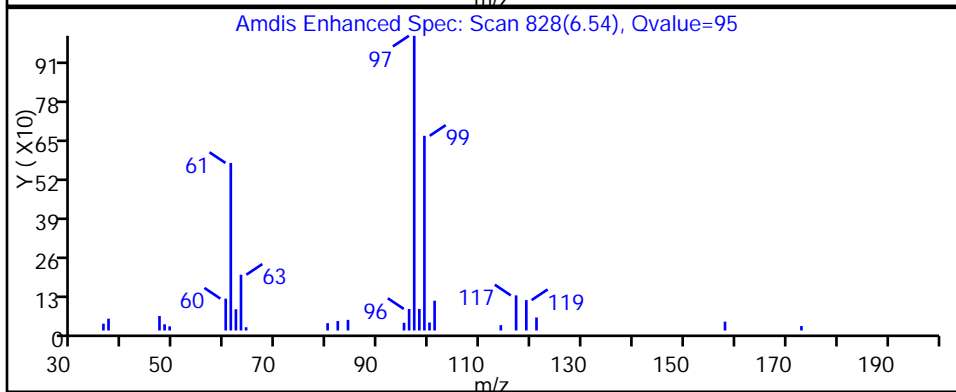
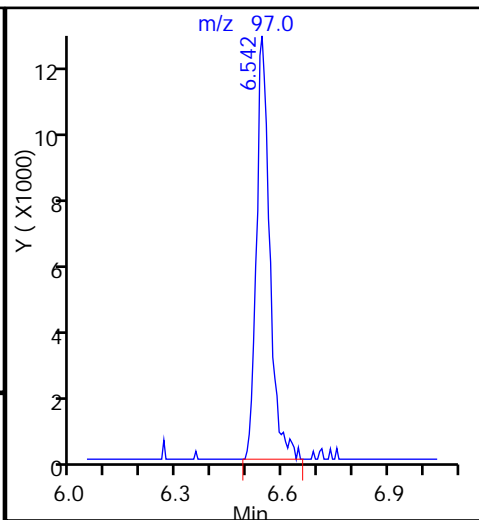
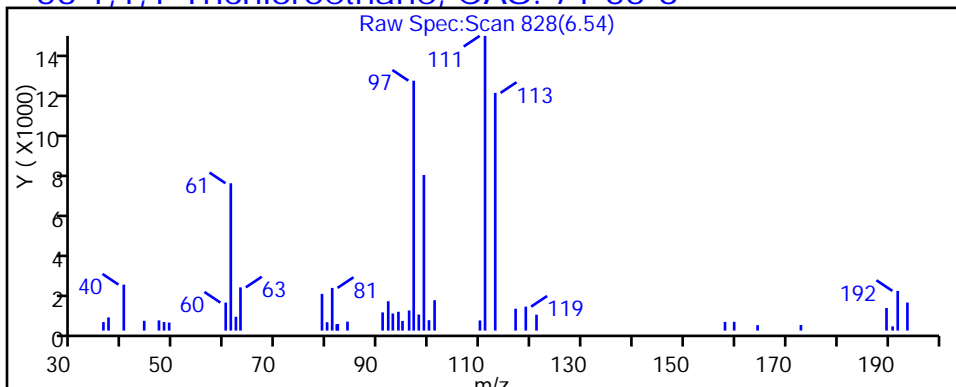
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918007.D

Injection Date: 18-Sep-2015 14:16:30

Instrument ID: CHHP5

Lims ID: 180-47781-C-9

Lab Sample ID: 180-47781-9

Client ID: HD-COD-SW-17-0/1-0

Operator ID: 001562

ALS Bottle#: 6

Worklist Smp#: 7

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

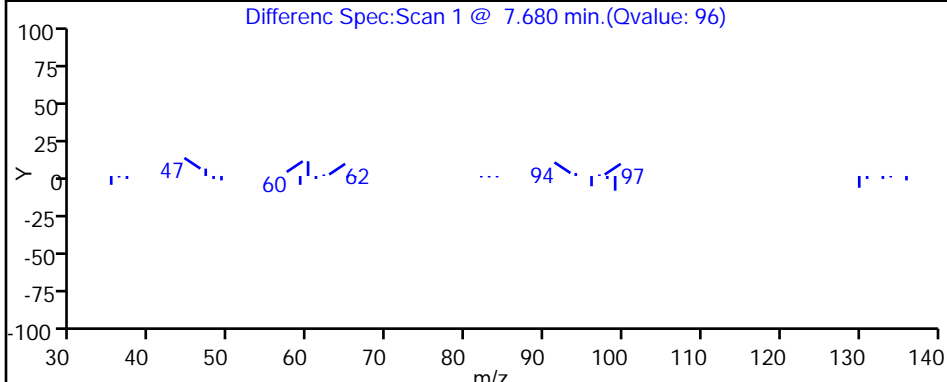
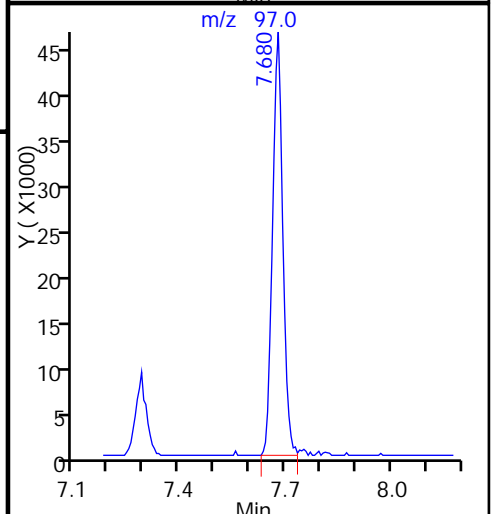
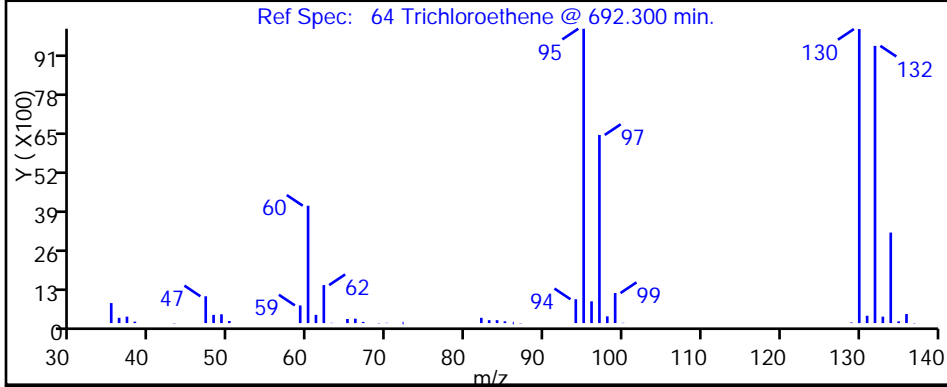
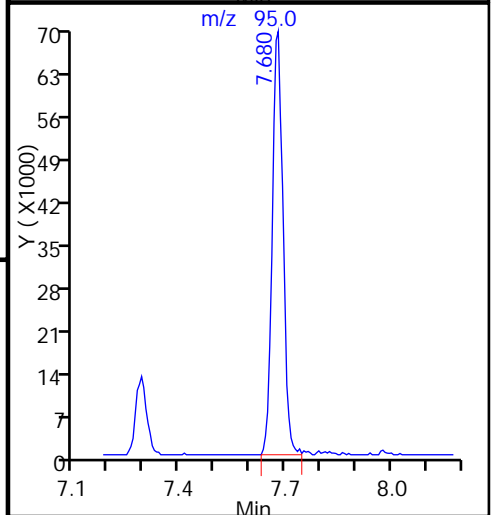
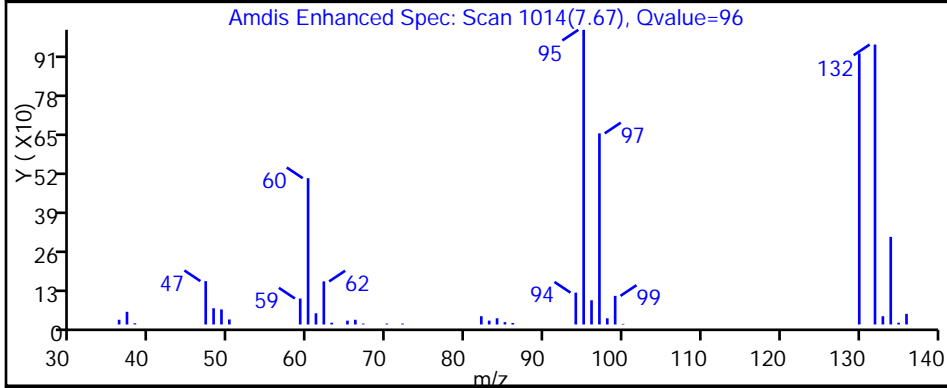
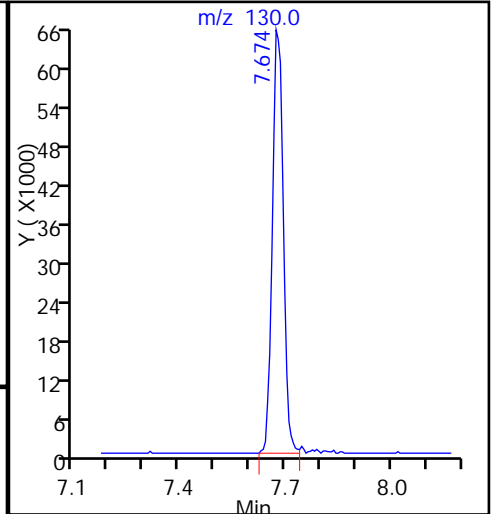
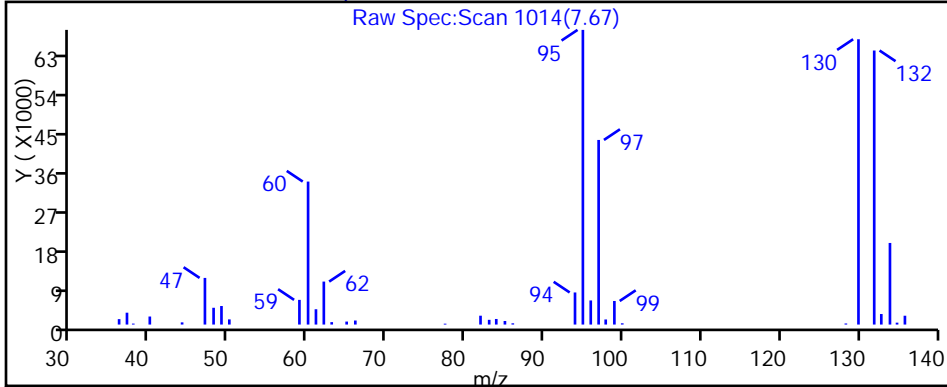
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918007.D

Injection Date: 18-Sep-2015 14:16:30

Instrument ID: CHHP5

Lims ID: 180-47781-C-9

Lab Sample ID: 180-47781-9

Client ID: HD-COD-SW-17-0/1-0

Operator ID: 001562

ALS Bottle#: 6

Worklist Smp#: 7

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

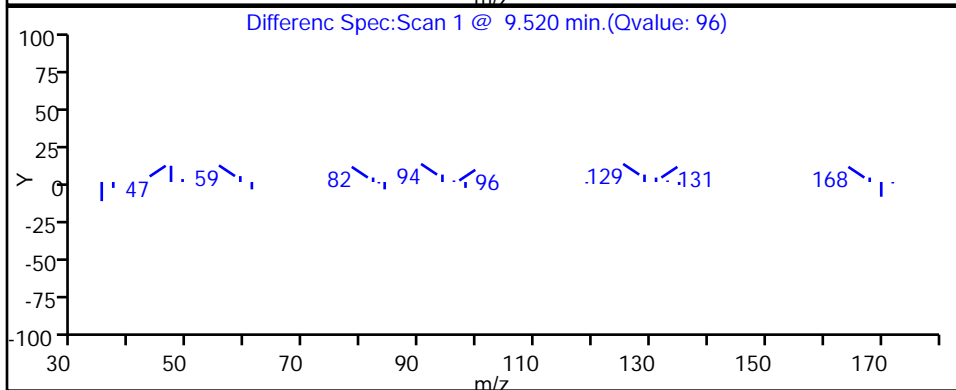
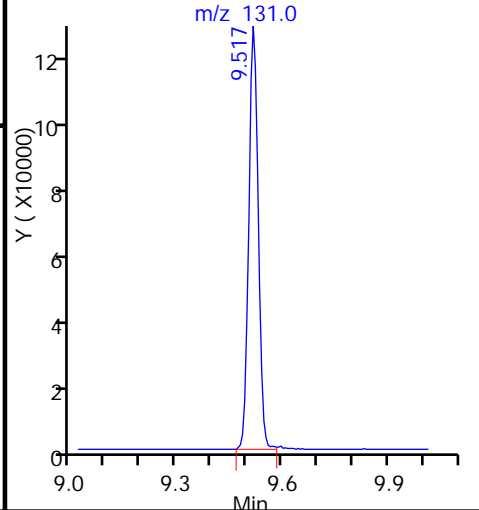
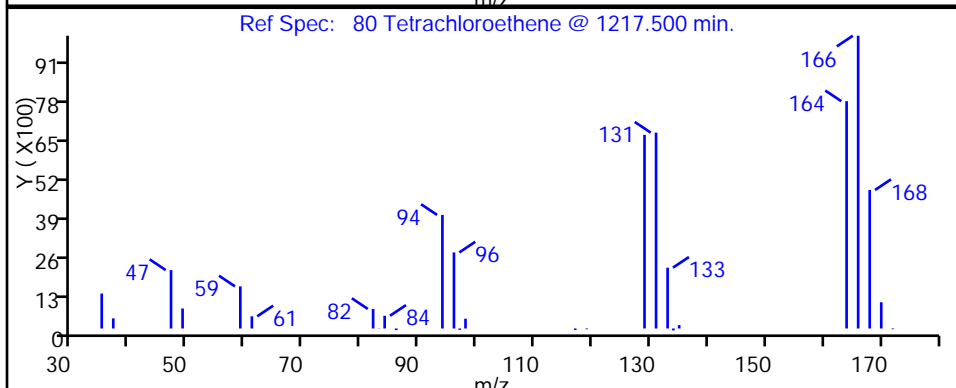
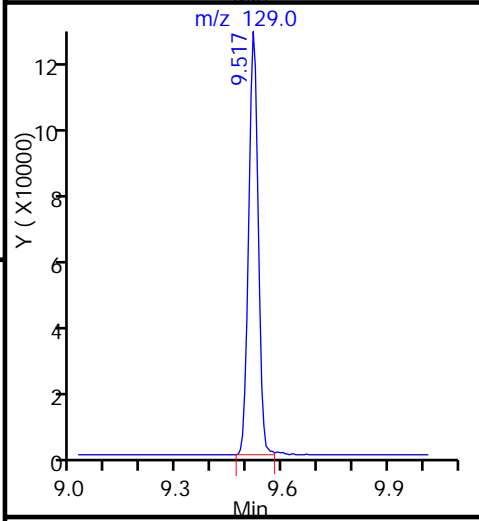
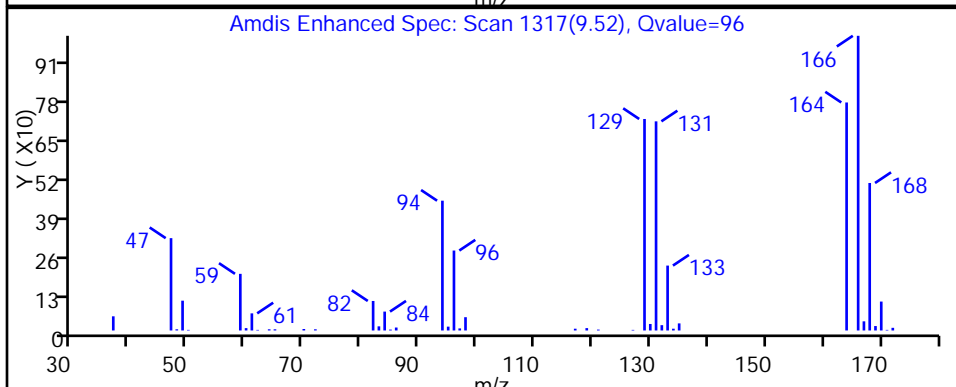
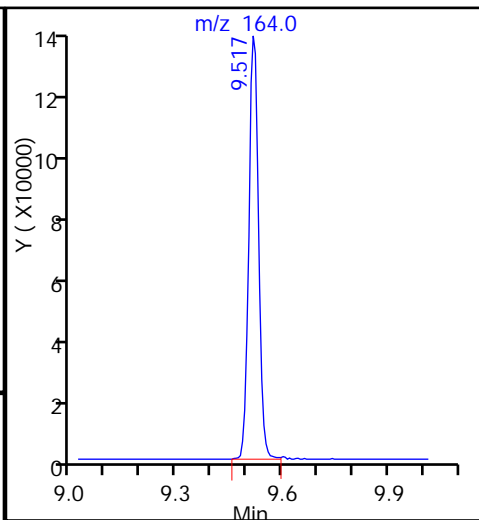
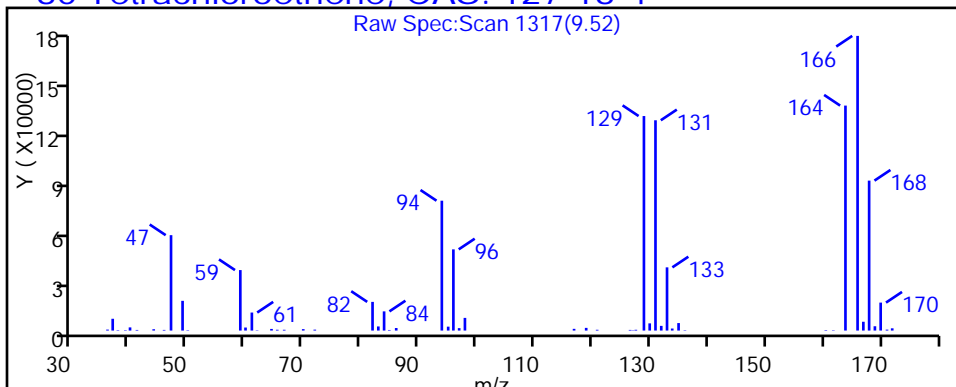
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4





FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 180-47781-10  
 Matrix: Water Lab File ID: 60923017.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 11:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 17:45  
 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.: 154553 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	0.28	J	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0		1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	0.44	J	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	4.8		1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 180-47781-10  
 Matrix: Water Lab File ID: 60923017.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 11:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 17:45  
 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.: 154553 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	113		64-135
2037-26-5	Toluene-d8 (Surr)	101		71-118
460-00-4	4-Bromofluorobenzene (Surr)	90		70-118
1868-53-7	Dibromofluoromethane (Surr)	115		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923017.D  
 Lims ID: 180-47781-C-10 Lab Sample ID: 180-47781-10  
 Client ID: HD-COD-SW-26-0/1-0  
 Sample Type: Client  
 Inject. Date: 23-Sep-2015 17:45:30 ALS Bottle#: 17 Worklist Smp#: 17  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-47781-C-10  
 Misc. Info.: 180-0008638-017  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 24-Sep-2015 07:58:13 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: XAWRK003

First Level Reviewer: fergusond

Date: 24-Sep-2015 07:58:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.229	4.236	-0.007	87	164900	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.284	0.005	98	441132	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	91	108842	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.747	-0.001	98	171012	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.553	6.548	0.005	92	117315	57.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.925	0.005	70	184920	56.4	
\$ 7 Toluene-d8 (Surr)	98	8.944	8.938	0.006	94	432429	50.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.585	-0.001	83	171752	45.1	
12 Chloromethane	50	1.765	1.760	0.005	40	2312	0.8782	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.222				ND	
16 Chloroethane	64		2.374				ND	
22 1,1-Dichloroethene	96	3.341	3.336	0.005	34	2685	1.21	M
24 Acetone	43	3.456	3.415	0.041	65	4422	5.67	M
26 Carbon disulfide	76		3.634				ND	
31 Methylene Chloride	84		4.126				ND	
33 Acrylonitrile	53		4.497				ND	
35 Methyl tert-butyl ether	73		4.564				ND	
34 trans-1,2-Dichloroethene	96		4.564				ND	
37 1,1-Dichloroethane	63		5.197				ND	
43 cis-1,2-Dichloroethene	96	5.932	5.939	-0.007	37	3874	1.39	
44 2-Butanone (MEK)	43		5.945				ND	
48 Chlorobromomethane	128		6.225				ND	
50 Chloroform	83	6.370	6.377	-0.007	93	22659	4.98	
51 1,1,1-Trichloroethane	97	6.535	6.535	0.000	1	1295	0.3849	
53 Carbon tetrachloride	117		6.712				ND	
56 Benzene	78		6.937				ND	
57 1,2-Dichloroethane	62		7.010				ND	
61 Trichloroethene	130	7.678	7.673	0.005	87	4708	2.20	
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		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.443				ND	
77 Tetrachloroethene	164	9.522	9.529	-0.006	94	46419	24.2	
79 2-Hexanone	43		9.662				ND	
81 Chlorodibromomethane	129		9.827				ND	
82 Ethylene Dibromide	107		9.942				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		11.037				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				ND	
S 131 Xylenes, Total	106		1.000				ND	

### QC Flag Legend

Review Flags

M - Manually Integrated

### Reagents:

VOA8260INT\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923017.D

Injection Date: 23-Sep-2015 17:45:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-47781-C-10

Lab Sample ID: 180-47781-10

Worklist Smp#: 17

Client ID: HD-COD-SW-26-0/1-0

Purge Vol: 5.000 mL

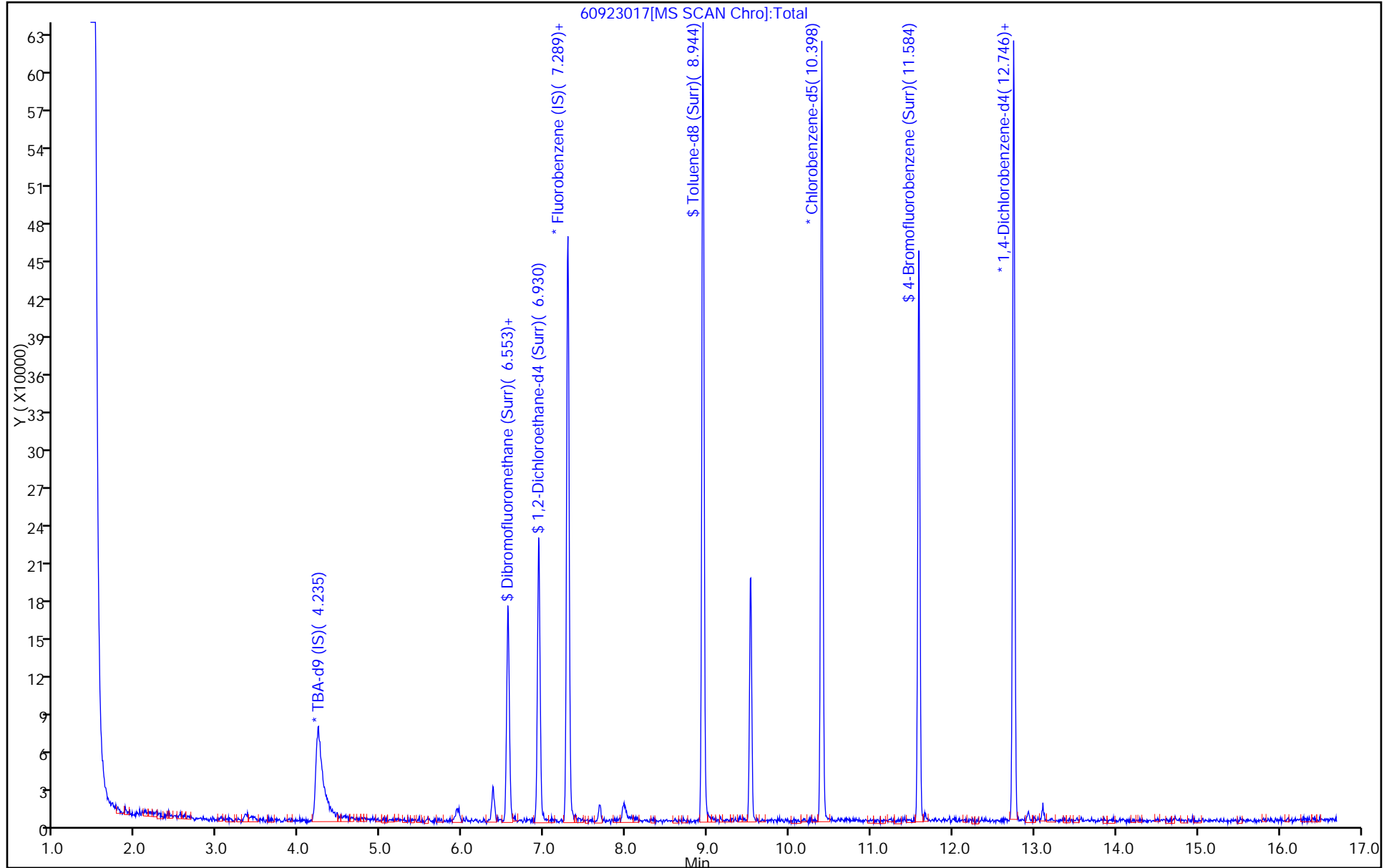
Dil. Factor: 1.0000

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\20150923-8638.b\60923017.D

Injection Date: 23-Sep-2015 17:45:30

Instrument ID: CHHP6

Lims ID: 180-47781-C-10

Lab Sample ID: 180-47781-10

Client ID: HD-COD-SW-26-0/1-0

Operator ID: 001562

ALS Bottle#: 17

Worklist Smp#: 17

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

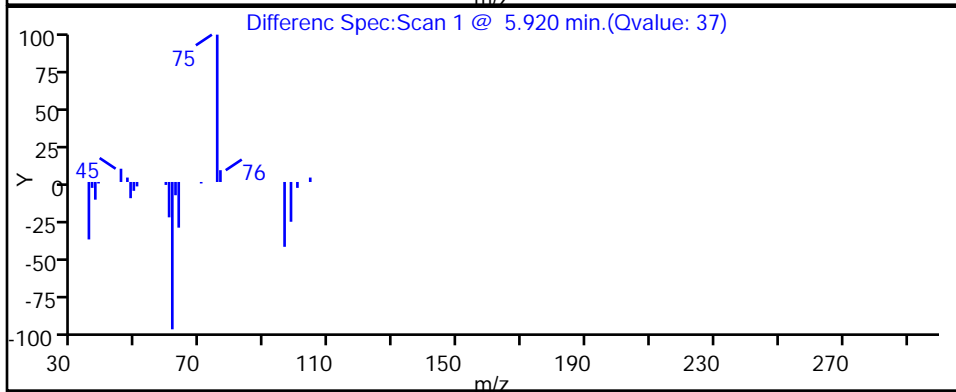
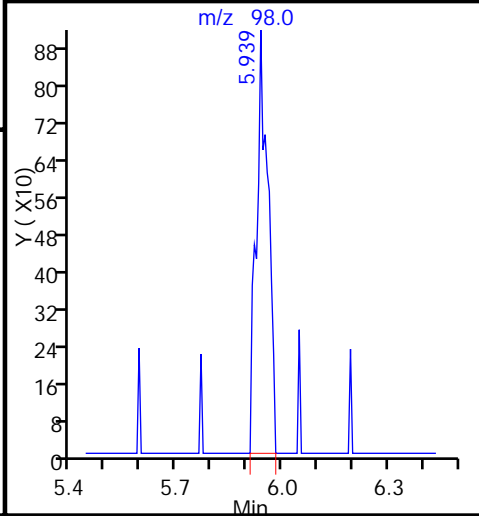
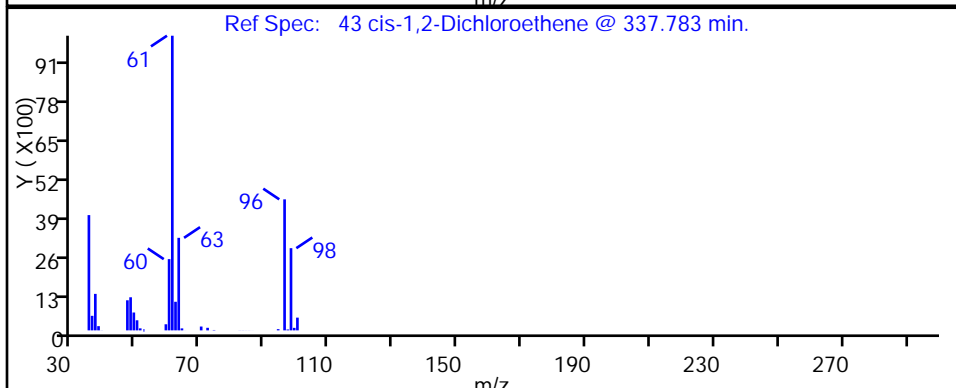
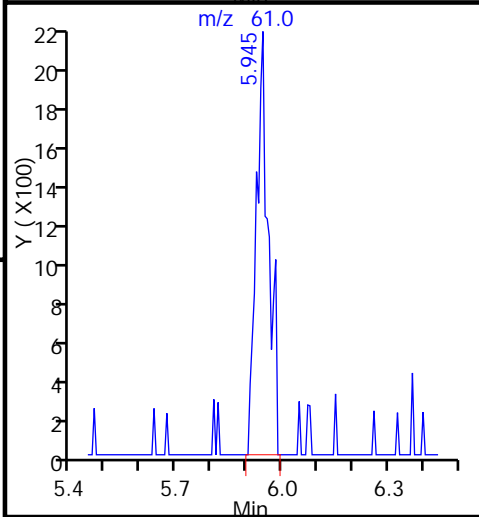
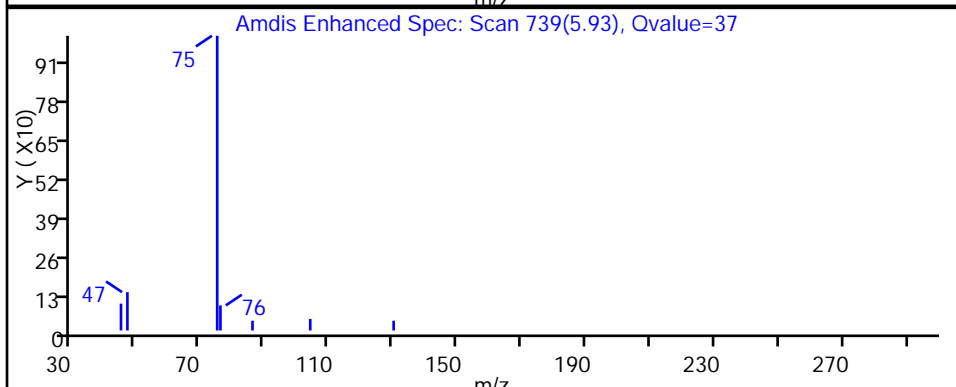
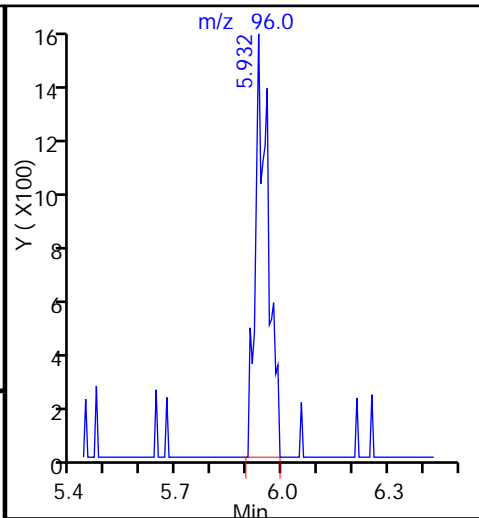
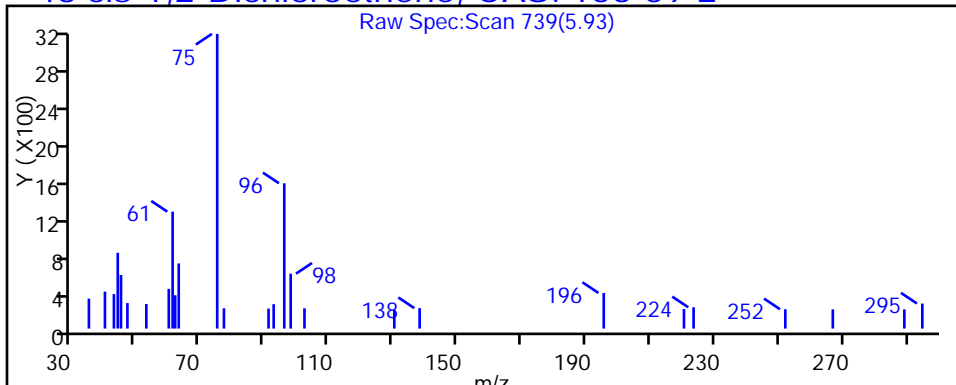
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923017.D

Injection Date: 23-Sep-2015 17:45:30

Instrument ID: CHHP6

Lims ID: 180-47781-C-10

Lab Sample ID: 180-47781-10

Client ID: HD-COD-SW-26-0/1-0

Operator ID: 001562

ALS Bottle#: 17 Worklist Smp#: 17

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

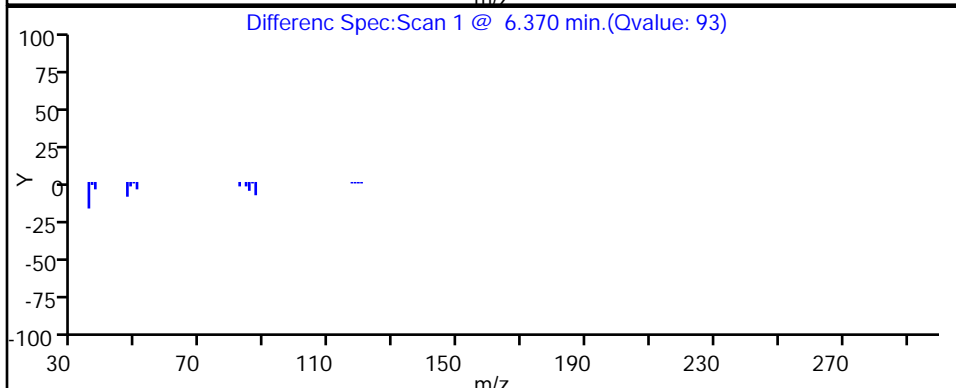
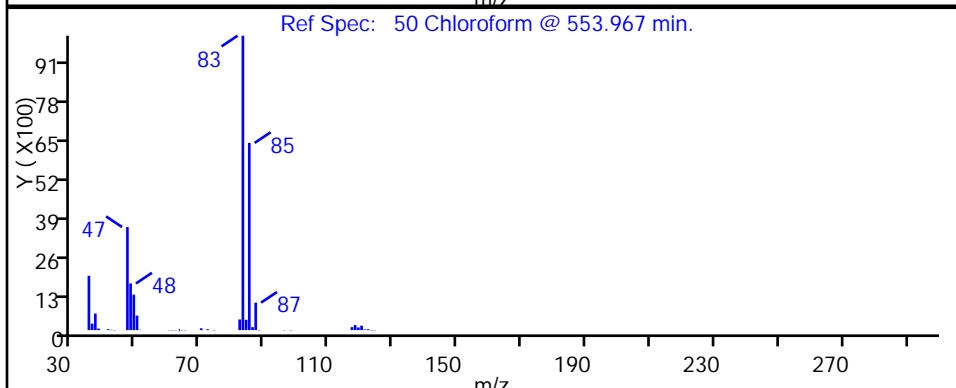
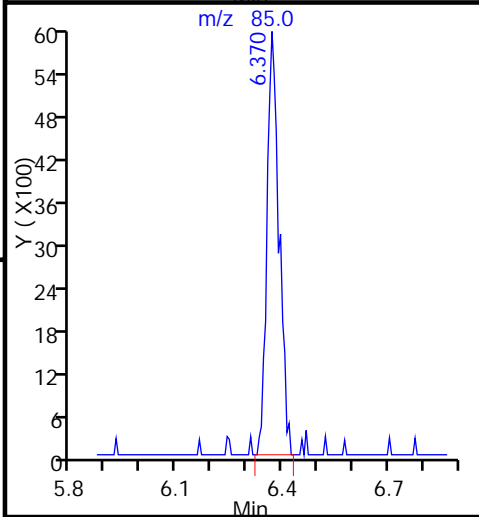
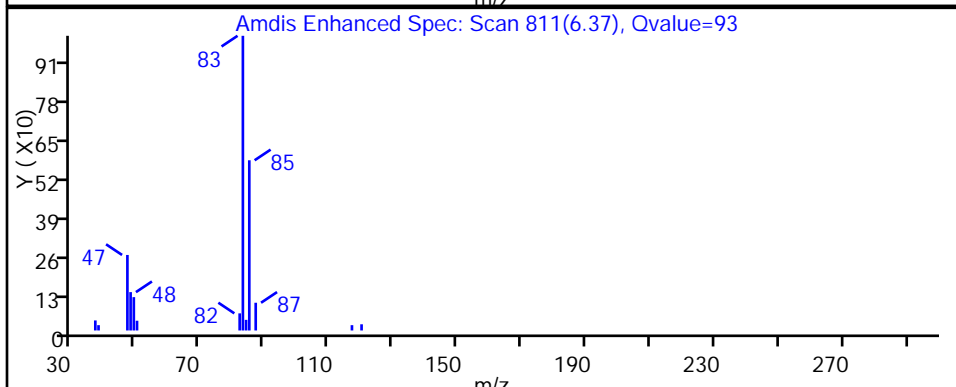
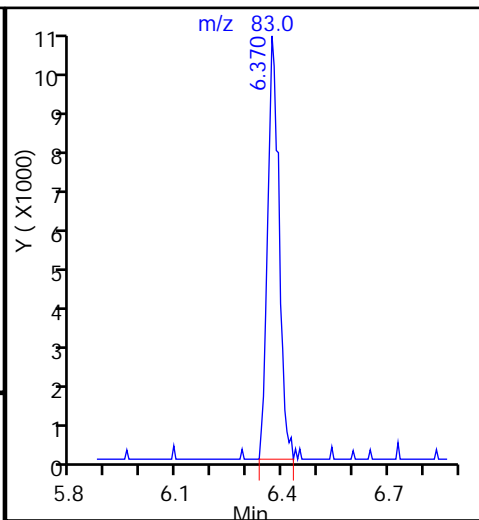
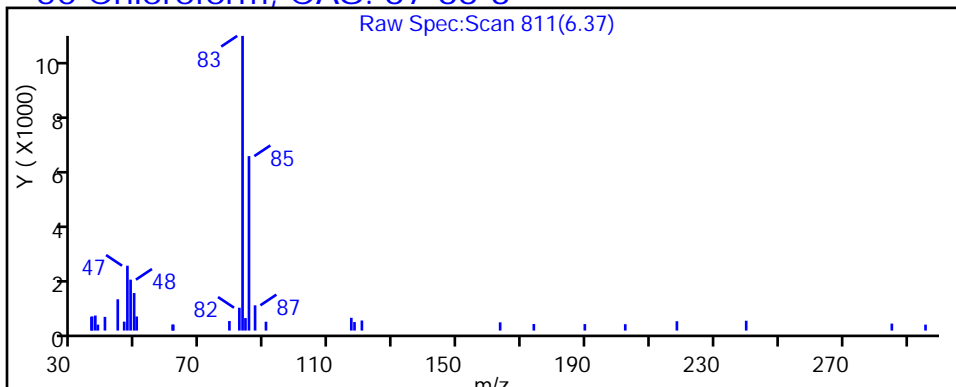
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

50 Chloroform, CAS: 67-66-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923017.D

Injection Date: 23-Sep-2015 17:45:30

Instrument ID: CHHP6

Lims ID: 180-47781-C-10

Lab Sample ID: 180-47781-10

Client ID: HD-COD-SW-26-0/1-0

Operator ID: 001562

ALS Bottle#: 17 Worklist Smp#: 17

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

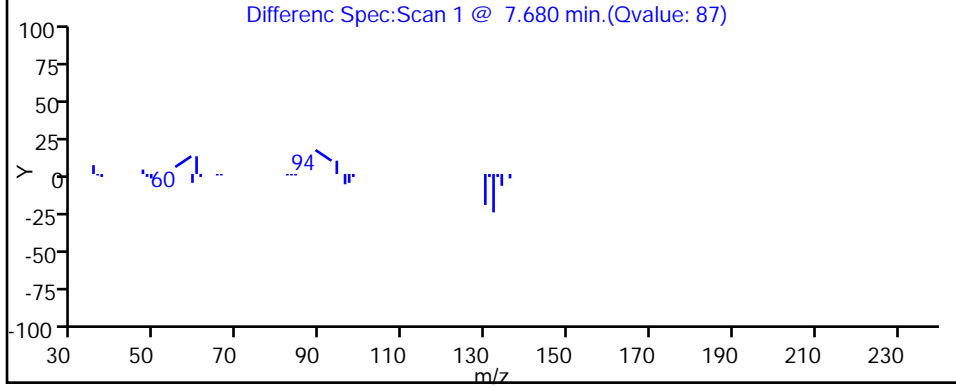
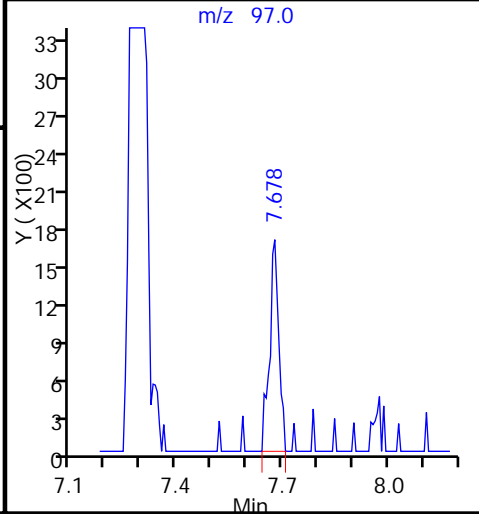
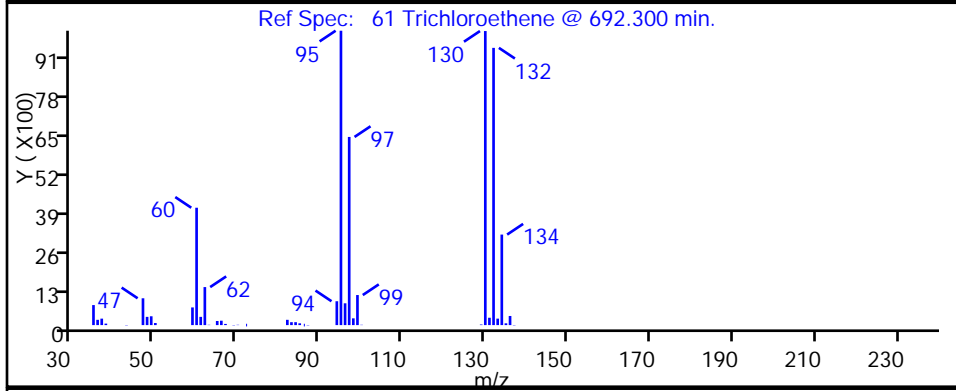
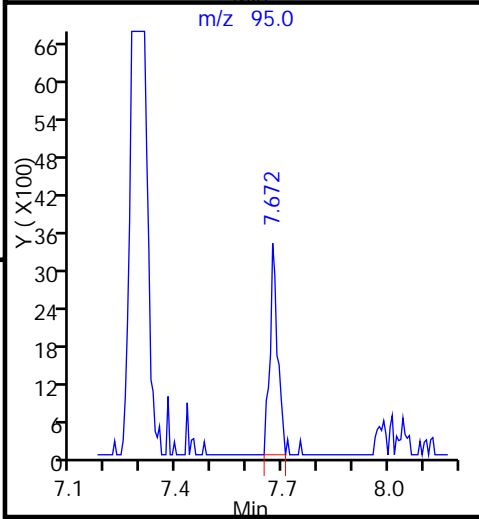
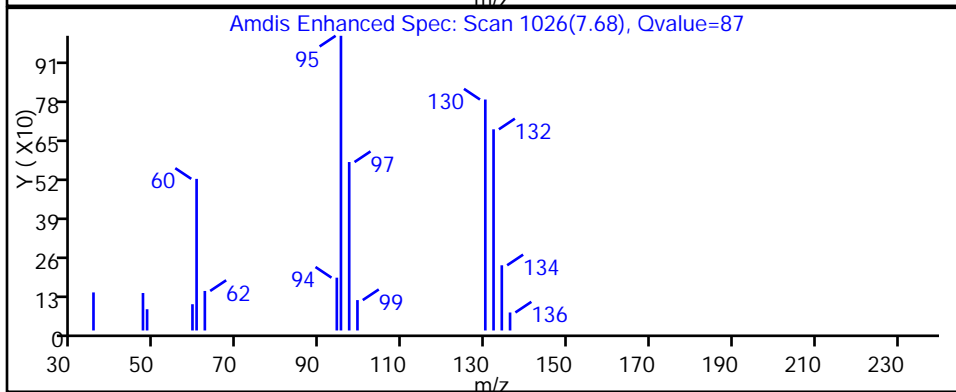
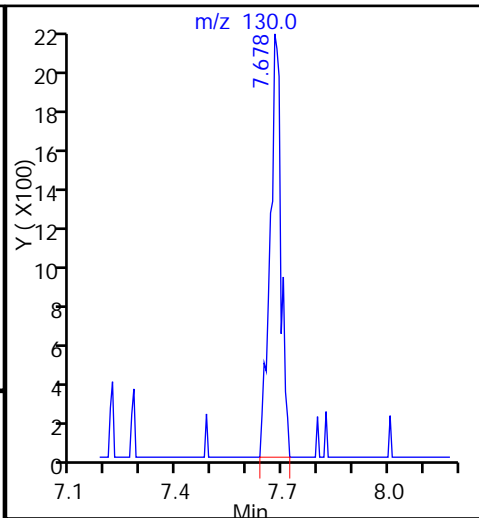
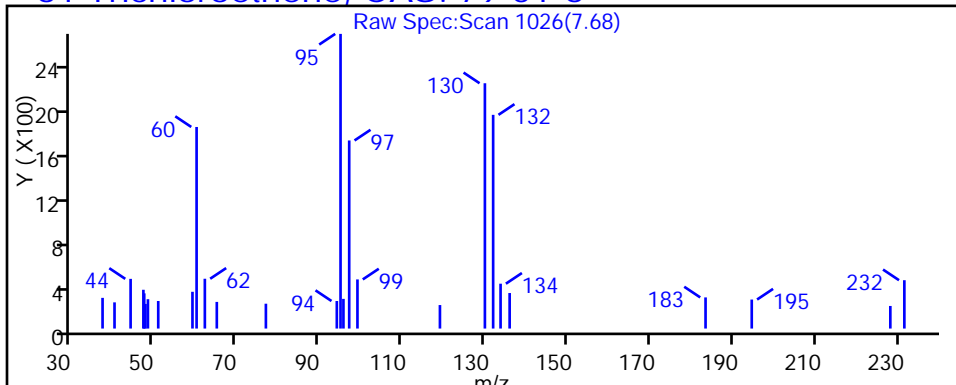
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

61 Trichloroethene, CAS: 79-01-6





TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923017.D

Injection Date: 23-Sep-2015 17:45:30

Instrument ID: CHHP6

Lims ID: 180-47781-C-10

Lab Sample ID: 180-47781-10

Client ID: HD-COD-SW-26-0/1-0

Operator ID: 001562

ALS Bottle#: 17

Worklist Smp#: 17

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

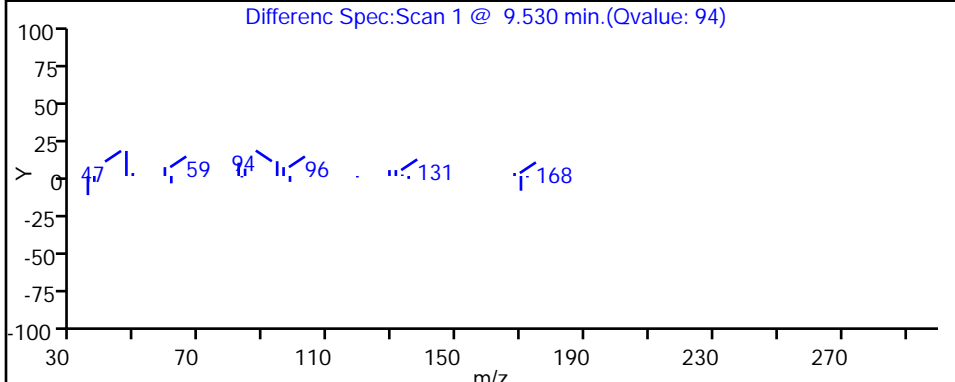
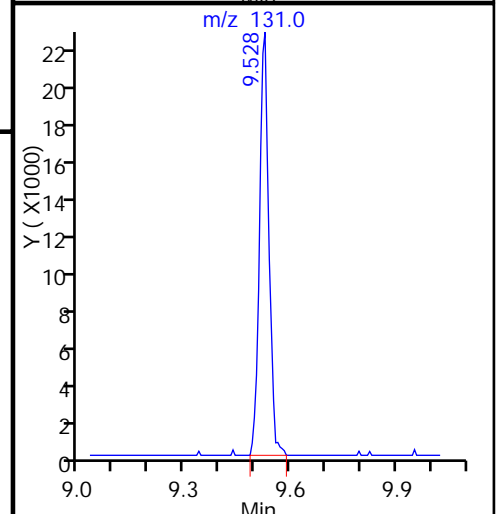
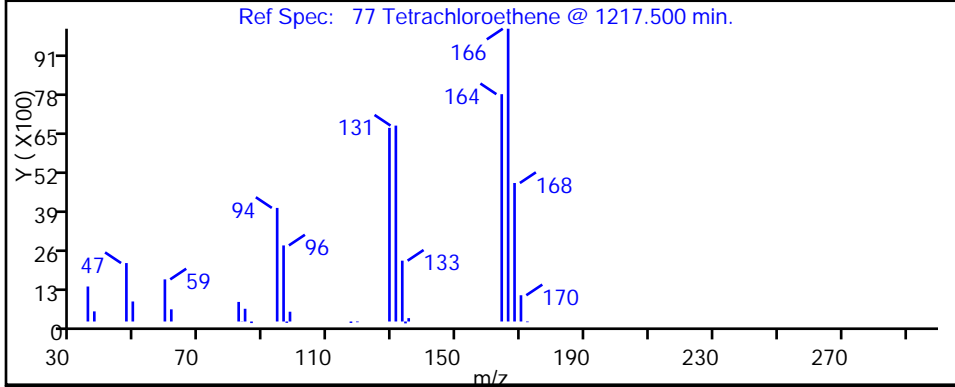
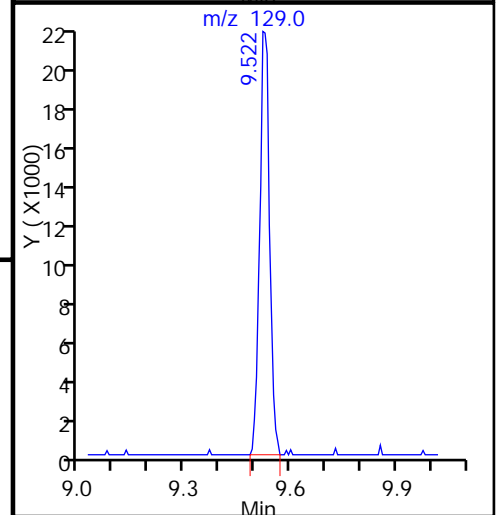
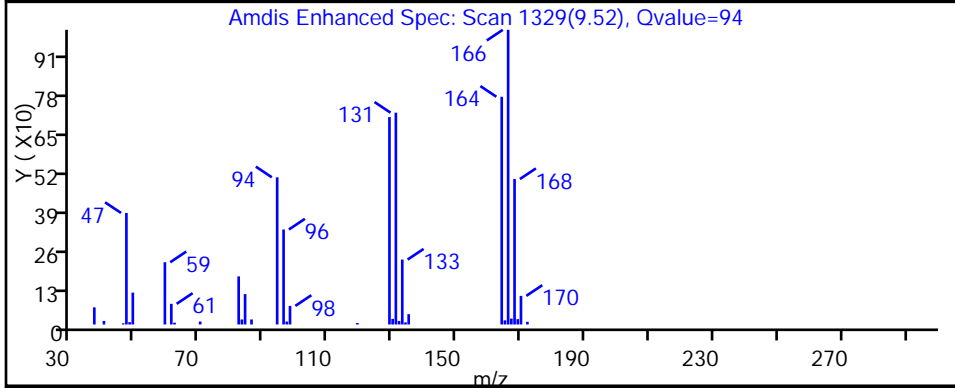
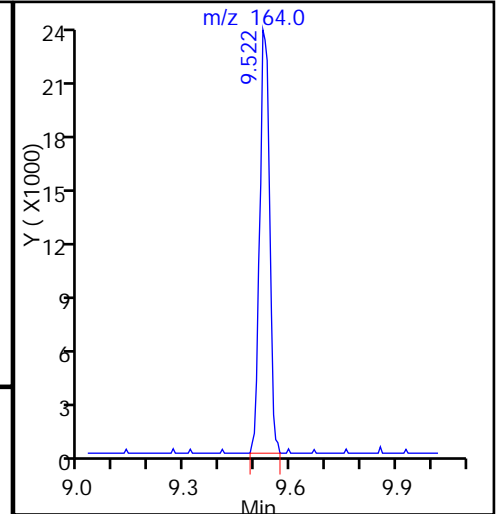
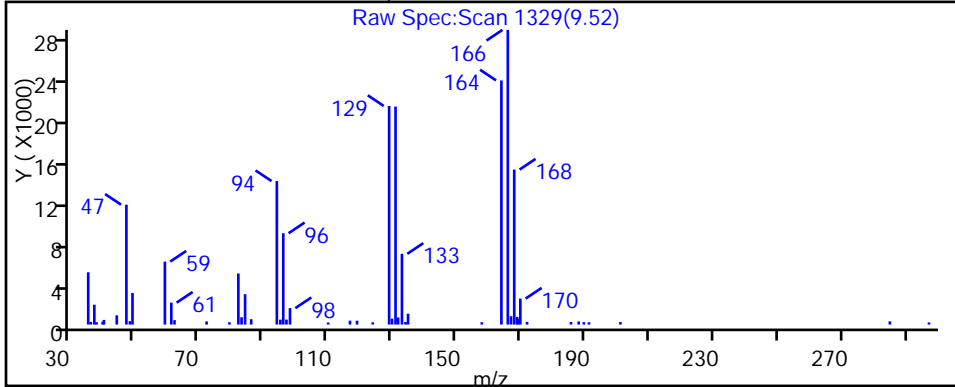
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

77 Tetrachloroethene, CAS: 127-18-4



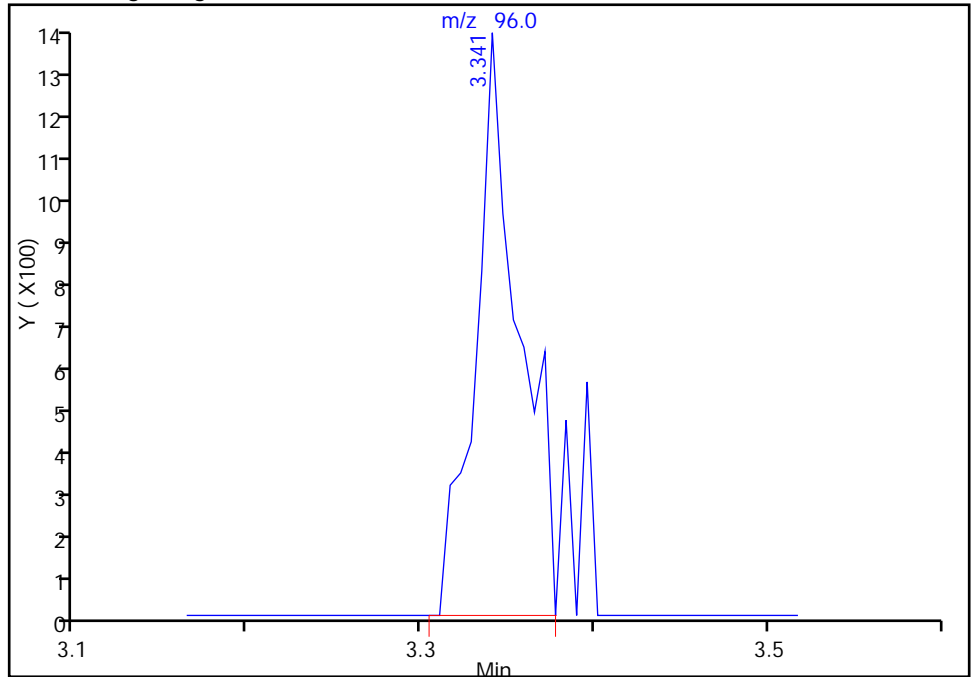
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923017.D  
Injection Date: 23-Sep-2015 17:45:30 Instrument ID: CHHP6  
Lims ID: 180-47781-C-10 Lab Sample ID: 180-47781-10  
Client ID: HD-COD-SW-26-0/1-0  
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

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

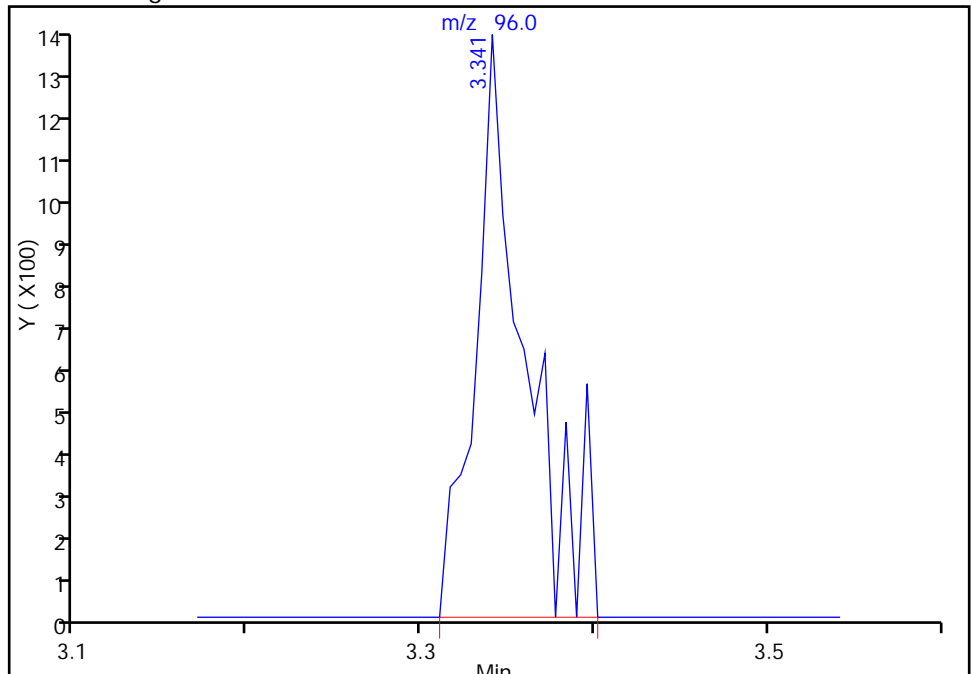
RT: 3.34  
Area: 2329  
Amount: 1.048856  
Amount Units: ng

Processing Integration Results



RT: 3.34  
Area: 2685  
Amount: 1.209179  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 24-Sep-2015 07:58:13  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

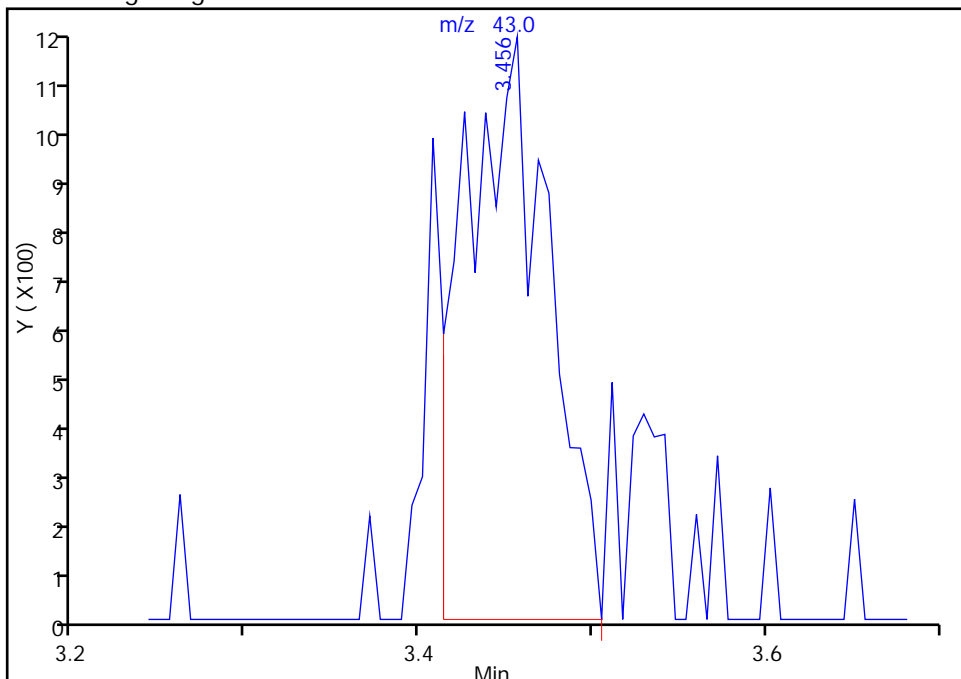
TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923017.D				
Injection Date:	23-Sep-2015 17:45:30	Instrument ID:	CHHP6		
Lims ID:	180-47781-C-10	Lab Sample ID:	180-47781-10		
Client ID:	HD-COD-SW-26-0/1-0				
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		

24 Acetone, CAS: 67-64-1

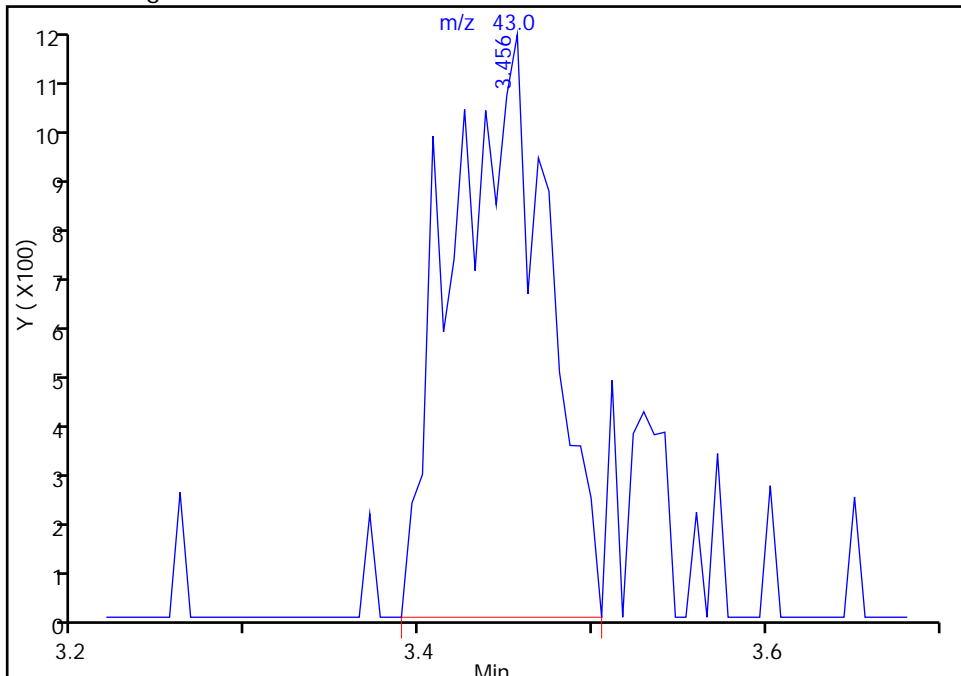
RT: 3.46  
Area: 3893  
Amount: 4.988252  
Amount Units: ng

Processing Integration Results



RT: 3.46  
Area: 4422  
Amount: 5.666081  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 24-Sep-2015 07:58:13  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-27-0/1-0 Lab Sample ID: 180-47781-11  
 Matrix: Water Lab File ID: 60923018.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 13:20  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 18:09  
 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.: 154553 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	4.3	J	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	0.85	J	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	1.1		1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	0.48	J	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-27-0/1-0 Lab Sample ID: 180-47781-11  
 Matrix: Water Lab File ID: 60923018.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 13:20  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 18:09  
 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.: 154553 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	112		64-135
2037-26-5	Toluene-d8 (Surr)	97		71-118
460-00-4	4-Bromofluorobenzene (Surr)	83		70-118
1868-53-7	Dibromofluoromethane (Surr)	112		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923018.D  
 Lims ID: 180-47781-C-11 Lab Sample ID: 180-47781-11  
 Client ID: HD-COD-SW-27-0/1-0  
 Sample Type: Client  
 Inject. Date: 23-Sep-2015 18:09:30 ALS Bottle#: 18 Worklist Smp#: 18  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-47781-C-11  
 Misc. Info.: 180-0008638-018  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 24-Sep-2015 08:01:34 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: XAWRK003

First Level Reviewer: fergusond

Date: 24-Sep-2015 08:01:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.229	4.236	-0.007	87	176053	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.284	0.005	98	453940	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	90	113399	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.747	-0.001	98	175133	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.553	6.548	0.005	93	117230	56.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.925	0.005	70	188839	56.0	
\$ 7 Toluene-d8 (Surr)	98	8.944	8.938	0.006	94	434633	48.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.585	-0.001	84	164712	41.5	
12 Chloromethane	50		1.760				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.222				ND	
16 Chloroethane	64		2.374				ND	
22 1,1-Dichloroethene	96		3.336				ND	
24 Acetone	43	3.439	3.415	0.024	94	17328	21.6	M
26 Carbon disulfide	76		3.634				ND	
31 Methylene Chloride	84		4.126				ND	
33 Acrylonitrile	53		4.497				ND	
35 Methyl tert-butyl ether	73		4.564				ND	
34 trans-1,2-Dichloroethene	96		4.564				ND	
37 1,1-Dichloroethane	63		5.197				ND	
43 cis-1,2-Dichloroethene	96	5.945	5.939	0.006	85	12229	4.26	
44 2-Butanone (MEK)	43		5.945				ND	
48 Chlorobromomethane	128		6.225				ND	
50 Chloroform	83	6.365	6.377	-0.012	1	3416	0.7290	M
51 1,1,1-Trichloroethane	97		6.535				ND	
53 Carbon tetrachloride	117		6.712				ND	
56 Benzene	78		6.937				ND	
57 1,2-Dichloroethane	62		7.010				ND	
61 Trichloroethene	130	7.679	7.673	0.006	90	12258	5.56	
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		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.443				ND	
77 Tetrachloroethene	164	9.528	9.529	0.000	94	4741	2.38	
79 2-Hexanone	43		9.662				ND	
81 Chlorodibromomethane	129		9.827				ND	
82 Ethylene Dibromide	107		9.942				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		11.037				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				ND	
S 131 Xylenes, Total	106		1.000				ND	

### QC Flag Legend

Review Flags

M - Manually Integrated

### Reagents:

VOA8260INT\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923018.D

Injection Date: 23-Sep-2015 18:09:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-47781-C-11

Lab Sample ID: 180-47781-11

Worklist Smp#: 18

Client ID: HD-COD-SW-27-0/1-0

Purge Vol: 5.000 mL

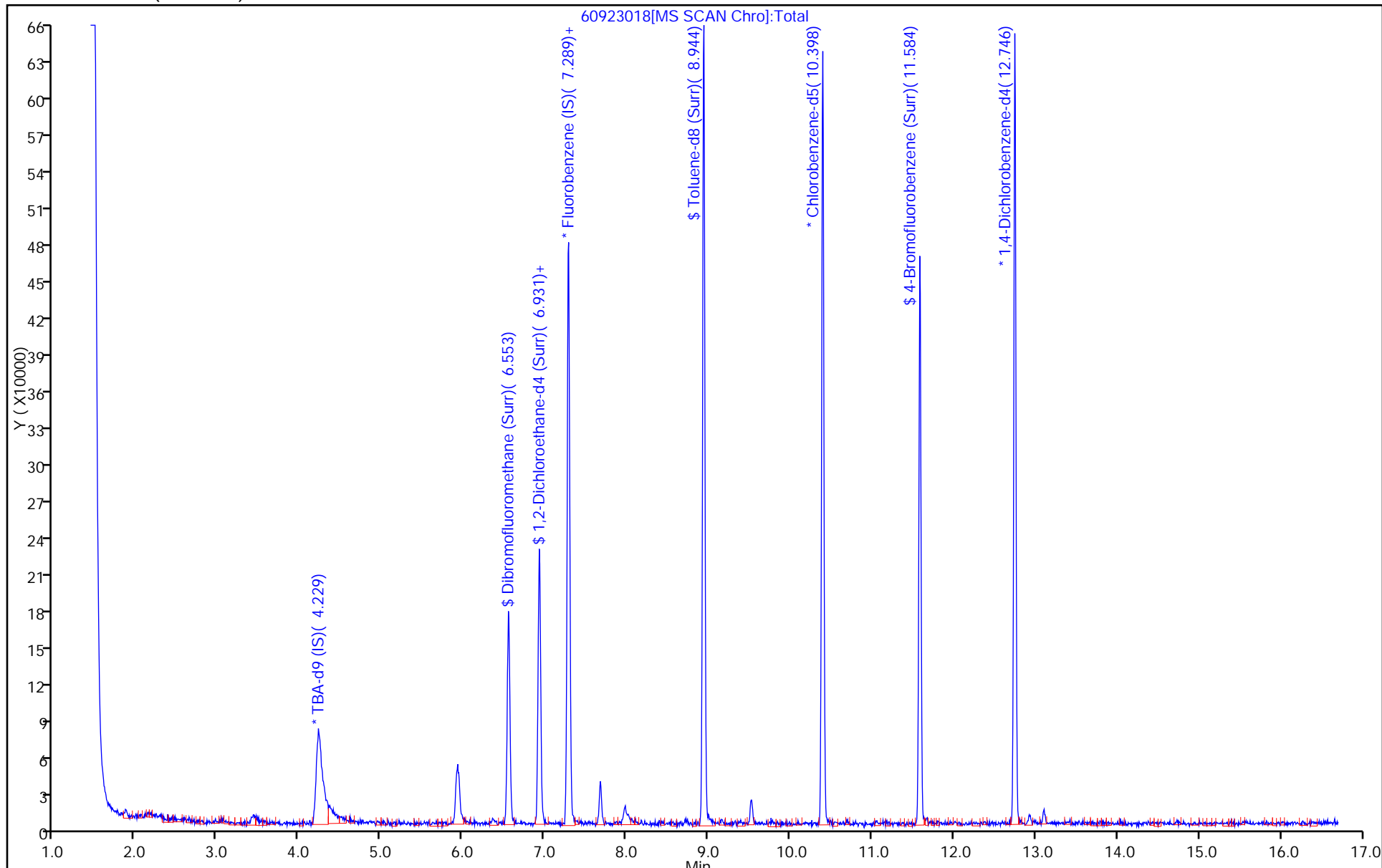
Dil. Factor: 1.0000

ALS Bottle#: 18

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923018.D

Injection Date: 23-Sep-2015 18:09:30

Instrument ID: CHHP6

Lims ID: 180-47781-C-11

Lab Sample ID: 180-47781-11

Client ID: HD-COD-SW-27-0/1-0

Operator ID: 001562

ALS Bottle#: 18 Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

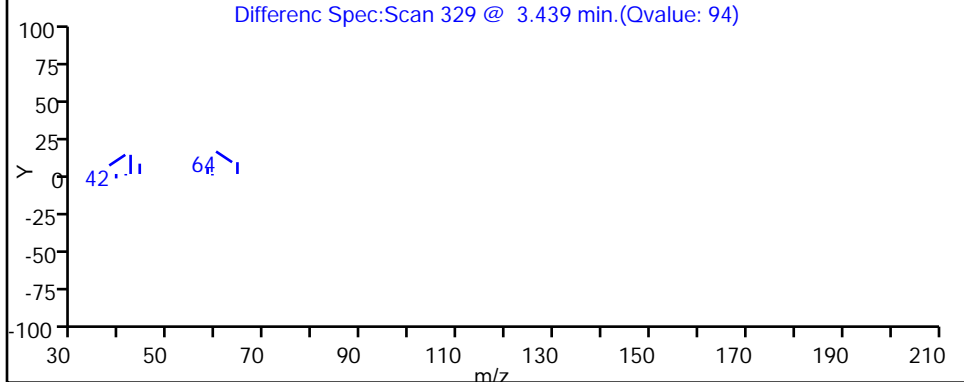
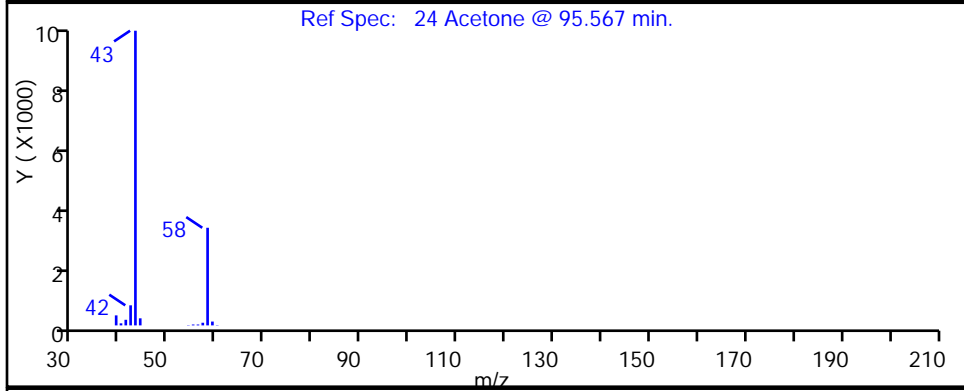
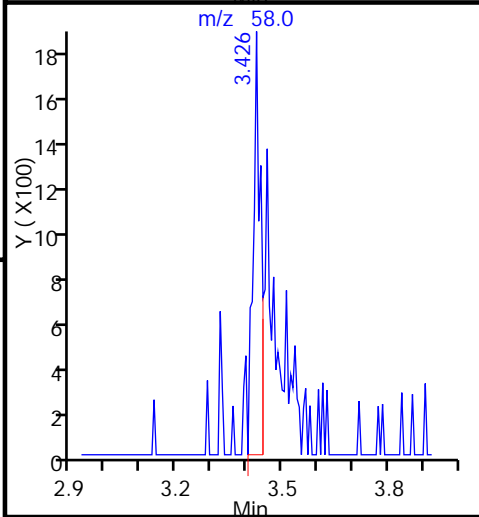
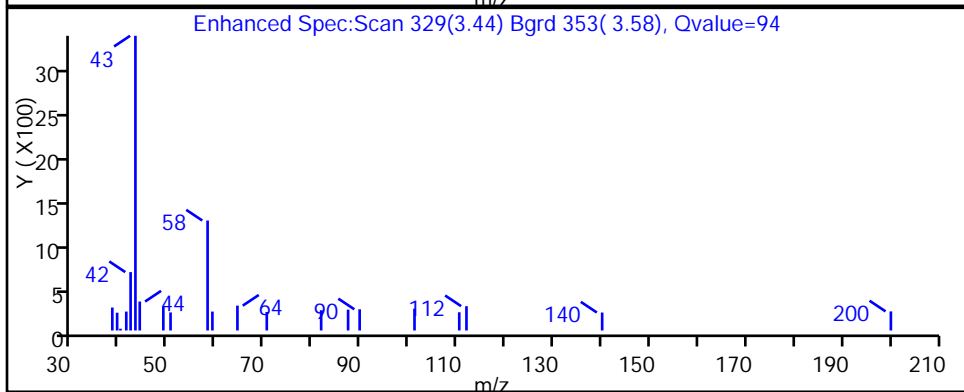
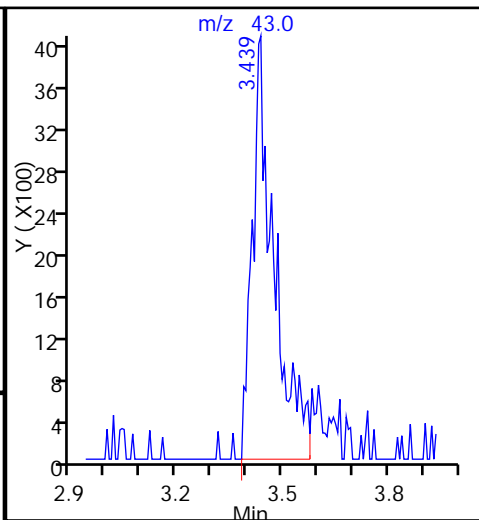
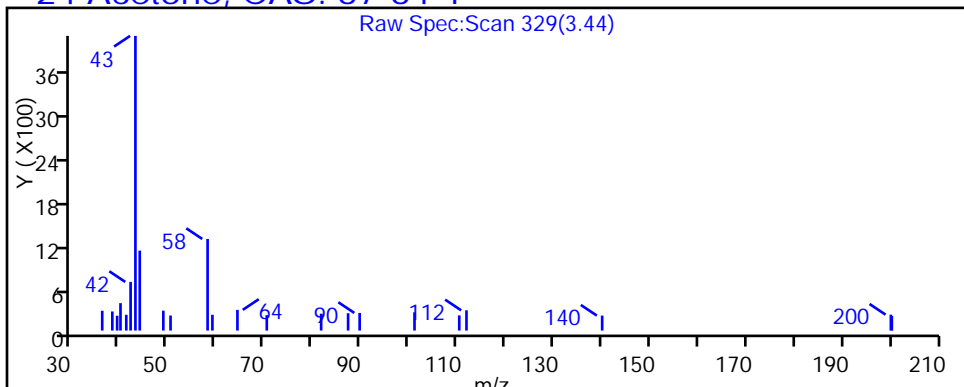
Method: MSVOA\_LL\_CHHP6

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\20150923-8638.b\60923018.D

Injection Date: 23-Sep-2015 18:09:30

Instrument ID: CHHP6

Lims ID: 180-47781-C-11

Lab Sample ID: 180-47781-11

Client ID: HD-COD-SW-27-0/1-0

Operator ID: 001562

ALS Bottle#: 18 Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

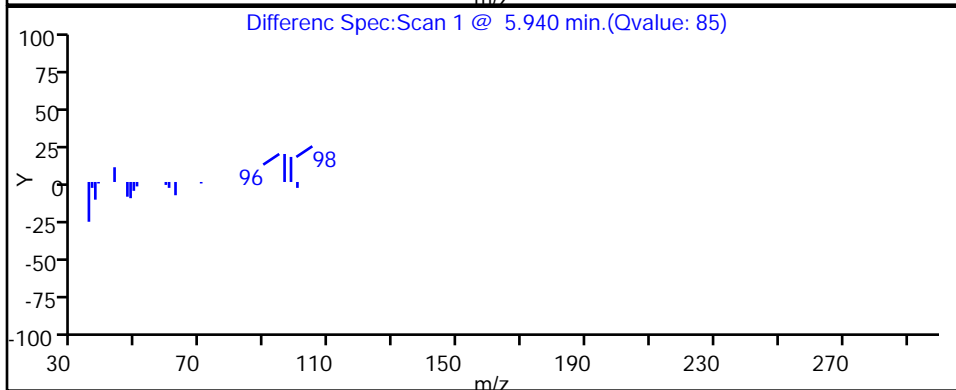
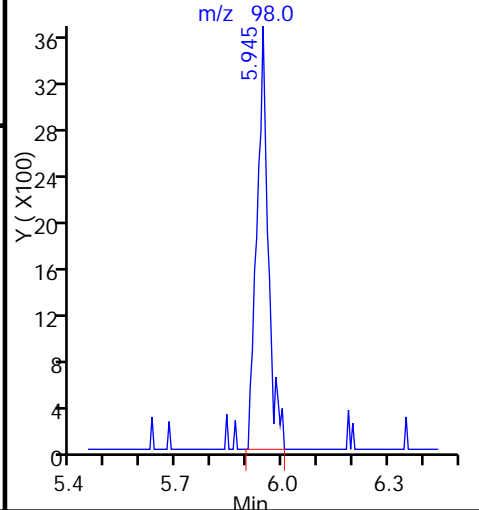
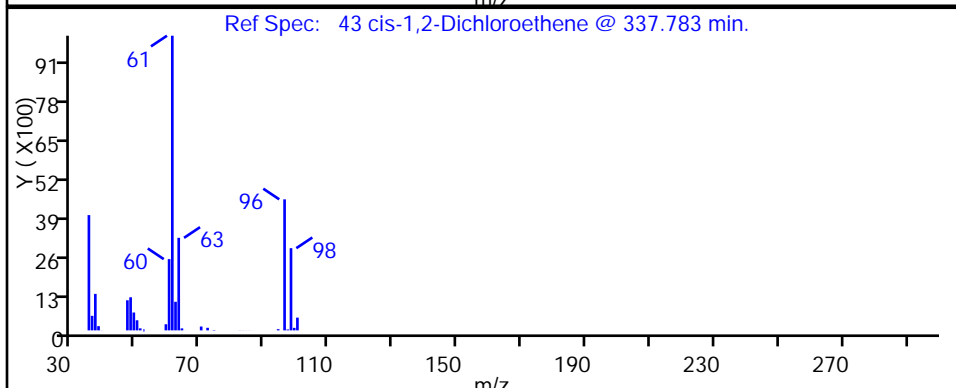
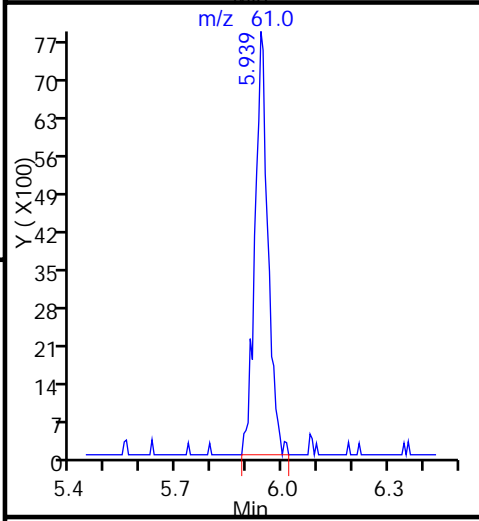
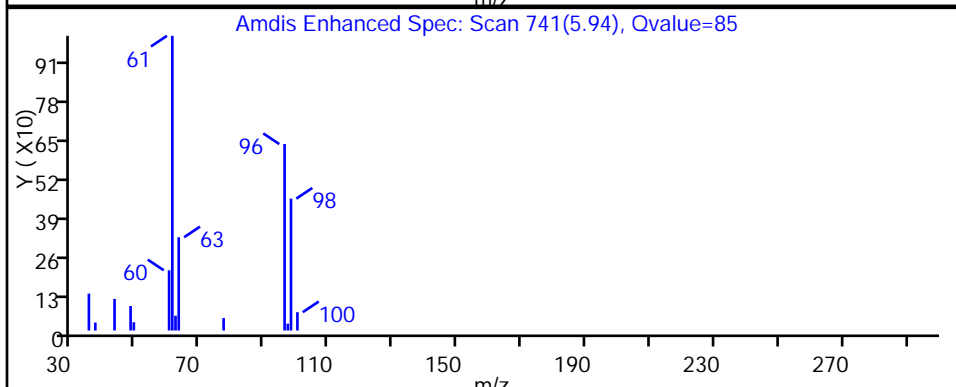
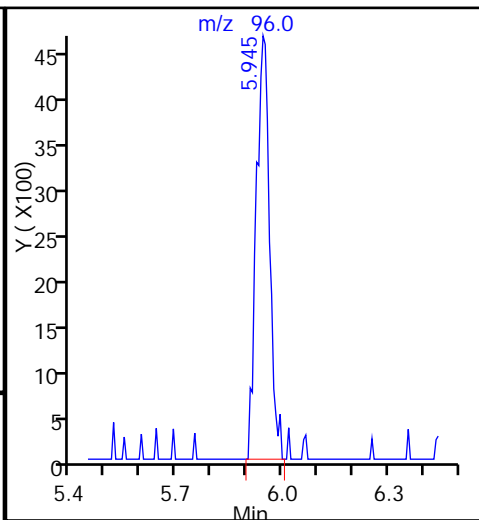
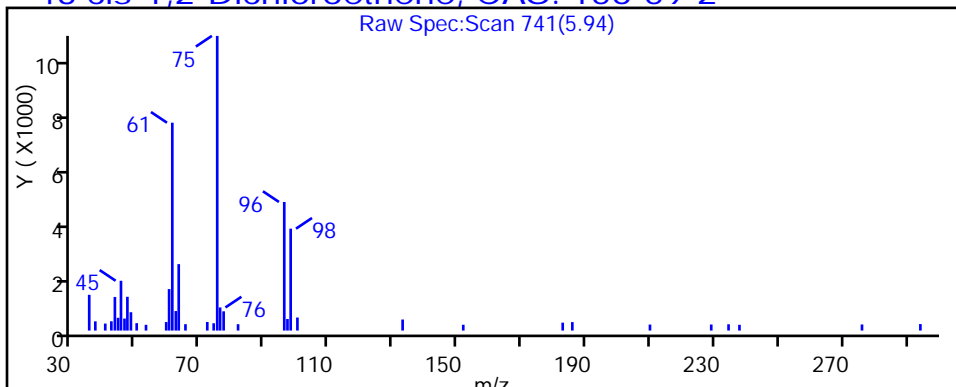
Method: MSVOA\_LL\_CHHP6

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\20150923-8638.b\60923018.D

Injection Date: 23-Sep-2015 18:09:30

Instrument ID: CHHP6

Lims ID: 180-47781-C-11

Lab Sample ID: 180-47781-11

Client ID: HD-COD-SW-27-0/1-0

Operator ID: 001562

ALS Bottle#: 18

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

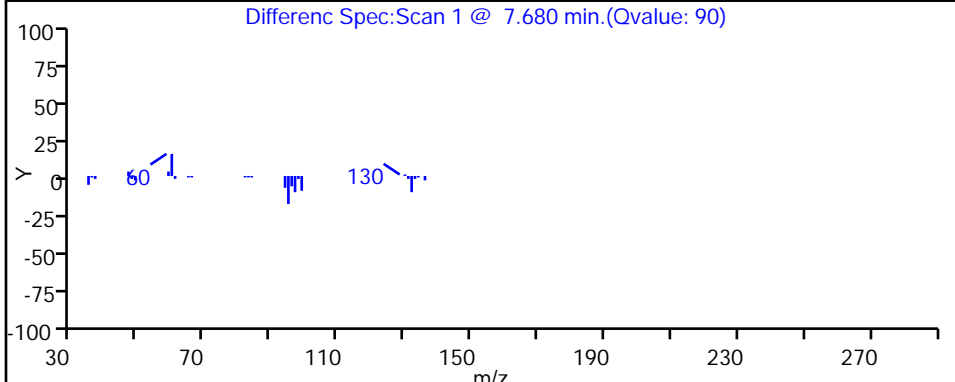
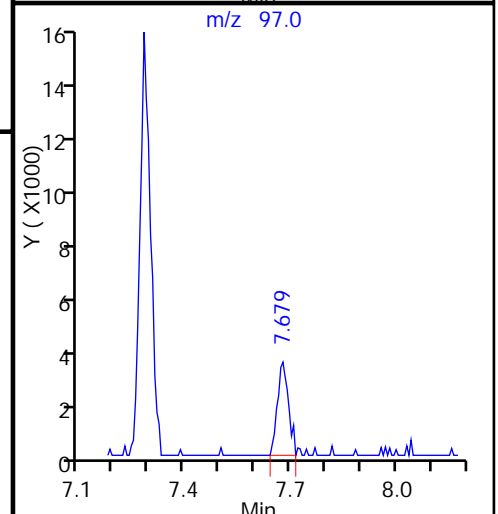
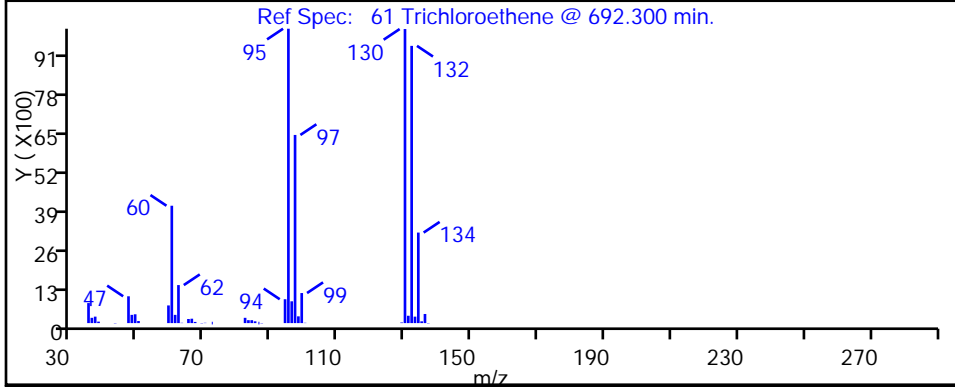
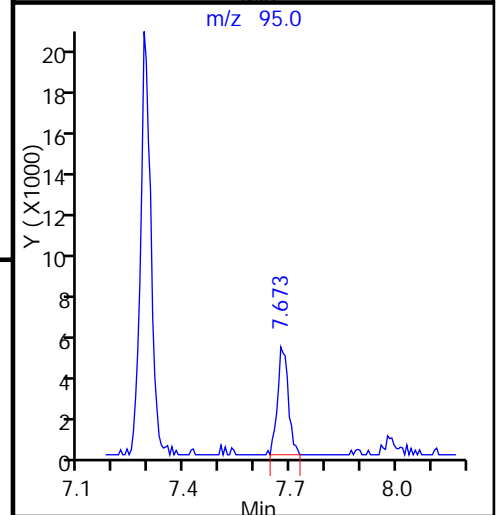
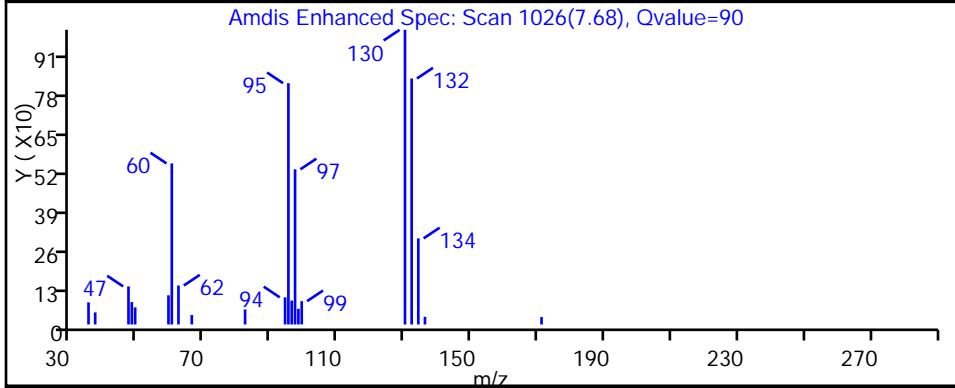
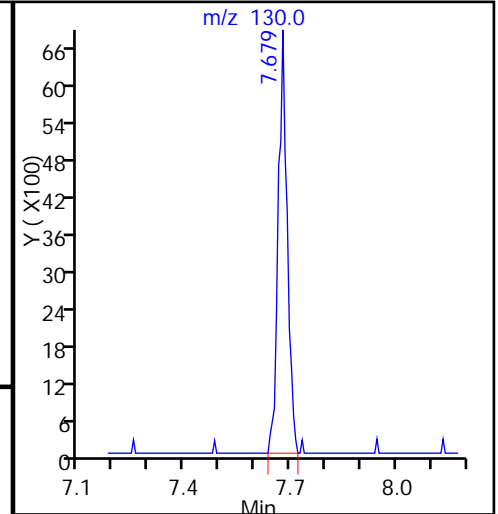
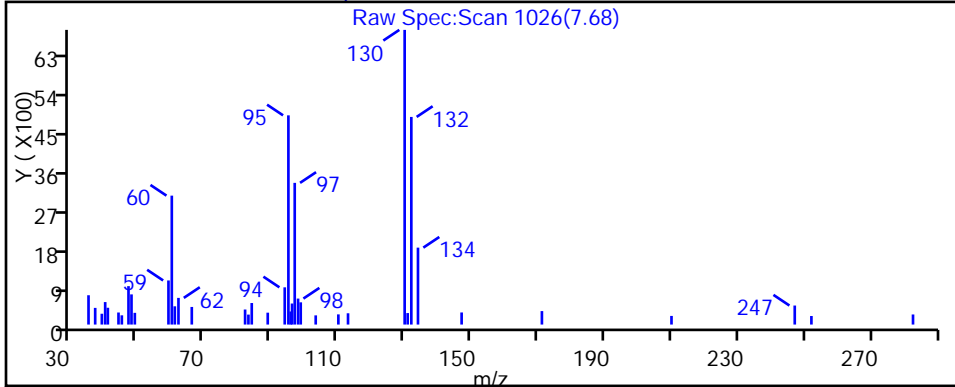
Method: MSVOA\_LL\_CHHP6

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\20150923-8638.b\60923018.D

Injection Date: 23-Sep-2015 18:09:30

Instrument ID: CHHP6

Lims ID: 180-47781-C-11

Lab Sample ID: 180-47781-11

Client ID: HD-COD-SW-27-0/1-0

Operator ID: 001562

ALS Bottle#: 18 Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

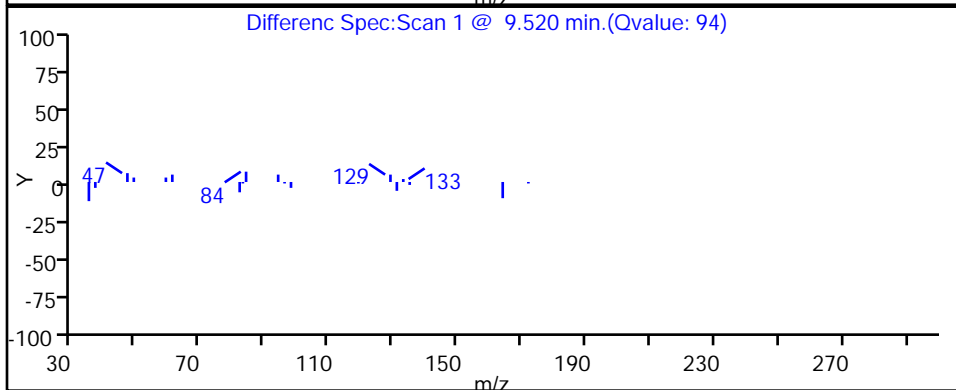
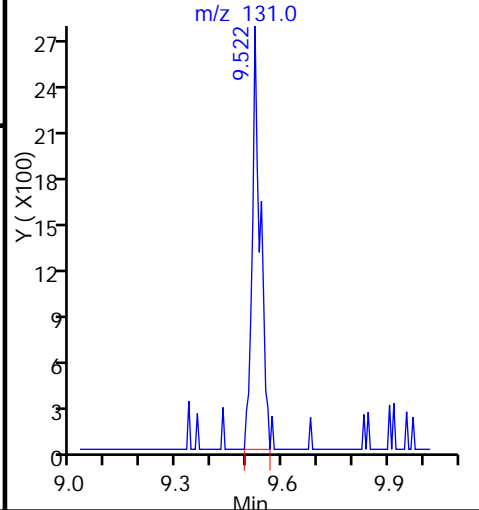
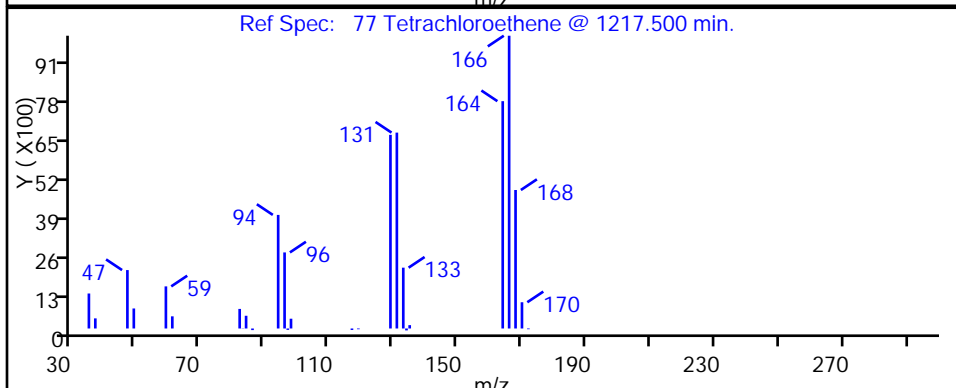
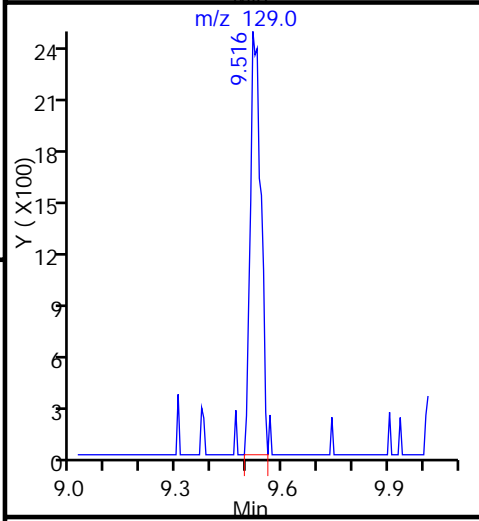
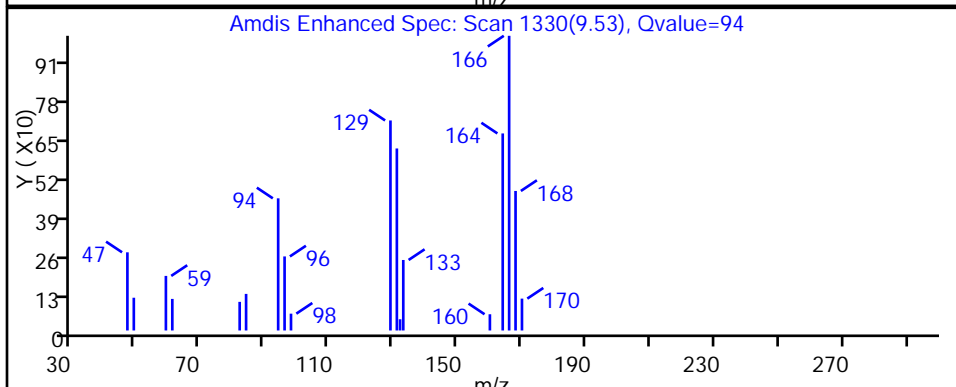
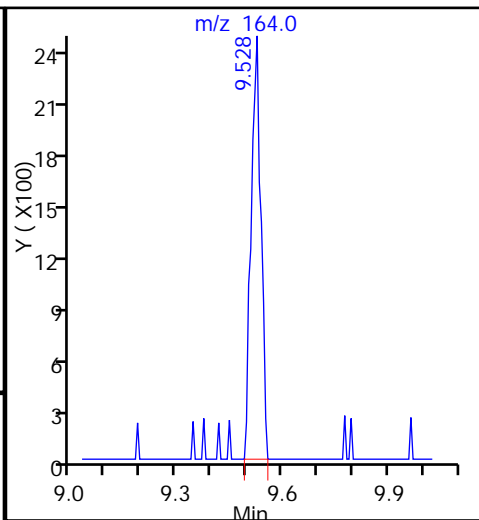
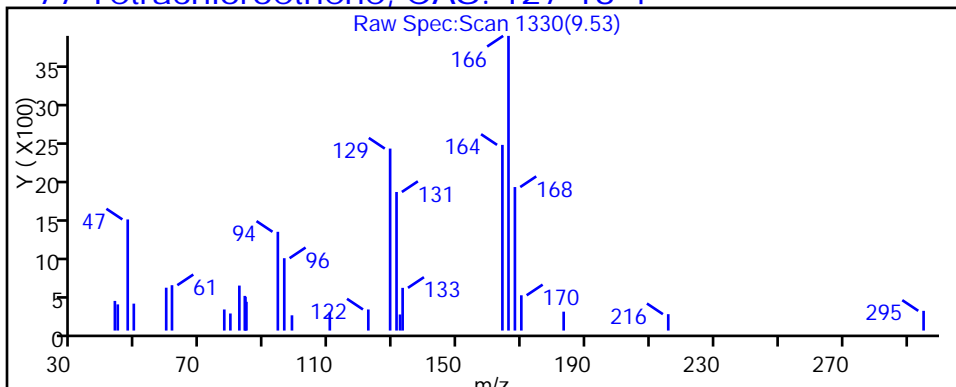
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

77 Tetrachloroethene, CAS: 127-18-4



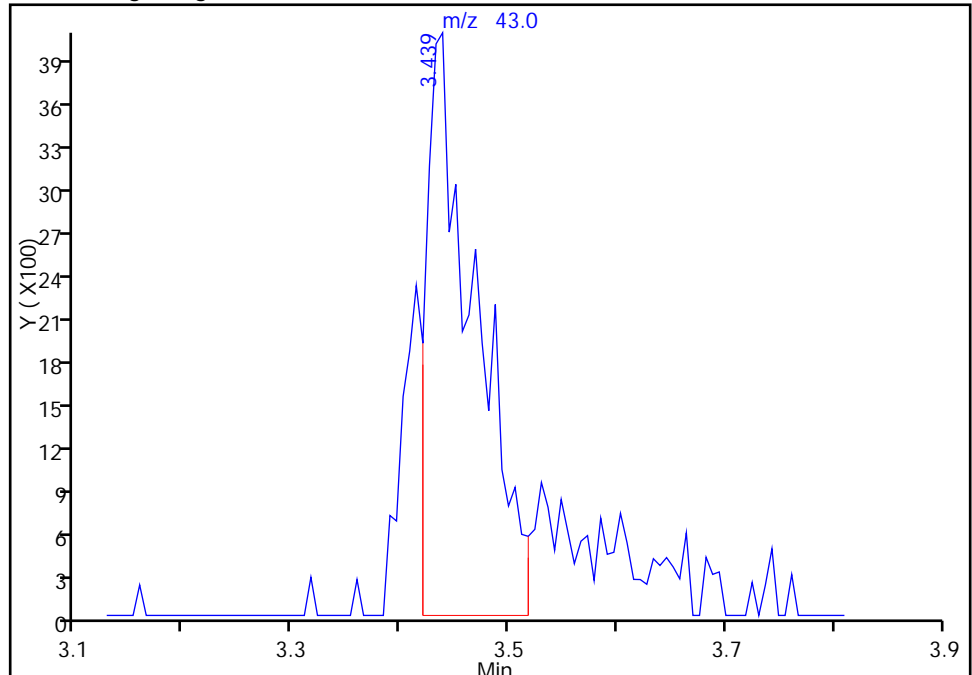
TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923018.D				
Injection Date:	23-Sep-2015 18:09:30	Instrument ID:	CHHP6		
Lims ID:	180-47781-C-11	Lab Sample ID:	180-47781-11		
Client ID:	HD-COD-SW-27-0/1-0				
Operator ID:	001562	ALS Bottle#:	18	Worklist Smp#:	18
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

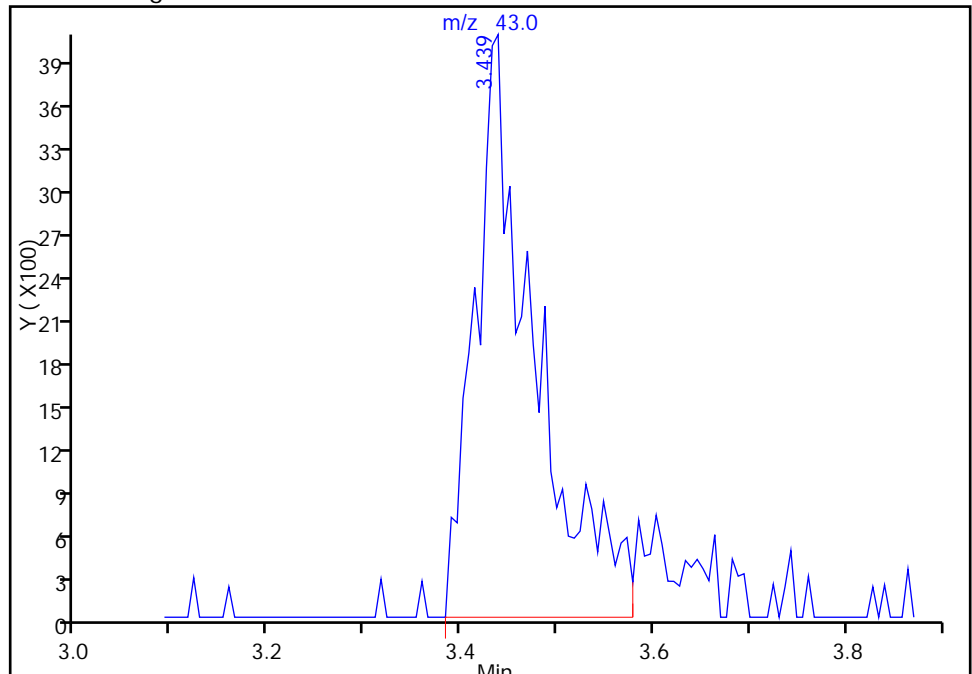
RT: 3.44  
Area: 12647  
Amount: 15.747863  
Amount Units: ng

Processing Integration Results



RT: 3.44  
Area: 17328  
Amount: 21.576578  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 24-Sep-2015 08:01:34  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

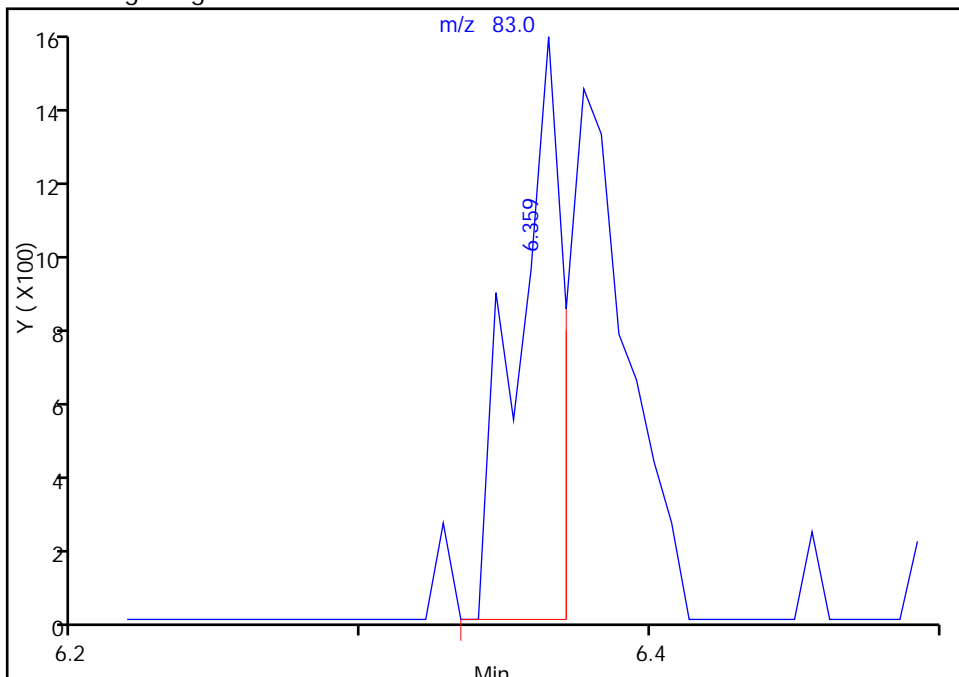
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923018.D  
Injection Date: 23-Sep-2015 18:09:30 Instrument ID: CHHP6  
Lims ID: 180-47781-C-11 Lab Sample ID: 180-47781-11  
Client ID: HD-COD-SW-27-0/1-0  
Operator ID: 001562 ALS Bottle#: 18 Worklist Smp#: 18  
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

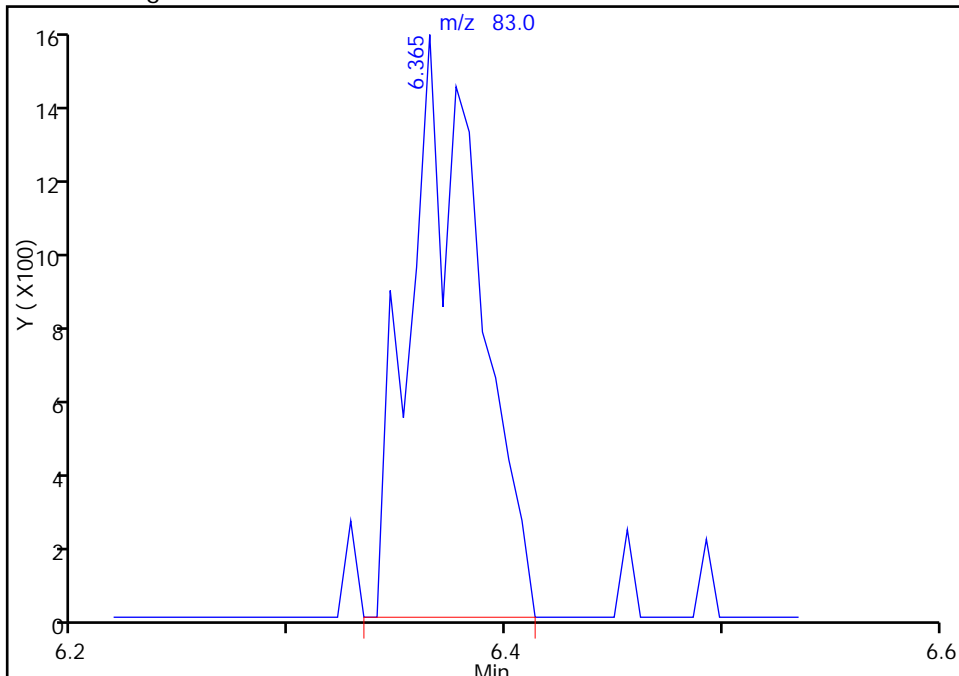
RT: 6.36  
Area: 1696  
Amount: 0.361946  
Amount Units: ng

Processing Integration Results



RT: 6.36  
Area: 3416  
Amount: 0.729014  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 24-Sep-2015 08:01:34  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 180-47781-12  
 Matrix: Water Lab File ID: 60923019.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 12:40  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 18:33  
 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.: 154553 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	3.3	J	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	0.61	J	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	0.19	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	0.83	J	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	0.33	J	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 180-47781-12  
 Matrix: Water Lab File ID: 60923019.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 12:40  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 18:33  
 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.: 154553 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	114		64-135
2037-26-5	Toluene-d8 (Surr)	102		71-118
460-00-4	4-Bromofluorobenzene (Surr)	89		70-118
1868-53-7	Dibromofluoromethane (Surr)	116		70-128



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923019.D  
 Lims ID: 180-47781-B-12 Lab Sample ID: 180-47781-12  
 Client ID: HD-COD-SW-28-0/1-0  
 Sample Type: Client  
 Inject. Date: 23-Sep-2015 18:33:30 ALS Bottle#: 19 Worklist Smp#: 19  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-47781-B-12  
 Misc. Info.: 180-0008638-019  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 24-Sep-2015 08:03:02 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: XAWRK003

First Level Reviewer: fergusond

Date: 24-Sep-2015 08:03:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.226	4.236	-0.010	83	183202	1000.0	
* 2 Fluorobenzene (IS)	96	7.286	7.284	0.002	97	435032	50.0	
* 3 Chlorobenzene-d5	119	10.401	10.398	0.003	91	104529	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.749	12.747	0.002	98	170901	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.562	6.548	0.014	93	115729	57.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.925	0.008	71	184268	57.0	
\$ 7 Toluene-d8 (Surr)	98	8.941	8.938	0.003	95	420729	51.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.587	11.585	0.002	84	162377	44.4	
12 Chloromethane	50		1.760				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.222				ND	
16 Chloroethane	64		2.374				ND	
22 1,1-Dichloroethene	96		3.336				ND	
24 Acetone	43	3.448	3.415	0.033	74	12641	16.4	
26 Carbon disulfide	76		3.634				ND	
31 Methylene Chloride	84		4.126				ND	
33 Acrylonitrile	53		4.497				ND	
35 Methyl tert-butyl ether	73		4.564				ND	
34 trans-1,2-Dichloroethene	96		4.564				ND	
37 1,1-Dichloroethane	63		5.197				ND	
43 cis-1,2-Dichloroethene	96	5.936	5.939	-0.003	86	8441	3.07	
44 2-Butanone (MEK)	43		5.945				ND	
48 Chlorobromomethane	128		6.225				ND	
50 Chloroform	83	6.380	6.377	0.003	28	4374	0.9740	
51 1,1,1-Trichloroethane	97		6.535				ND	
53 Carbon tetrachloride	117		6.712				ND	
56 Benzene	78		6.937				ND	
57 1,2-Dichloroethane	62		7.010				ND	
61 Trichloroethene	130	7.682	7.673	0.009	95	8825	4.17	
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		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.443				ND	
77 Tetrachloroethene	164	9.537	9.529	0.009	90	3048	1.66	
79 2-Hexanone	43		9.662				ND	
81 Chlorodibromomethane	129		9.827				ND	
82 Ethylene Dibromide	107		9.942				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		11.037				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				ND	
S 131 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923019.D

Injection Date: 23-Sep-2015 18:33:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-47781-B-12

Lab Sample ID: 180-47781-12

Worklist Smp#: 19

Client ID: HD-COD-SW-28-0/1-0

Purge Vol: 5.000 mL

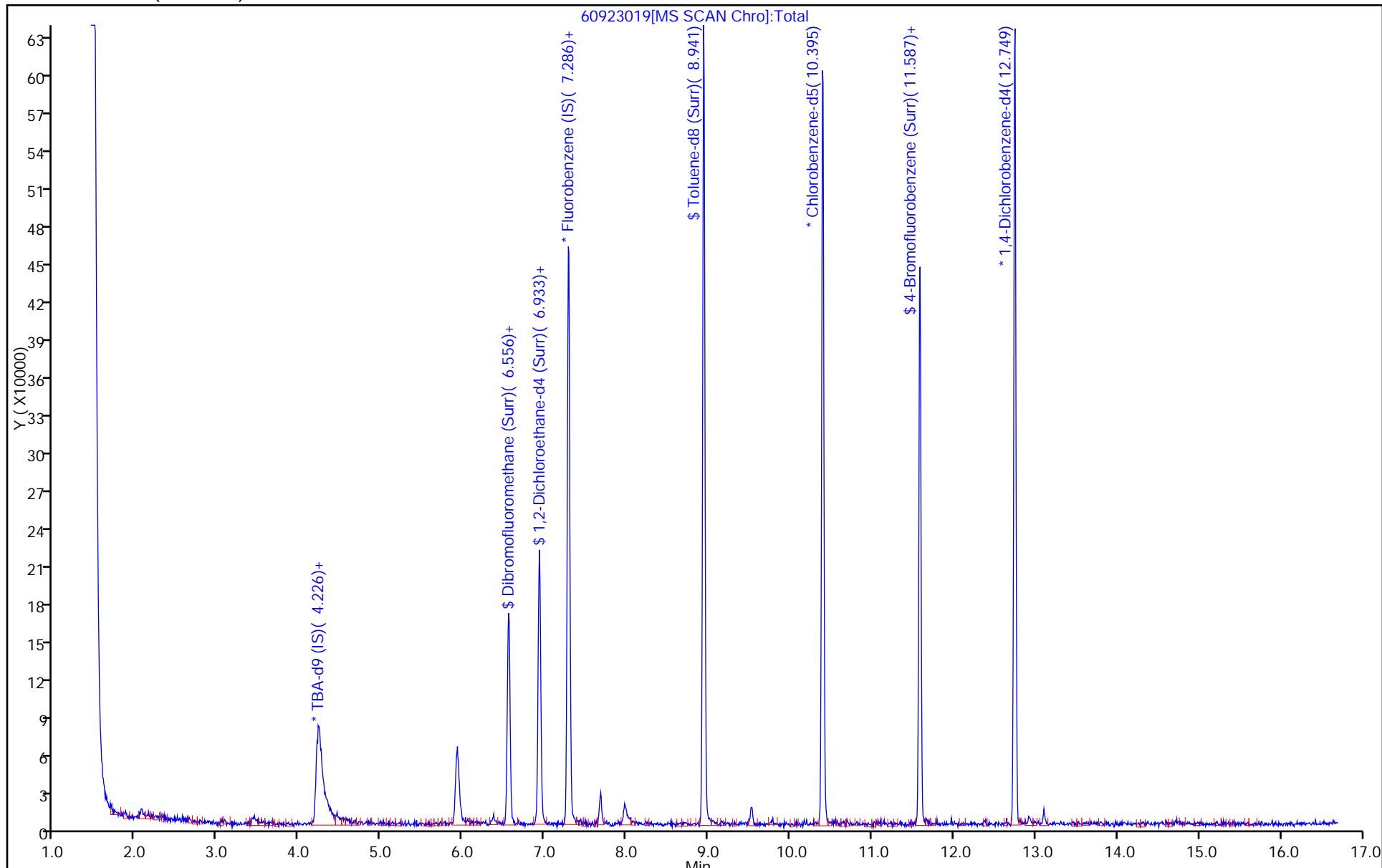
Dil. Factor: 1.0000

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\20150923-8638.b\60923019.D

Injection Date: 23-Sep-2015 18:33:30

Instrument ID: CHHP6

Lims ID: 180-47781-B-12

Lab Sample ID: 180-47781-12

Client ID: HD-COD-SW-28-0/1-0

Operator ID: 001562

ALS Bottle#: 19 Worklist Smp#: 19

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

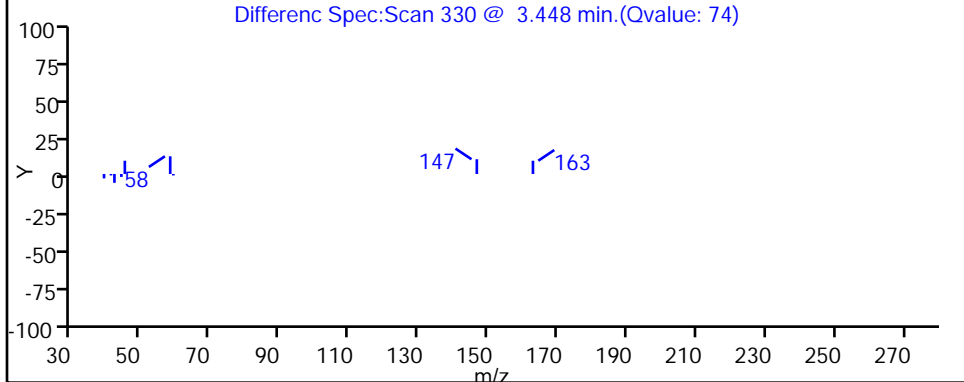
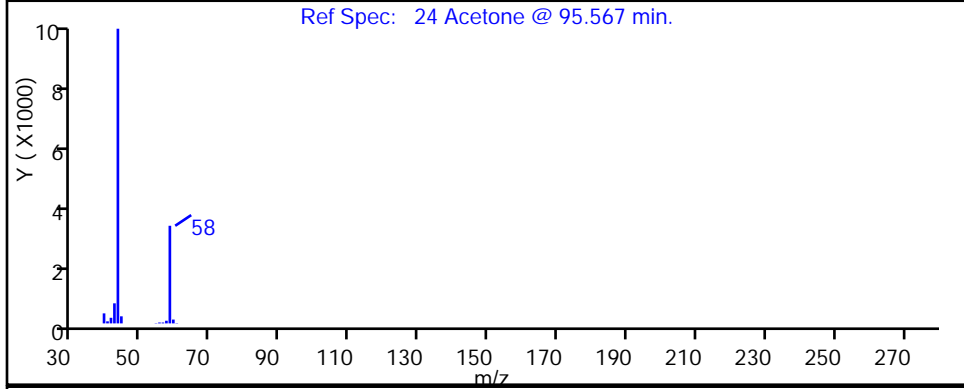
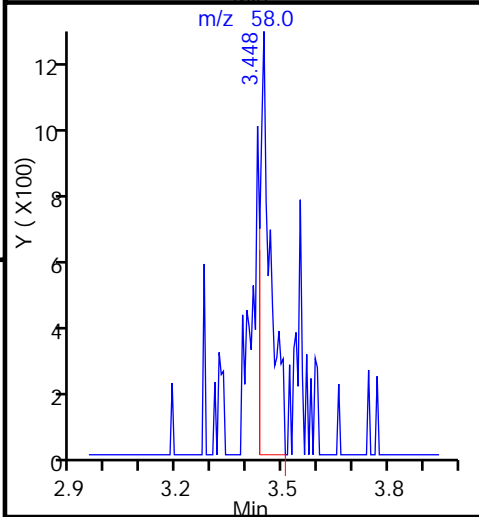
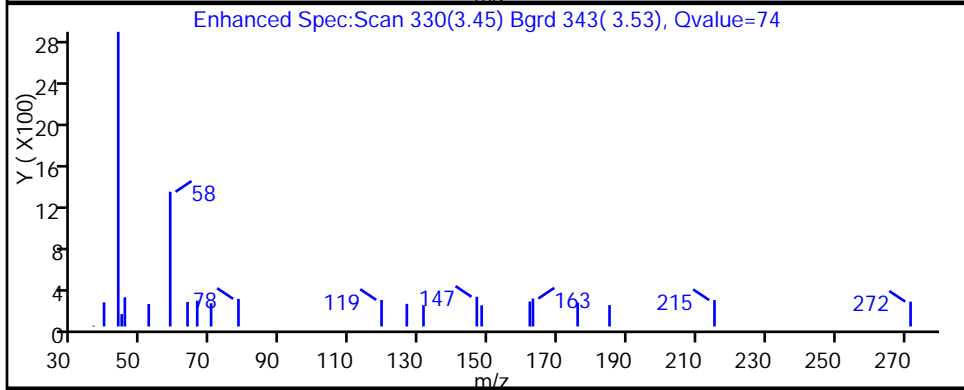
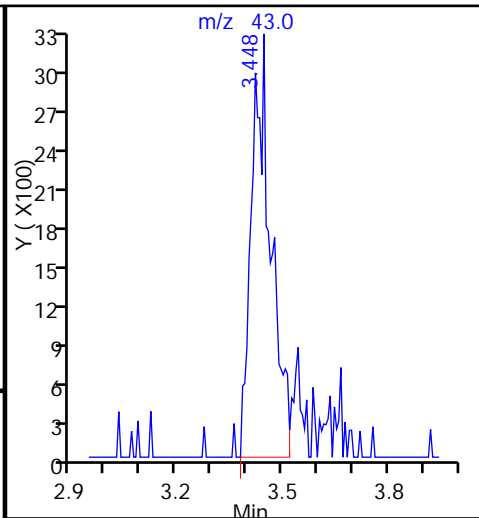
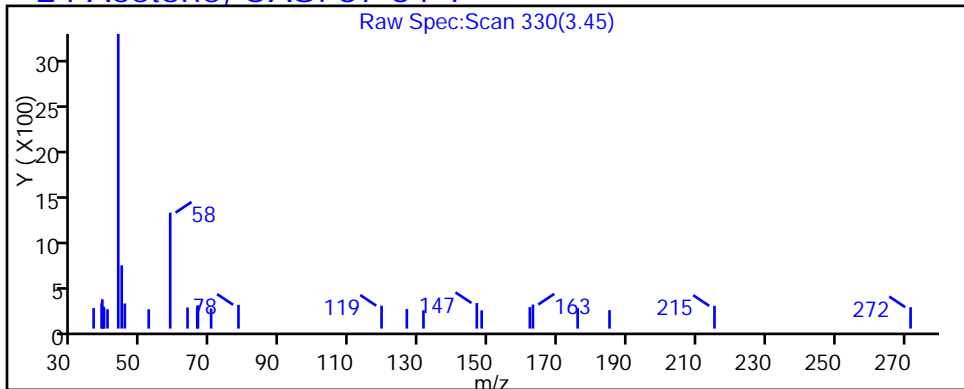
Method: MSVOA\_LL\_CHHP6

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\20150923-8638.b\60923019.D

Injection Date: 23-Sep-2015 18:33:30

Instrument ID: CHHP6

Lims ID: 180-47781-B-12

Lab Sample ID: 180-47781-12

Client ID: HD-COD-SW-28-0/1-0

Operator ID: 001562

ALS Bottle#: 19 Worklist Smp#: 19

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

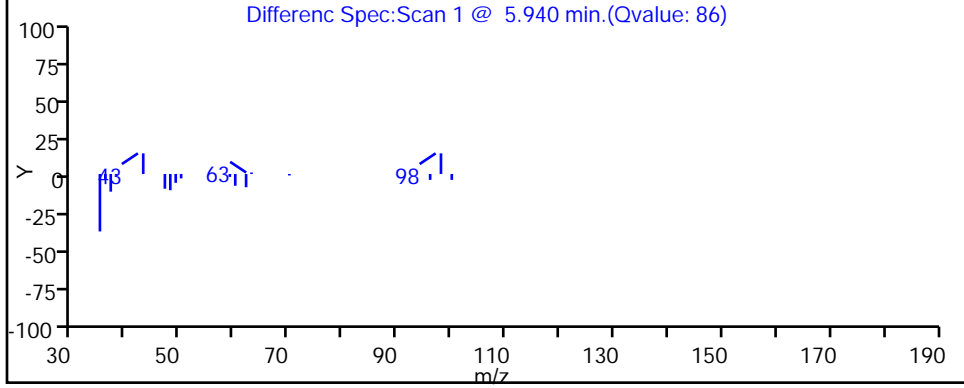
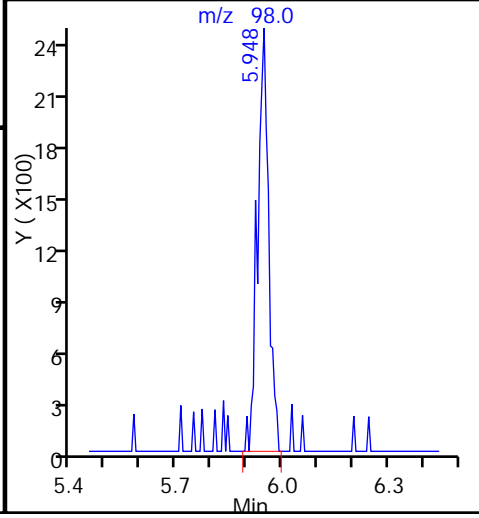
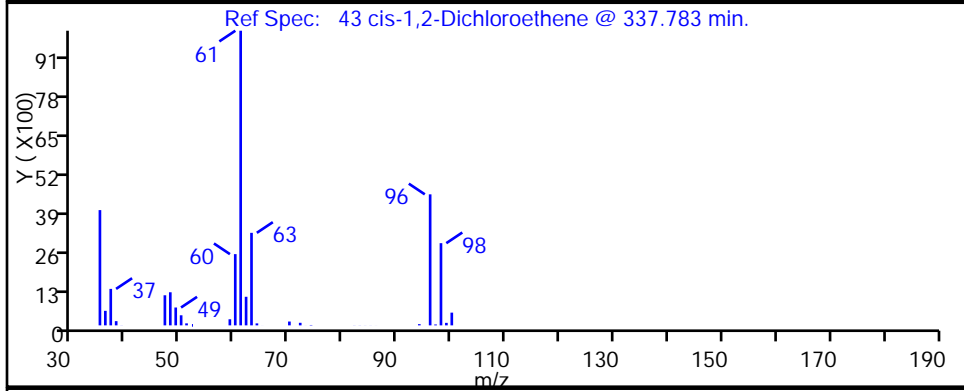
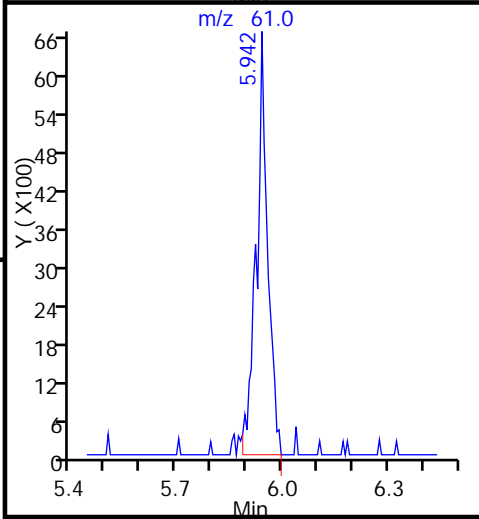
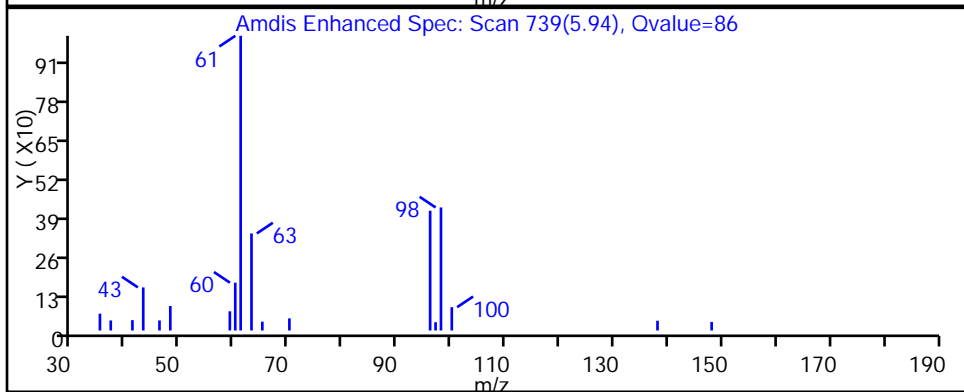
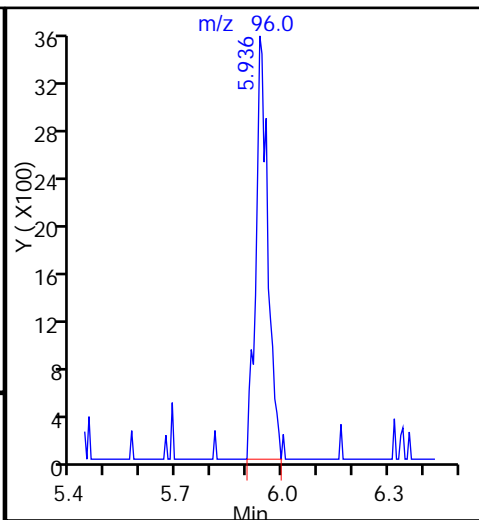
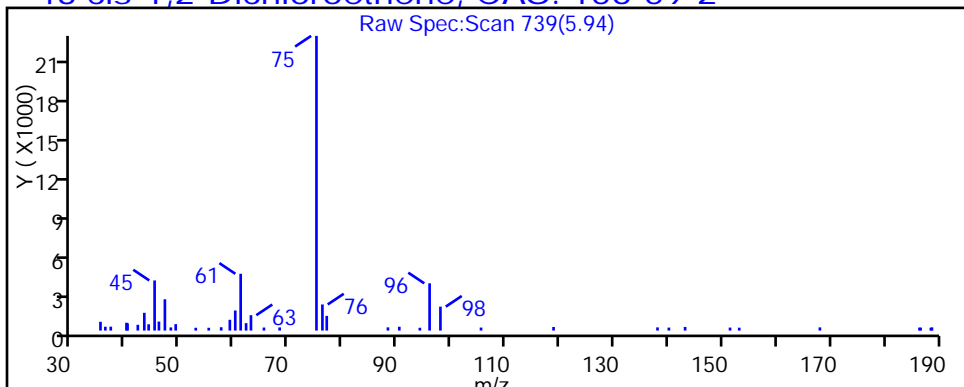
Method: MSVOA\_LL\_CHHP6

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\20150923-8638.b\60923019.D

Injection Date: 23-Sep-2015 18:33:30

Instrument ID: CHHP6

Lims ID: 180-47781-B-12

Lab Sample ID: 180-47781-12

Client ID: HD-COD-SW-28-0/1-0

Operator ID: 001562

ALS Bottle#: 19 Worklist Smp#: 19

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

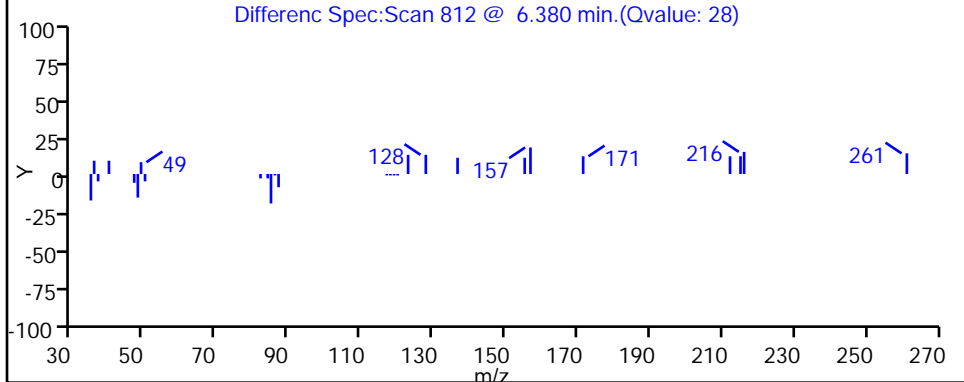
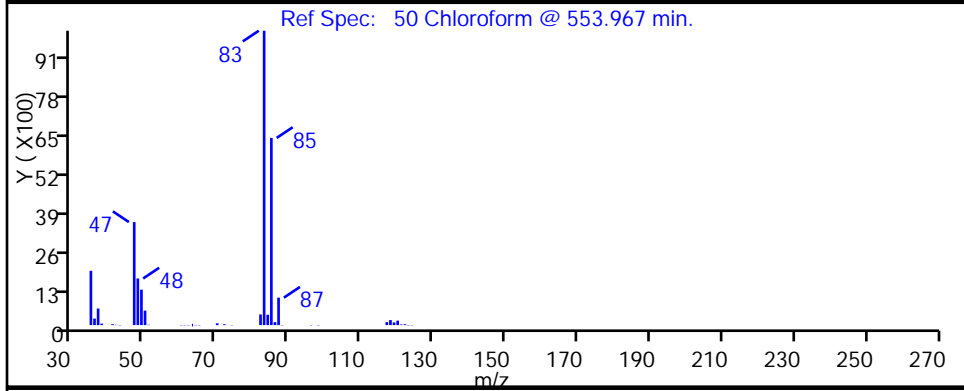
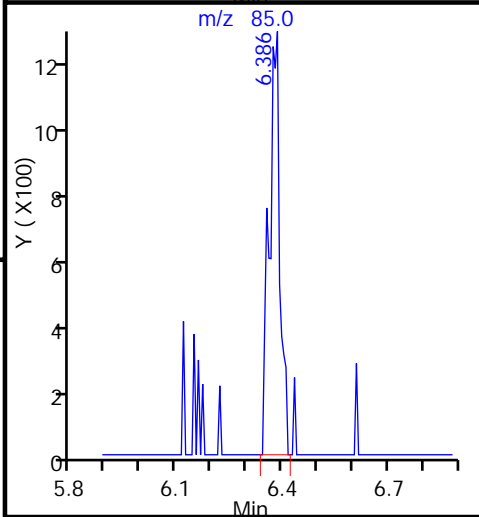
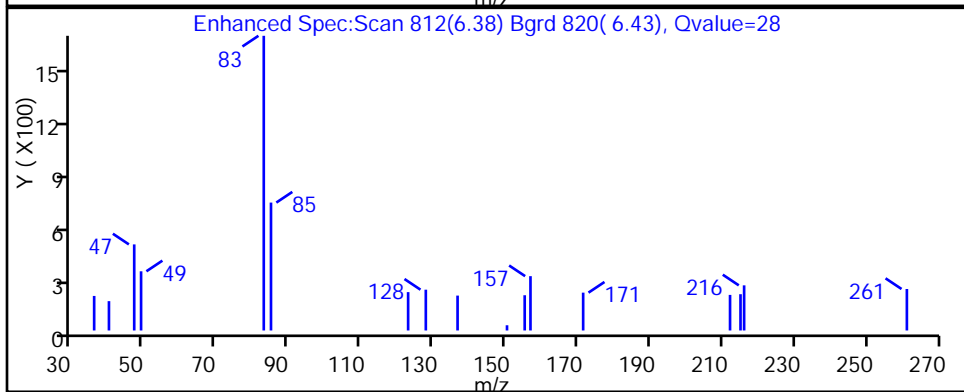
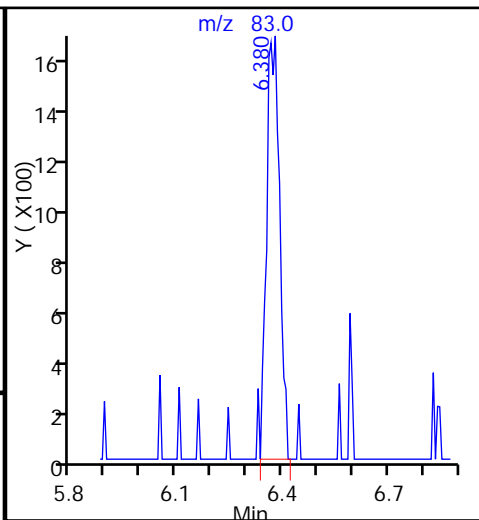
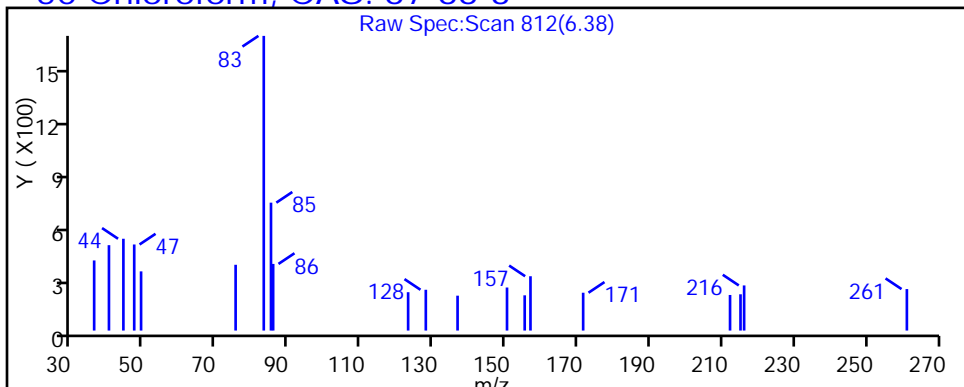
Method: MSVOA\_LL\_CHHP6

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\20150923-8638.b\60923019.D

Injection Date: 23-Sep-2015 18:33:30

Instrument ID: CHHP6

Lims ID: 180-47781-B-12

Lab Sample ID: 180-47781-12

Client ID: HD-COD-SW-28-0/1-0

Operator ID: 001562

ALS Bottle#: 19 Worklist Smp#: 19

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

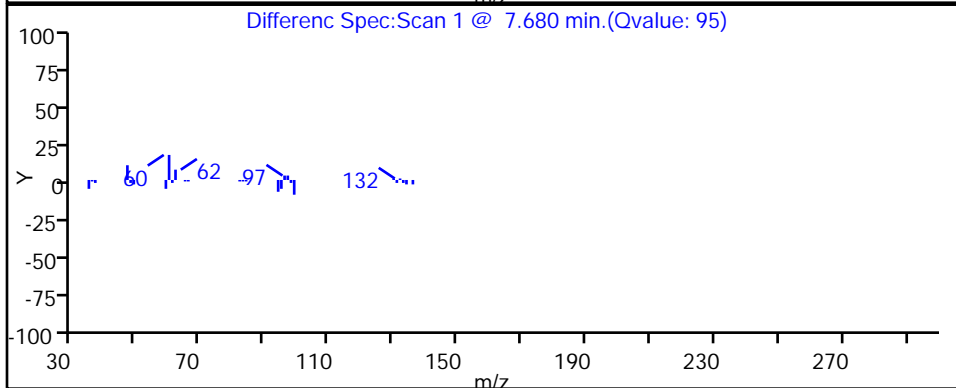
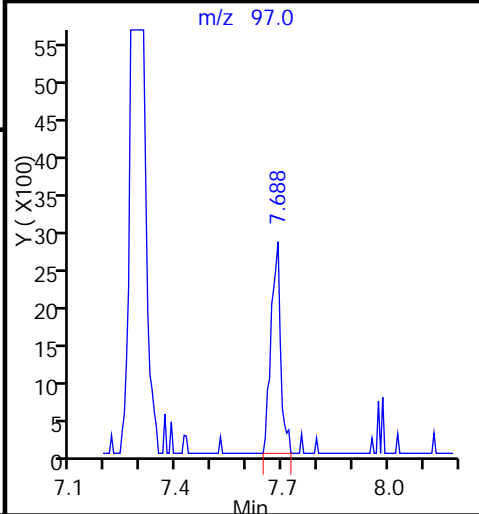
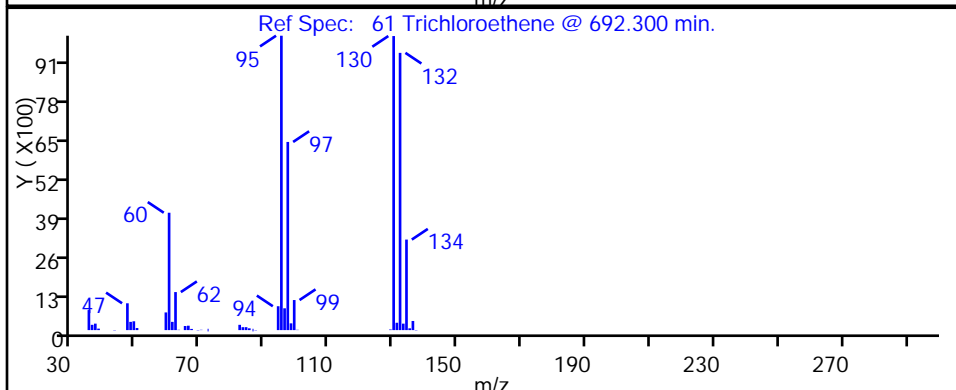
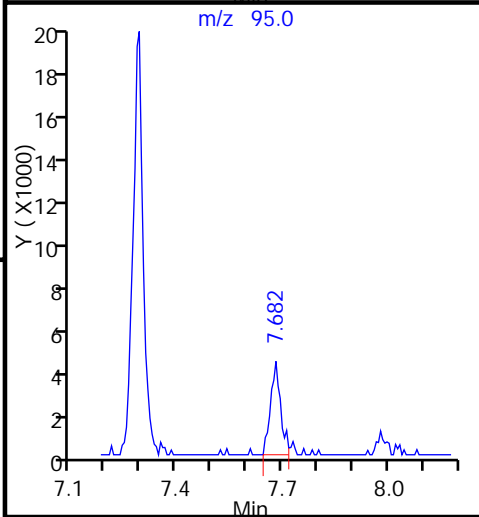
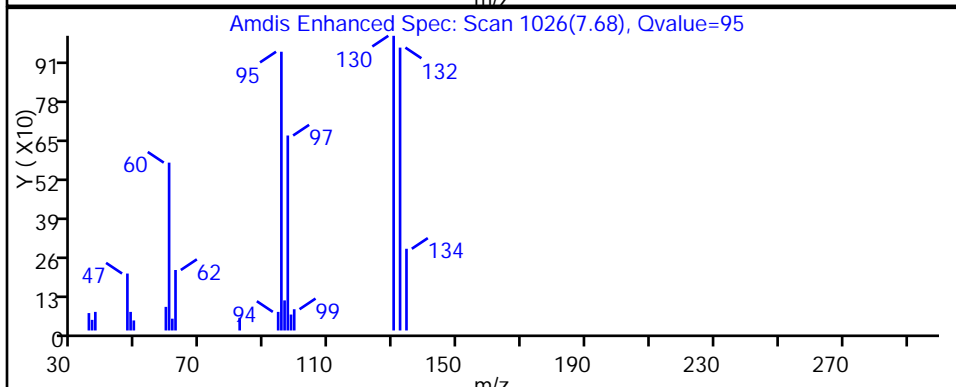
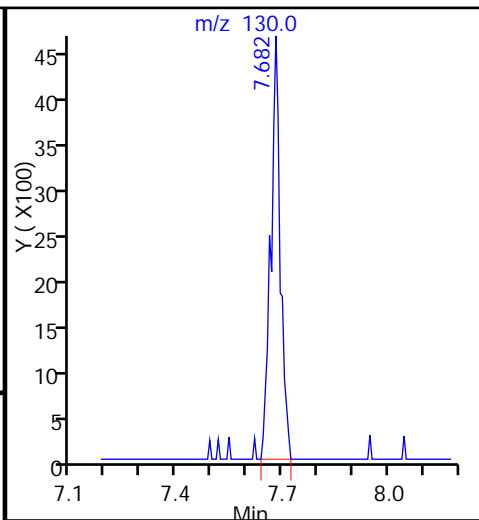
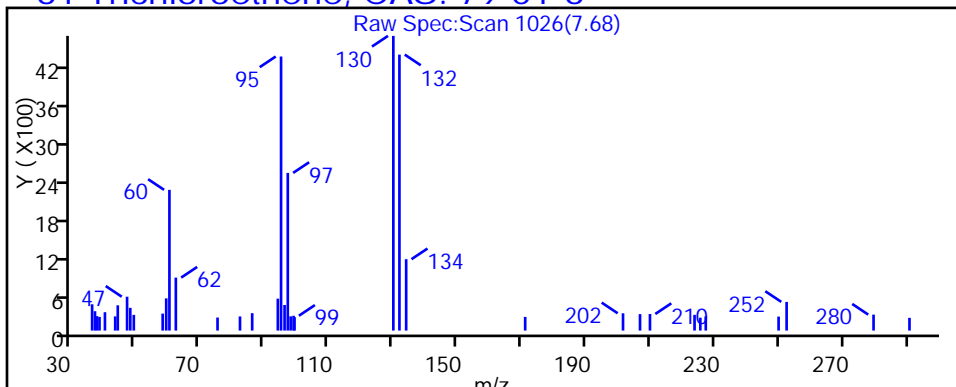
Method: MSVOA\_LL\_CHHP6

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\20150923-8638.b\60923019.D

Injection Date: 23-Sep-2015 18:33:30

Instrument ID: CHHP6

Lims ID: 180-47781-B-12

Lab Sample ID: 180-47781-12

Client ID: HD-COD-SW-28-0/1-0

Operator ID: 001562

ALS Bottle#: 19 Worklist Smp#: 19

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

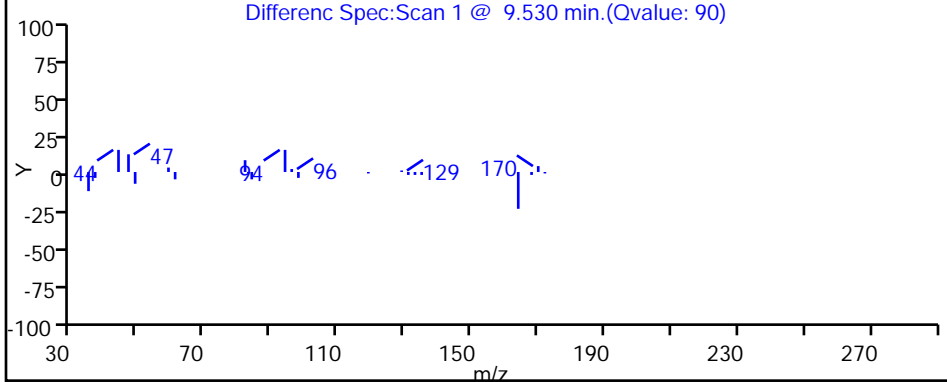
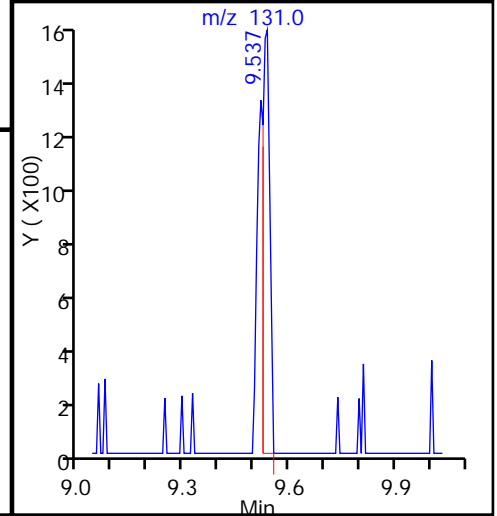
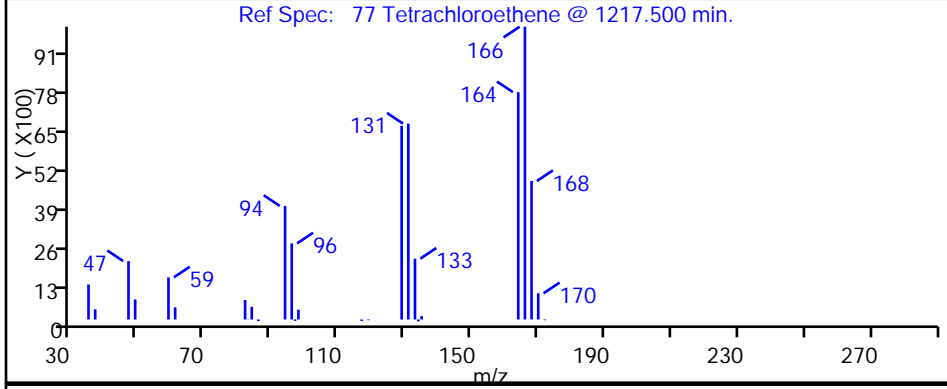
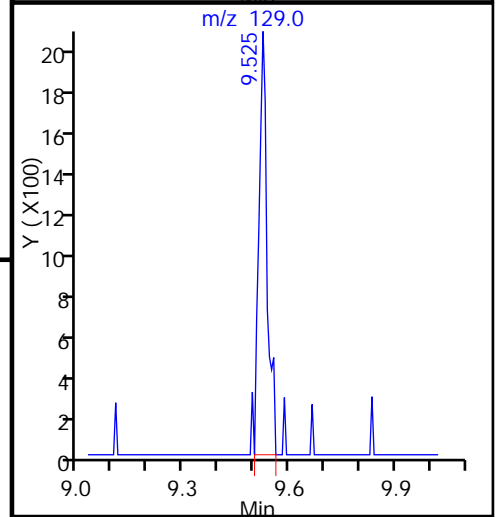
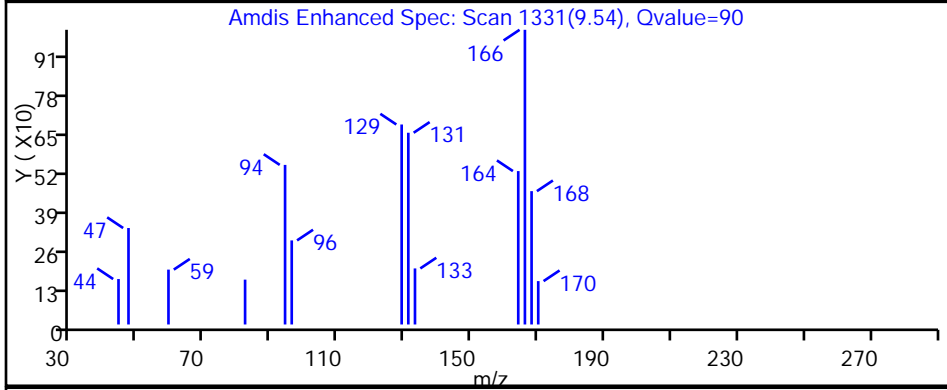
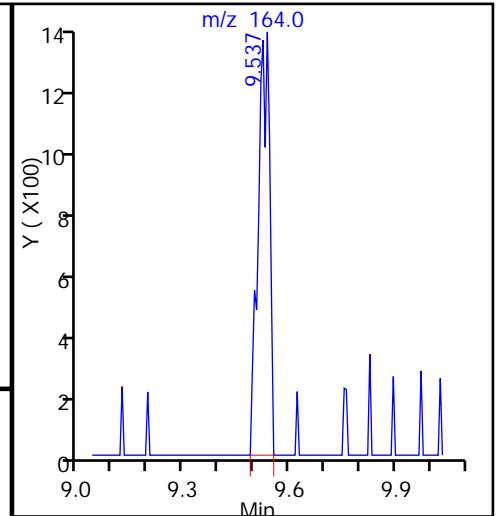
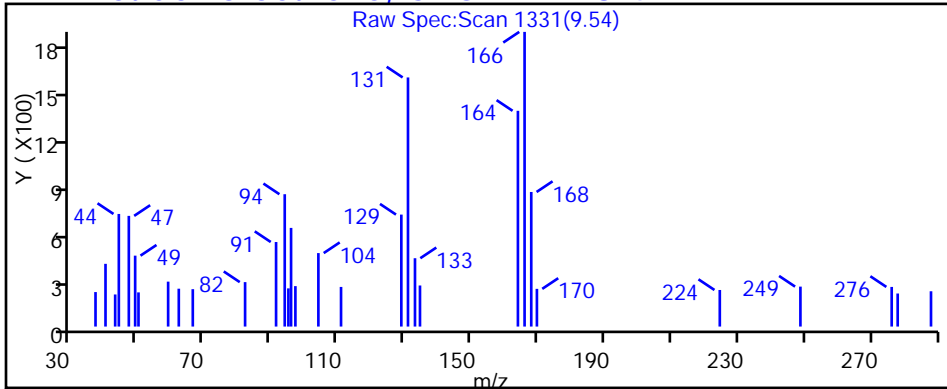
Method: MSVOA\_LL\_CHHP6

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.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-29-0/1-0 Lab Sample ID: 180-47781-13  
 Matrix: Water Lab File ID: 60923020.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 09:08  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 18:57  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154553 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	0.22	J	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-29-0/1-0 Lab Sample ID: 180-47781-13  
 Matrix: Water Lab File ID: 60923020.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 09:08  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 18:57  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154553 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	112		64-135
2037-26-5	Toluene-d8 (Surr)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	88		70-118
1868-53-7	Dibromofluoromethane (Surr)	113		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923020.D  
 Lims ID: 180-47781-C-13 Lab Sample ID: 180-47781-13  
 Client ID: HD-COD-SW-29-0/1-0  
 Sample Type: Client  
 Inject. Date: 23-Sep-2015 18:57:30 ALS Bottle#: 20 Worklist Smp#: 20  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-47781-C-13  
 Misc. Info.: 180-0008638-020  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 24-Sep-2015 08:04:58 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: XAWRK003

First Level Reviewer: fergusond

Date: 24-Sep-2015 08:04:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.241	4.236	0.005	86	174333	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.284	0.005	97	439163	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	91	108713	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.747	-0.001	98	179127	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.553	6.548	0.005	92	113786	56.3	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.925	0.005	70	182682	56.0	
\$ 7 Toluene-d8 (Surr)	98	8.944	8.938	0.006	95	420675	49.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.585	-0.001	84	166977	43.9	
12 Chloromethane	50	1.765	1.760	0.005	1	1992	0.7600	M
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.222				ND	
16 Chloroethane	64		2.374				ND	
22 1,1-Dichloroethene	96		3.336				ND	
24 Acetone	43	3.432	3.415	0.017	57	6335	8.15	M
26 Carbon disulfide	76		3.634				ND	
31 Methylene Chloride	84		4.126				ND	
33 Acrylonitrile	53		4.497				ND	
35 Methyl tert-butyl ether	73		4.564				ND	
34 trans-1,2-Dichloroethene	96		4.564				ND	
37 1,1-Dichloroethane	63		5.197				ND	
43 cis-1,2-Dichloroethene	96	5.951	5.939	0.012	68	2621	0.9448	
44 2-Butanone (MEK)	43		5.945				ND	
48 Chlorobromomethane	128		6.225				ND	
50 Chloroform	83		6.377				ND	
51 1,1,1-Trichloroethane	97		6.535				ND	
53 Carbon tetrachloride	117		6.712				ND	
56 Benzene	78		6.937				ND	
57 1,2-Dichloroethane	62		7.010				ND	
61 Trichloroethene	130	7.685	7.673	0.012	84	2316	1.08	
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		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.443				ND	
77 Tetrachloroethene	164	9.516	9.529	-0.012	82	1155	0.6037	M
79 2-Hexanone	43		9.662				ND	
81 Chlorodibromomethane	129		9.827				ND	
82 Ethylene Dibromide	107		9.942				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		11.037				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				ND	
S 131 Xylenes, Total	106		1.000				ND	

### QC Flag Legend

Review Flags

M - Manually Integrated

### Reagents:

VOA8260INT\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923020.D

Injection Date: 23-Sep-2015 18:57:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-47781-C-13

Lab Sample ID: 180-47781-13

Worklist Smp#: 20

Client ID: HD-COD-SW-29-0/1-0

Purge Vol: 5.000 mL

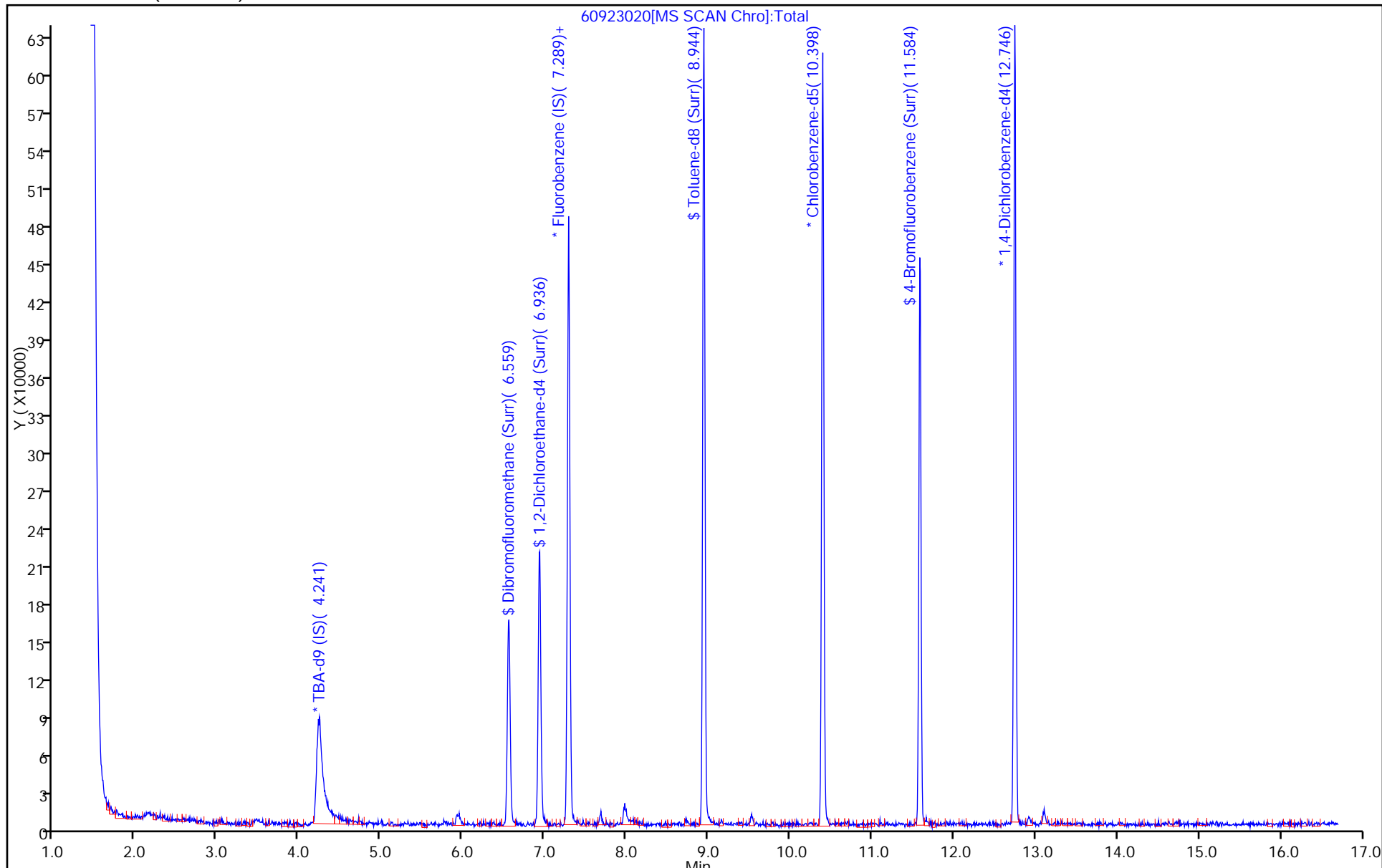
Dil. Factor: 1.0000

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\20150923-8638.b\60923020.D

Injection Date: 23-Sep-2015 18:57:30

Instrument ID: CHHP6

Lims ID: 180-47781-C-13

Lab Sample ID: 180-47781-13

Client ID: HD-COD-SW-29-0/1-0

Operator ID: 001562

ALS Bottle#: 20

Worklist Smp#: 20

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

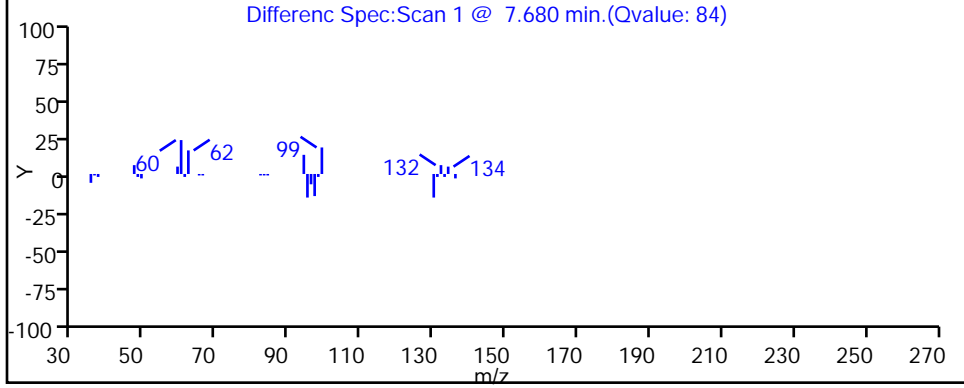
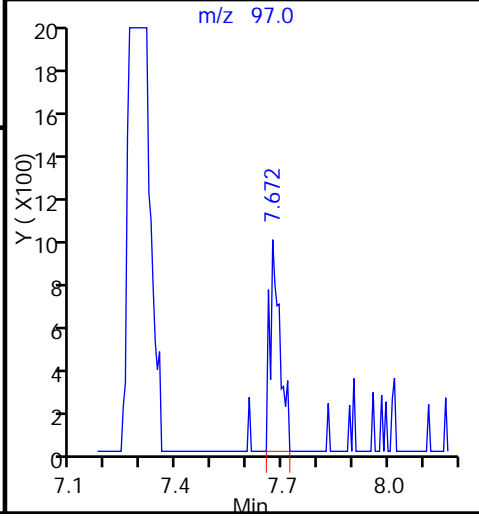
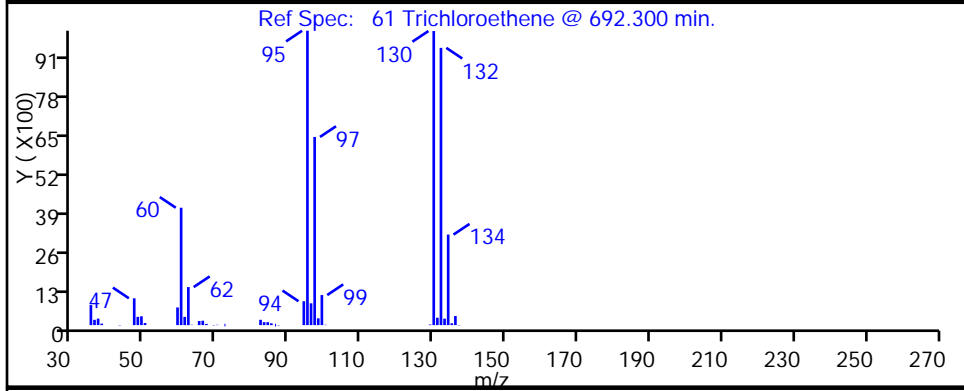
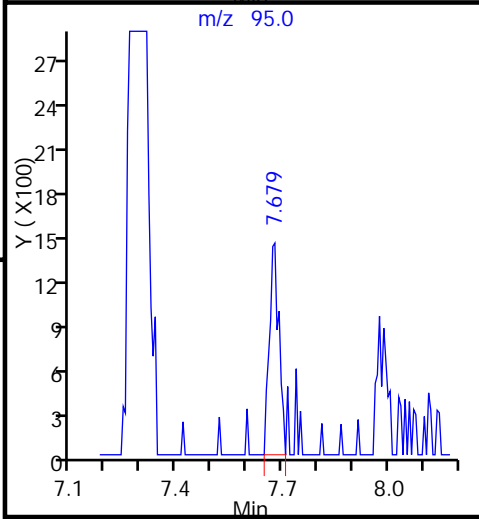
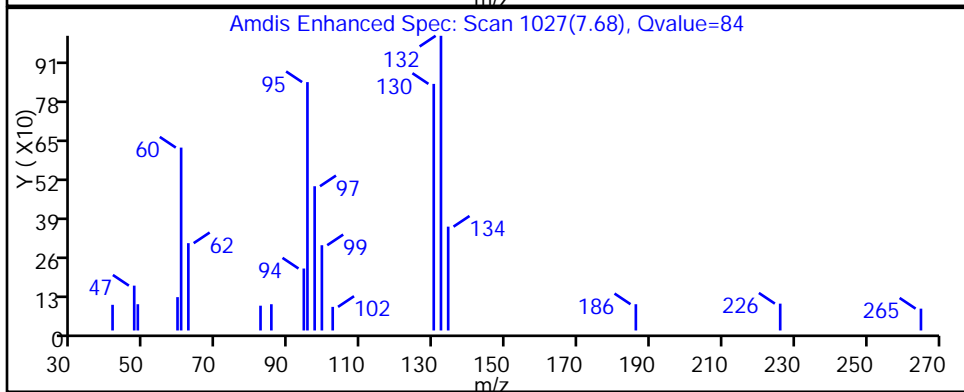
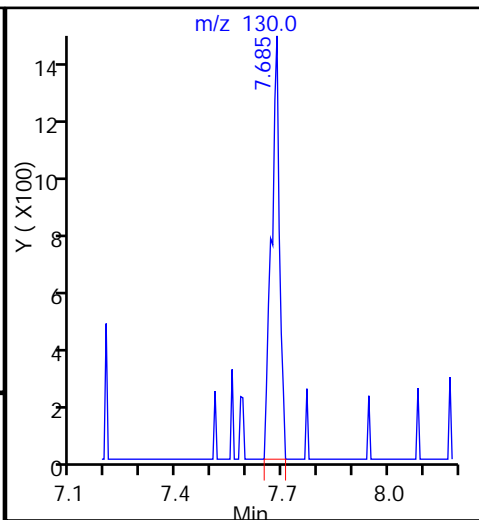
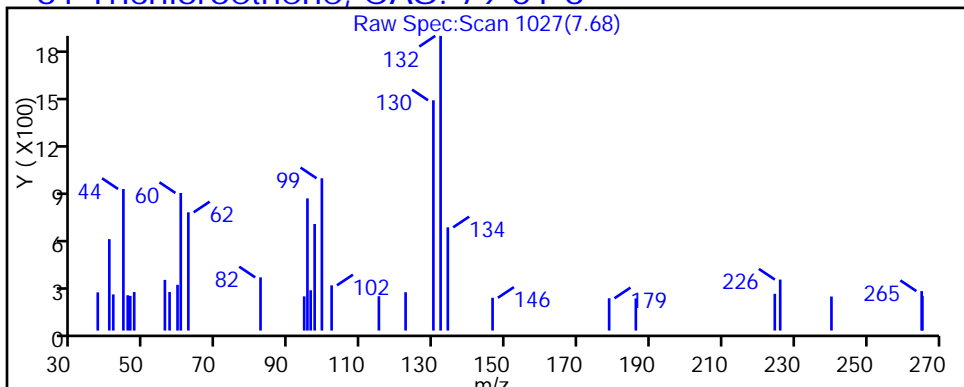
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

61 Trichloroethene, CAS: 79-01-6



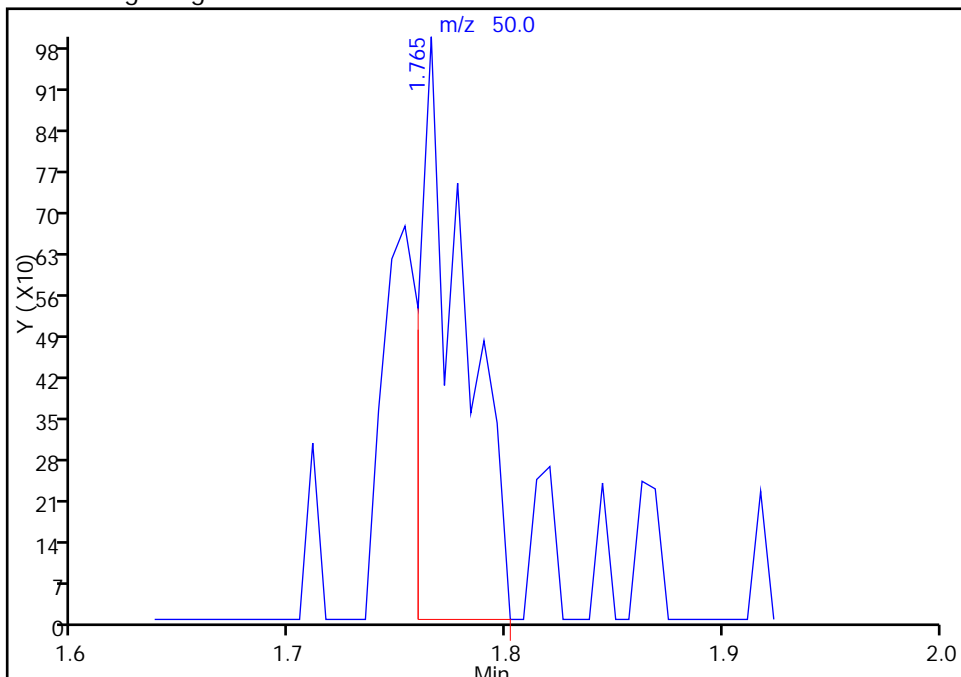
TestAmerica Pittsburgh

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Lims ID: 180-47781-C-13 Lab Sample ID: 180-47781-13  
Client ID: HD-COD-SW-29-0/1-0  
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

12 Chloromethane, CAS: 74-87-3

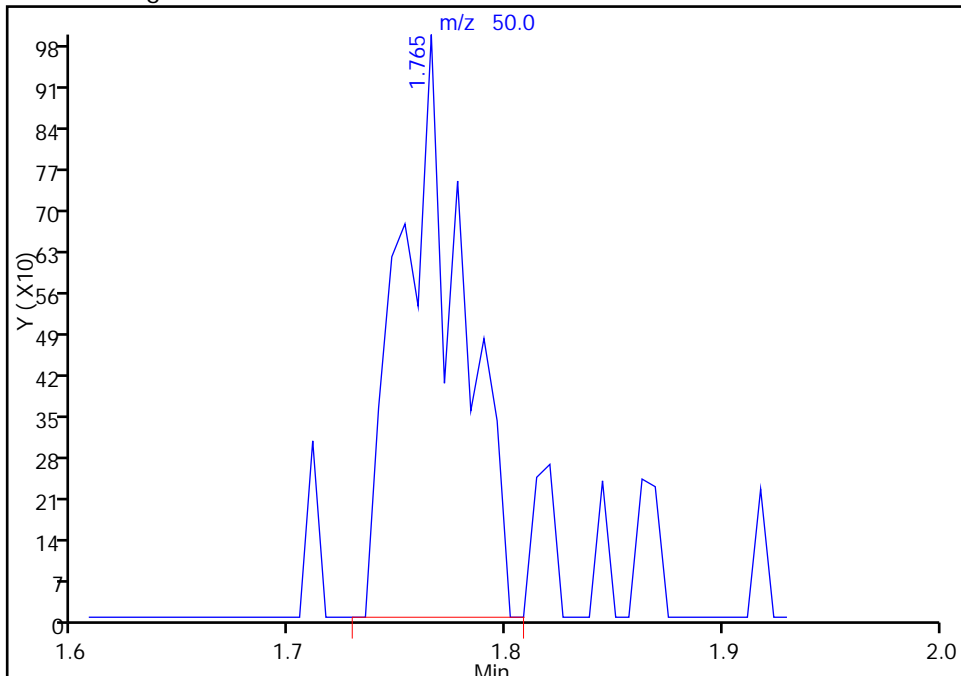
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Area: 1393  
Amount: 0.531486  
Amount Units: ng

Processing Integration Results



RT: 1.77  
Area: 1992  
Amount: 0.760028  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 24-Sep-2015 08:04:58  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

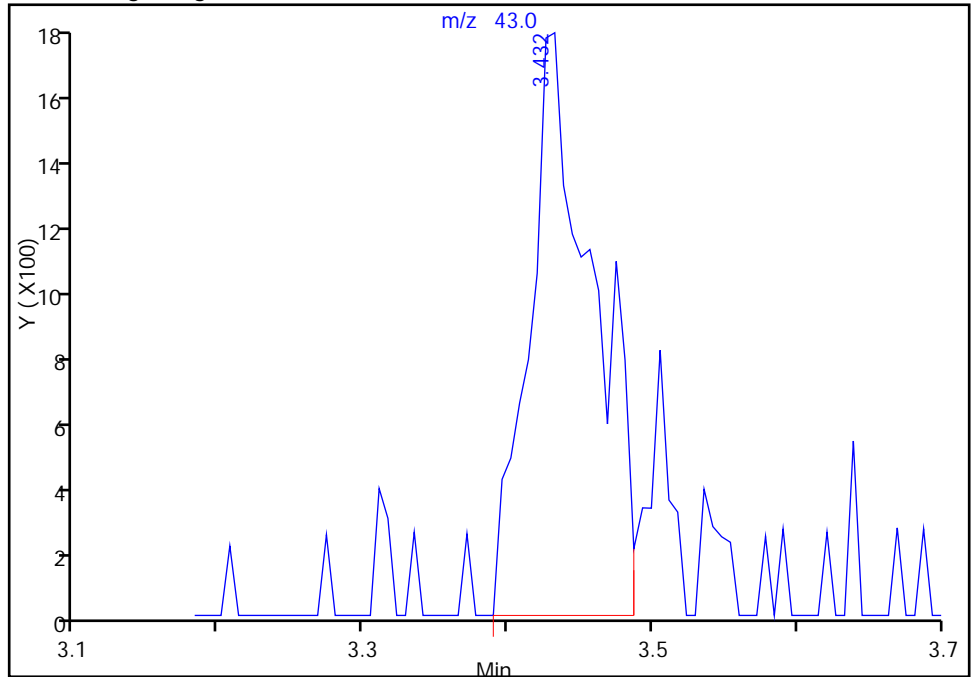
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923020.D  
Injection Date: 23-Sep-2015 18:57:30 Instrument ID: CHHP6  
Lims ID: 180-47781-C-13 Lab Sample ID: 180-47781-13  
Client ID: HD-COD-SW-29-0/1-0  
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

24 Acetone, CAS: 67-64-1

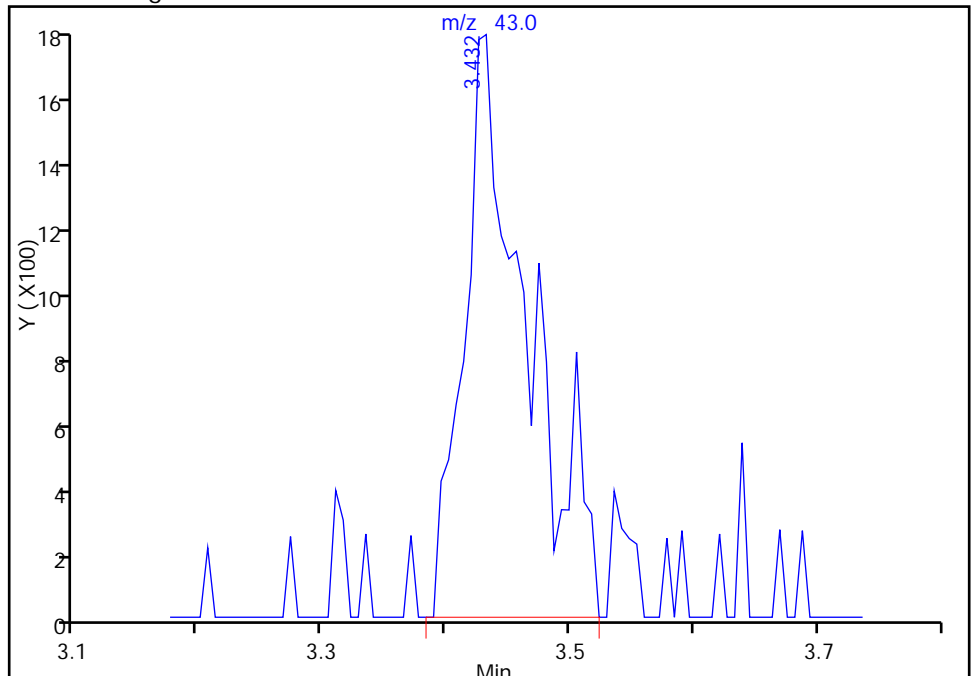
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Area: 5557  
Amount: 7.152325  
Amount Units: ng

Processing Integration Results



RT: 3.43  
Area: 6335  
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Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 24-Sep-2015 08:04:58  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration



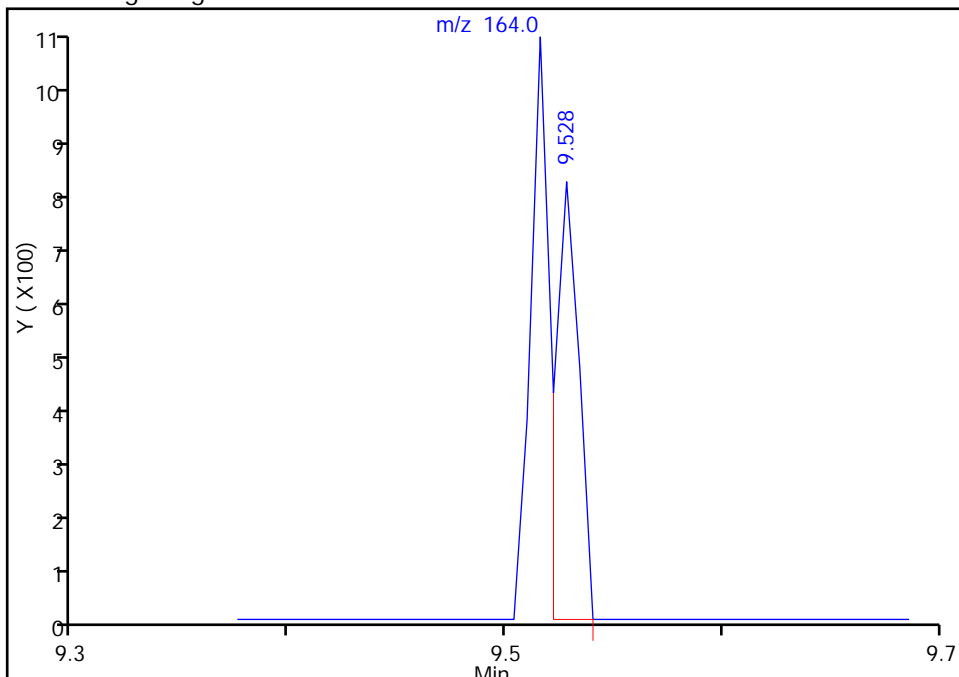
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923020.D  
Injection Date: 23-Sep-2015 18:57:30 Instrument ID: CHHP6  
Lims ID: 180-47781-C-13 Lab Sample ID: 180-47781-13  
Client ID: HD-COD-SW-29-0/1-0  
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

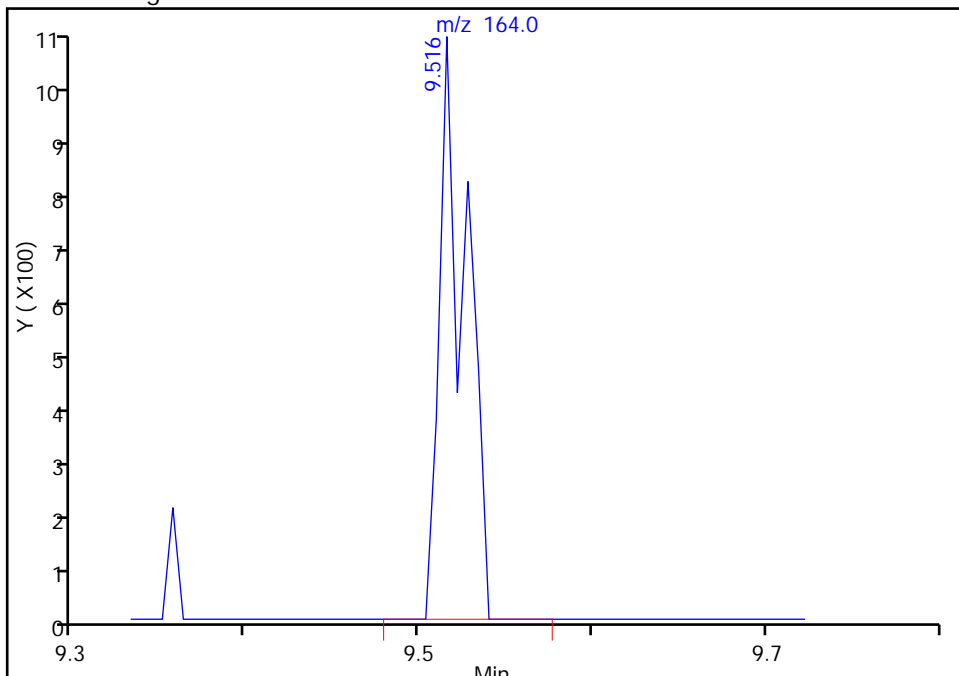
RT: 9.53  
Area: 623  
Amount: 0.325613  
Amount Units: ng

Processing Integration Results



RT: 9.52  
Area: 1155  
Amount: 0.603664  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 24-Sep-2015 08:04:58  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 180-47781-14  
 Matrix: Water Lab File ID: 60923021.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 08:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 19:21  
 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.: 154553 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	0.65	J	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	0.25	J	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	15		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	0.23	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	0.59	J	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	17		1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	8.9		1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 180-47781-14  
 Matrix: Water Lab File ID: 60923021.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 08:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 19:21  
 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.: 154553 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	114		64-135
2037-26-5	Toluene-d8 (Surr)	103		71-118
460-00-4	4-Bromofluorobenzene (Surr)	90		70-118
1868-53-7	Dibromofluoromethane (Surr)	112		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923021.D  
 Lims ID: 180-47781-B-14 Lab Sample ID: 180-47781-14  
 Client ID: HD-QC1-0/1-1  
 Sample Type: Client  
 Inject. Date: 23-Sep-2015 19:21:30 ALS Bottle#: 21 Worklist Smp#: 21  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-47781-B-14  
 Misc. Info.: 180-0008638-021  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 24-Sep-2015 08:06:50 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: XAWRK003

First Level Reviewer: fergusond

Date: 24-Sep-2015 08:06:50

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.235	4.236	-0.001	82	171283	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.284	0.005	97	444163	50.0	
* 3 Chlorobenzene-d5	119	10.392	10.398	-0.006	91	106287	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.747	-0.001	98	173374	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.559	6.548	0.011	93	114950	56.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.925	0.005	71	188143	57.0	
\$ 7 Toluene-d8 (Surr)	98	8.944	8.938	0.006	95	430784	51.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.590	11.585	0.005	85	167740	45.1	
12 Chloromethane	50	1.777	1.760	0.017	45	2731	1.03	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.222				ND	
16 Chloroethane	64		2.374				ND	
22 1,1-Dichloroethene	96	3.341	3.336	0.005	94	7212	3.23	
24 Acetone	43	3.444	3.415	0.029	76	6029	7.67	
26 Carbon disulfide	76		3.634				ND	
31 Methylene Chloride	84		4.126				ND	
33 Acrylonitrile	53		4.497				ND	
35 Methyl tert-butyl ether	73	4.570	4.564	0.006	21	2551	0.3300	M
34 trans-1,2-Dichloroethene	96	4.576	4.564	0.012	24	698	0.2705	
37 1,1-Dichloroethane	63	5.196	5.197	-0.001	0	5860	1.27	M
43 cis-1,2-Dichloroethene	96	5.951	5.939	0.012	85	213362	76.0	
44 2-Butanone (MEK)	43		5.945				ND	
48 Chlorobromomethane	128		6.225				ND	
50 Chloroform	83	6.371	6.377	-0.007	91	5347	1.17	
51 1,1,1-Trichloroethane	97	6.541	6.535	0.006	90	9990	2.95	
53 Carbon tetrachloride	117	6.717	6.712	0.005	1	830	0.3469	
56 Benzene	78		6.937				ND	
57 1,2-Dichloroethane	62		7.010				ND	
61 Trichloroethene	130	7.678	7.673	0.005	96	182808	84.7	
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		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97	9.467	9.443	0.024	1	1239	0.5463	
77 Tetrachloroethene	164	9.528	9.529	0.000	93	83059	44.4	
79 2-Hexanone	43		9.662				ND	
81 Chlorodibromomethane	129		9.827				ND	
82 Ethylene Dibromide	107		9.942				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		11.037				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				ND	
S 131 Xylenes, Total	106		1.000				ND	

**QC Flag Legend**

Review Flags

M - Manually Integrated

**Reagents:**

VOA8260INT\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923021.D

Injection Date: 23-Sep-2015 19:21:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-47781-B-14

Lab Sample ID: 180-47781-14

Worklist Smp#: 21

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

Purge Vol: 5.000 mL

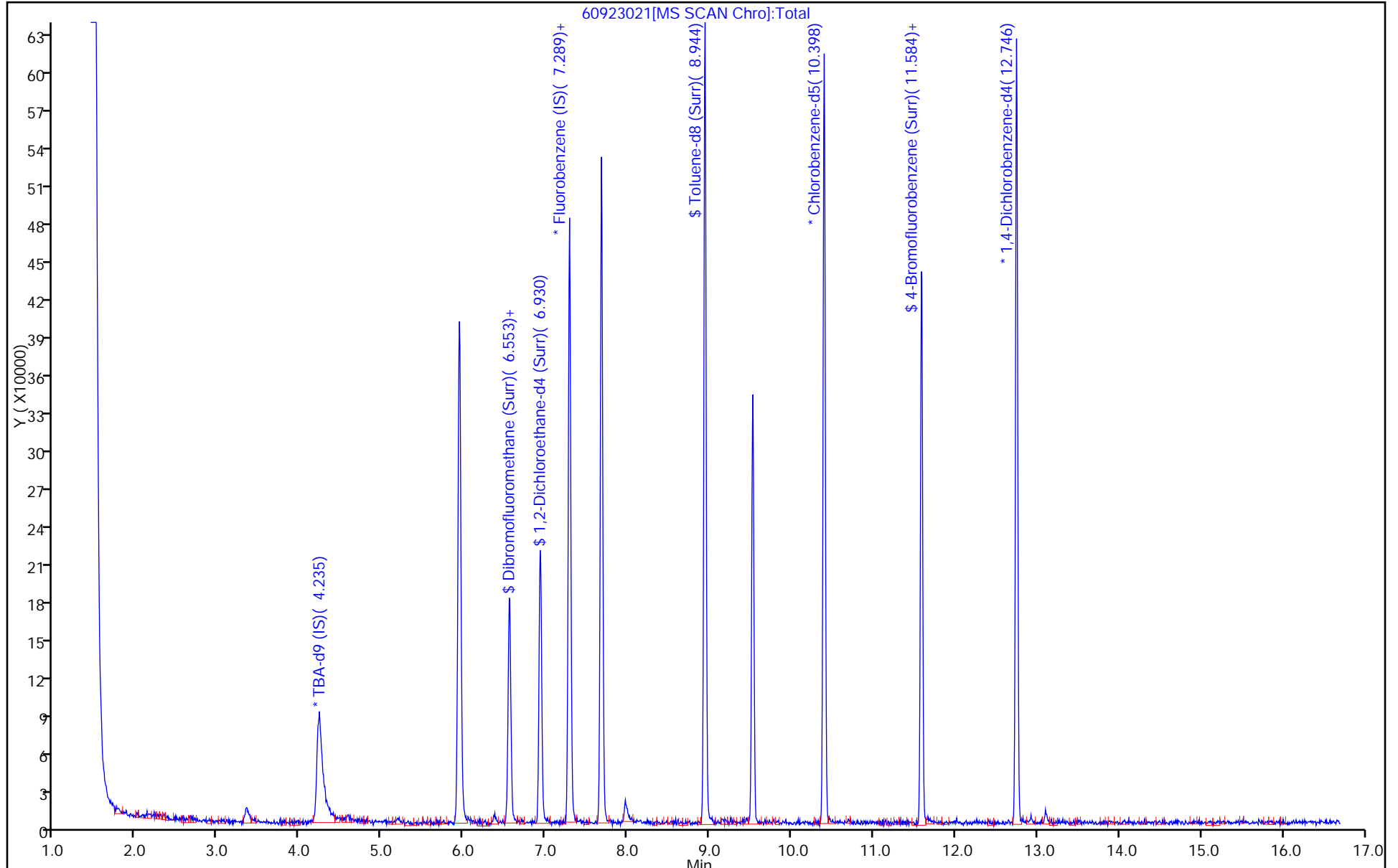
Dil. Factor: 1.0000

ALS Bottle#: 21

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923021.D

Injection Date: 23-Sep-2015 19:21:30

Instrument ID: CHHP6

Lims ID: 180-47781-B-14

Lab Sample ID: 180-47781-14

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

Operator ID: 001562

ALS Bottle#: 21 Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

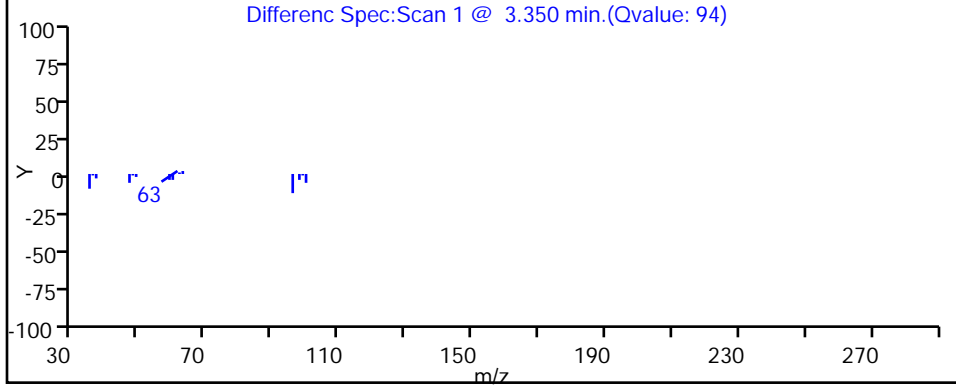
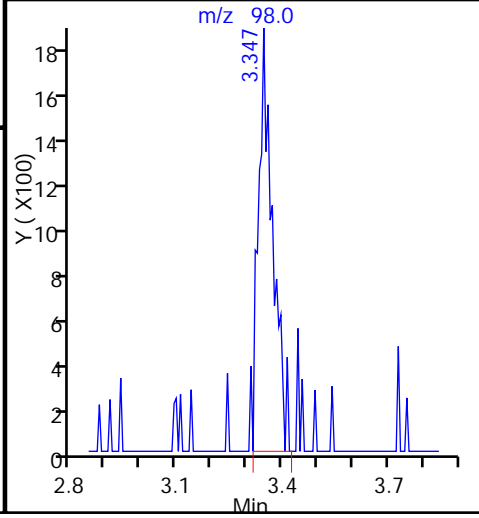
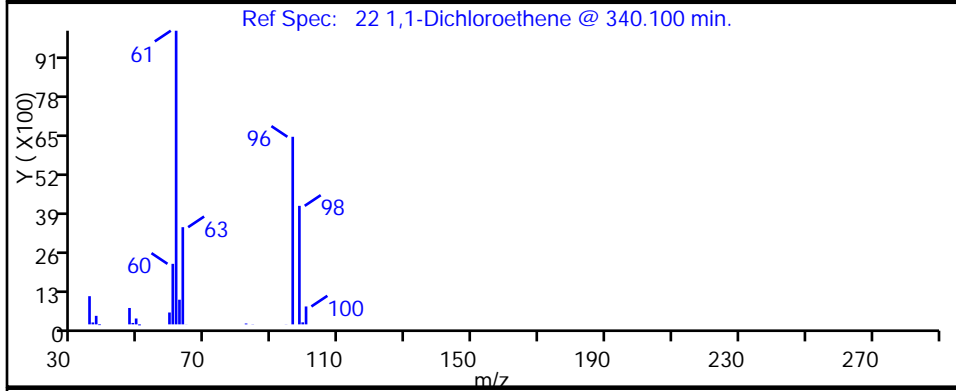
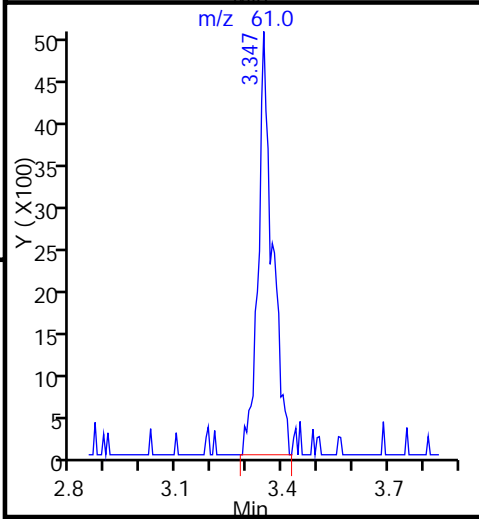
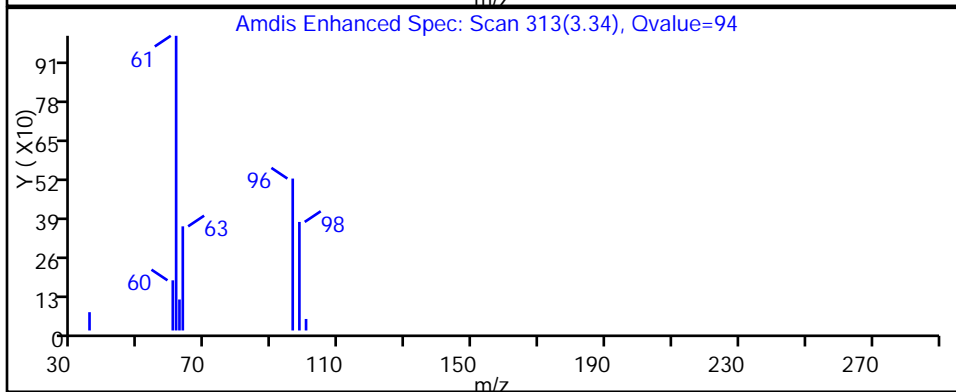
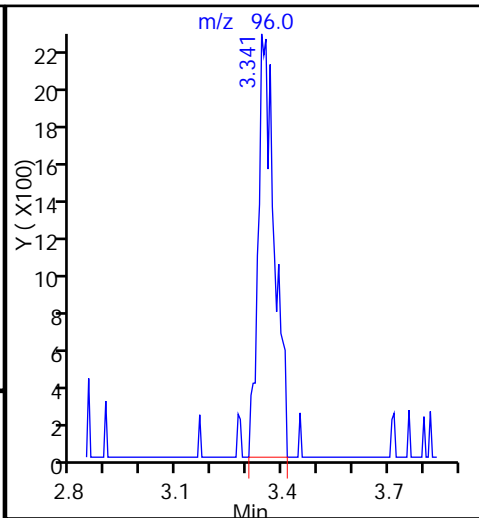
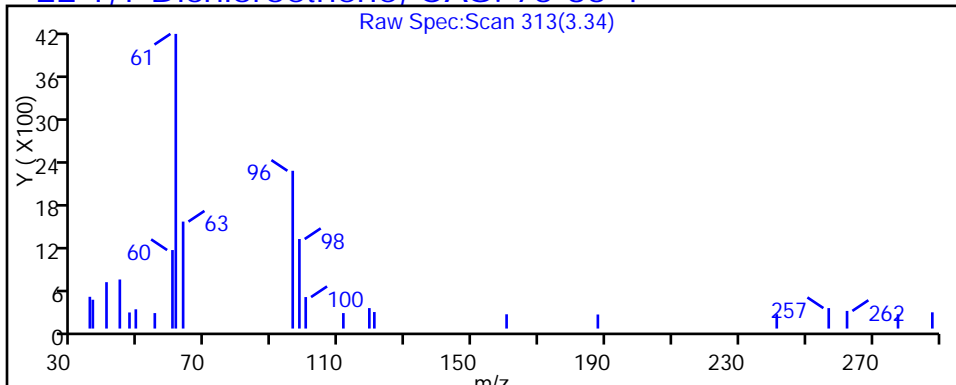
Method: MSVOA\_LL\_CHHP6

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\20150923-8638.b\60923021.D

Injection Date: 23-Sep-2015 19:21:30

Instrument ID: CHHP6

Lims ID: 180-47781-B-14

Lab Sample ID: 180-47781-14

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

Operator ID: 001562

ALS Bottle#: 21 Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

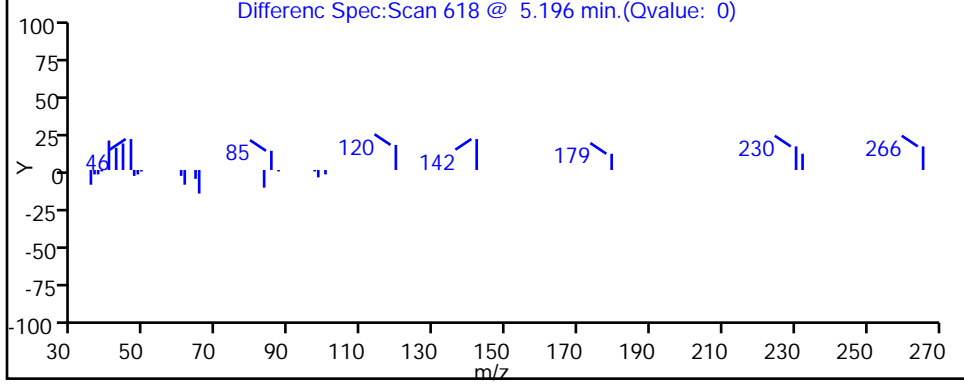
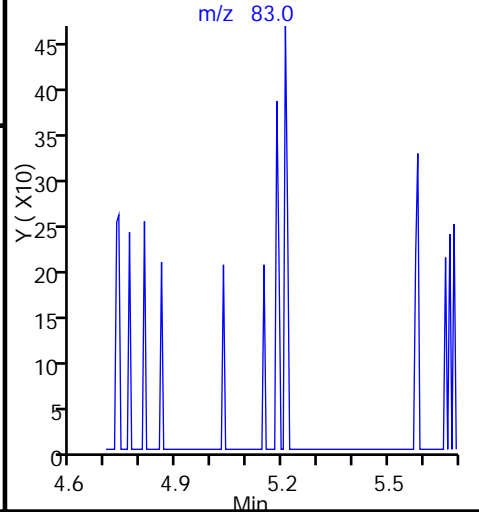
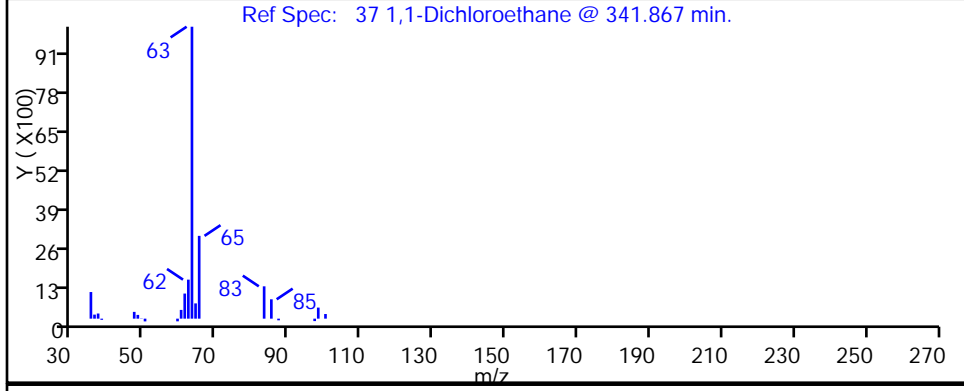
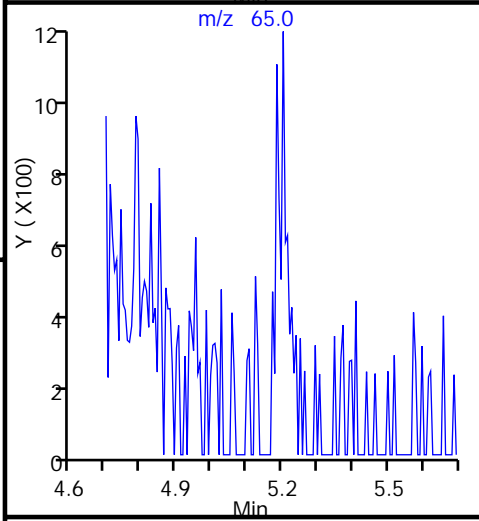
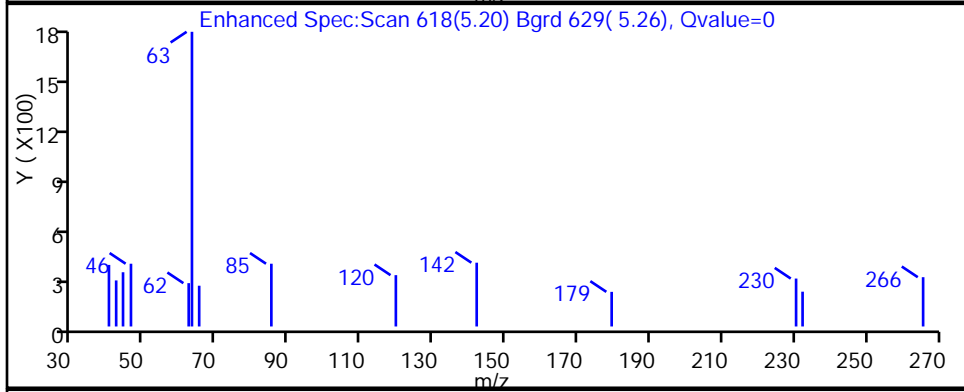
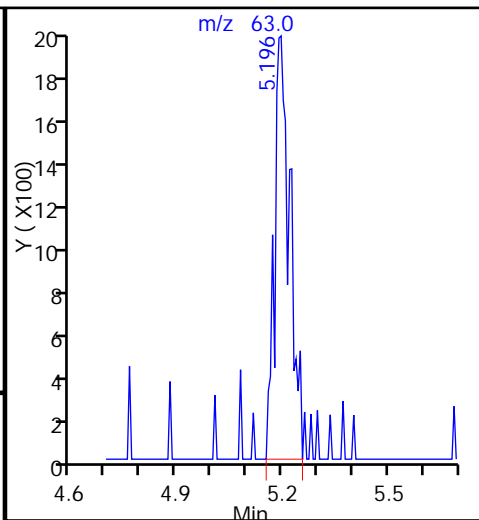
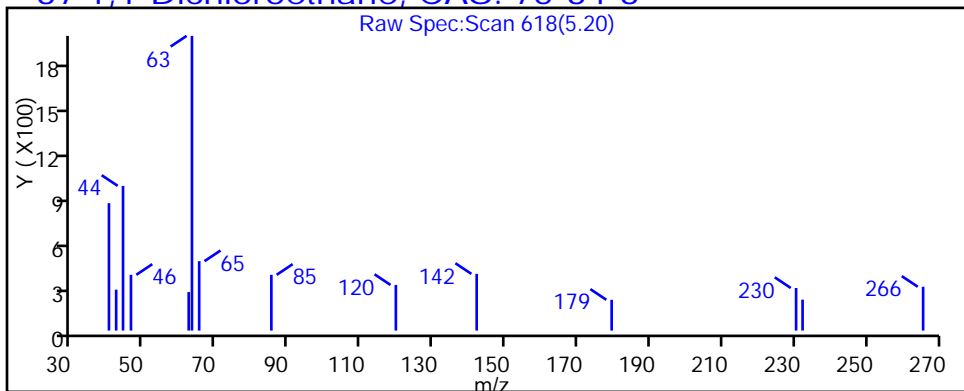
Method: MSVOA\_LL\_CHHP6

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\20150923-8638.b\60923021.D

Injection Date: 23-Sep-2015 19:21:30

Instrument ID: CHHP6

Lims ID: 180-47781-B-14

Lab Sample ID: 180-47781-14

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

Operator ID: 001562

ALS Bottle#: 21 Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

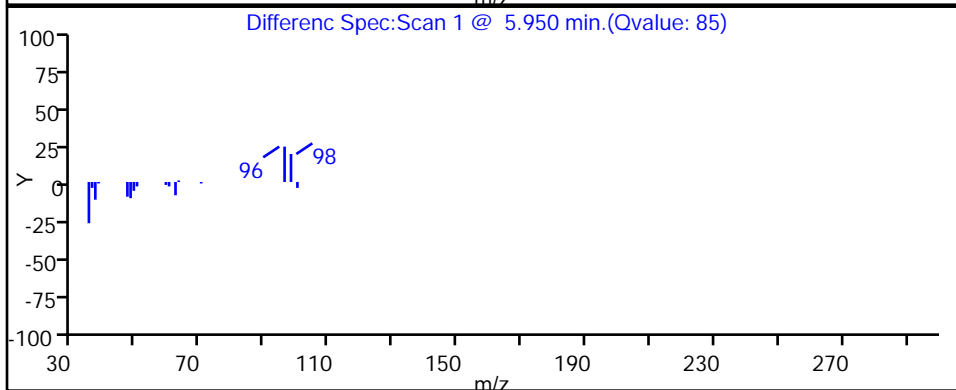
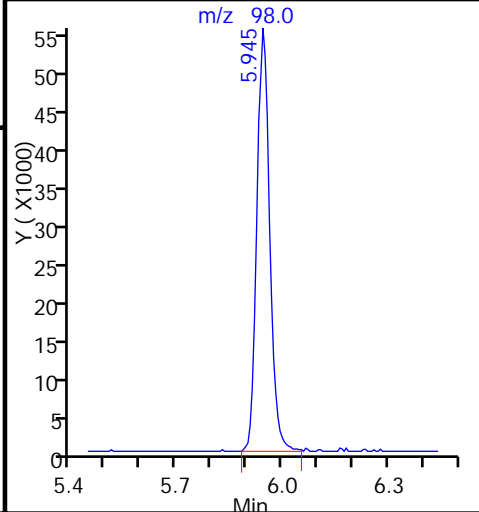
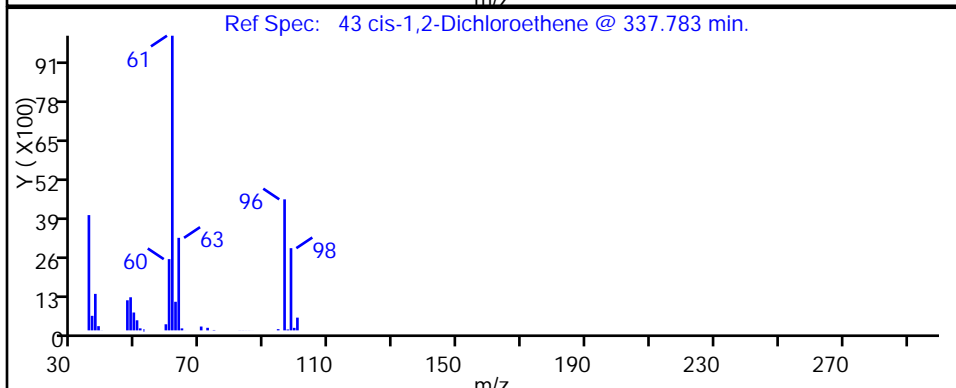
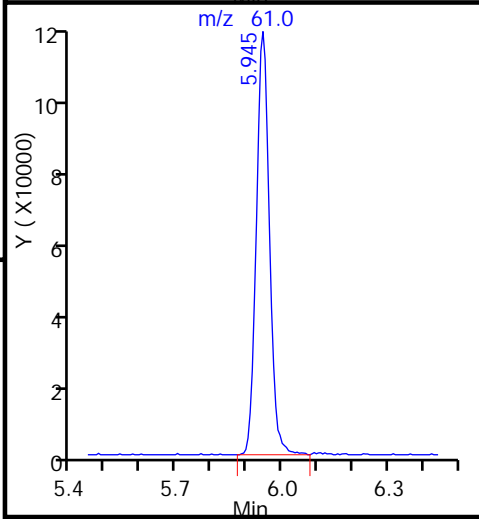
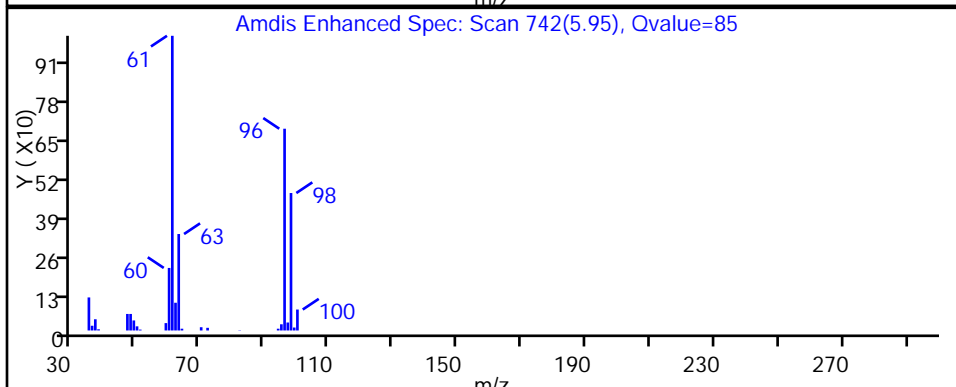
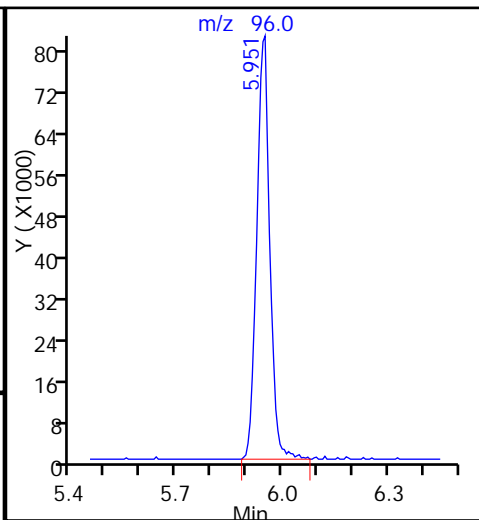
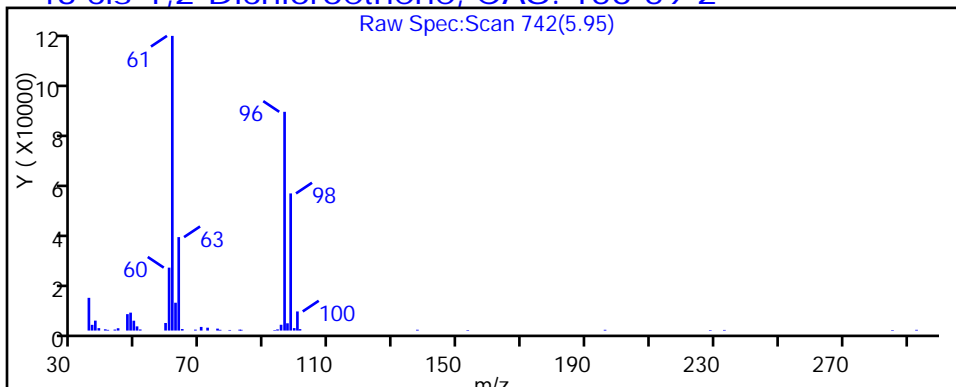
Method: MSVOA\_LL\_CHHP6

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\20150923-8638.b\60923021.D

Injection Date: 23-Sep-2015 19:21:30

Instrument ID: CHHP6

Lims ID: 180-47781-B-14

Lab Sample ID: 180-47781-14

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

Operator ID: 001562

ALS Bottle#: 21 Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

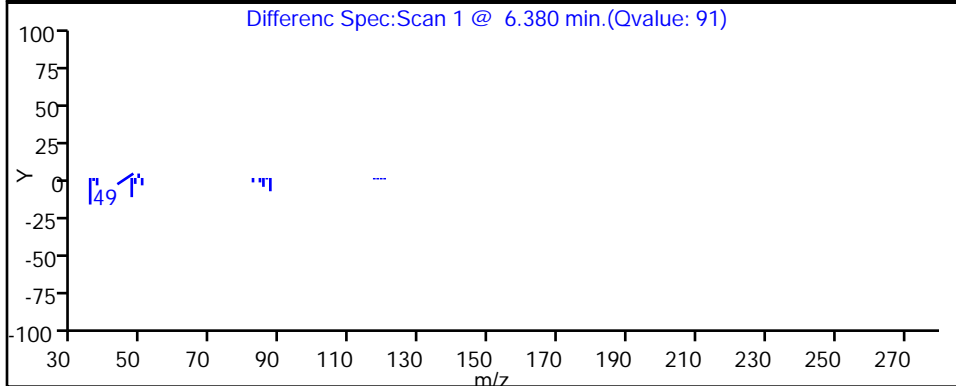
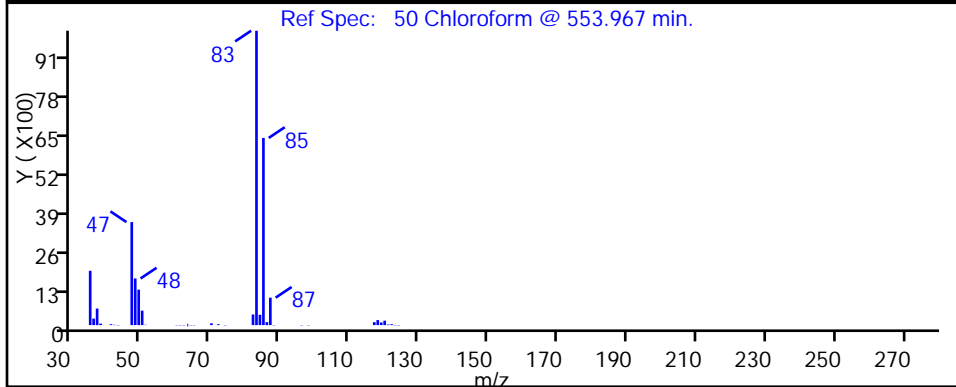
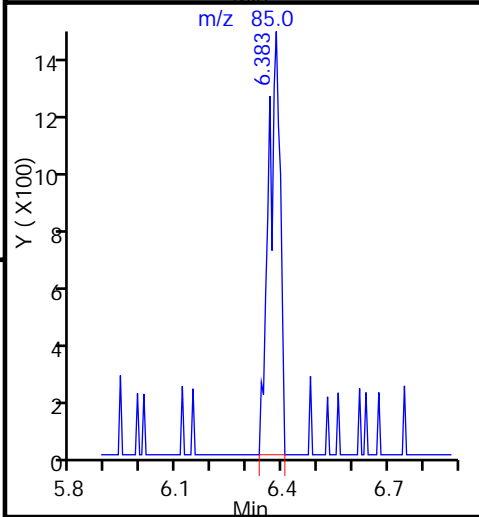
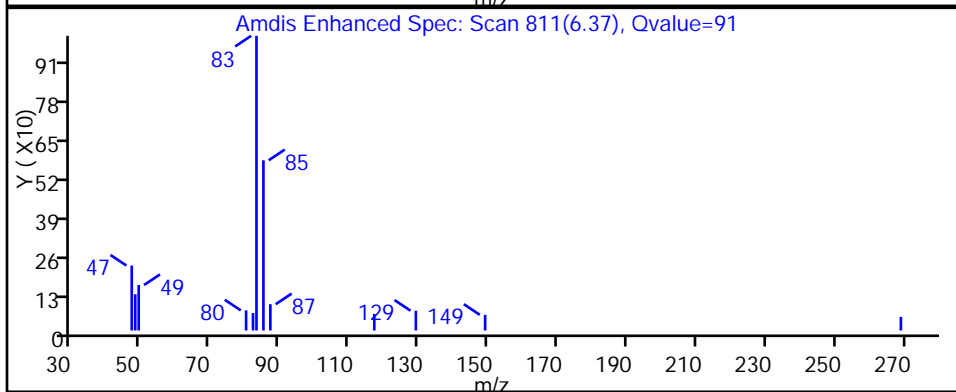
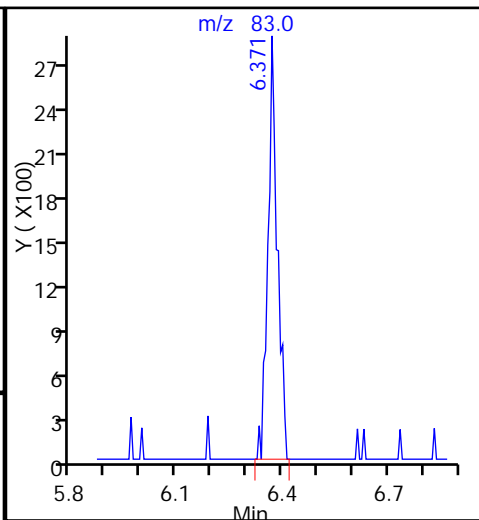
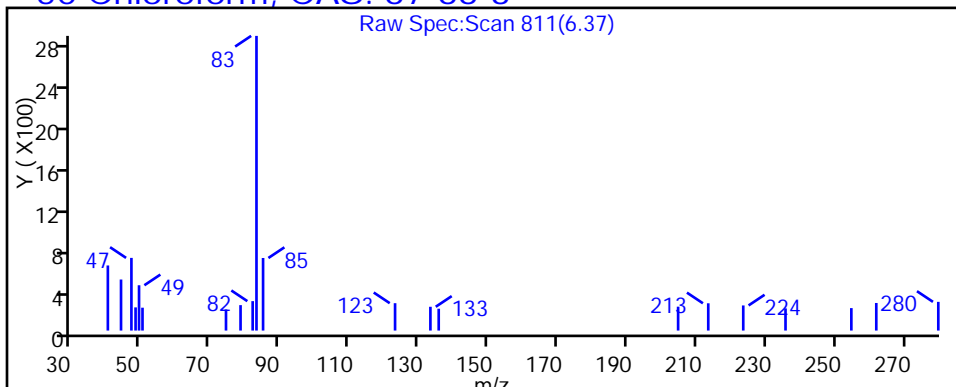
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

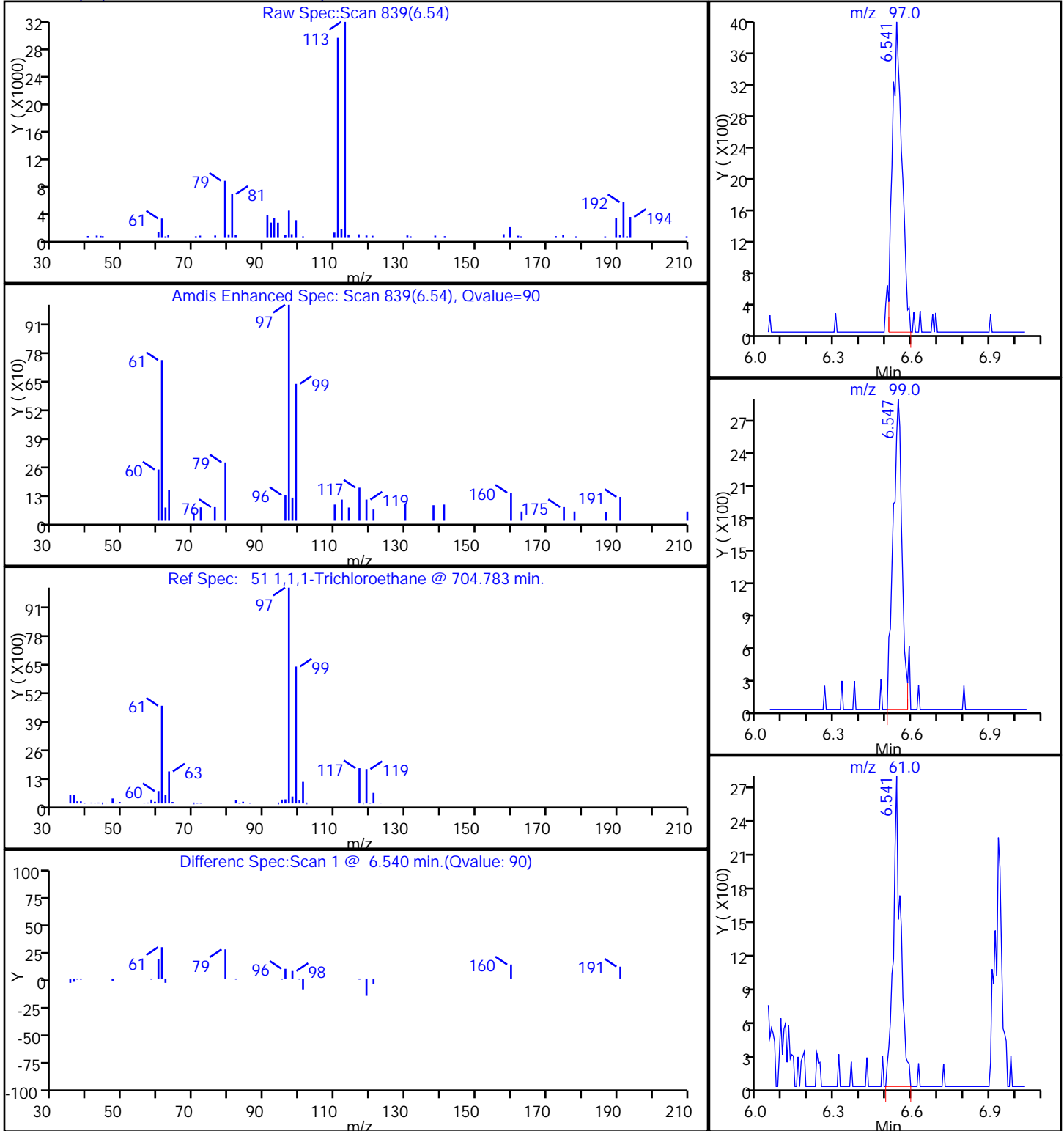
50 Chloroform, CAS: 67-66-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923021.D  
Injection Date: 23-Sep-2015 19:21:30 Instrument ID: CHHP6  
Lims ID: 180-47781-B-14 Lab Sample ID: 180-47781-14  
Client ID: HD-QC1-0/1-1  
Operator ID: 001562 ALS Bottle#: 21 Worklist Smp#: 21  
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\20150923-8638.b\60923021.D

Injection Date: 23-Sep-2015 19:21:30

Instrument ID: CHHP6

Lims ID: 180-47781-B-14

Lab Sample ID: 180-47781-14

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

Operator ID: 001562

ALS Bottle#: 21

Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

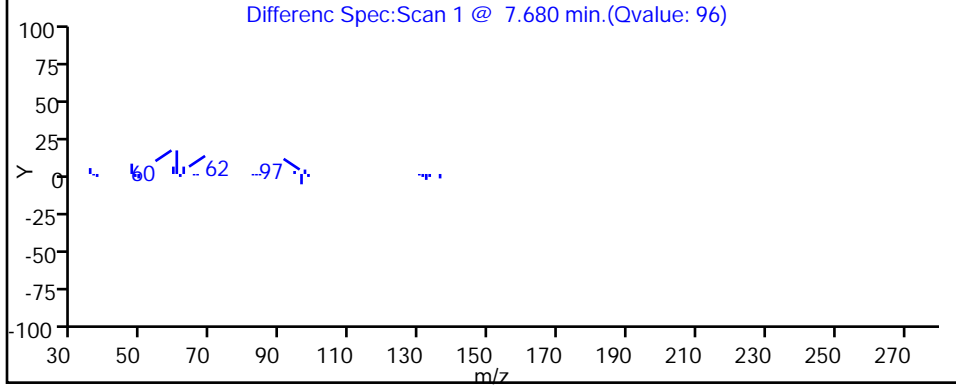
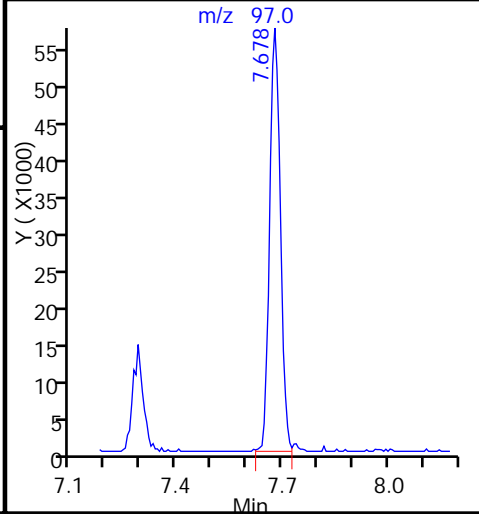
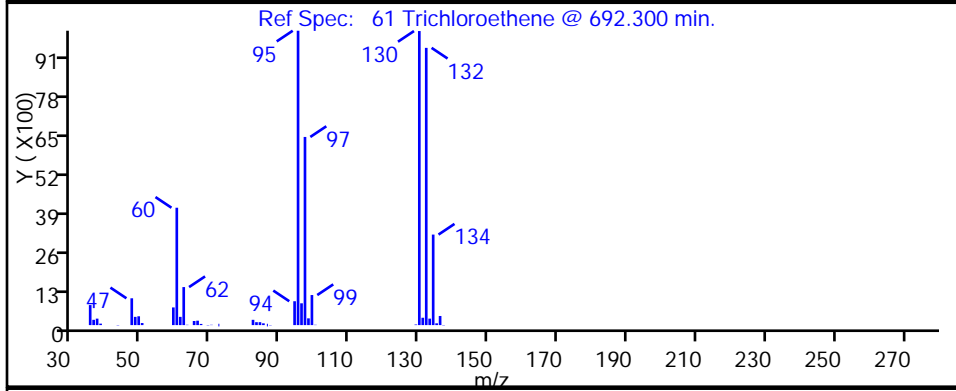
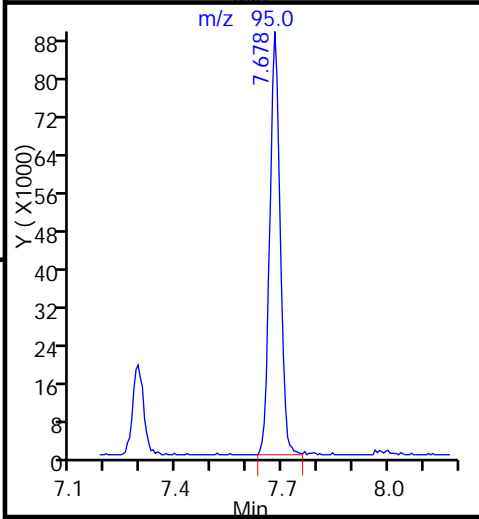
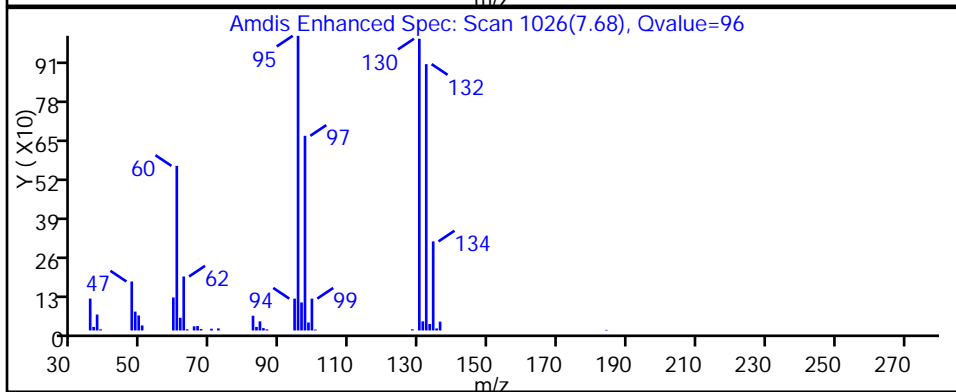
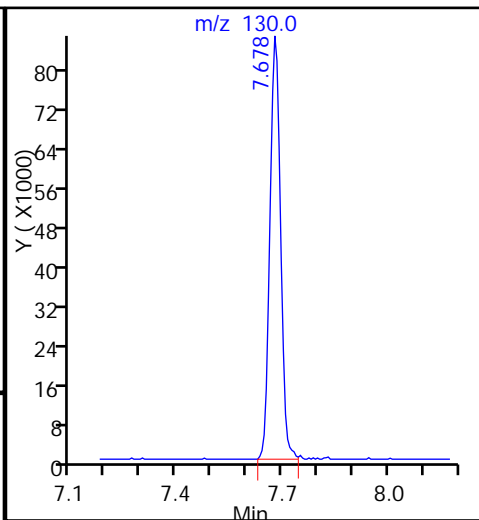
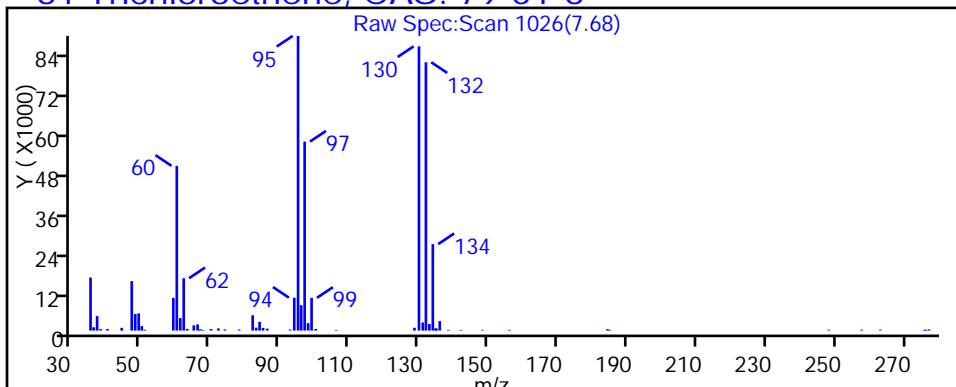
Method: MSVOA\_LL\_CHHP6

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\20150923-8638.b\60923021.D

Injection Date: 23-Sep-2015 19:21:30

Instrument ID: CHHP6

Lims ID: 180-47781-B-14

Lab Sample ID: 180-47781-14

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

Operator ID: 001562

ALS Bottle#: 21

Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

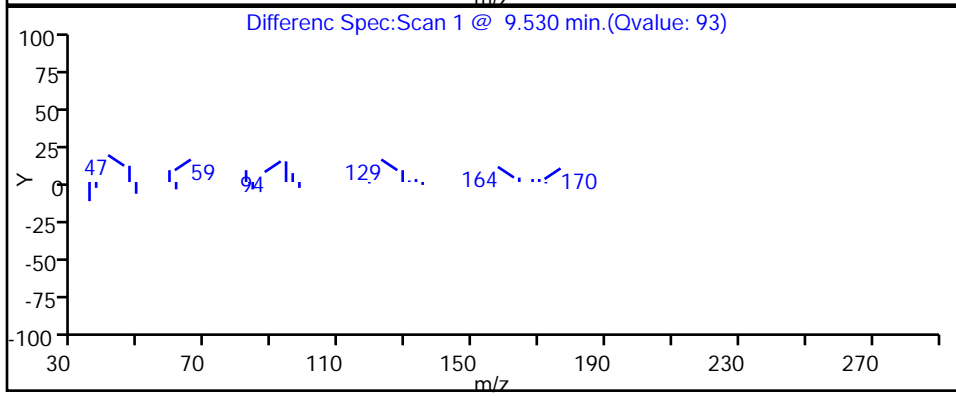
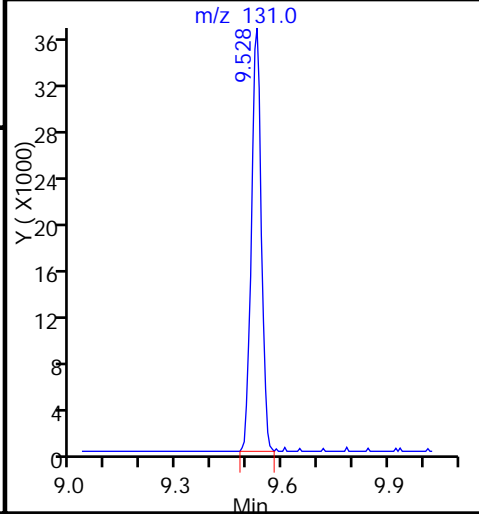
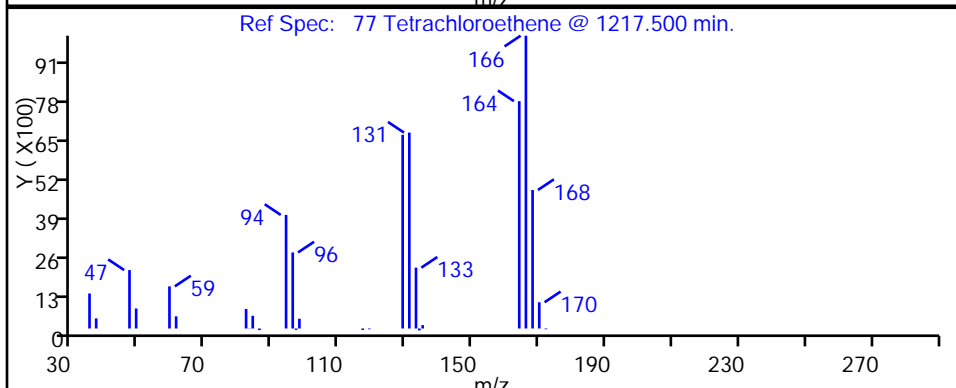
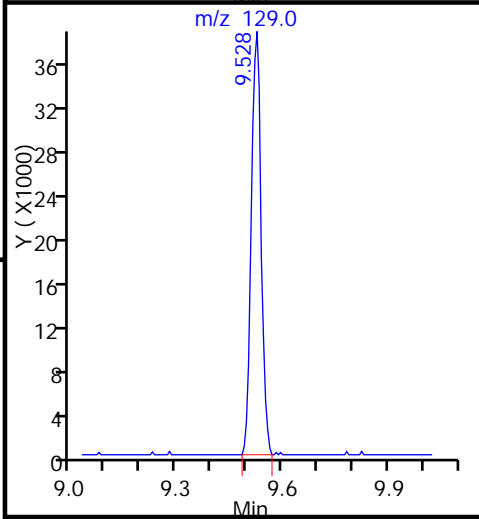
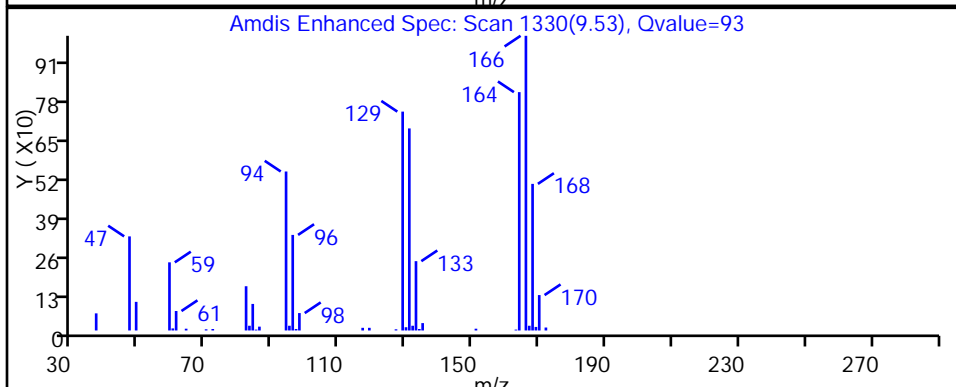
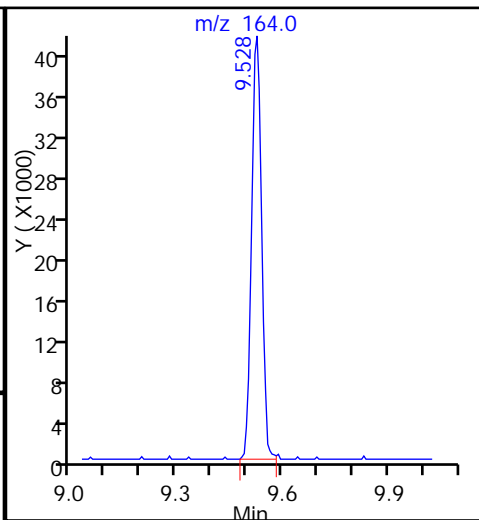
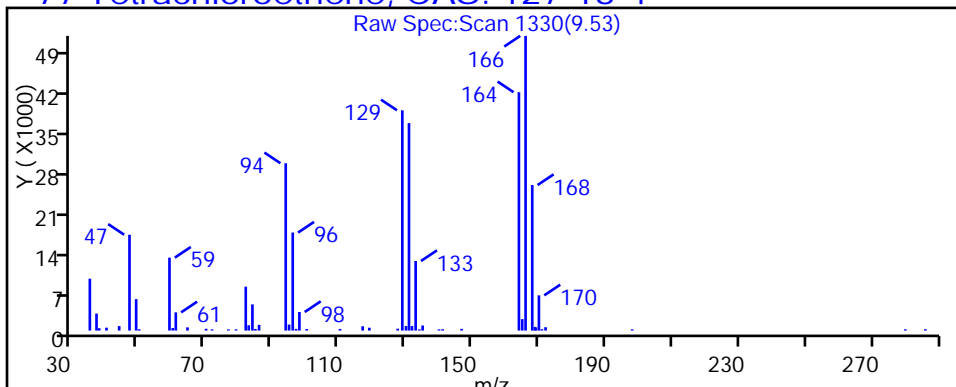
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

77 Tetrachloroethene, CAS: 127-18-4



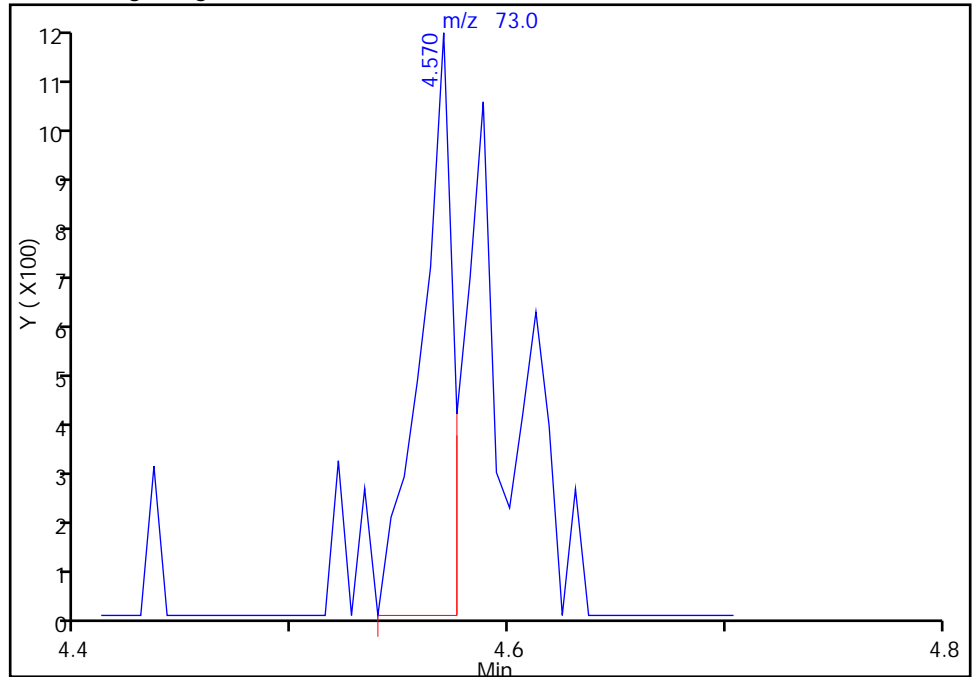
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923021.D  
Injection Date: 23-Sep-2015 19:21:30 Instrument ID: CHHP6  
Lims ID: 180-47781-B-14 Lab Sample ID: 180-47781-14  
Client ID: HD-QC1-0/1-1  
Operator ID: 001562 ALS Bottle#: 21 Worklist Smp#: 21  
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

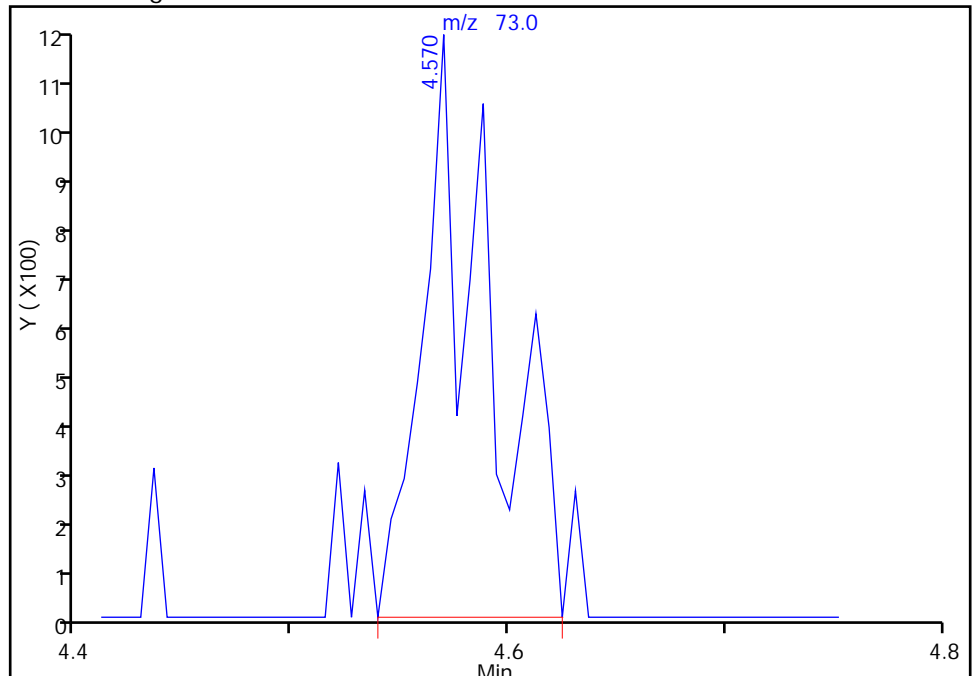
RT: 4.57  
Area: 1203  
Amount: 0.155599  
Amount Units: ng

Processing Integration Results



RT: 4.57  
Area: 2551  
Amount: 0.329954  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 24-Sep-2015 08:06:50  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

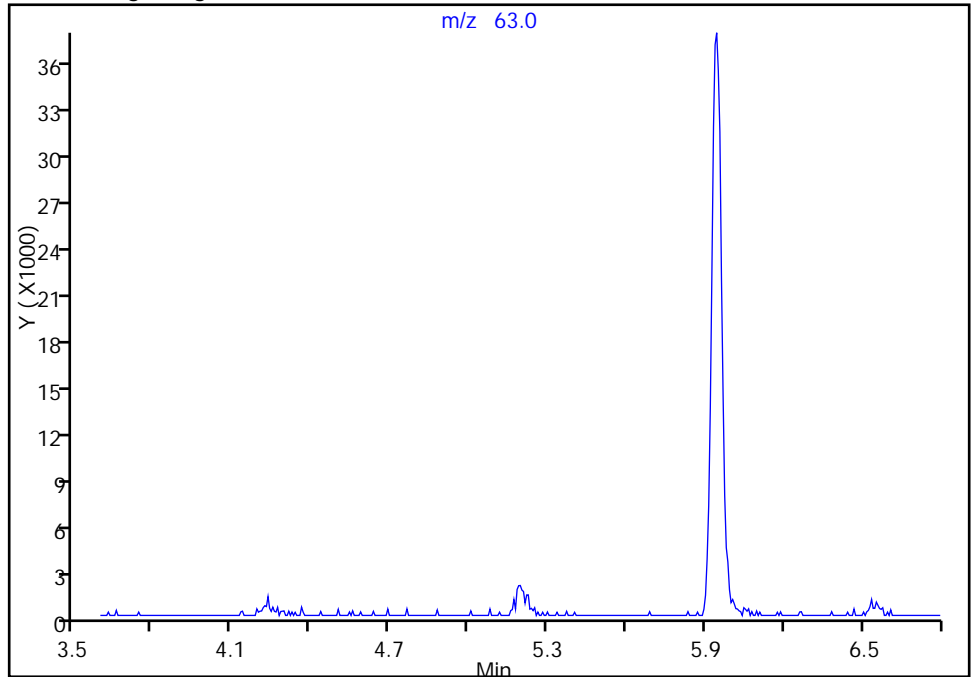
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923021.D  
Injection Date: 23-Sep-2015 19:21:30 Instrument ID: CHHP6  
Lims ID: 180-47781-B-14 Lab Sample ID: 180-47781-14  
Client ID: HD-QC1-0/1-1  
Operator ID: 001562 ALS Bottle#: 21 Worklist Smp#: 21  
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

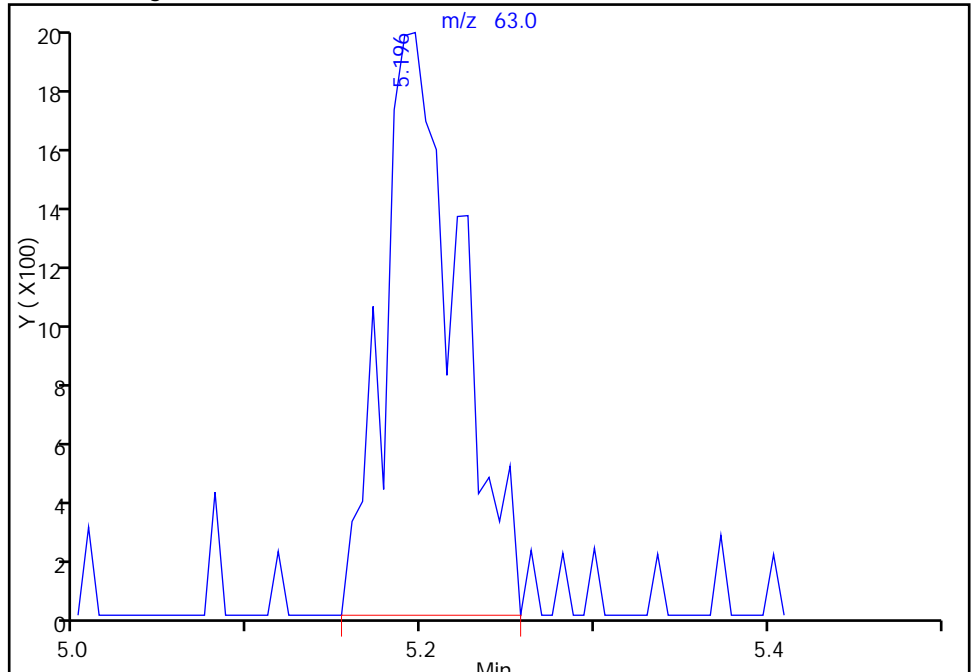
Not Detected  
Expected RT: 5.20

Processing Integration Results



RT: 5.20  
Area: 5860  
Amount: 1.268615  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 24-Sep-2015 08:06:50  
Audit Action: Manually Integrated  
Audit Reason: Missed Peak

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-2 Lab Sample ID: 180-47781-15  
 Matrix: Water Lab File ID: 50918008.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 12:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/18/2015 14:40  
 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.: 154121 Units: ug/L

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



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-2 Lab Sample ID: 180-47781-15  
 Matrix: Water Lab File ID: 50918008.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 12:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/18/2015 14:40  
 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.: 154121 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	114		64-135
2037-26-5	Toluene-d8 (Surr)	85		71-118
460-00-4	4-Bromofluorobenzene (Surr)	87		70-118
1868-53-7	Dibromofluoromethane (Surr)	106		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918008.D  
 Lims ID: 180-47781-B-15 Lab Sample ID: 180-47781-15  
 Client ID: HD-QC1-0/1-2  
 Sample Type: Client  
 Inject. Date: 18-Sep-2015 14:40:30 ALS Bottle#: 7 Worklist Smp#: 8  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-47781-B-15  
 Misc. Info.: 180-0008580-008  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Sep-2015 15:01:26 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: XAWRK010

First Level Reviewer: fergusond

Date: 18-Sep-2015 15:01:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.259	4.271	-0.012	0	116927	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.294	-0.005	97	299921	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.385	0.000	90	70684	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.734	12.727	0.007	98	92984	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.565	6.564	0.001	93	77995	53.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.929	0.007	0	115514	57.1	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.937	0.001	95	231192	42.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.571	0.001	84	89479	43.5	
12 Chloromethane	50		1.764				ND	
13 Vinyl chloride	62		1.904				ND	
15 Bromomethane	94		2.239				ND	
16 Chloroethane	64		2.385				ND	
22 1,1-Dichloroethene	96		3.346				ND	
24 Acetone	43	3.438	3.437	0.001	70	4566	7.54	
26 Carbon disulfide	76		3.638				ND	
31 Methylene Chloride	84		4.131				ND	
33 Acrylonitrile	53		4.526				ND	
34 trans-1,2-Dichloroethene	96		4.563				ND	
35 Methyl tert-butyl ether	73		4.581				ND	
37 1,1-Dichloroethane	63		5.202				ND	
45 cis-1,2-Dichloroethene	96		5.950				ND	
46 2-Butanone (MEK)	43		5.956				ND	
49 Chlorobromomethane	128		6.236				ND	
52 Chloroform	83		6.382				ND	
53 1,1,1-Trichloroethane	97		6.540				ND	
56 Carbon tetrachloride	117		6.716				ND	
58 Benzene	78		6.948				ND	
59 1,2-Dichloroethane	62		7.015				ND	
64 Trichloroethene	130		7.672				ND	
67 1,2-Dichloropropane	63		7.951				ND	
70 1,4-Dioxane	88		8.030				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.231				ND	
74 cis-1,3-Dichloropropene	75		8.675				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.827				ND	
76 Toluene	91		9.004				ND	
77 trans-1,3-Dichloropropene	75		9.253				ND	
79 1,1,2-Trichloroethane	97		9.448				ND	
80 Tetrachloroethene	164		9.515				ND	
82 2-Hexanone	43		9.661				ND	
84 Chlorodibromomethane	129		9.813				ND	
85 Ethylene Dibromide	107		9.929				ND	
87 Chlorobenzene	112		10.415				ND	
89 1,1,1,2-Tetrachloroethane	131		10.506				ND	
90 Ethylbenzene	106		10.513				ND	
91 m-Xylene & p-Xylene	106		10.652				ND	
92 o-Xylene	106		11.030				ND	
93 Styrene	104		11.048				ND	
94 Bromoform	173		11.230				ND	
99 1,1,2,2-Tetrachloroethane	83		11.705				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918008.D

Injection Date: 18-Sep-2015 14:40:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-47781-B-15

Lab Sample ID: 180-47781-15

Worklist Smp#: 8

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

Purge Vol: 5.000 mL

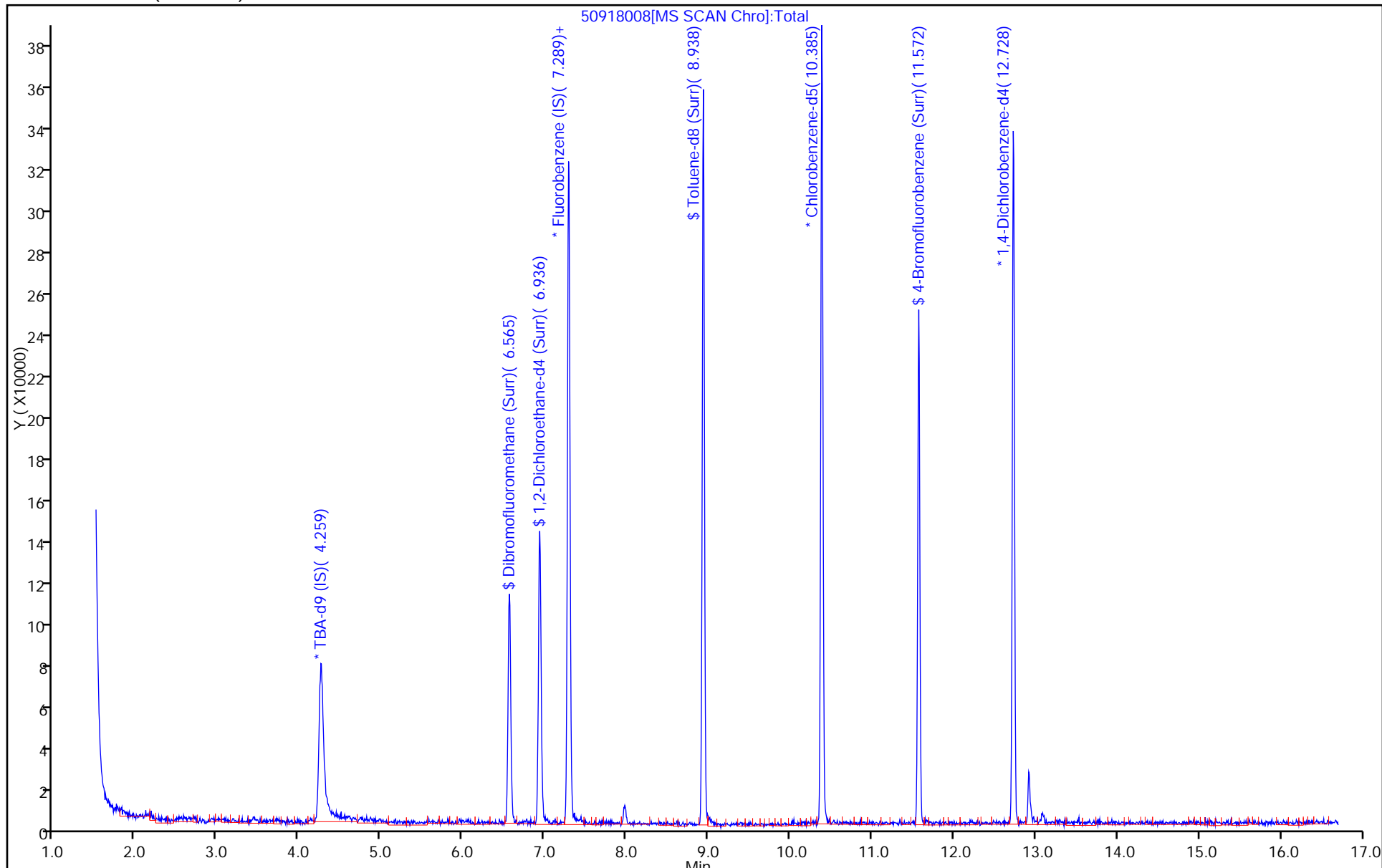
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-136A-459.5/460-0 Lab Sample ID: 180-47781-16  
 Matrix: Water Lab File ID: 50924028.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 13:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/24/2015 22:04  
 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.: 154736 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	10	U ^c	10	2.8
75-01-4	Vinyl chloride	11		10	2.3
74-83-9	Bromomethane	10	U	10	3.1
75-00-3	Chloroethane	10	U	10	2.1
75-35-4	1,1-Dichloroethene	4.0	J	10	3.0
67-64-1	Acetone	42	J ^c	50	25
75-15-0	Carbon disulfide	10	U	10	2.1
75-09-2	Methylene Chloride	10	U	10	1.3
156-60-5	trans-1,2-Dichloroethene	4.4	J	10	1.7
1634-04-4	Methyl tert-butyl ether	10	U	10	1.8
75-34-3	1,1-Dichloroethane	3.2	J	10	1.2
156-59-2	cis-1,2-Dichloroethene	2500	E	10	2.4
74-97-5	Bromochloromethane	10	U	10	1.8
78-93-3	2-Butanone (MEK)	180	^c	50	5.5
67-66-3	Chloroform	10	U	10	1.7
71-55-6	1,1,1-Trichloroethane	10	U	10	2.9
56-23-5	Carbon tetrachloride	10	U	10	1.4
71-43-2	Benzene	10	U	10	1.1
107-06-2	1,2-Dichloroethane	10	U	10	2.1
79-01-6	Trichloroethene	140		10	1.4
78-87-5	1,2-Dichloropropane	10	U	10	0.95
75-27-4	Bromodichloromethane	10	U	10	1.3
10061-01-5	cis-1,3-Dichloropropene	10	U	10	1.9
108-10-1	4-Methyl-2-pentanone (MIBK)	50	U	50	5.3
108-88-3	Toluene	10	U	10	1.5
10061-02-6	trans-1,3-Dichloropropene	10	U	10	1.5
79-00-5	1,1,2-Trichloroethane	10	U	10	2.0
127-18-4	Tetrachloroethene	2.1	J	10	1.5
591-78-6	2-Hexanone	50	U	50	1.6
124-48-1	Dibromochloromethane	10	U	10	1.4
106-93-4	1,2-Dibromoethane (EDB)	10	U	10	1.8
108-90-7	Chlorobenzene	10	U	10	1.4
630-20-6	1,1,1,2-Tetrachloroethane	10	U	10	2.8
100-41-4	Ethylbenzene	10	U	10	2.3
1330-20-7	Xylenes, Total	30	U	30	4.9
100-42-5	Styrene	10	U	10	0.97

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-136A-459.5/460-0 Lab Sample ID: 180-47781-16  
 Matrix: Water Lab File ID: 50924028.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 13:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/24/2015 22:04  
 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.: 154736 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10	U	10	1.9
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	2.0
107-13-1	Acrylonitrile	850		200	5.5
123-91-1	1,4-Dioxane	2000	U	2000	340

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	113		64-135
2037-26-5	Toluene-d8 (Surr)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	102		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\50924028.D  
 Lims ID: 180-47781-B-16 Lab Sample ID: 180-47781-16  
 Client ID: HD-MW-136A-459.5/460-0  
 Sample Type: Client  
 Inject. Date: 24-Sep-2015 22:04:30 ALS Bottle#: 28 Worklist Smp#: 28  
 Purge Vol: 5.000 mL Dil. Factor: 10.0000  
 Sample Info: 180-47781-B-16, 10x  
 Misc. Info.: 180-0008665-028  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 25-Sep-2015 09:41:22 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: XAWRK013

First Level Reviewer: fergusond

Date: 25-Sep-2015 09:41:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.255	4.286	-0.031	0	172515	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.285	0.005	97	357388	50.0	
* 3 Chlorobenzene-d5	119	10.387	10.388	-0.001	90	82493	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.729	12.730	-0.001	97	121922	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.566	6.555	0.011	93	91735	52.3	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.938	6.933	0.005	0	135899	56.4	
\$ 7 Toluene-d8 (Surr)	98	8.939	8.934	0.005	95	310389	48.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.567	11.568	-0.001	90	122886	51.2	
12 Chloromethane	50		1.768				ND	
13 Vinyl chloride	62	1.900	1.908	-0.008	57	14200	5.40	
15 Bromomethane	94		2.236				ND	
16 Chloroethane	64		2.382				ND	
22 1,1-Dichloroethene	96	3.360	3.337	0.023	78	3934	1.98	
24 Acetone	43	3.446	3.447	-0.001	82	15219	21.1	
26 Carbon disulfide	76		3.629				ND	
31 Methylene Chloride	84		4.134				ND	
33 Acrylonitrile	53	4.522	4.517	0.005	98	443769	424.5	
34 trans-1,2-Dichloroethene	96	4.565	4.554	0.011	71	4722	2.18	
35 Methyl tert-butyl ether	73		4.578				ND	
37 1,1-Dichloroethane	63	5.198	5.199	-0.001	1	6725	1.58	M
45 cis-1,2-Dichloroethene	96	5.952	5.947	0.005	82	2844552	1231.9	E
46 2-Butanone (MEK)	43	5.958	5.959	-0.001	23	96021	88.6	
49 Chlorobromomethane	128		6.233				ND	
52 Chloroform	83		6.379				ND	
53 1,1,1-Trichloroethane	97		6.537				ND	
56 Carbon tetrachloride	117		6.714				ND	
58 Benzene	78	6.944	6.939	0.005	40	3787	0.4297	
59 1,2-Dichloroethane	62		7.018				ND	
64 Trichloroethene	130	7.680	7.675	0.005	97	154213	71.5	
67 1,2-Dichloropropane	63		7.949				ND	
70 1,4-Dioxane	88		8.040				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.228				ND	
74 cis-1,3-Dichloropropene	75		8.673				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.825				ND	
76 Toluene	91		9.001				ND	
77 trans-1,3-Dichloropropene	75		9.250				ND	
79 1,1,2-Trichloroethane	97		9.445				ND	
80 Tetrachloroethene	164	9.511	9.518	-0.007	85	1636	1.03	
82 2-Hexanone	43		9.652				ND	M
84 Chlorodibromomethane	129		9.816				ND	
85 Ethylene Dibromide	107		9.932				ND	
87 Chlorobenzene	112		10.418				ND	
89 1,1,1,2-Tetrachloroethane	131		10.510				ND	
90 Ethylbenzene	106		10.516				ND	
91 m-Xylene & p-Xylene	106		10.644				ND	
92 o-Xylene	106		11.027				ND	
93 Styrene	104		11.051				ND	
94 Bromoform	173		11.228				ND	
99 1,1,2,2-Tetrachloroethane	83		11.708				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\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\50924028.D

Injection Date: 24-Sep-2015 22:04:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-47781-B-16

Lab Sample ID: 180-47781-16

Worklist Smp#: 28

Client ID: HD-MW-136A-459.5/460-0

Purge Vol: 5.000 mL

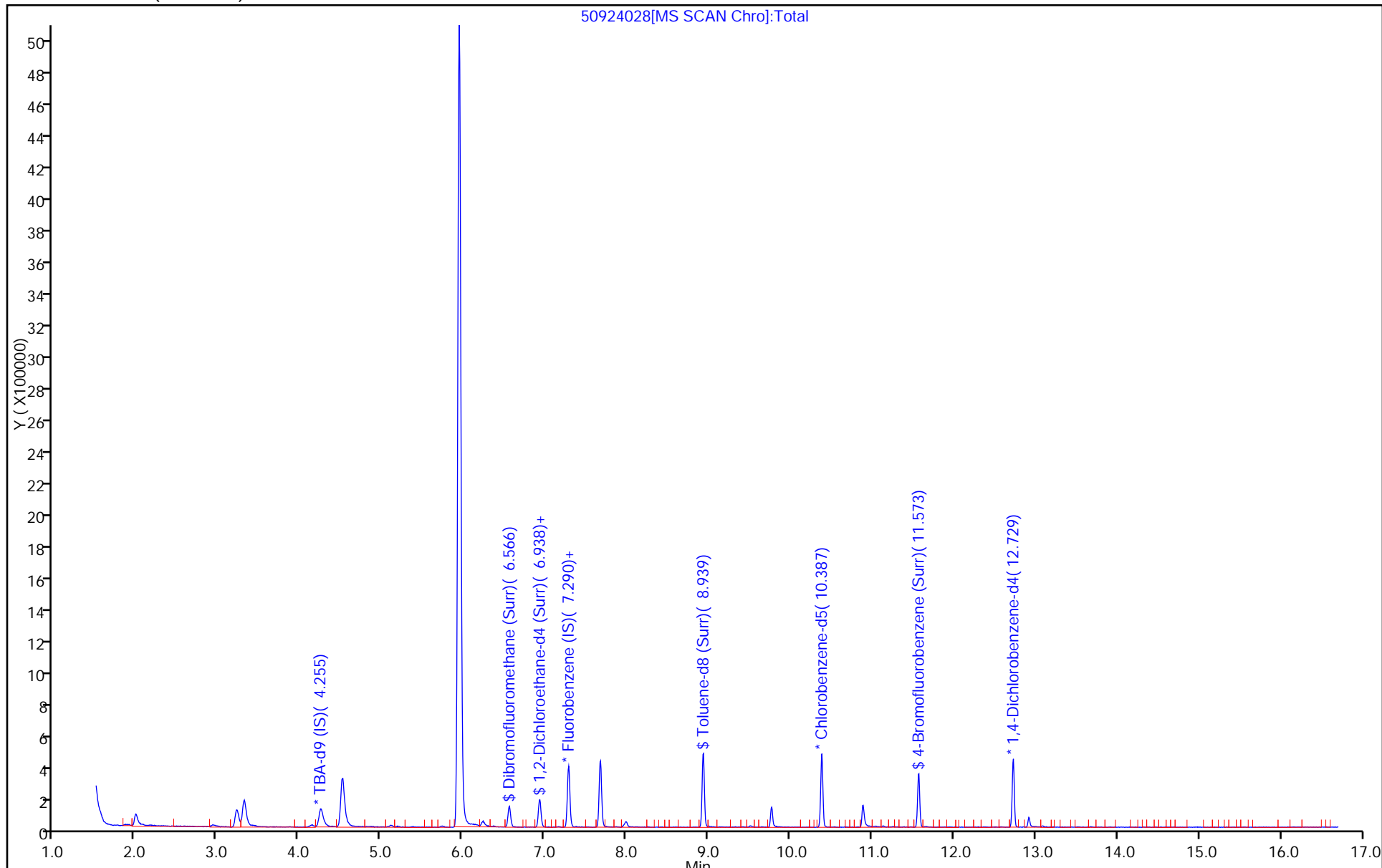
Dil. Factor: 10.0000

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\20150924-8665.b\50924028.D

Injection Date: 24-Sep-2015 22:04:30

Instrument ID: CHHP5

Lims ID: 180-47781-B-16

Lab Sample ID: 180-47781-16

Client ID: HD-MW-136A-459.5/460-0

Operator ID: 001562

ALS Bottle#: 28

Worklist Smp#: 28

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

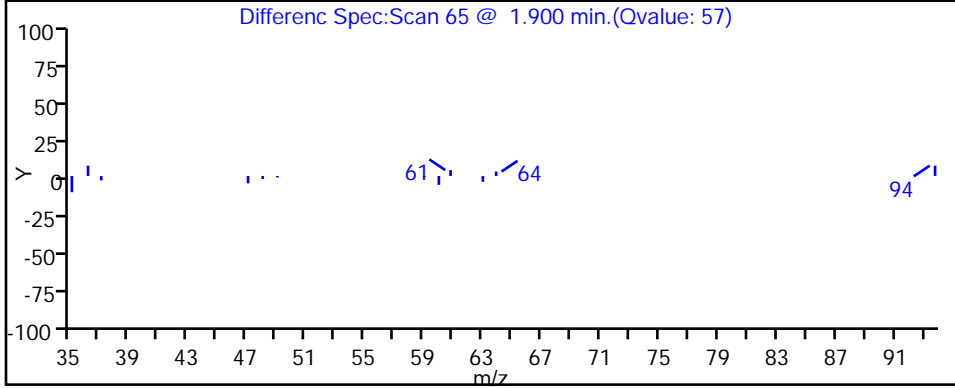
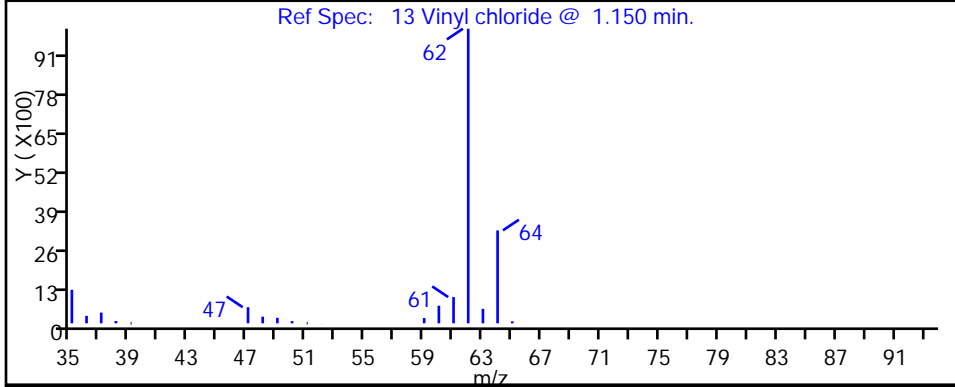
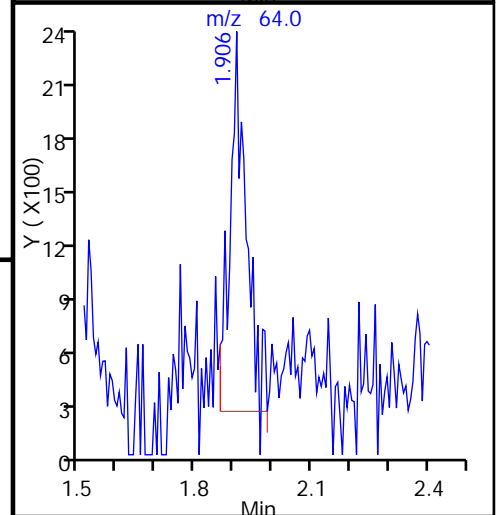
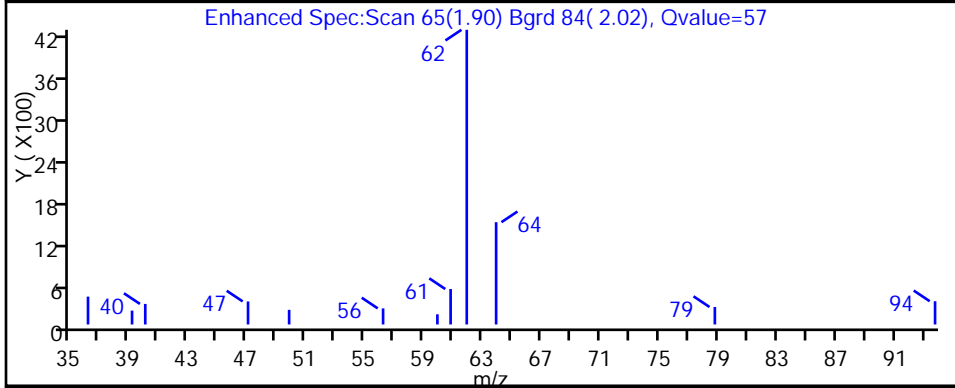
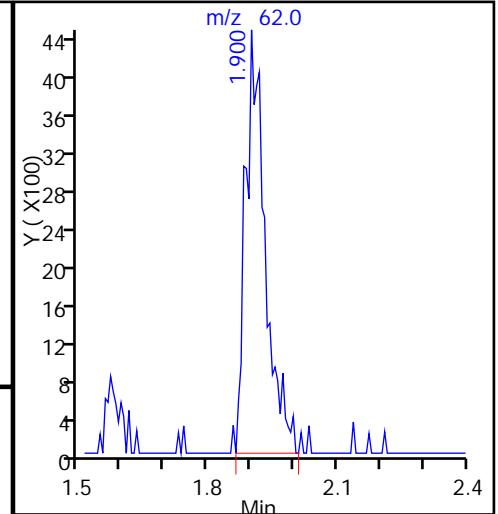
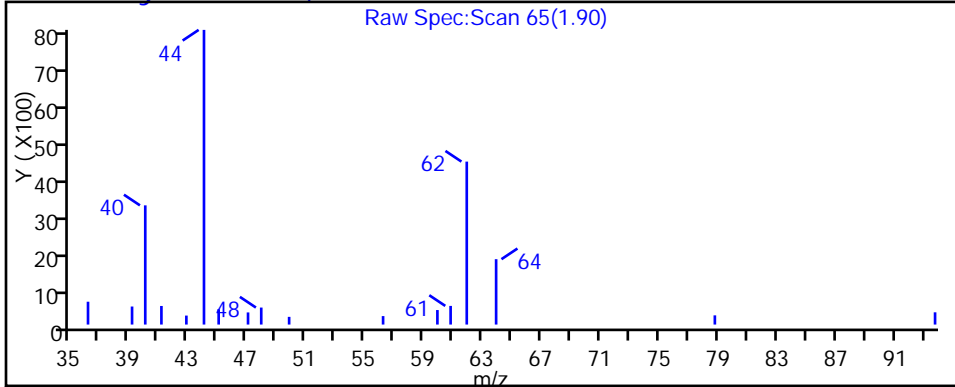
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

13 Vinyl chloride, CAS: 75-01-4



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\50924028.D

Injection Date: 24-Sep-2015 22:04:30

Instrument ID: CHHP5

Lims ID: 180-47781-B-16

Lab Sample ID: 180-47781-16

Client ID: HD-MW-136A-459.5/460-0

Operator ID: 001562

ALS Bottle#: 28

Worklist Smp#: 28

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

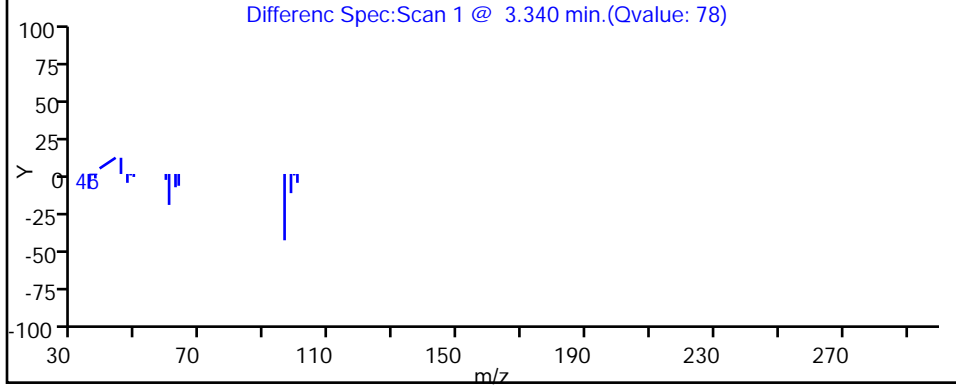
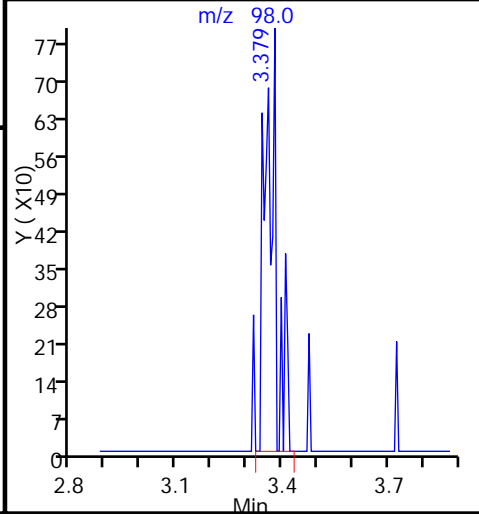
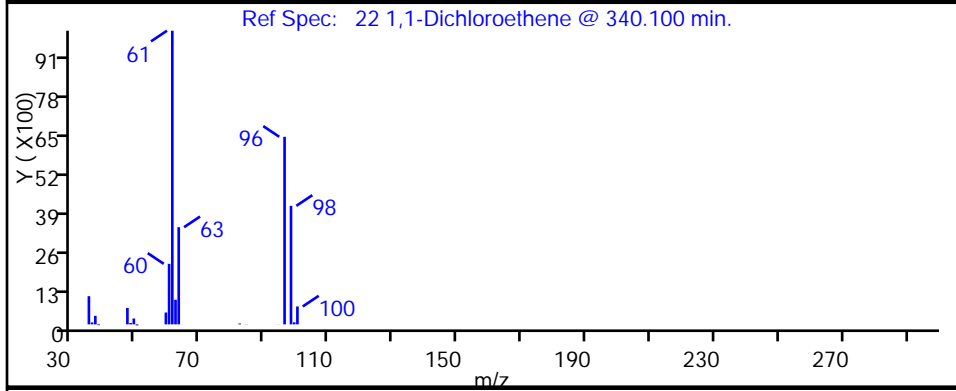
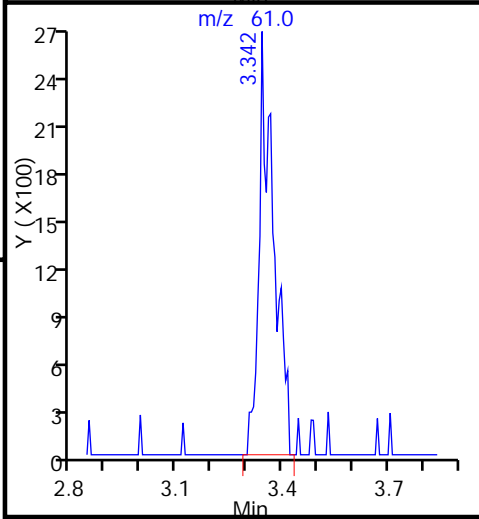
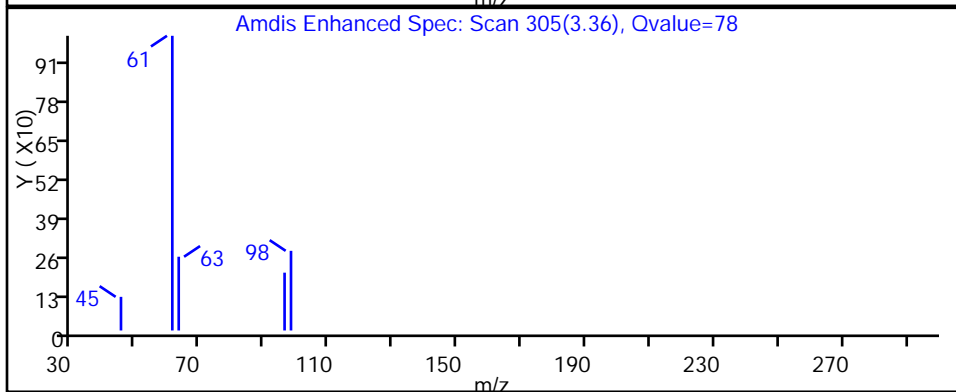
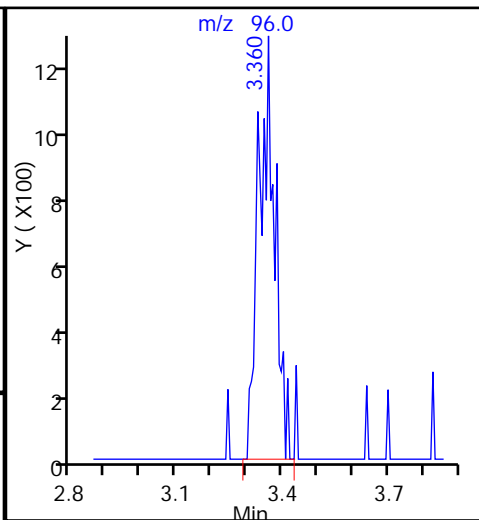
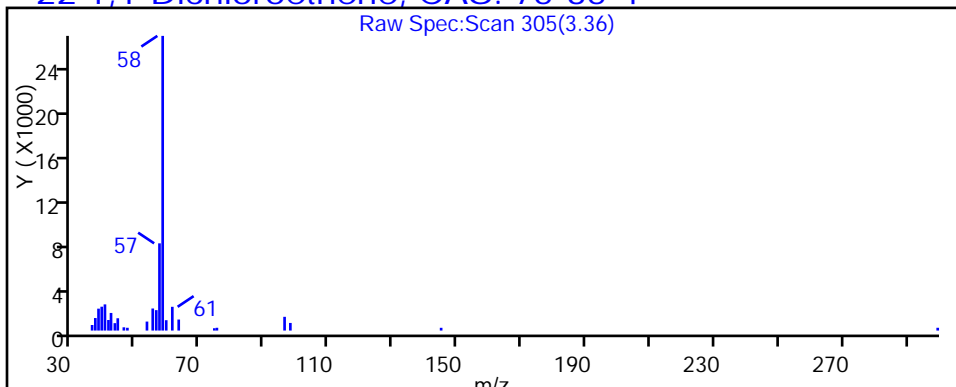
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\50924028.D

Injection Date: 24-Sep-2015 22:04:30

Instrument ID: CHHP5

Lims ID: 180-47781-B-16

Lab Sample ID: 180-47781-16

Client ID: HD-MW-136A-459.5/460-0

Operator ID: 001562

ALS Bottle#: 28

Worklist Smp#: 28

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

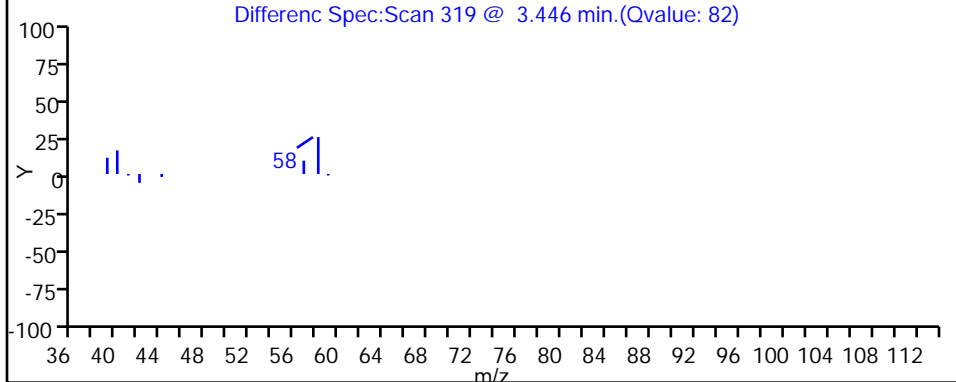
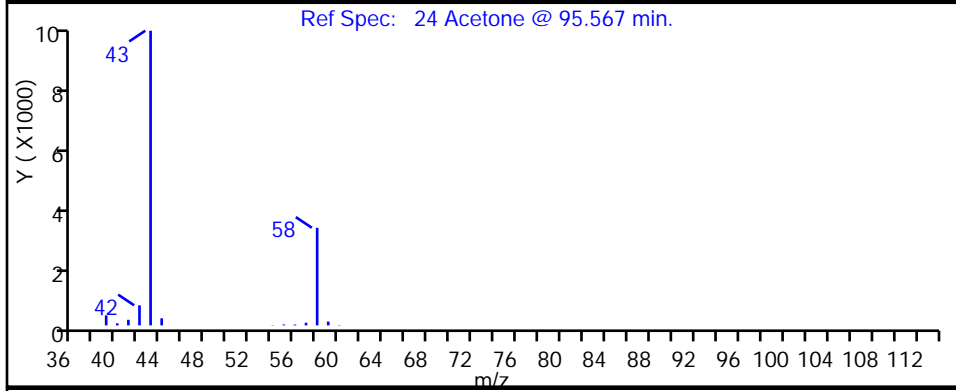
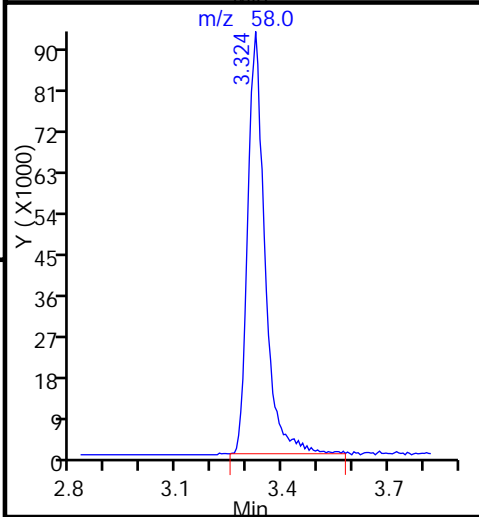
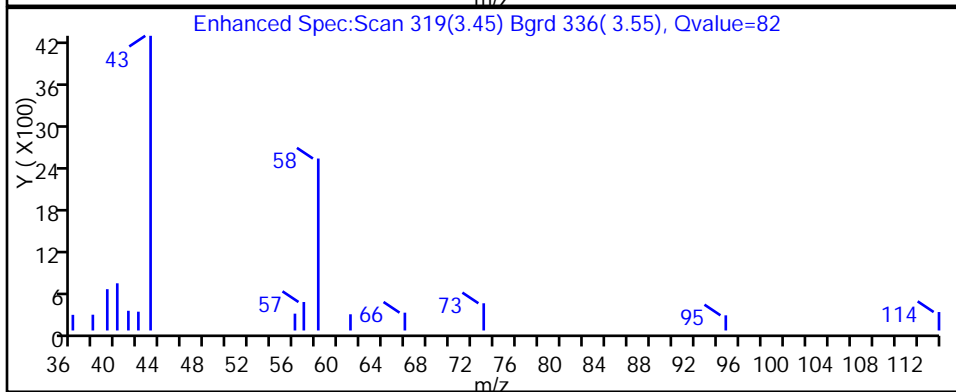
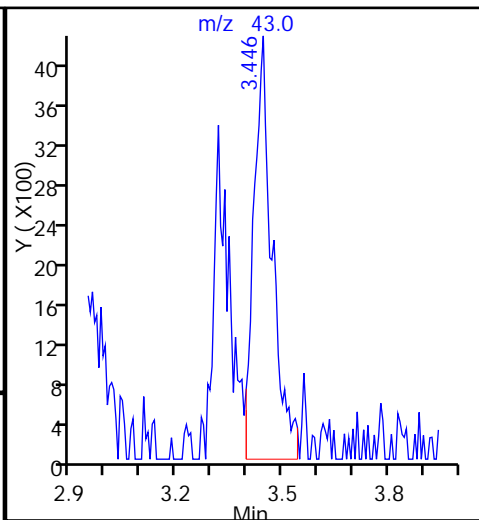
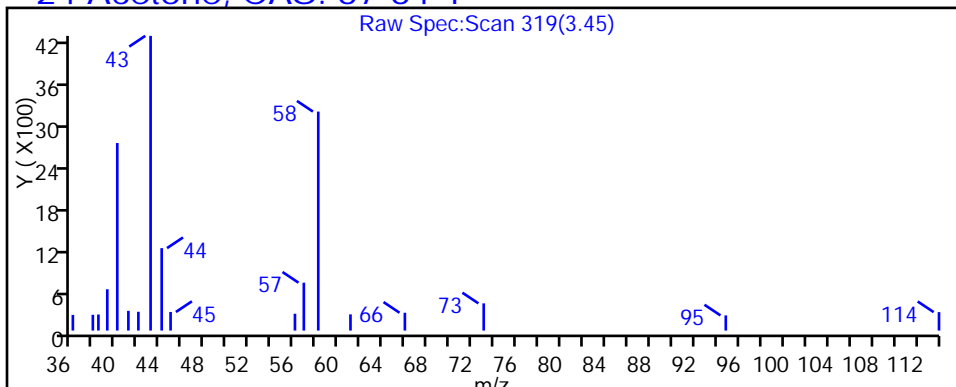
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

24 Acetone, CAS: 67-64-1



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\50924028.D

Injection Date: 24-Sep-2015 22:04:30

Instrument ID: CHHP5

Lims ID: 180-47781-B-16

Lab Sample ID: 180-47781-16

Client ID: HD-MW-136A-459.5/460-0

Operator ID: 001562

ALS Bottle#: 28

Worklist Smp#: 28

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

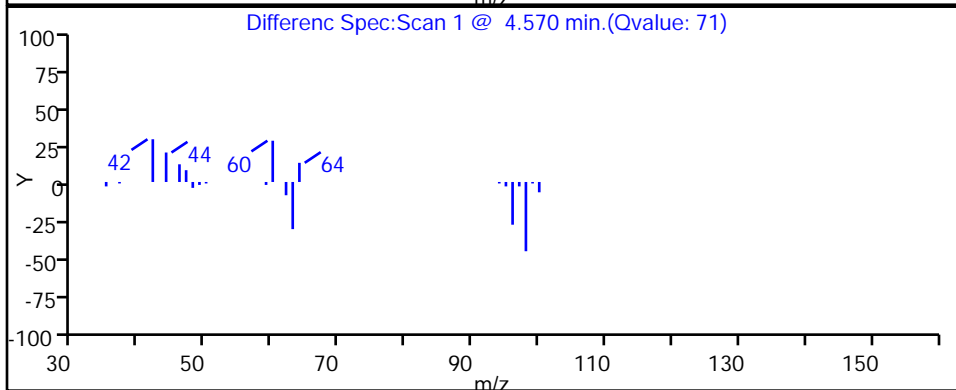
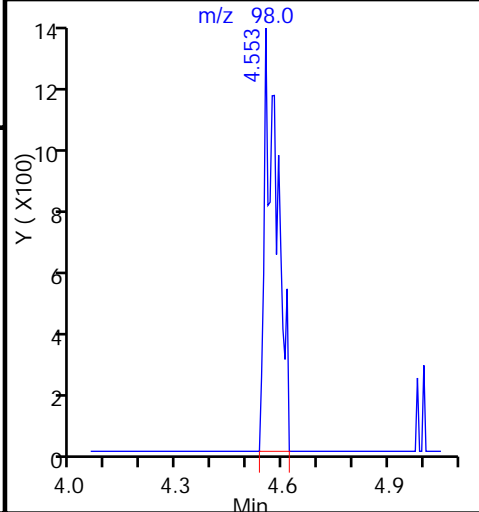
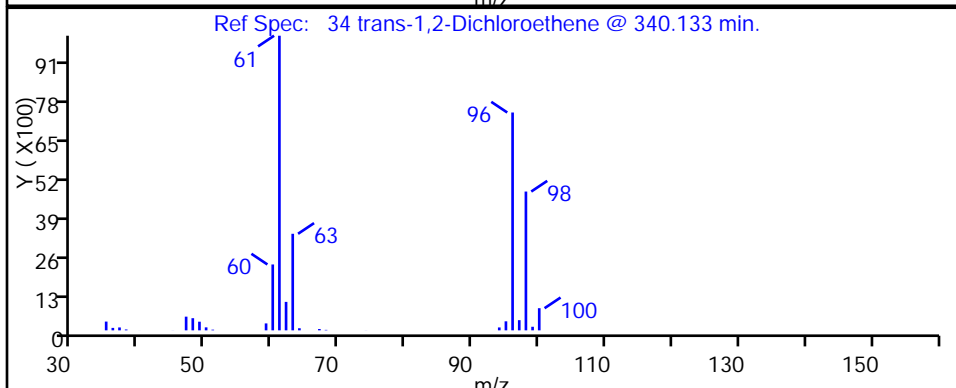
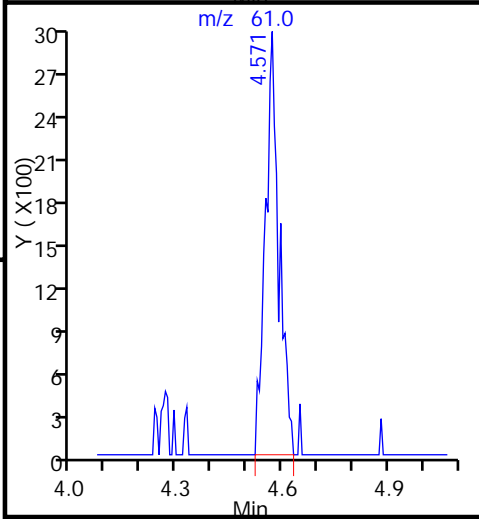
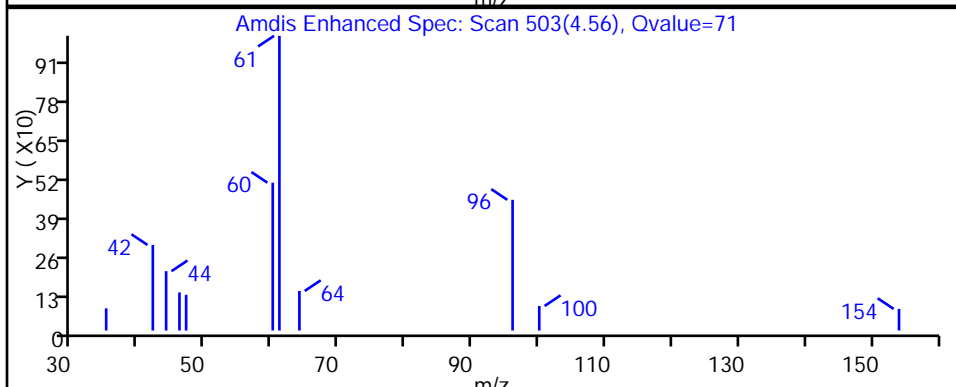
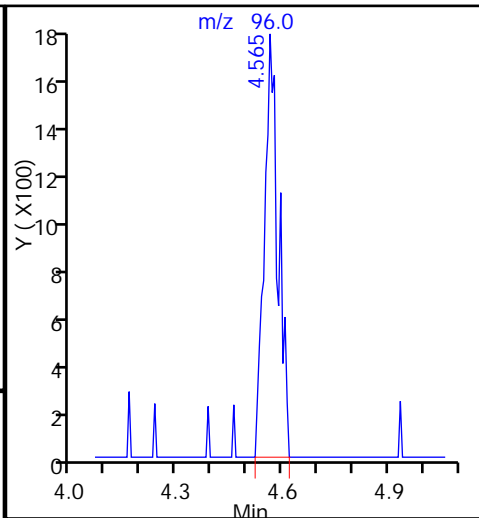
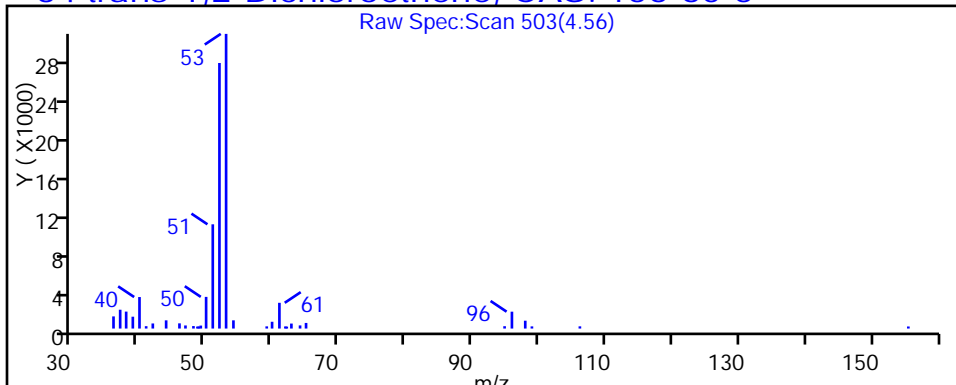
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

34 trans-1,2-Dichloroethene, CAS: 156-60-5



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\50924028.D

Injection Date: 24-Sep-2015 22:04:30

Instrument ID: CHHP5

Lims ID: 180-47781-B-16

Lab Sample ID: 180-47781-16

Client ID: HD-MW-136A-459.5/460-0

Operator ID: 001562

ALS Bottle#: 28

Worklist Smp#: 28

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

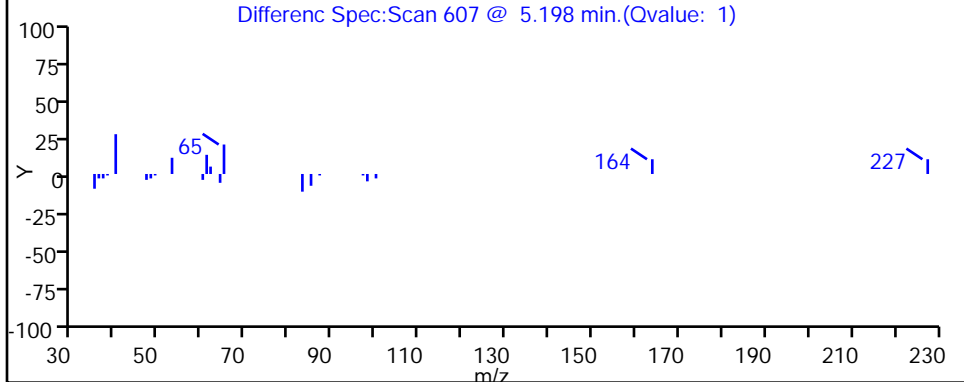
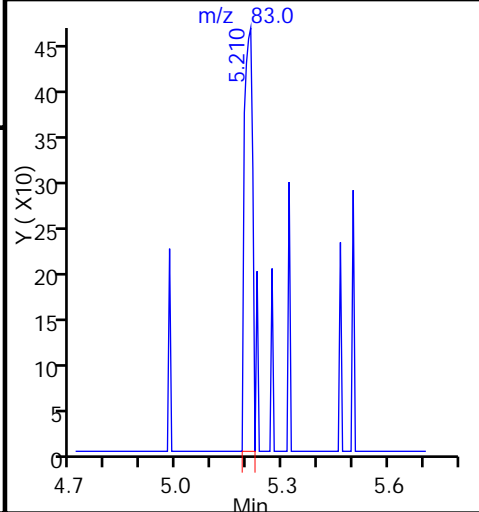
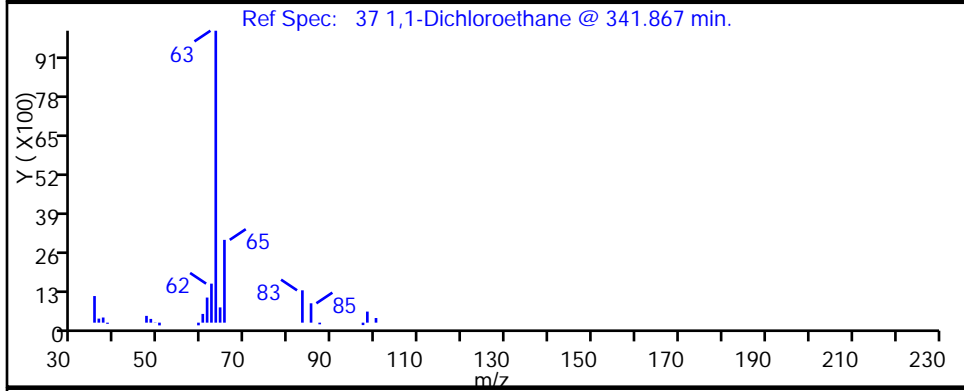
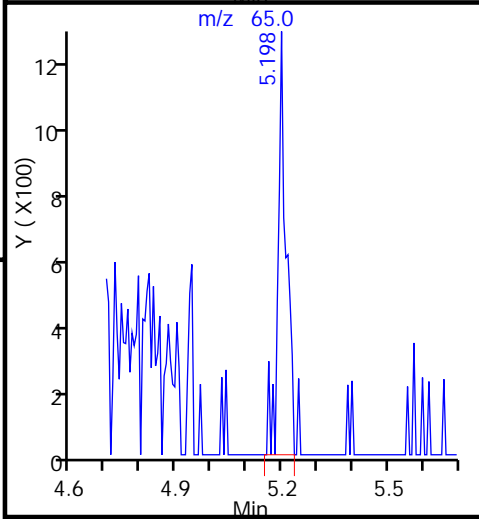
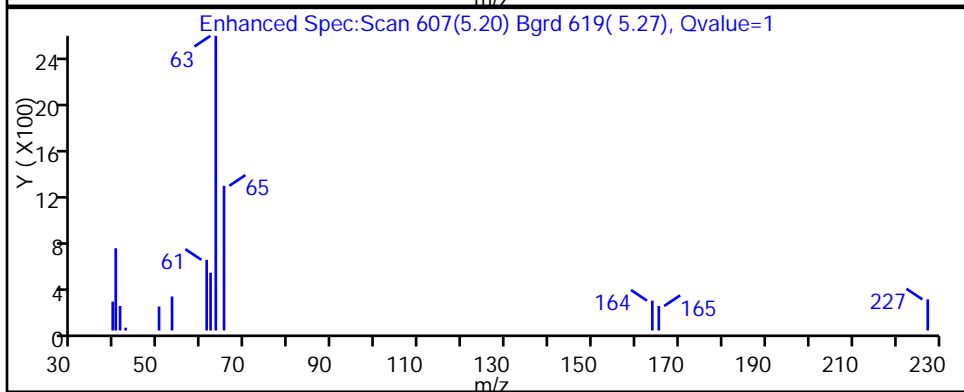
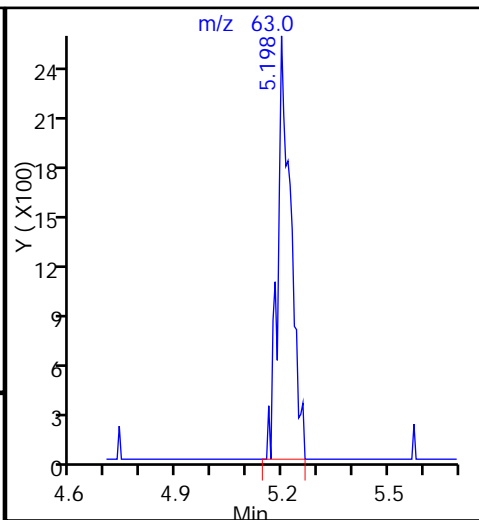
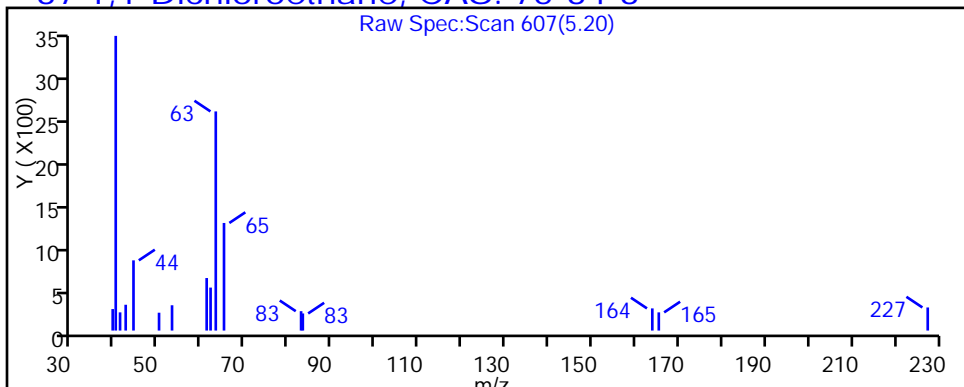
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\50924028.D

Injection Date: 24-Sep-2015 22:04:30

Instrument ID: CHHP5

Lims ID: 180-47781-B-16

Lab Sample ID: 180-47781-16

Client ID: HD-MW-136A-459.5/460-0

Operator ID: 001562

ALS Bottle#: 28

Worklist Smp#: 28

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

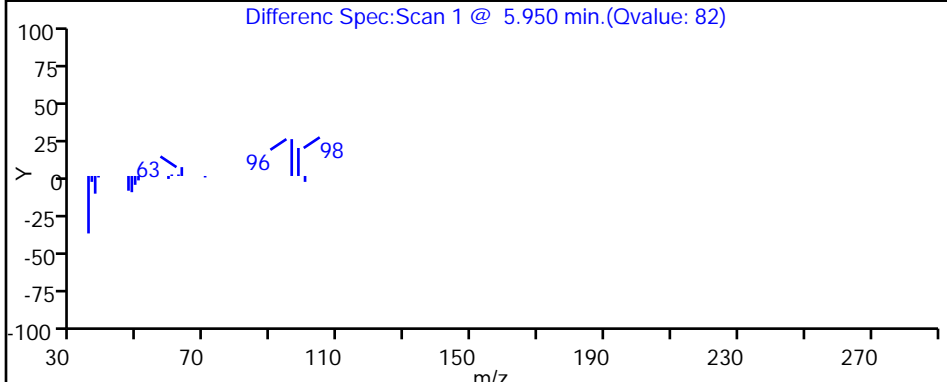
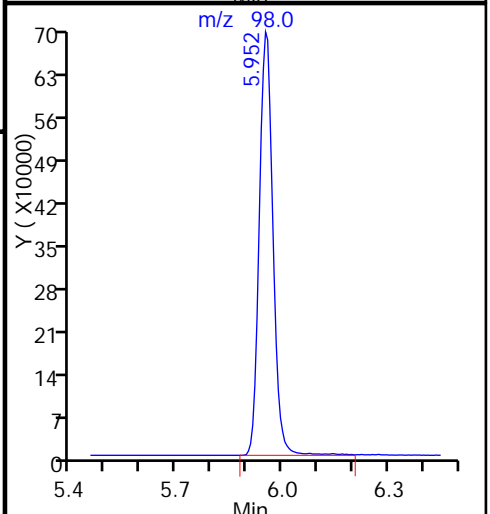
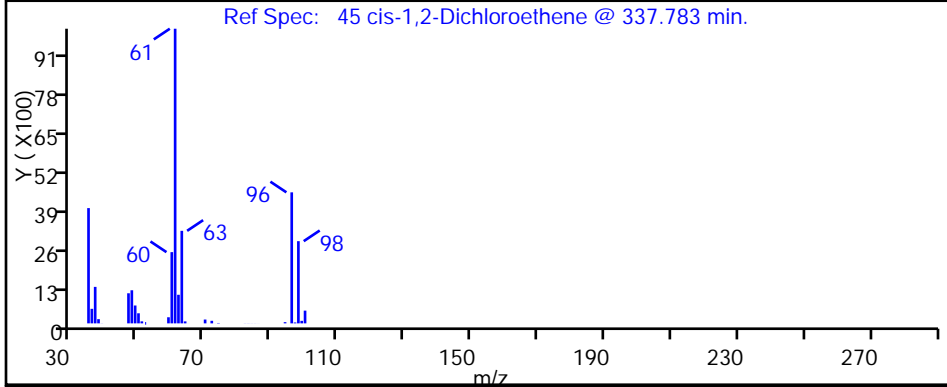
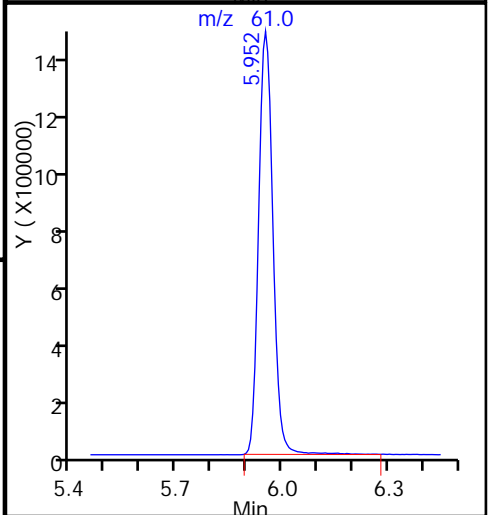
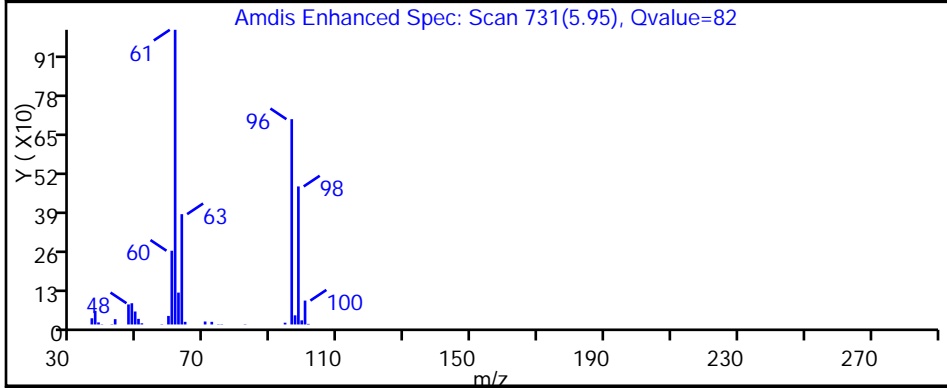
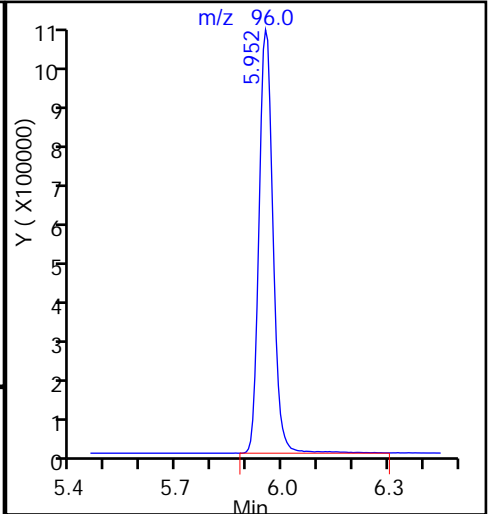
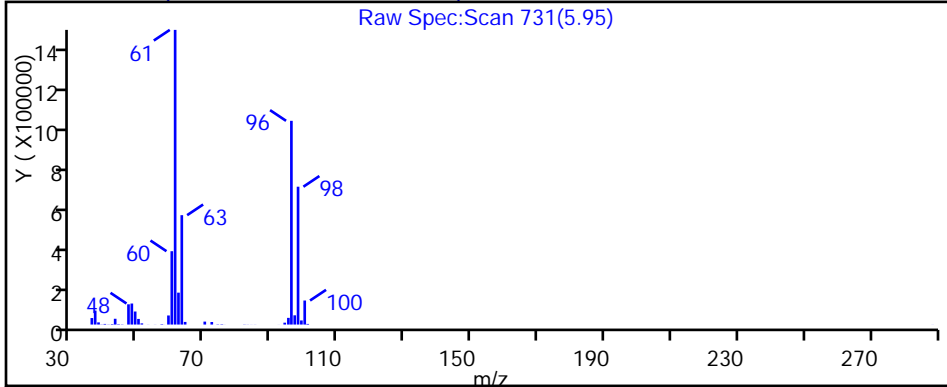
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\50924028.D

Injection Date: 24-Sep-2015 22:04:30

Instrument ID: CHHP5

Lims ID: 180-47781-B-16

Lab Sample ID: 180-47781-16

Client ID: HD-MW-136A-459.5/460-0

Operator ID: 001562

ALS Bottle#: 28

Worklist Smp#: 28

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

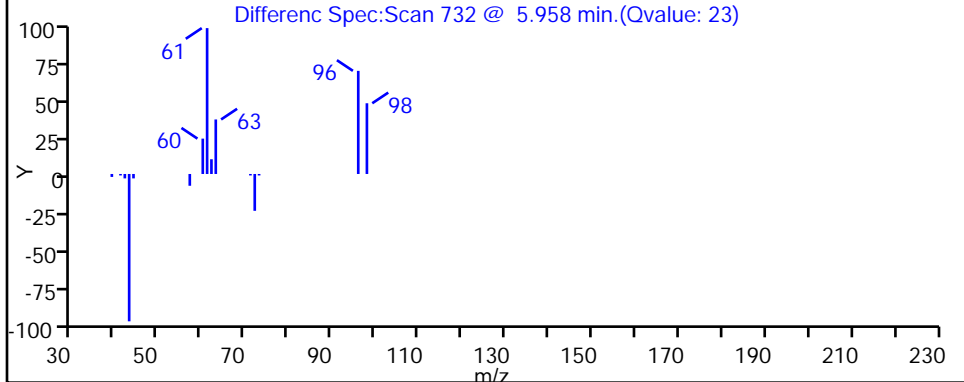
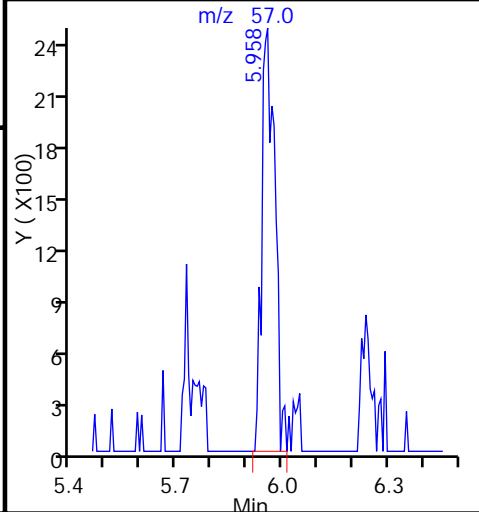
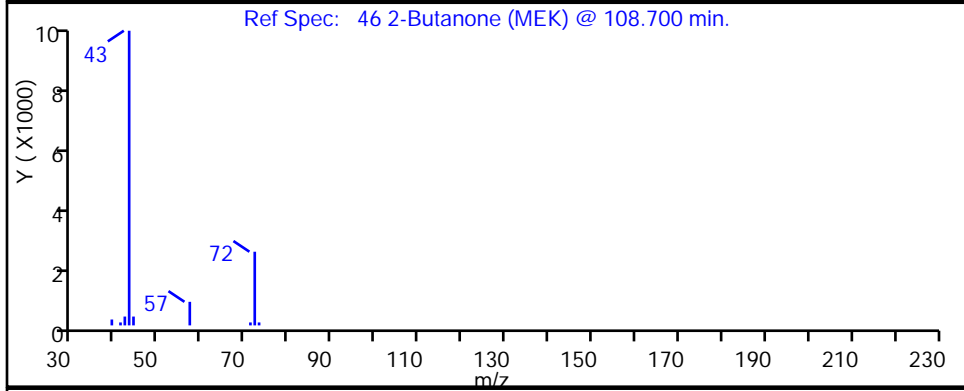
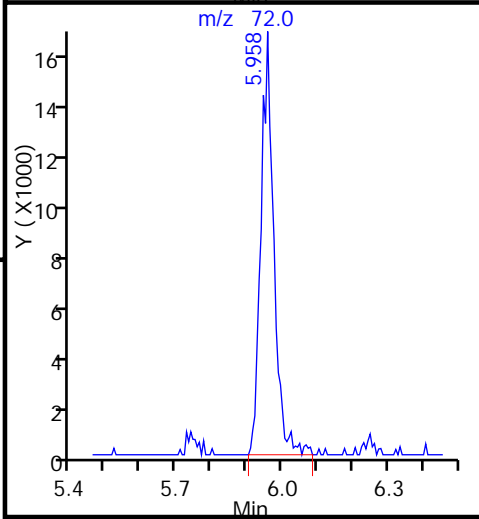
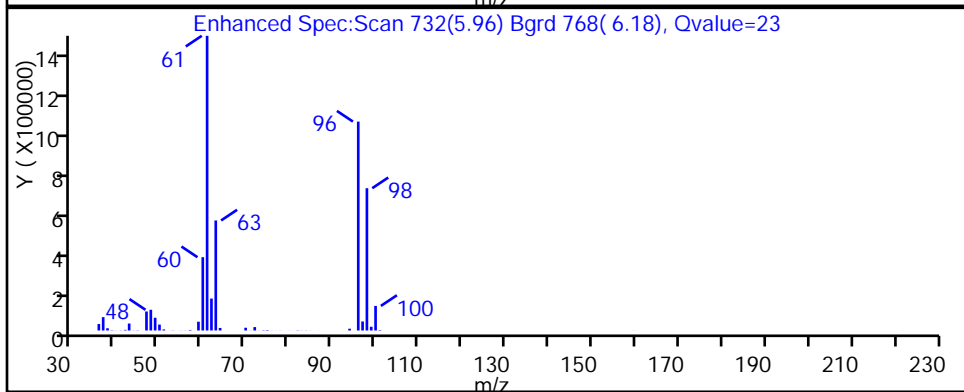
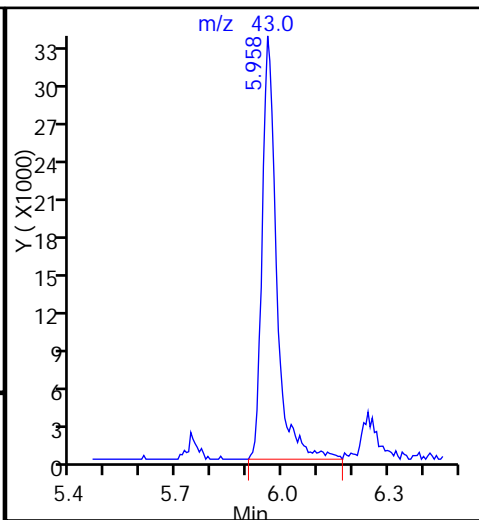
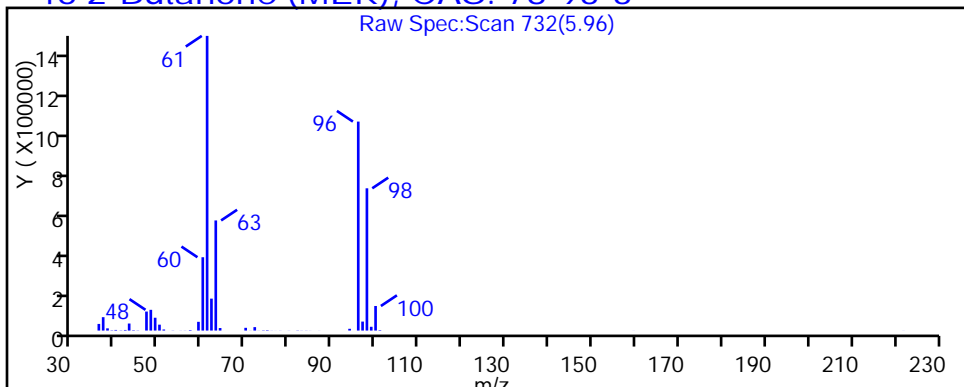
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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





TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\50924028.D

Injection Date: 24-Sep-2015 22:04:30

Instrument ID: CHHP5

Lims ID: 180-47781-B-16

Lab Sample ID: 180-47781-16

Client ID: HD-MW-136A-459.5/460-0

Operator ID: 001562

ALS Bottle#: 28

Worklist Smp#: 28

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

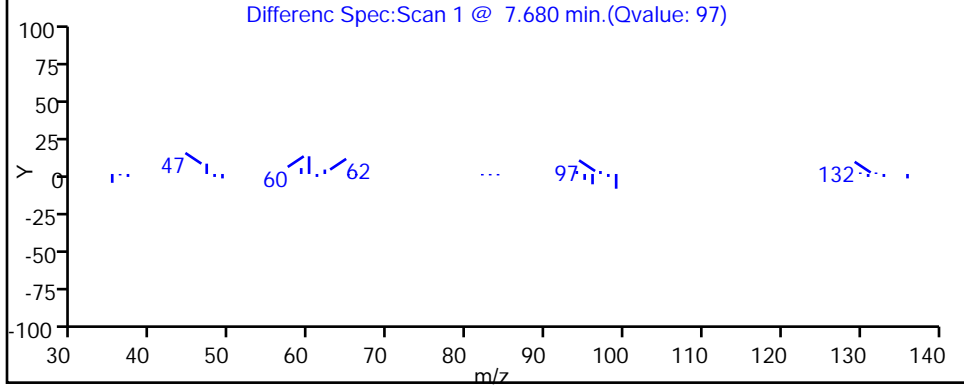
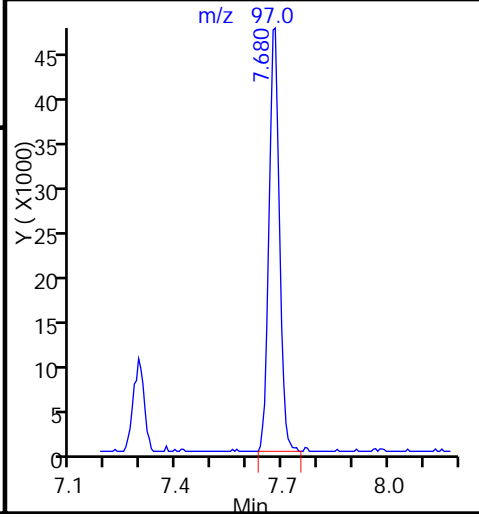
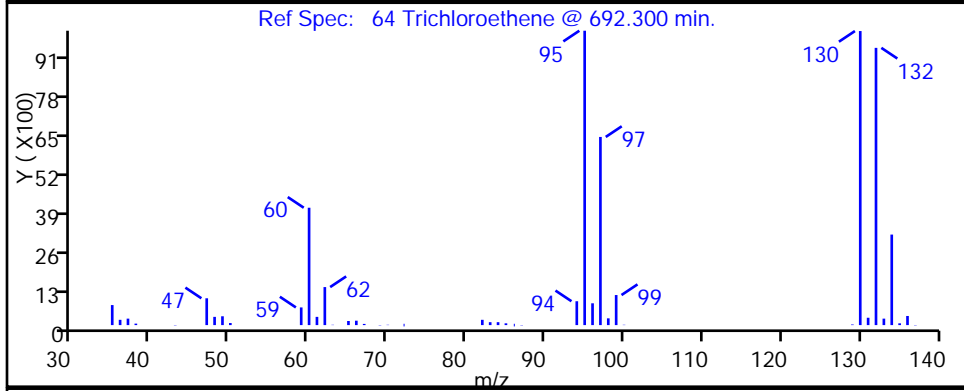
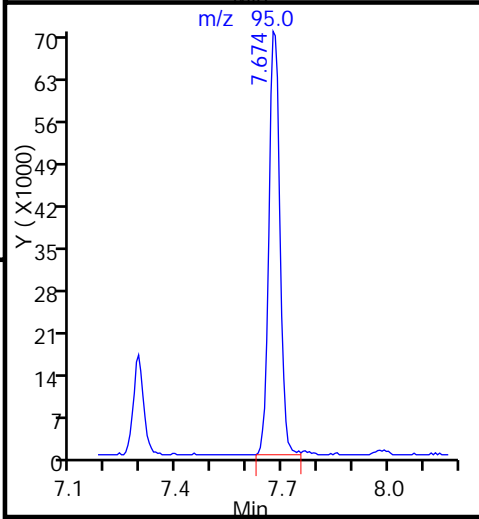
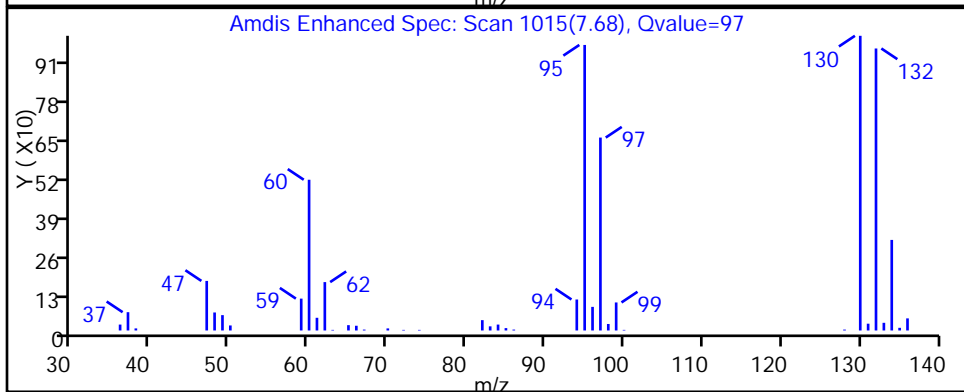
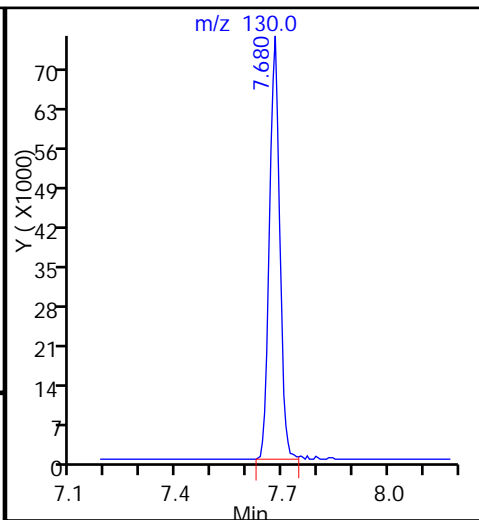
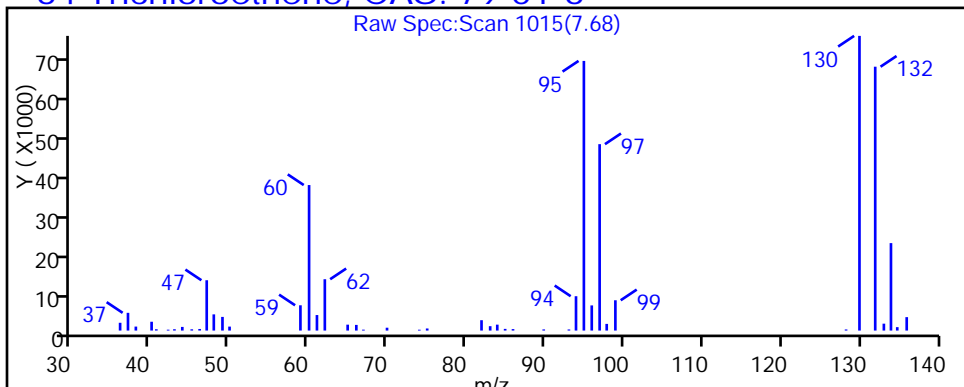
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\50924028.D

Injection Date: 24-Sep-2015 22:04:30

Instrument ID: CHHP5

Lims ID: 180-47781-B-16

Lab Sample ID: 180-47781-16

Client ID: HD-MW-136A-459.5/460-0

Operator ID: 001562

ALS Bottle#: 28

Worklist Smp#: 28

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

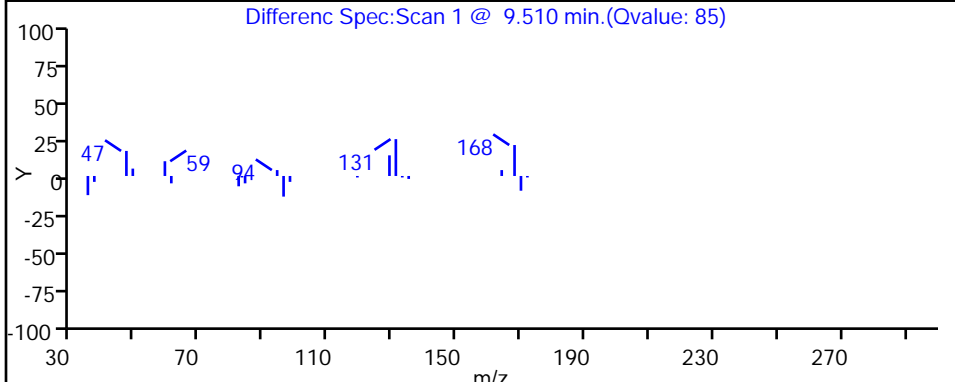
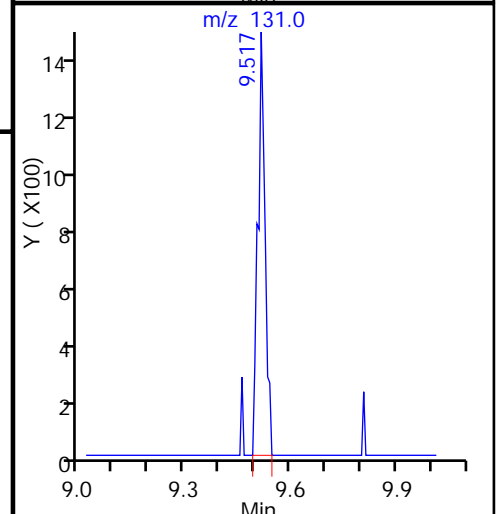
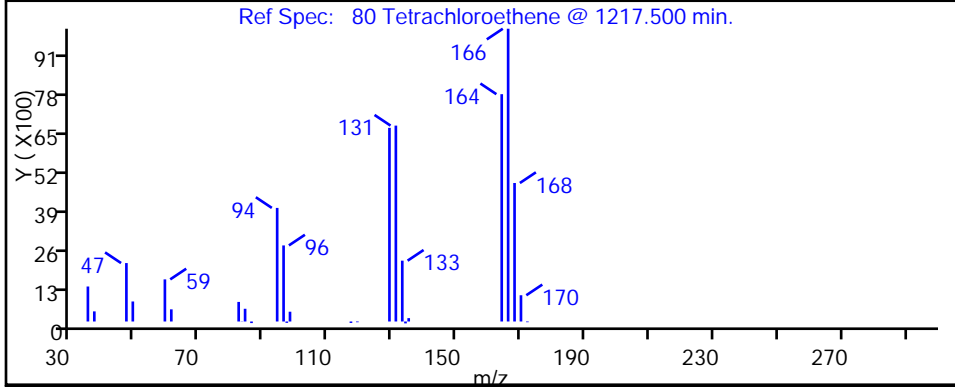
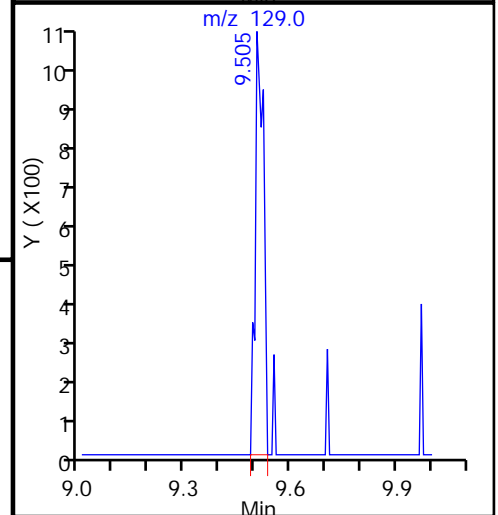
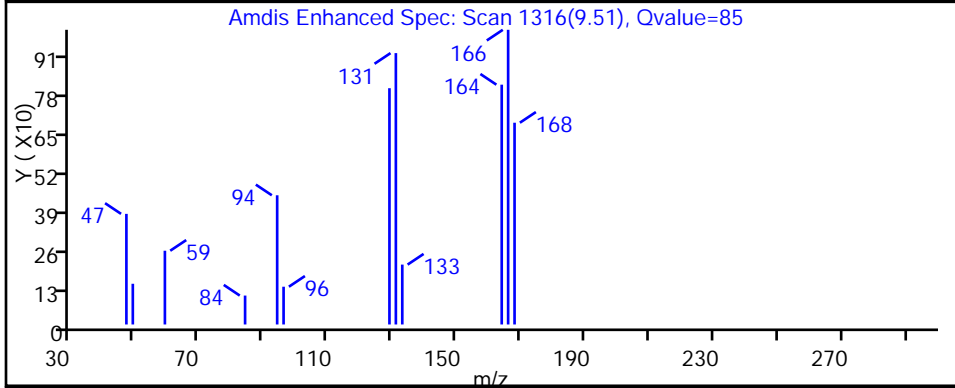
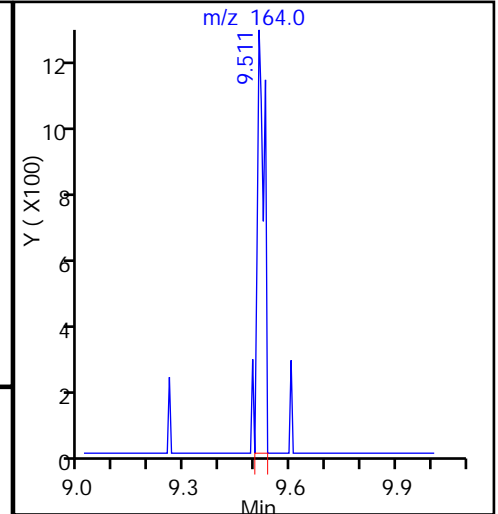
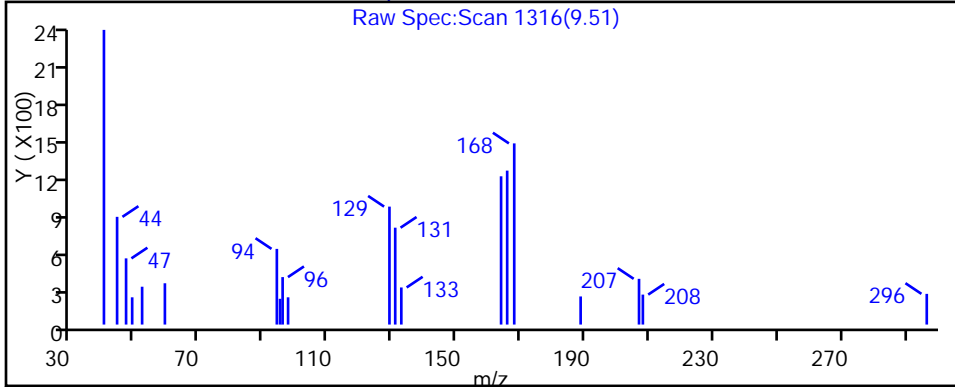
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\50924028.D

Injection Date: 24-Sep-2015 22:04:30

Instrument ID: CHHP5

Lims ID: 180-47781-B-16

Lab Sample ID: 180-47781-16

Client ID: HD-MW-136A-459.5/460-0

Operator ID: 001562

ALS Bottle#: 28

Worklist Smp#: 28

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

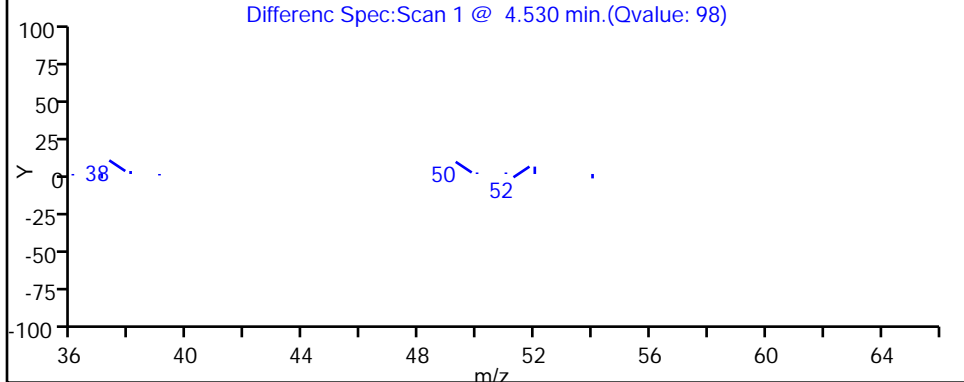
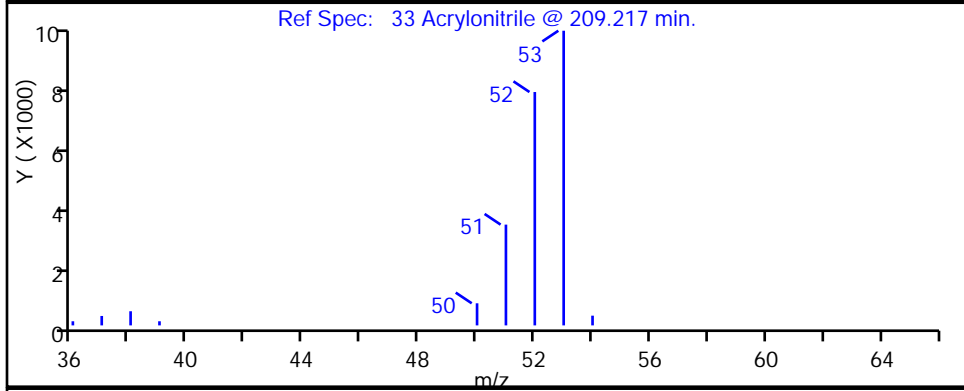
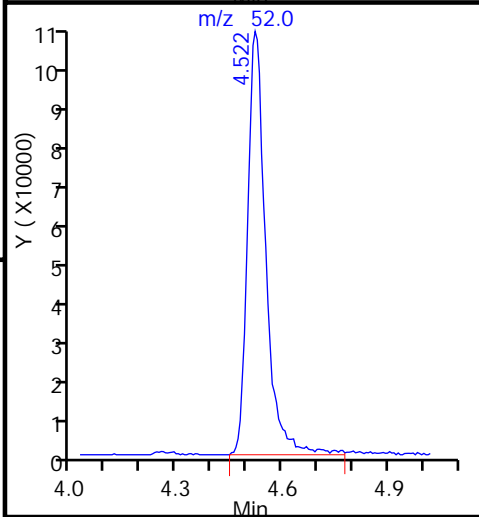
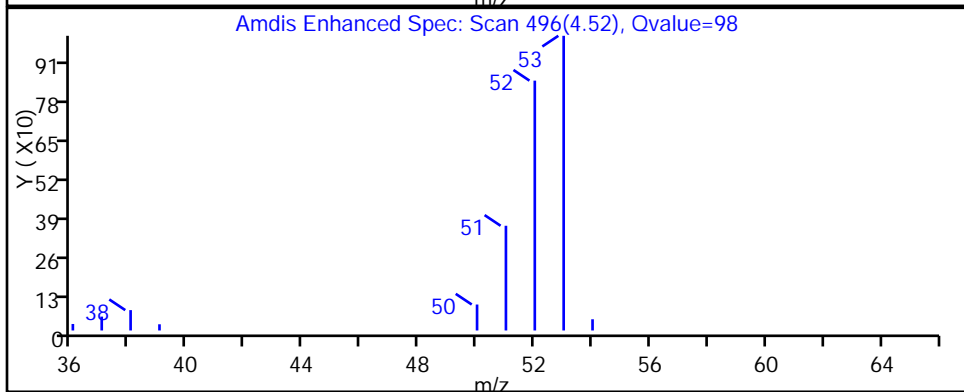
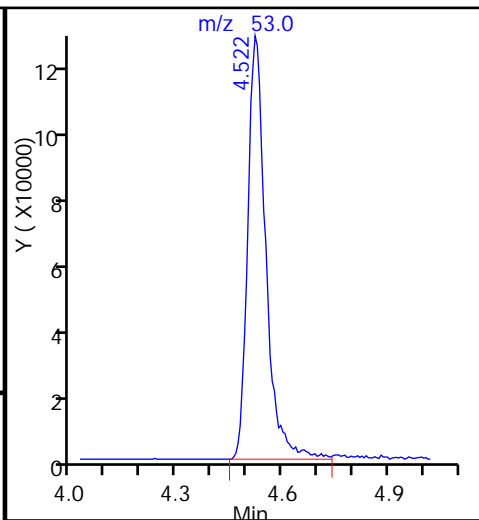
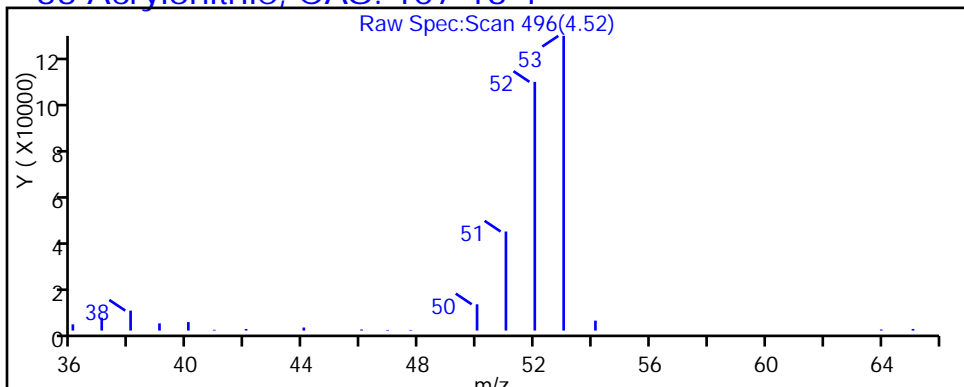
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

33 Acrylonitrile, CAS: 107-13-1



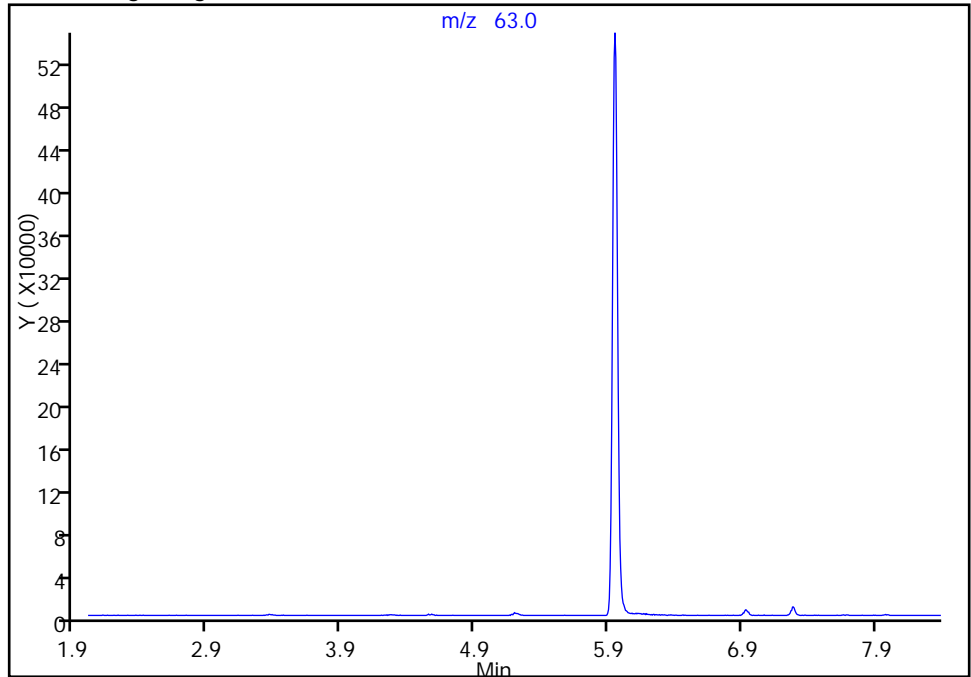
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\50924028.D  
Injection Date: 24-Sep-2015 22:04:30 Instrument ID: CHHP5  
Lims ID: 180-47781-B-16 Lab Sample ID: 180-47781-16  
Client ID: HD-MW-136A-459.5/460-0  
Operator ID: 001562 ALS Bottle#: 28 Worklist Smp#: 28  
Purge Vol: 5.000 mL Dil. Factor: 10.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

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

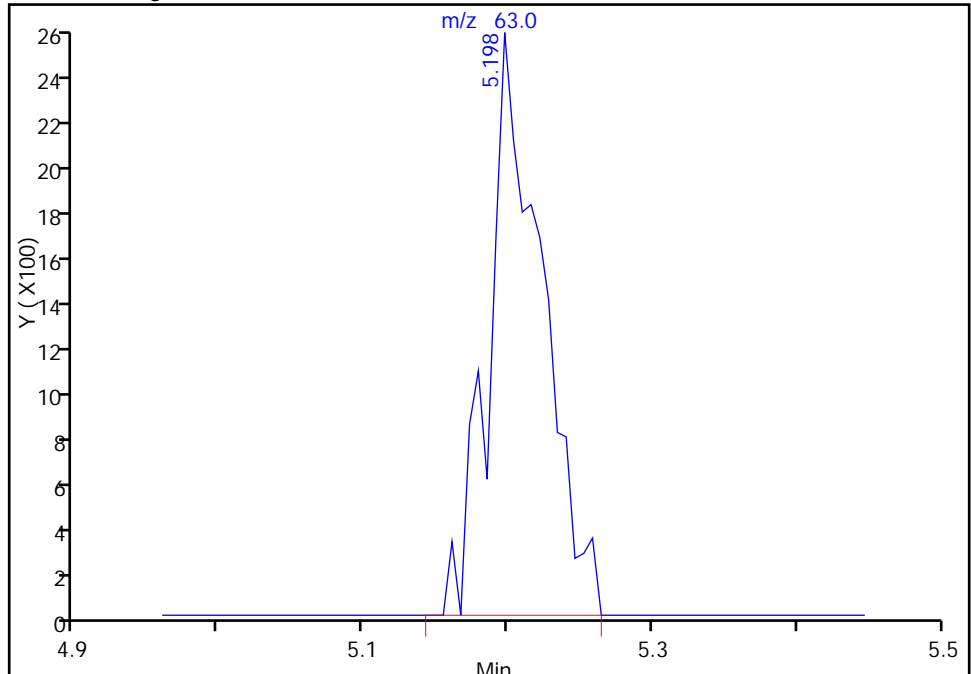
Not Detected  
Expected RT: 5.20

Processing Integration Results



RT: 5.20  
Area: 6725  
Amount: 1.579525  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 25-Sep-2015 09:41:22  
Audit Action: Manually Integrated  
Audit Reason: Missed Peak

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-136A-459.5/460-0 DL Lab Sample ID: 180-47781-16 DL  
 Matrix: Water Lab File ID: 60923022.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 13:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 19:46  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 100  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154553 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	100	U	100	28
75-01-4	Vinyl chloride	100	U	100	23
74-83-9	Bromomethane	100	U	100	31
75-00-3	Chloroethane	100	U	100	21
75-35-4	1,1-Dichloroethene	100	U	100	30
67-64-1	Acetone	500	U	500	250
75-15-0	Carbon disulfide	100	U	100	21
75-09-2	Methylene Chloride	100	U	100	13
156-60-5	trans-1,2-Dichloroethene	100	U	100	17
1634-04-4	Methyl tert-butyl ether	100	U	100	18
75-34-3	1,1-Dichloroethane	100	U	100	12
156-59-2	cis-1,2-Dichloroethene	2400		100	24
74-97-5	Bromochloromethane	100	U	100	18
78-93-3	2-Butanone (MEK)	500	U	500	55
67-66-3	Chloroform	100	U	100	17
71-55-6	1,1,1-Trichloroethane	100	U	100	29
56-23-5	Carbon tetrachloride	100	U	100	14
71-43-2	Benzene	100	U	100	11
107-06-2	1,2-Dichloroethane	100	U	100	21
79-01-6	Trichloroethene	210		100	14
78-87-5	1,2-Dichloropropane	100	U	100	9.5
75-27-4	Bromodichloromethane	100	U	100	13
10061-01-5	cis-1,3-Dichloropropene	100	U	100	19
108-10-1	4-Methyl-2-pentanone (MIBK)	500	U	500	53
108-88-3	Toluene	37	J	100	15
10061-02-6	trans-1,3-Dichloropropene	100	U	100	15
79-00-5	1,1,2-Trichloroethane	100	U	100	20
127-18-4	Tetrachloroethene	100	U	100	15
591-78-6	2-Hexanone	500	U	500	16
124-48-1	Dibromochloromethane	100	U	100	14
106-93-4	1,2-Dibromoethane (EDB)	100	U	100	18
108-90-7	Chlorobenzene	100	U	100	14
630-20-6	1,1,1,2-Tetrachloroethane	100	U	100	28
100-41-4	Ethylbenzene	100	U	100	23
1330-20-7	Xylenes, Total	300	U	300	49
100-42-5	Styrene	100	U	100	9.7

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-136A-459.5/460-0 DL Lab Sample ID: 180-47781-16 DL  
 Matrix: Water Lab File ID: 60923022.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 13:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 19:46  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 100  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154553 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	100	U	100	19
79-34-5	1,1,2,2-Tetrachloroethane	100	U	100	20
107-13-1	Acrylonitrile	740	J	2000	55
123-91-1	1,4-Dioxane	20000	U	20000	3400

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	114		64-135
2037-26-5	Toluene-d8 (Surr)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	86		70-118
1868-53-7	Dibromofluoromethane (Surr)	117		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923022.D  
 Lims ID: 180-47781-A-16 Lab Sample ID: 180-47781-16  
 Client ID: HD-MW-136A-459.5/460-0  
 Sample Type: Client  
 Inject. Date: 23-Sep-2015 19:46:30 ALS Bottle#: 22 Worklist Smp#: 22  
 Purge Vol: 5.000 mL Dil. Factor: 100.0000  
 Sample Info: 180-47781-A-16, 100x  
 Misc. Info.: 180-0008638-022  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 24-Sep-2015 08:11:00 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: XAWRK003

First Level Reviewer: fergusond

Date: 24-Sep-2015 08:12:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.229	4.236	-0.007	86	178312	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.284	0.005	98	437019	50.0	
* 3 Chlorobenzene-d5	119	10.392	10.398	-0.006	90	106876	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.747	-0.001	98	171309	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.553	6.548	0.005	93	117449	58.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.925	0.006	71	185048	57.0	
\$ 7 Toluene-d8 (Surr)	98	8.944	8.938	0.006	95	411071	48.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.585	-0.001	86	161869	43.2	
12 Chloromethane	50		1.760				ND	
13 Vinyl chloride	62	1.899	1.900	-0.001	22	1448	0.5154	
15 Bromomethane	94		2.222				ND	
16 Chloroethane	64		2.374				ND	
22 1,1-Dichloroethene	96		3.336				ND	
24 Acetone	43	3.433	3.415	0.018	68	6423	8.31	M
26 Carbon disulfide	76		3.634				ND	
31 Methylene Chloride	84		4.126				ND	
33 Acrylonitrile	53	4.509	4.497	0.012	97	33909	37.1	M
35 Methyl tert-butyl ether	73		4.564				ND	
34 trans-1,2-Dichloroethene	96		4.564				ND	
37 1,1-Dichloroethane	63		5.197				ND	
43 cis-1,2-Dichloroethene	96	5.945	5.939	0.006	84	335069	121.4	
44 2-Butanone (MEK)	43		5.945				ND	
48 Chlorobromomethane	128		6.225				ND	
50 Chloroform	83		6.377				ND	
51 1,1,1-Trichloroethane	97		6.535				ND	
53 Carbon tetrachloride	117		6.712				ND	
56 Benzene	78		6.937				ND	
57 1,2-Dichloroethane	62		7.010				ND	
61 Trichloroethene	130	7.685	7.673	0.012	94	22031	10.4	
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		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
73 Toluene	91	9.005	9.011	-0.006	95	20241	1.84	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.443				ND	
77 Tetrachloroethene	164		9.529				ND	
79 2-Hexanone	43		9.662				ND	
81 Chlorodibromomethane	129		9.827				ND	
82 Ethylene Dibromide	107		9.942				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		11.037				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				ND	
S 131 Xylenes, Total	106		1.000				ND	

### QC Flag Legend

Review Flags

M - Manually Integrated

### Reagents:

VOA8260INT\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923022.D

Injection Date: 23-Sep-2015 19:46:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-47781-A-16

Lab Sample ID: 180-47781-16

Worklist Smp#: 22

Client ID: HD-MW-136A-459.5/460-0

Purge Vol: 5.000 mL

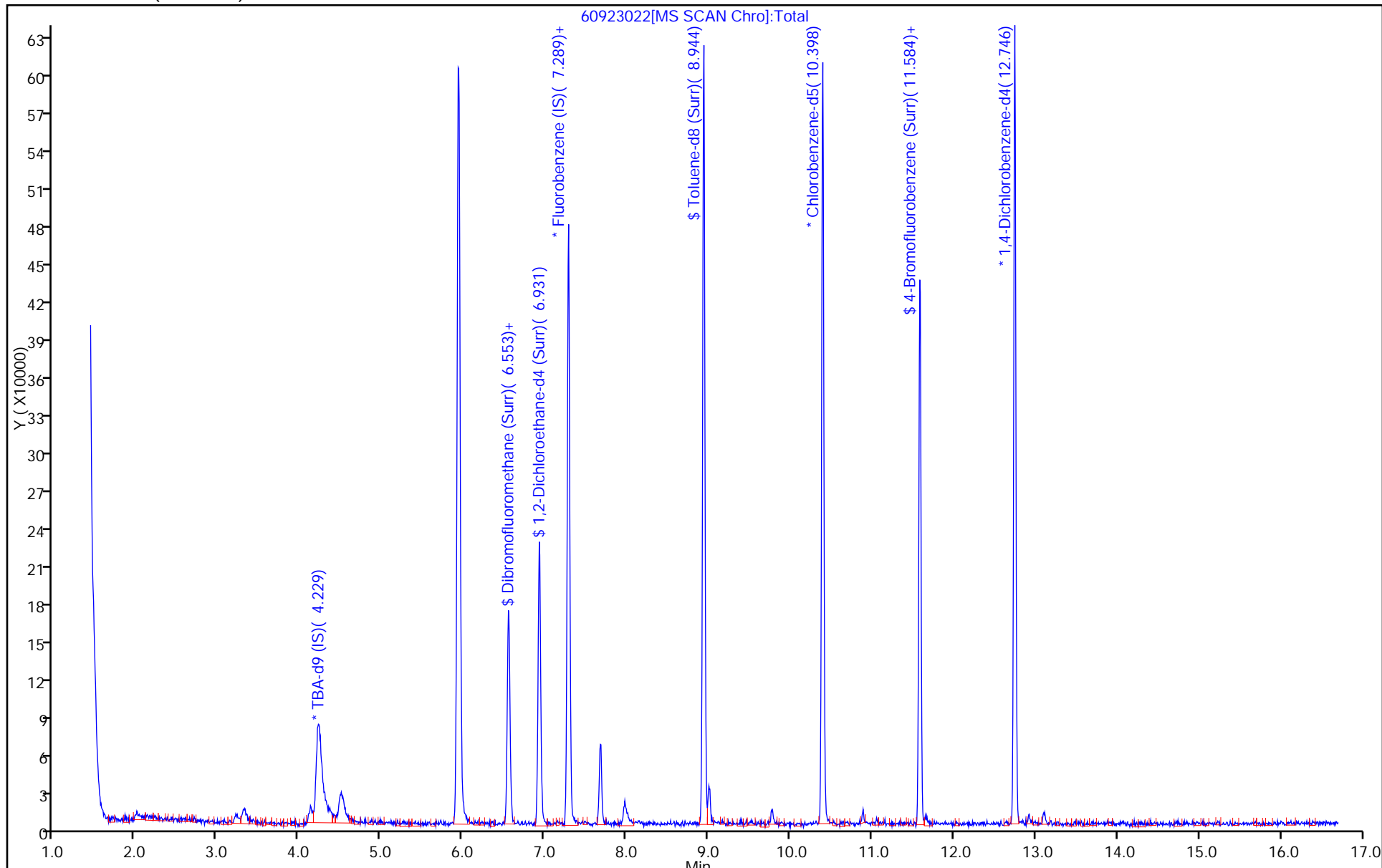
Dil. Factor: 100.0000

ALS Bottle#: 22

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

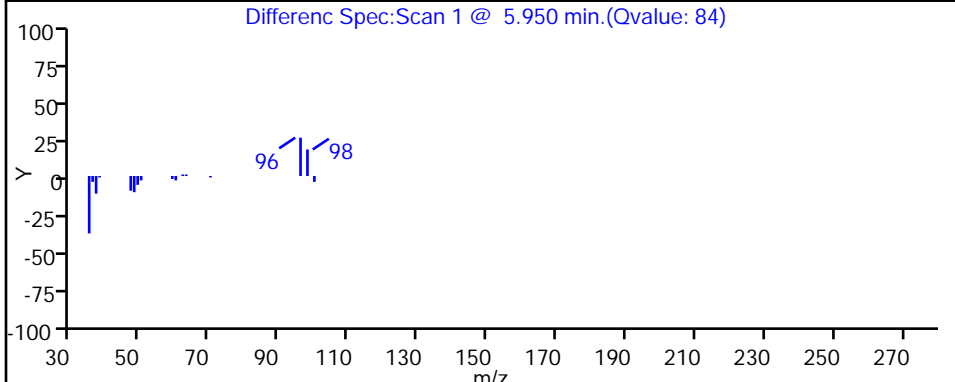
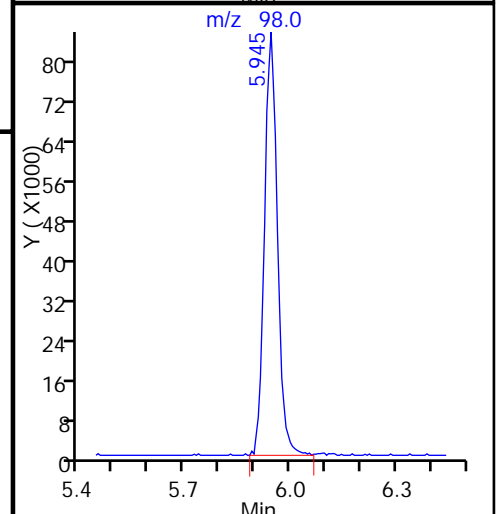
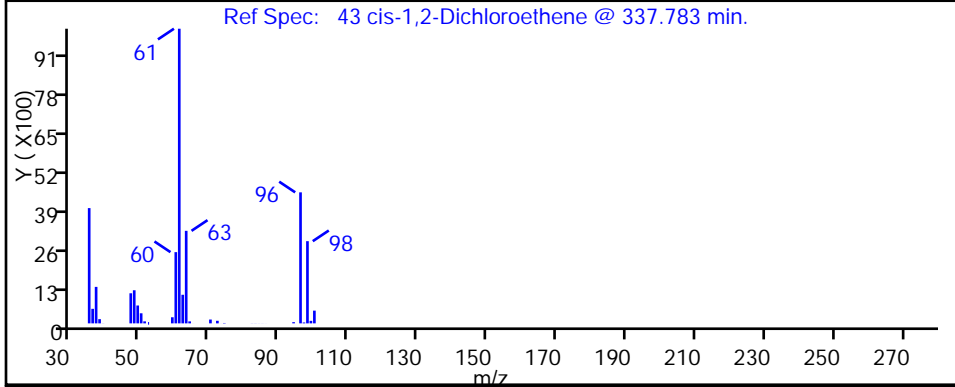
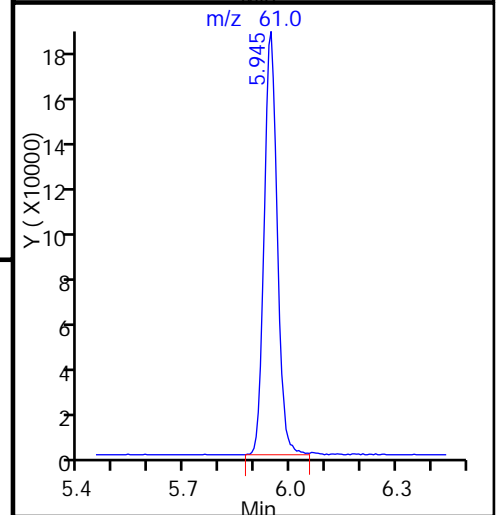
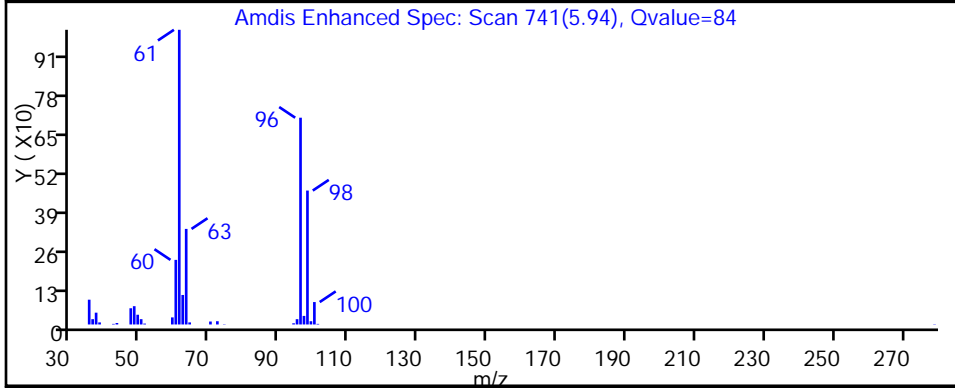
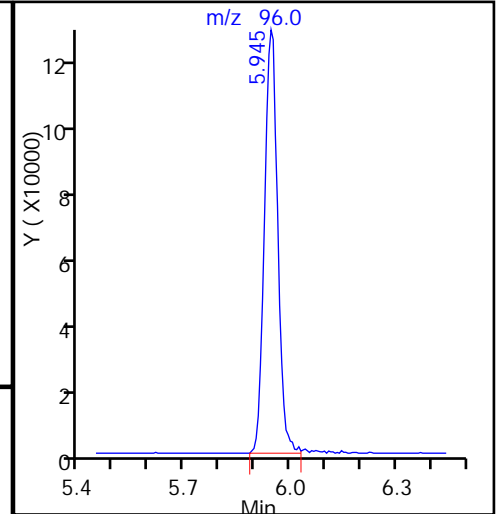
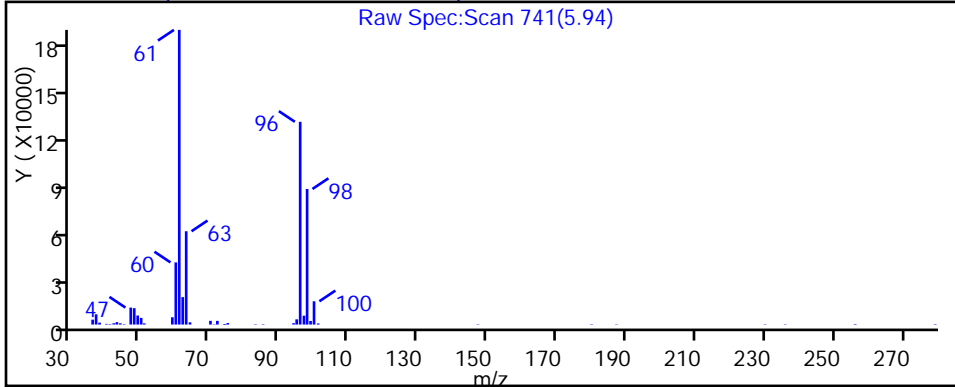
Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923022.D  
Injection Date: 23-Sep-2015 19:46:30 Instrument ID: CHHP6  
Lims ID: 180-47781-A-16 Lab Sample ID: 180-47781-16  
Client ID: HD-MW-136A-459.5/460-0  
Operator ID: 001562 ALS Bottle#: 22 Worklist Smp#: 22  
Purge Vol: 5.000 mL Dil. Factor: 100.0000  
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\20150923-8638.b\60923022.D

Injection Date: 23-Sep-2015 19:46:30

Instrument ID: CHHP6

Lims ID: 180-47781-A-16

Lab Sample ID: 180-47781-16

Client ID: HD-MW-136A-459.5/460-0

Operator ID: 001562

ALS Bottle#: 22

Worklist Smp#: 22

Purge Vol: 5.000 mL

Dil. Factor: 100.0000

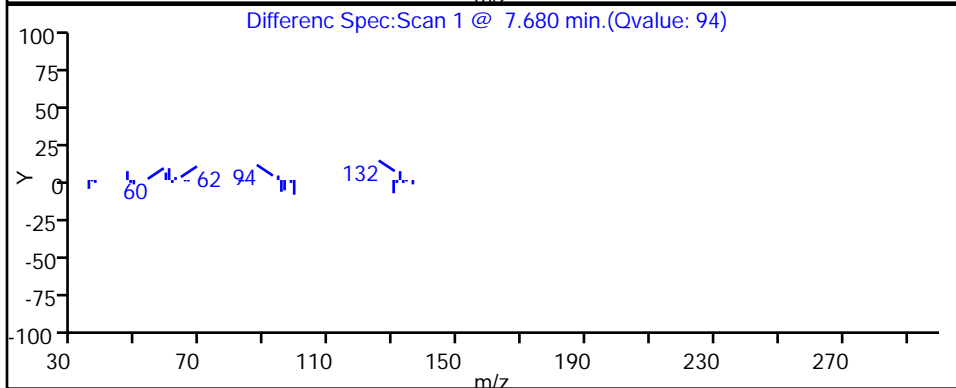
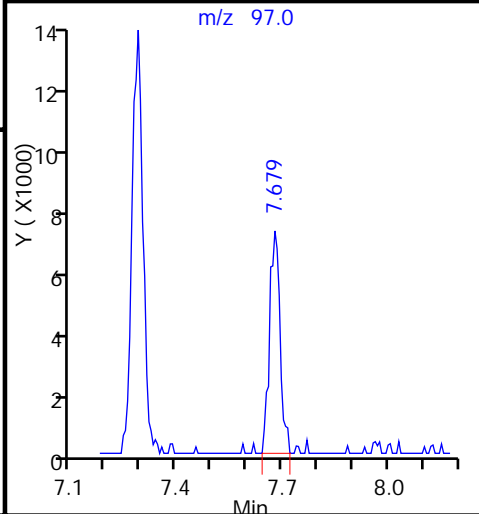
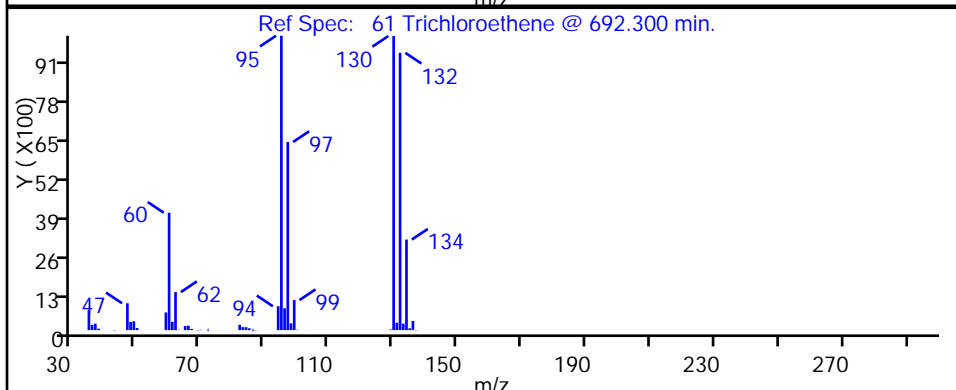
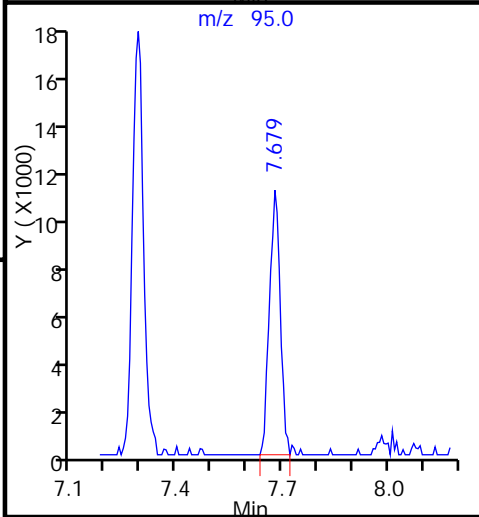
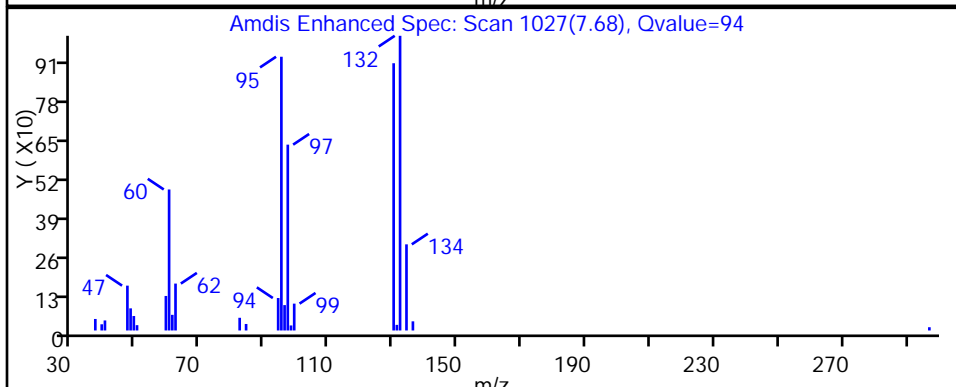
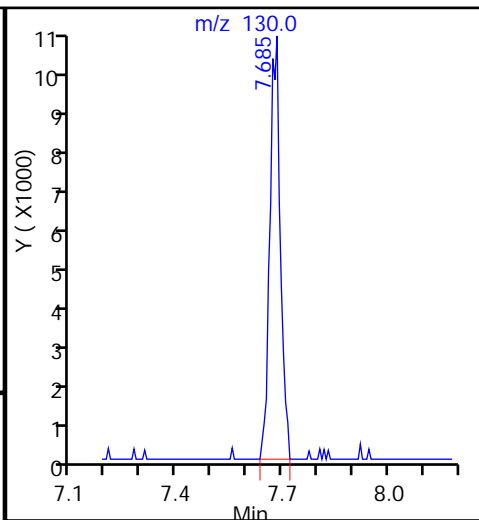
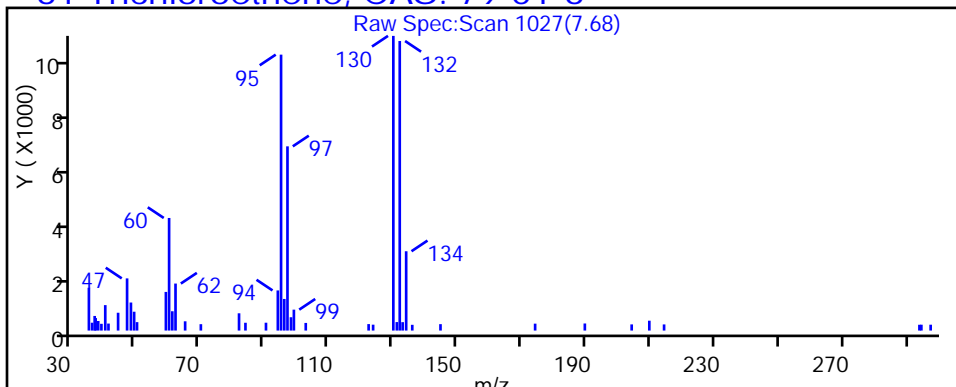
Method: MSVOA\_LL\_CHHP6

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\20150923-8638.b\60923022.D

Injection Date: 23-Sep-2015 19:46:30

Instrument ID: CHHP6

Lims ID: 180-47781-A-16

Lab Sample ID: 180-47781-16

Client ID: HD-MW-136A-459.5/460-0

Operator ID: 001562

ALS Bottle#: 22

Worklist Smp#: 22

Purge Vol: 5.000 mL

Dil. Factor: 100.0000

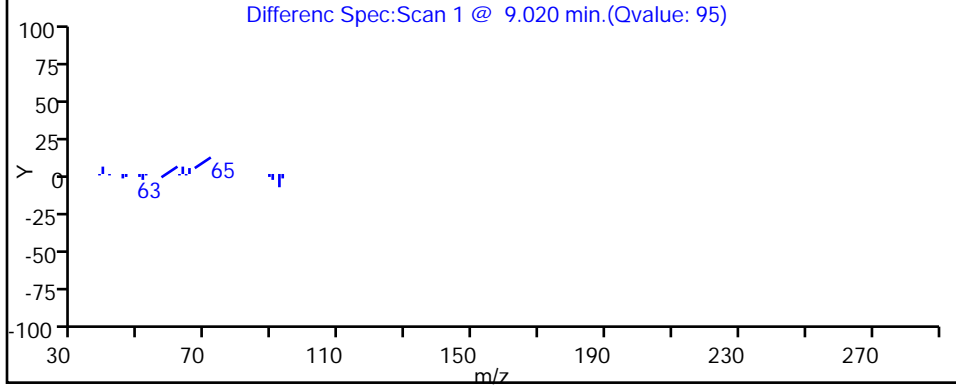
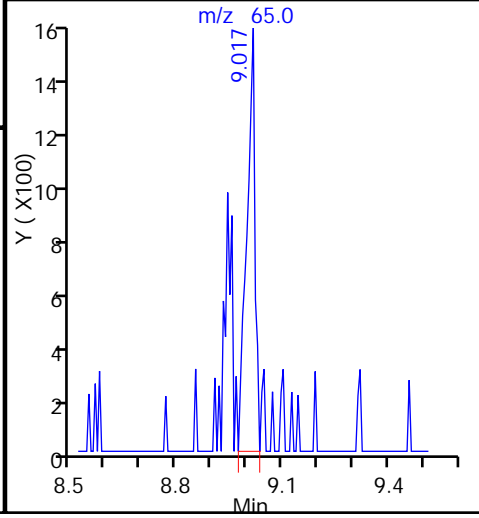
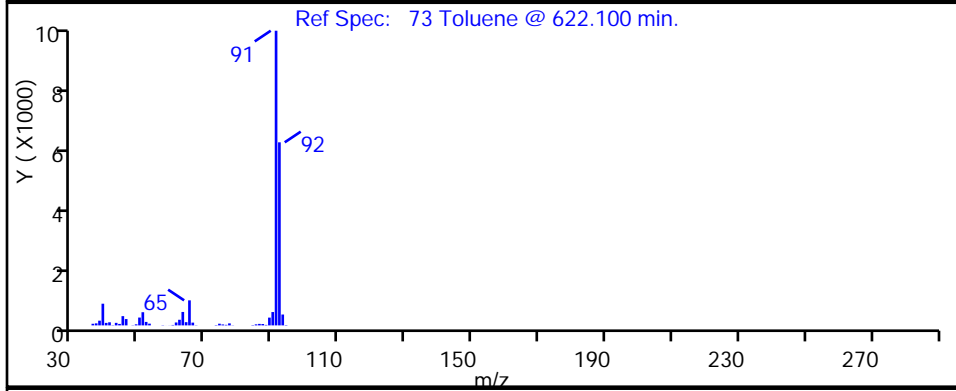
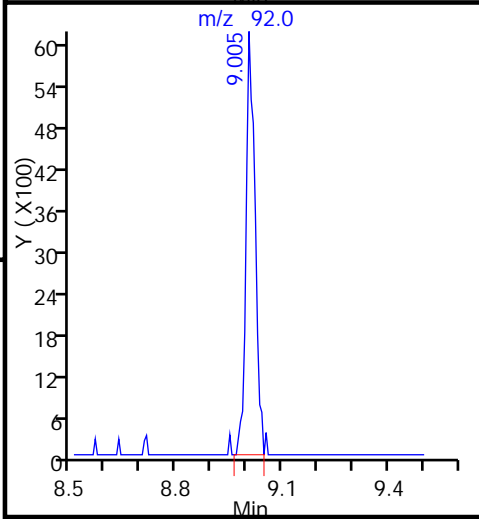
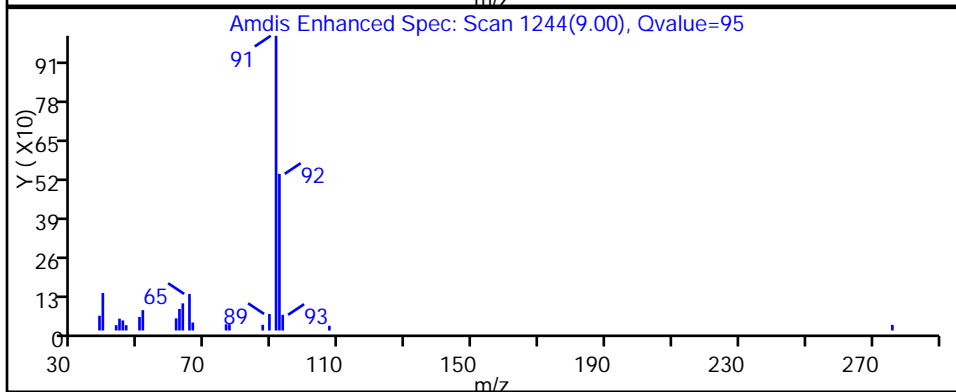
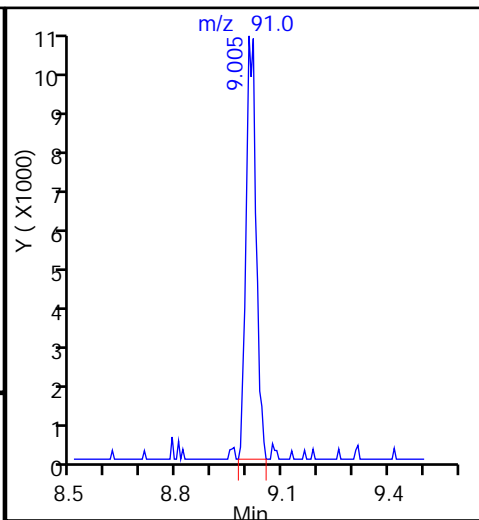
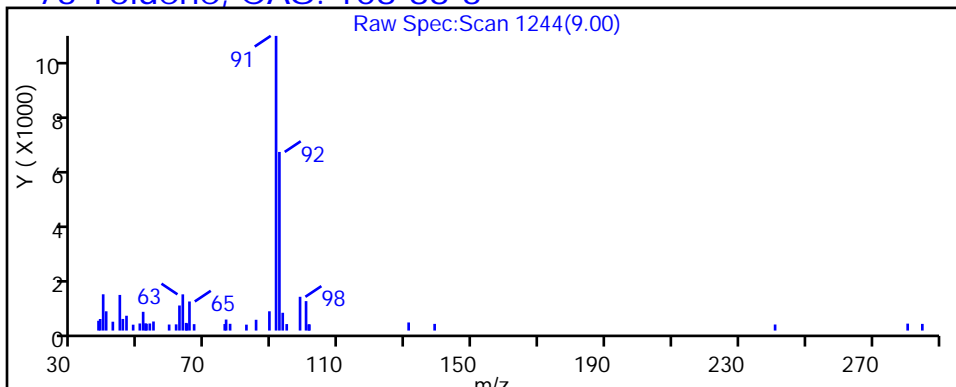
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

73 Toluene, CAS: 108-88-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923022.D

Injection Date: 23-Sep-2015 19:46:30

Instrument ID: CHHP6

Lims ID: 180-47781-A-16

Lab Sample ID: 180-47781-16

Client ID: HD-MW-136A-459.5/460-0

Operator ID: 001562

ALS Bottle#: 22

Worklist Smp#: 22

Purge Vol: 5.000 mL

Dil. Factor: 100.0000

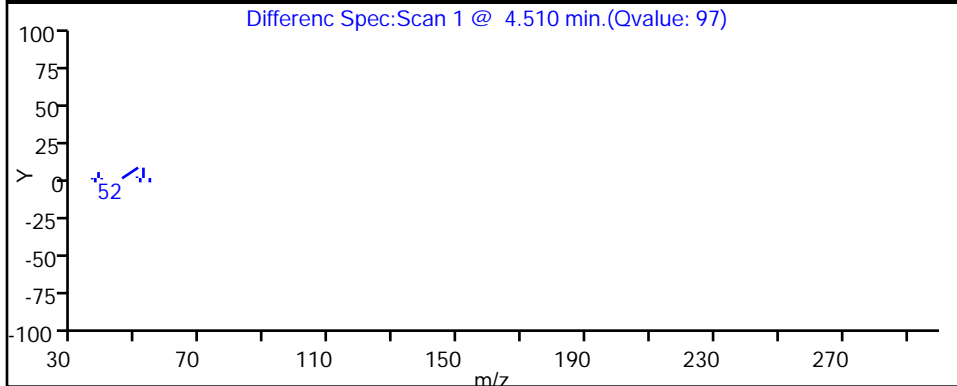
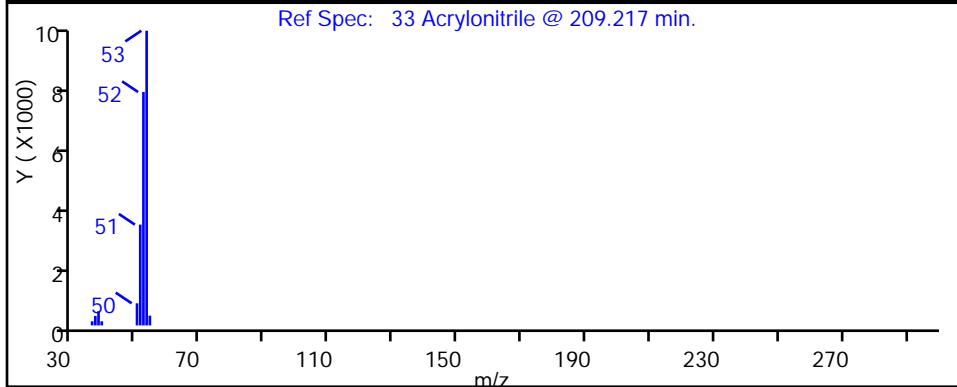
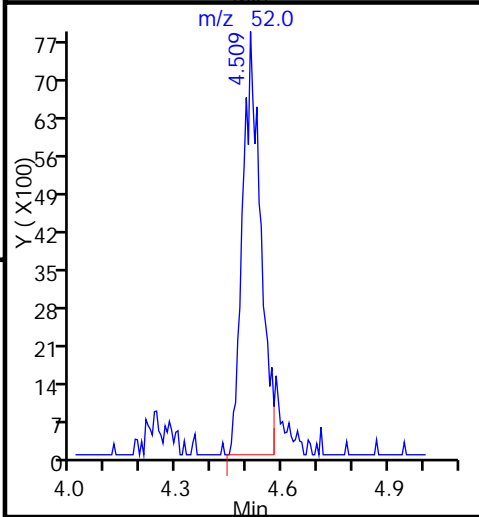
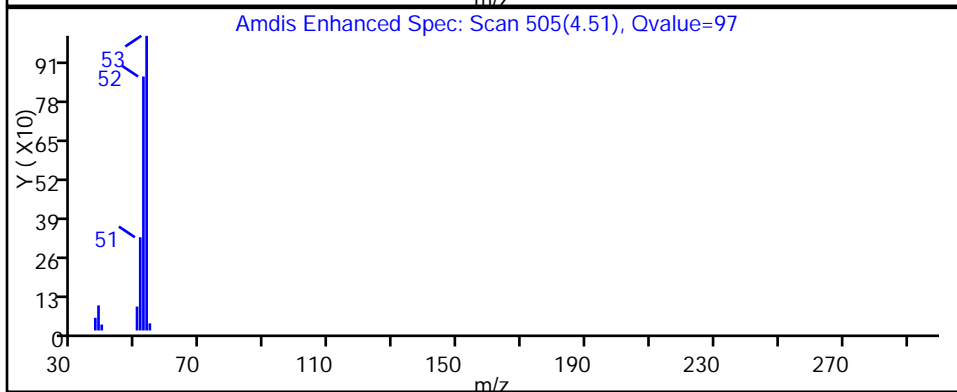
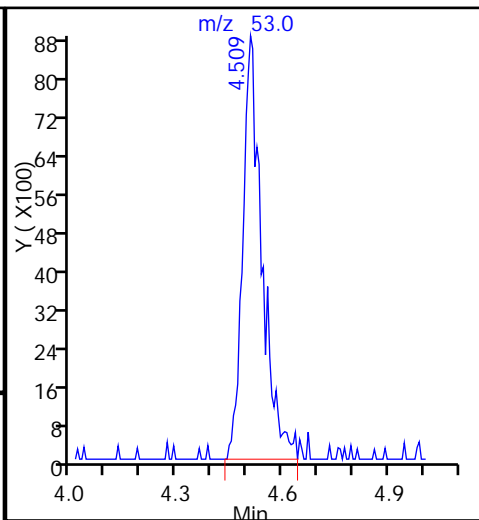
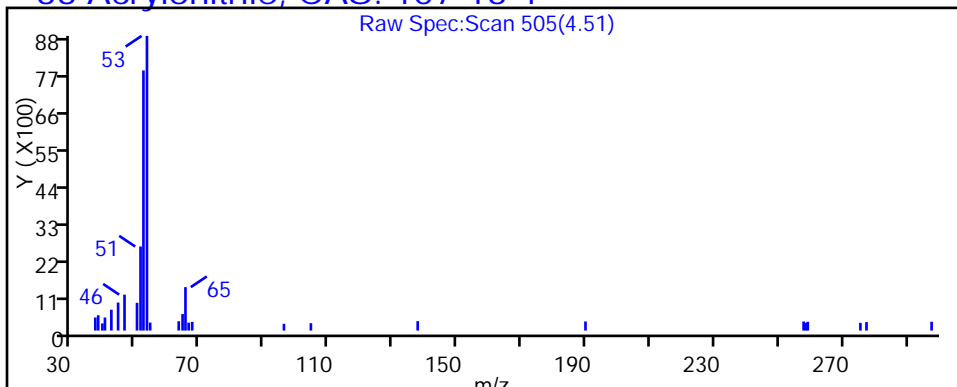
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

33 Acrylonitrile, CAS: 107-13-1



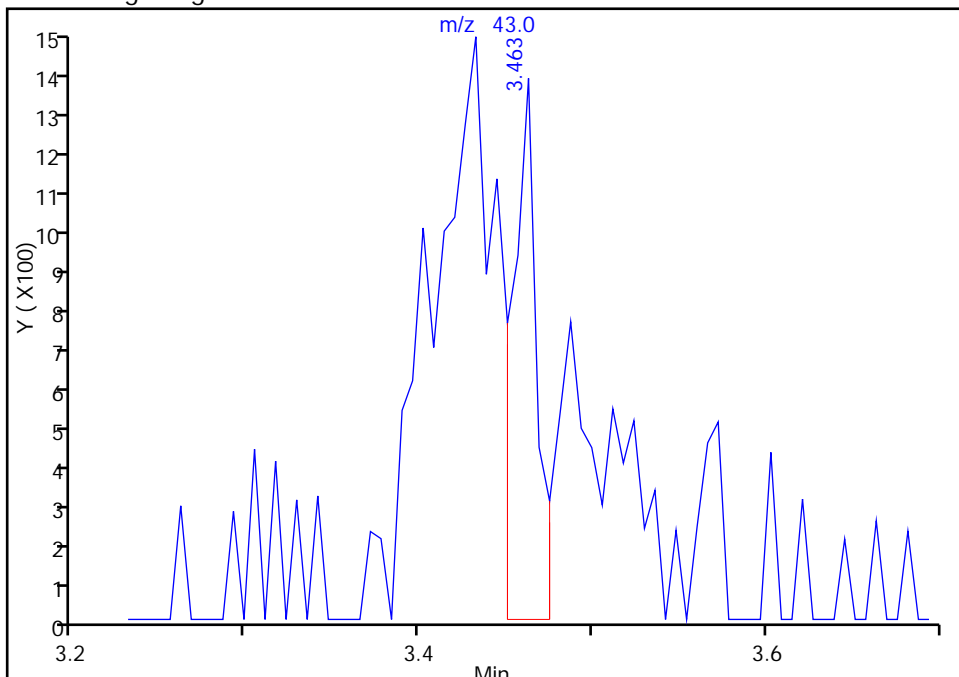
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923022.D  
Injection Date: 23-Sep-2015 19:46:30 Instrument ID: CHHP6  
Lims ID: 180-47781-A-16 Lab Sample ID: 180-47781-16  
Client ID: HD-MW-136A-459.5/460-0  
Operator ID: 001562 ALS Bottle#: 22 Worklist Smp#: 22  
Purge Vol: 5.000 mL Dil. Factor: 100.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

24 Acetone, CAS: 67-64-1

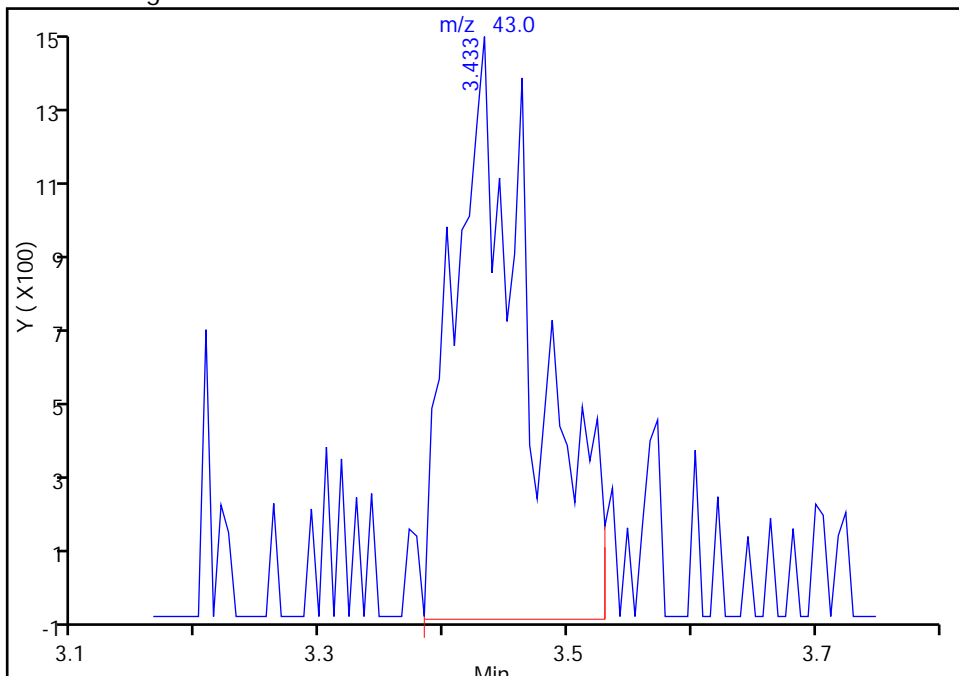
RT: 3.46  
Area: 1376  
Amount: 1.779716  
Amount Units: ng

Processing Integration Results



RT: 3.43  
Area: 6423  
Amount: 8.307497  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 24-Sep-2015 08:11:00  
Audit Action: Manually Integrated  
Audit Reason: Missed Peak

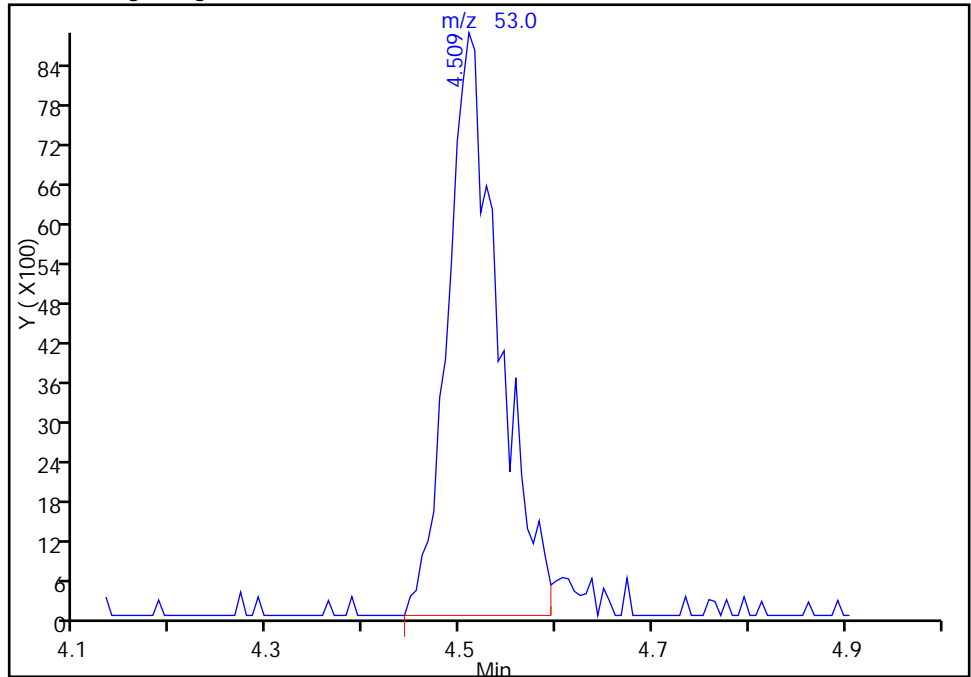
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923022.D  
Injection Date: 23-Sep-2015 19:46:30 Instrument ID: CHHP6  
Lims ID: 180-47781-A-16 Lab Sample ID: 180-47781-16  
Client ID: HD-MW-136A-459.5/460-0  
Operator ID: 001562 ALS Bottle#: 22 Worklist Smp#: 22  
Purge Vol: 5.000 mL Dil. Factor: 100.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

33 Acrylonitrile, CAS: 107-13-1

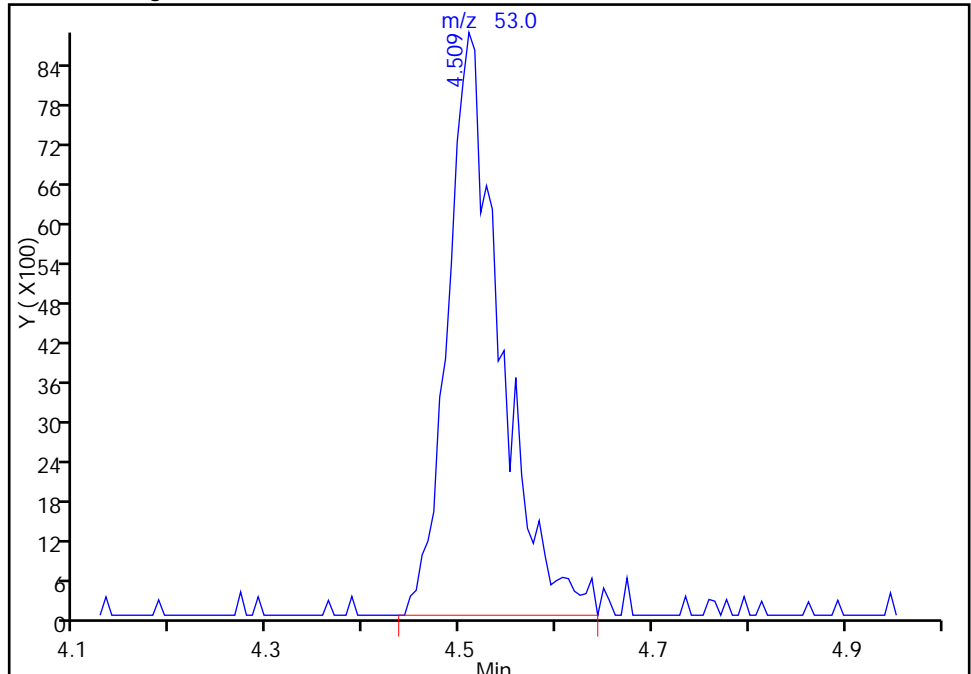
RT: 4.51  
Area: 32731  
Amount: 35.813829  
Amount Units: ng

Processing Integration Results



RT: 4.51  
Area: 33909  
Amount: 37.102781  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 24-Sep-2015 08:11:00  
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.: 180-47781-1 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.: 180-47781-1 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														
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.: 180-47781-1 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.: 180-47781-1

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	LVL 5													
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.: 180-47781-1 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														
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.: 180-47781-1 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.: 180-47781-1 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.: 180-47781-1 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.: 180-47781-1 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.: 180-47781-1

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.: 180-47781-1 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.: 180-47781-1 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.: 180-47781-1 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

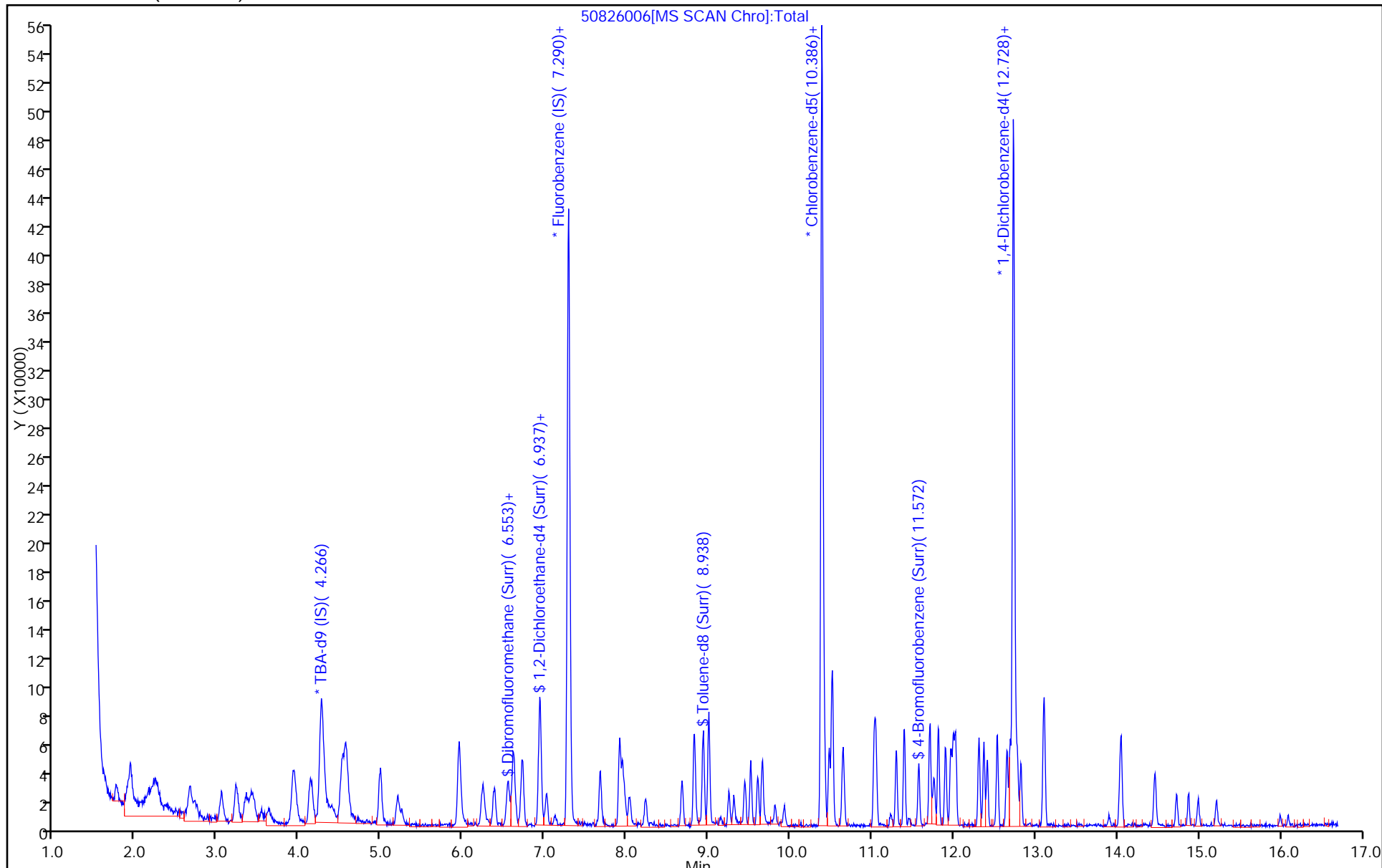
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





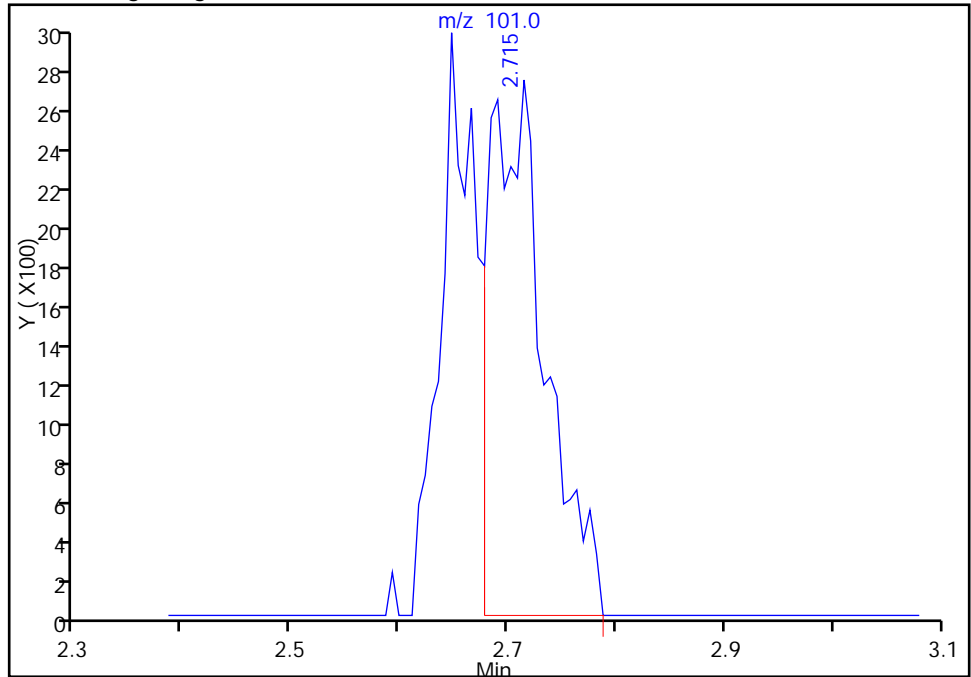
TestAmerica Pittsburgh

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

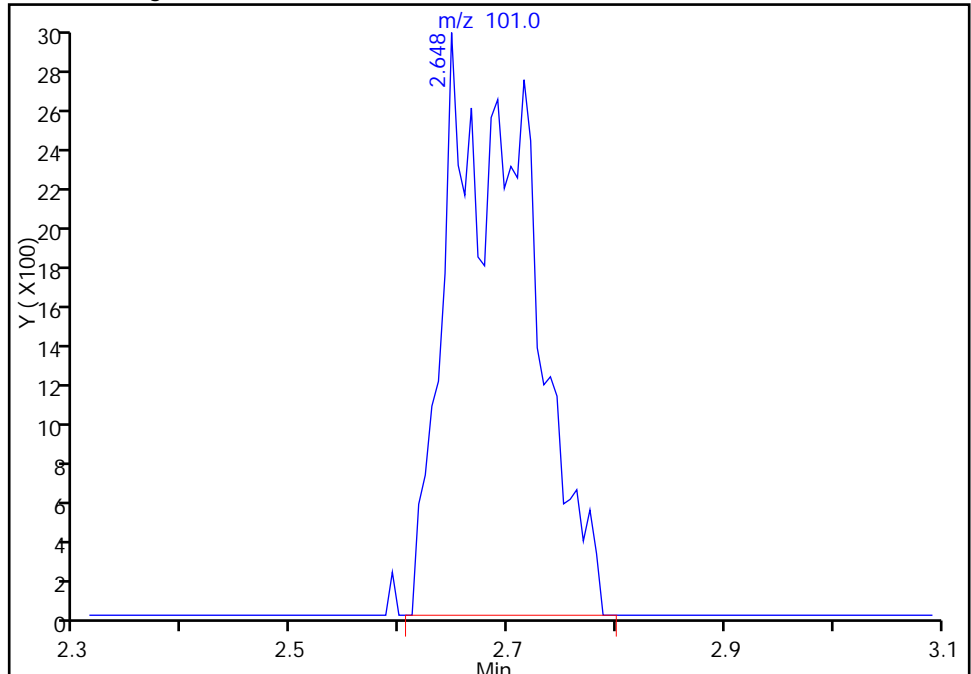
RT: 2.71  
Area: 9760  
Amount: 4.111403  
Amount Units: ng

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

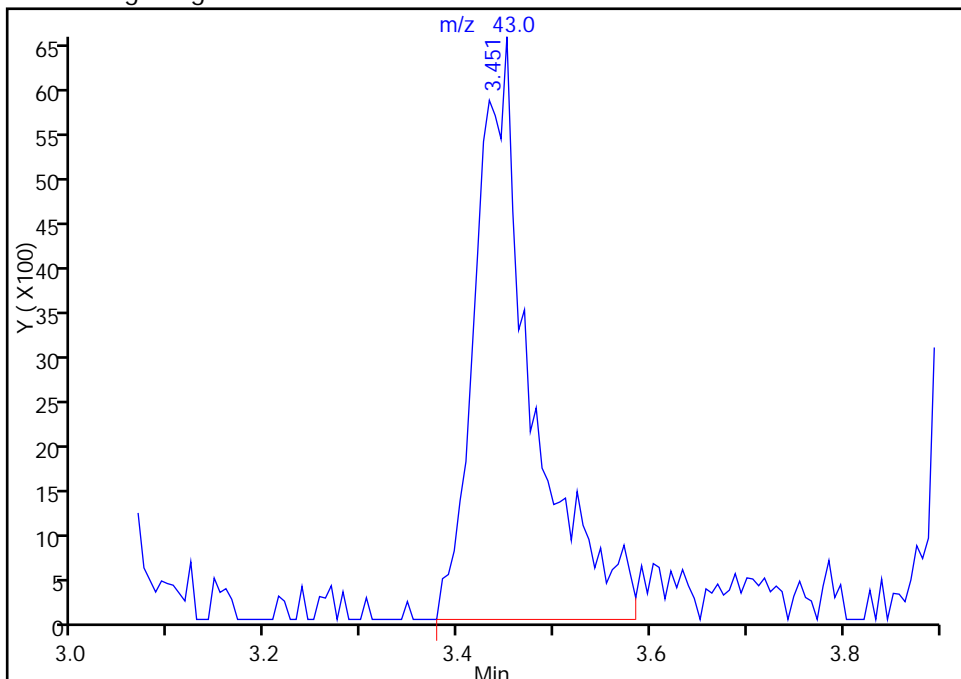
TestAmerica Pittsburgh

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

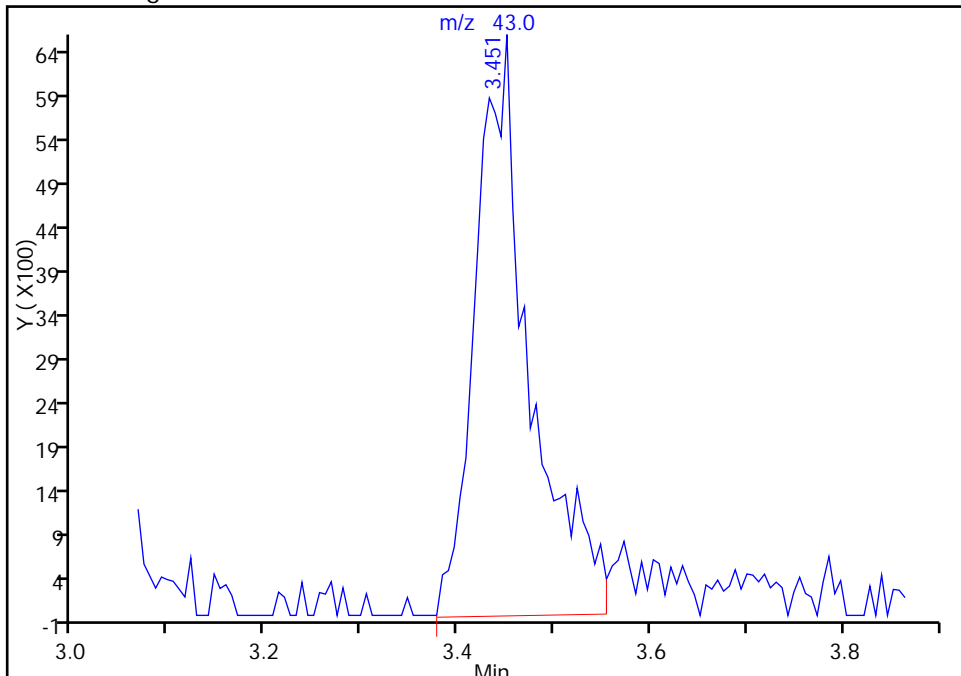
RT: 3.45  
Area: 26617  
Amount: 32.323853  
Amount Units: ng

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

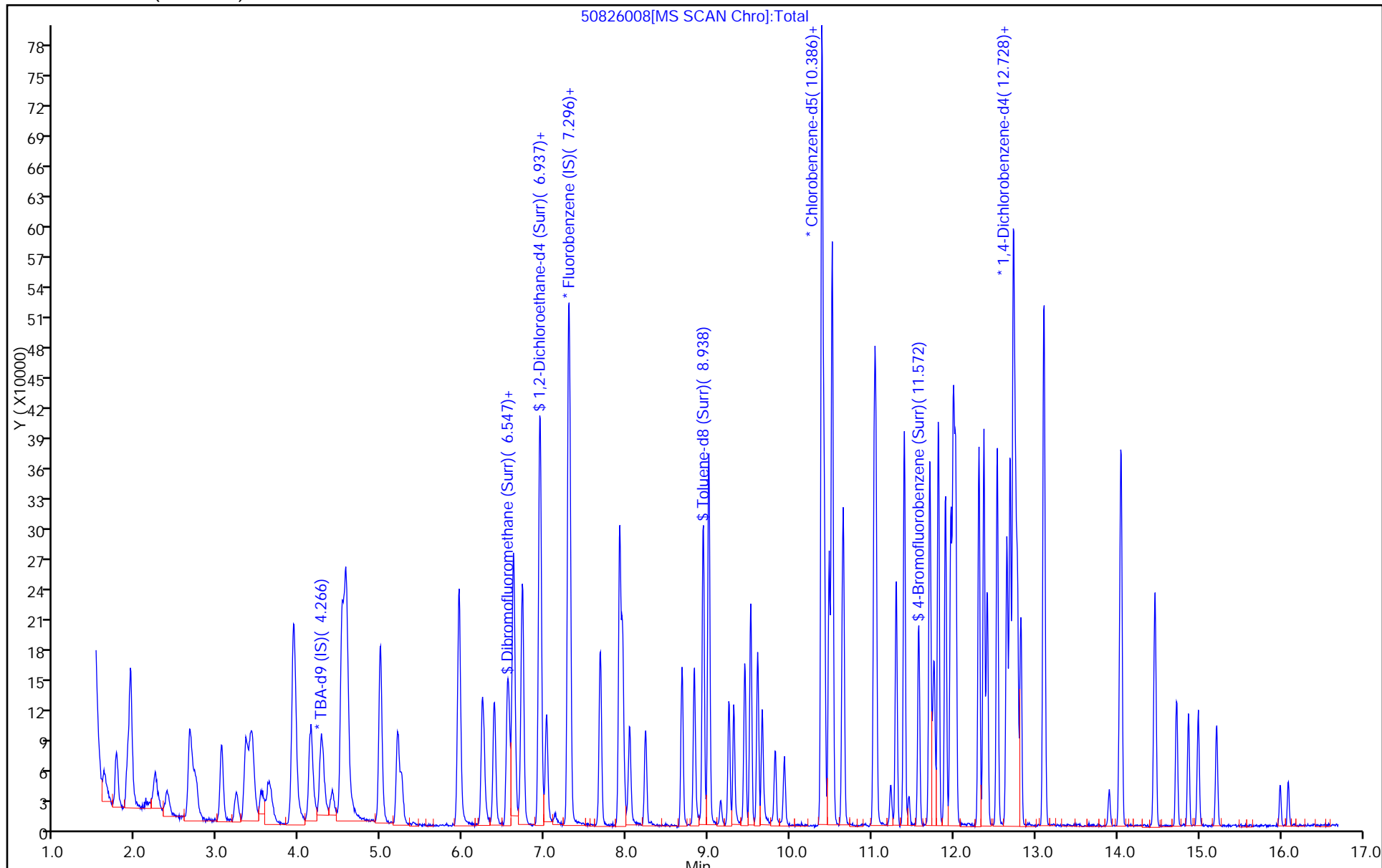
Dil. Factor: 1.0000

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

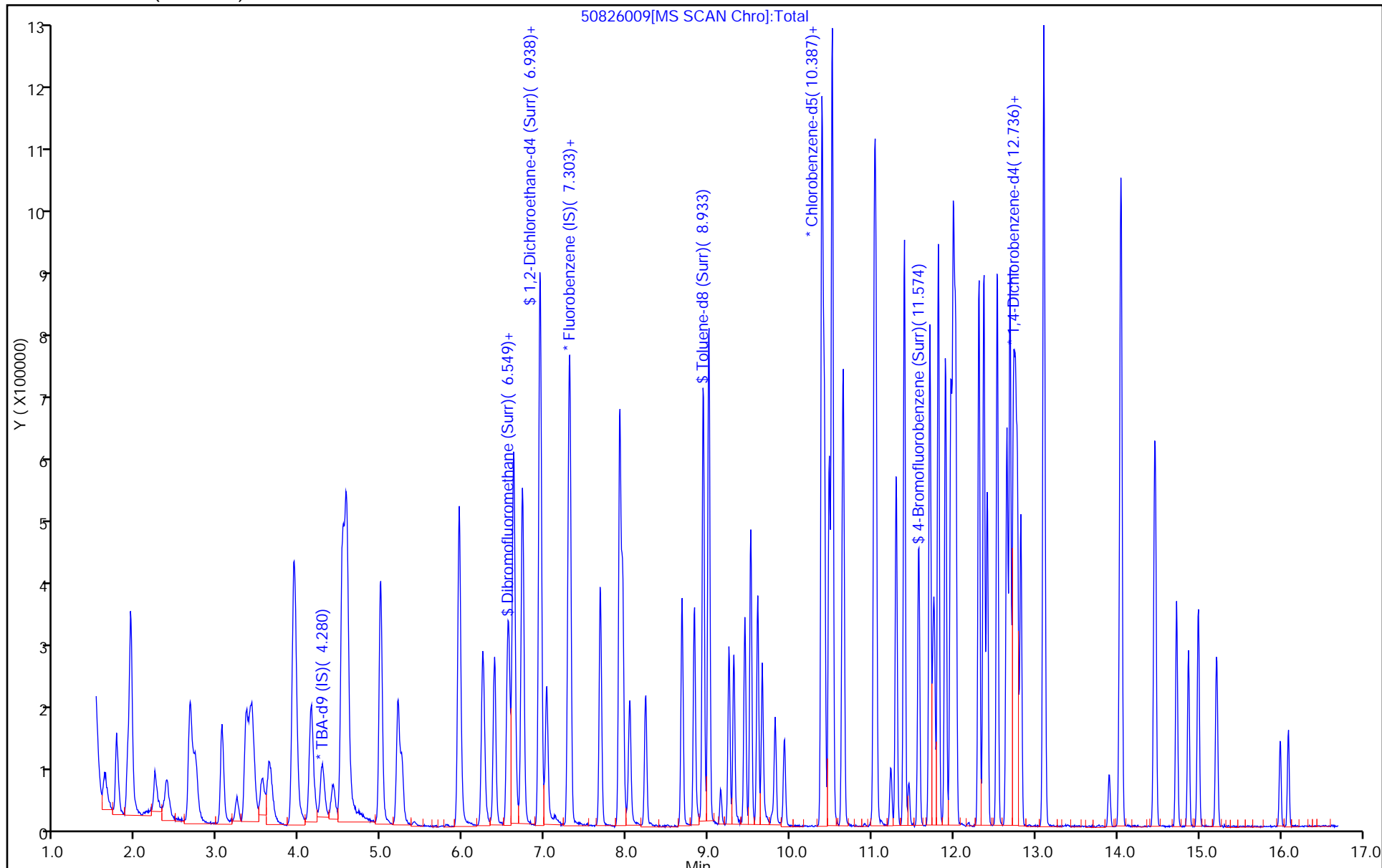
Dil. Factor: 1.0000

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

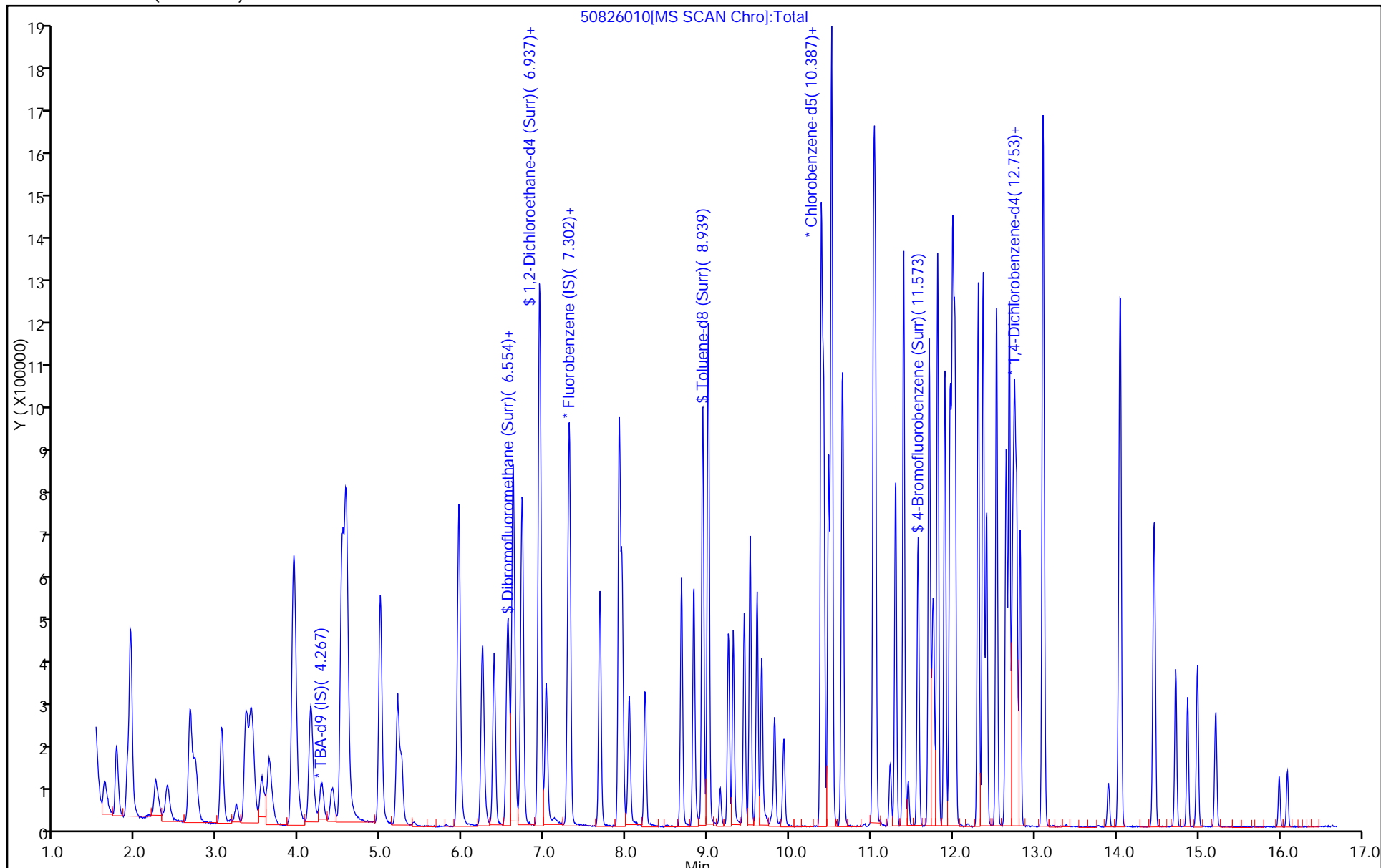
Dil. Factor: 1.0000

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

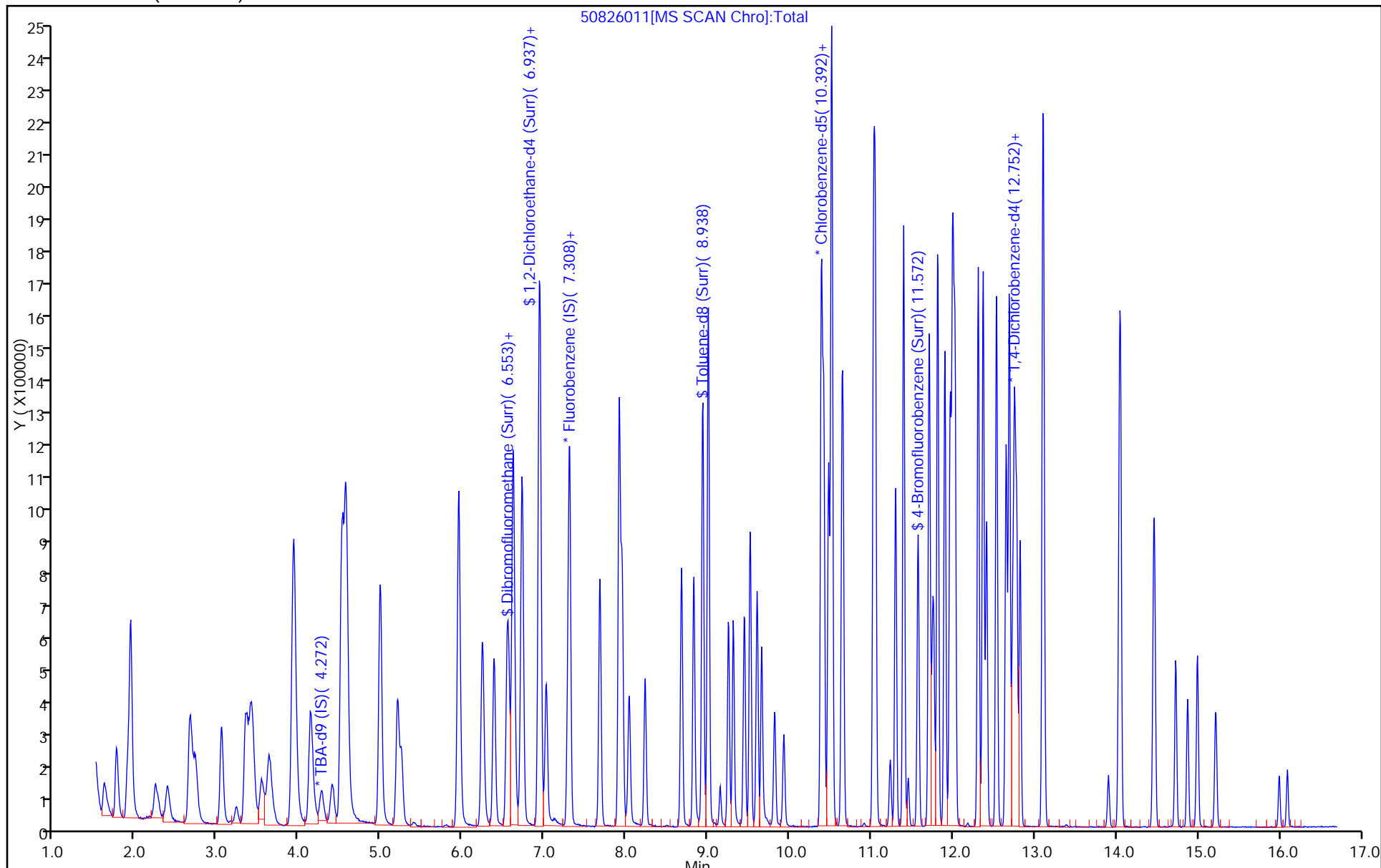
Dil. Factor: 1.0000

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

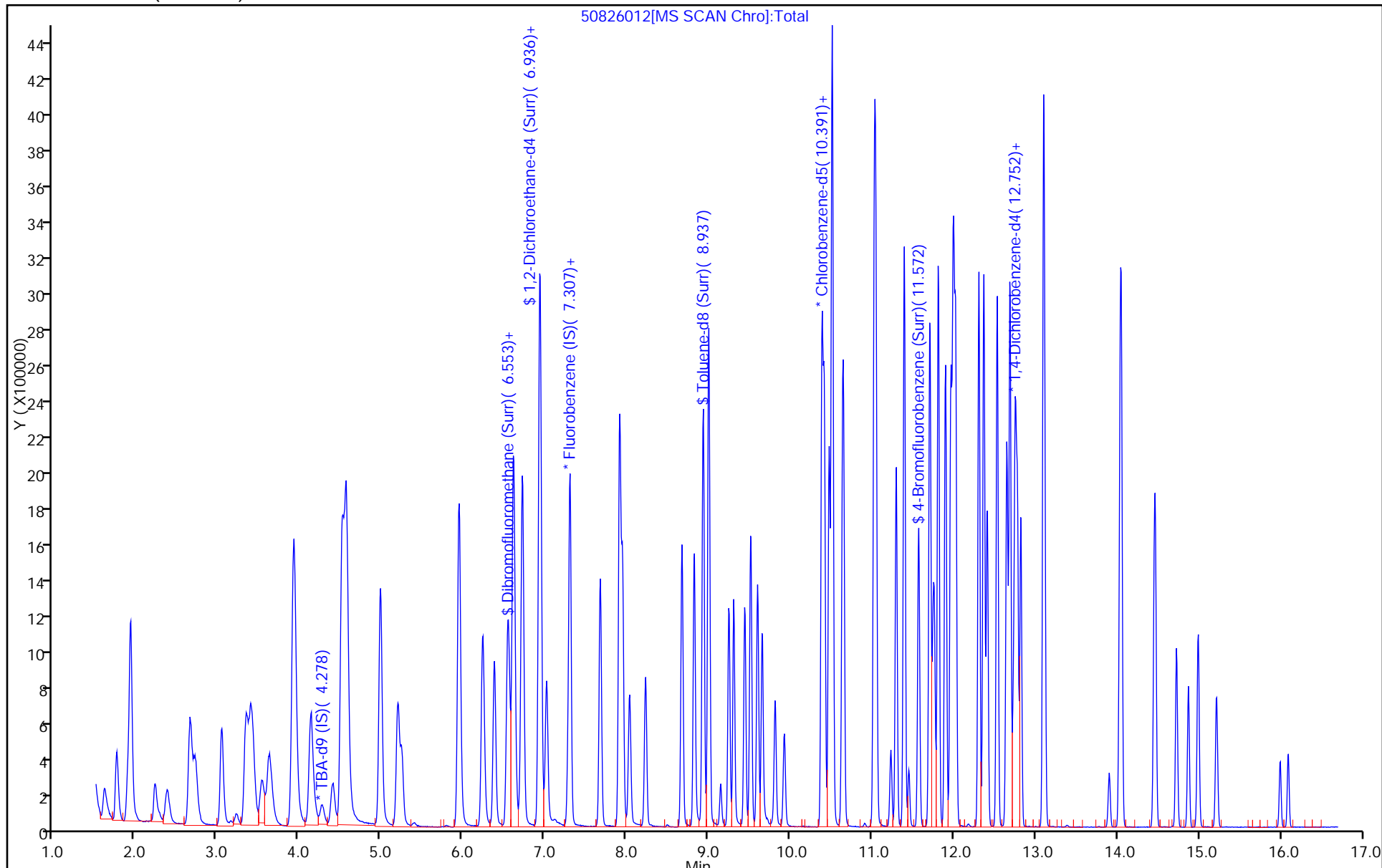
Dil. Factor: 1.0000

ALS Bottle#: 11

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



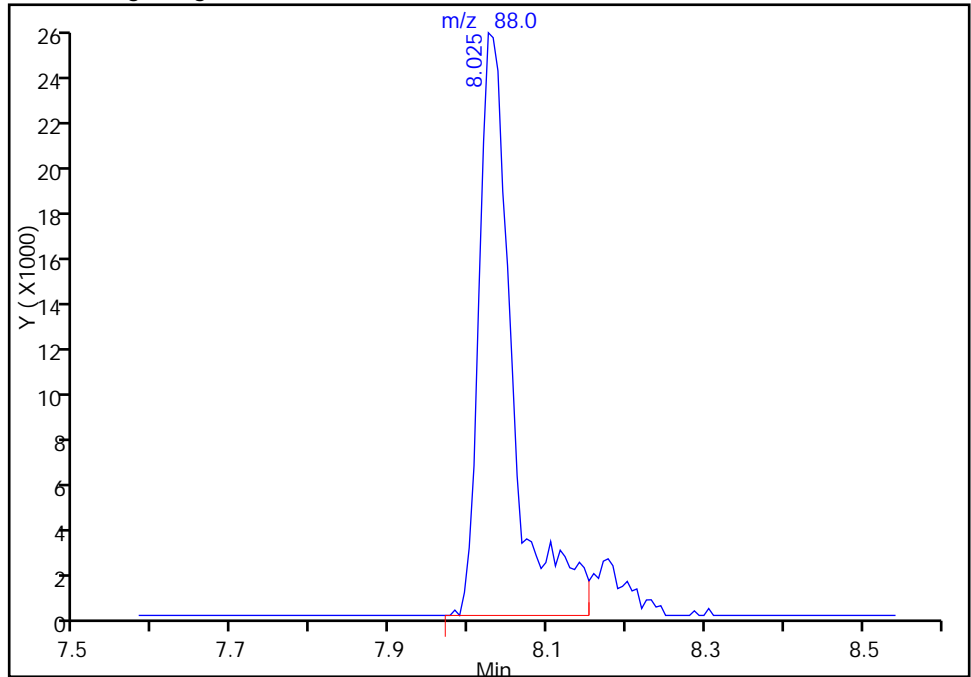
TestAmerica Pittsburgh

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

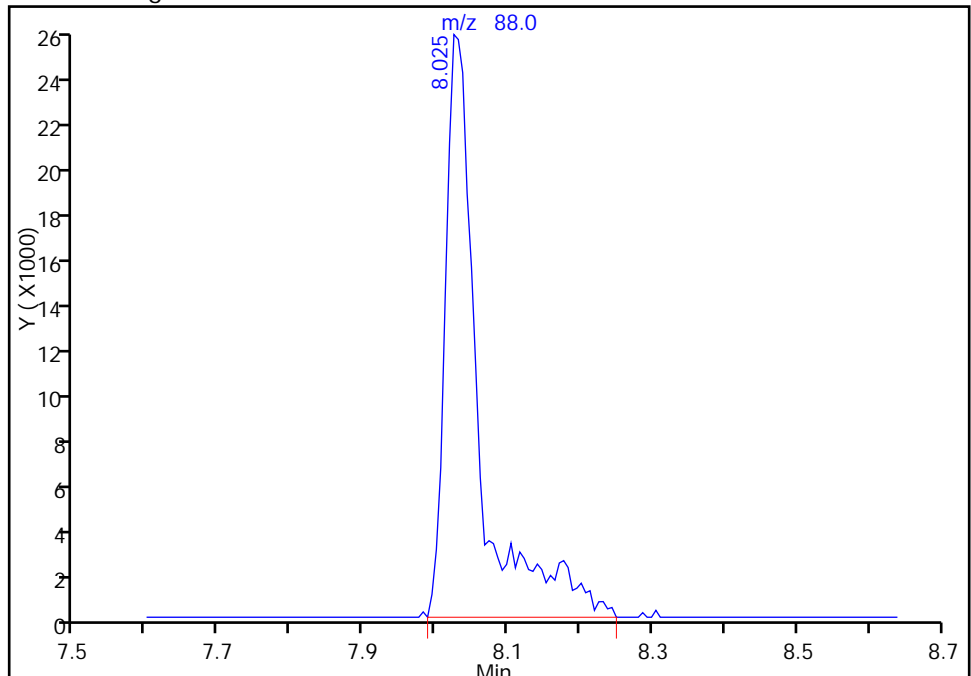
RT: 8.02  
Area: 75762  
Amount: 3419.0350  
Amount Units: ng

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

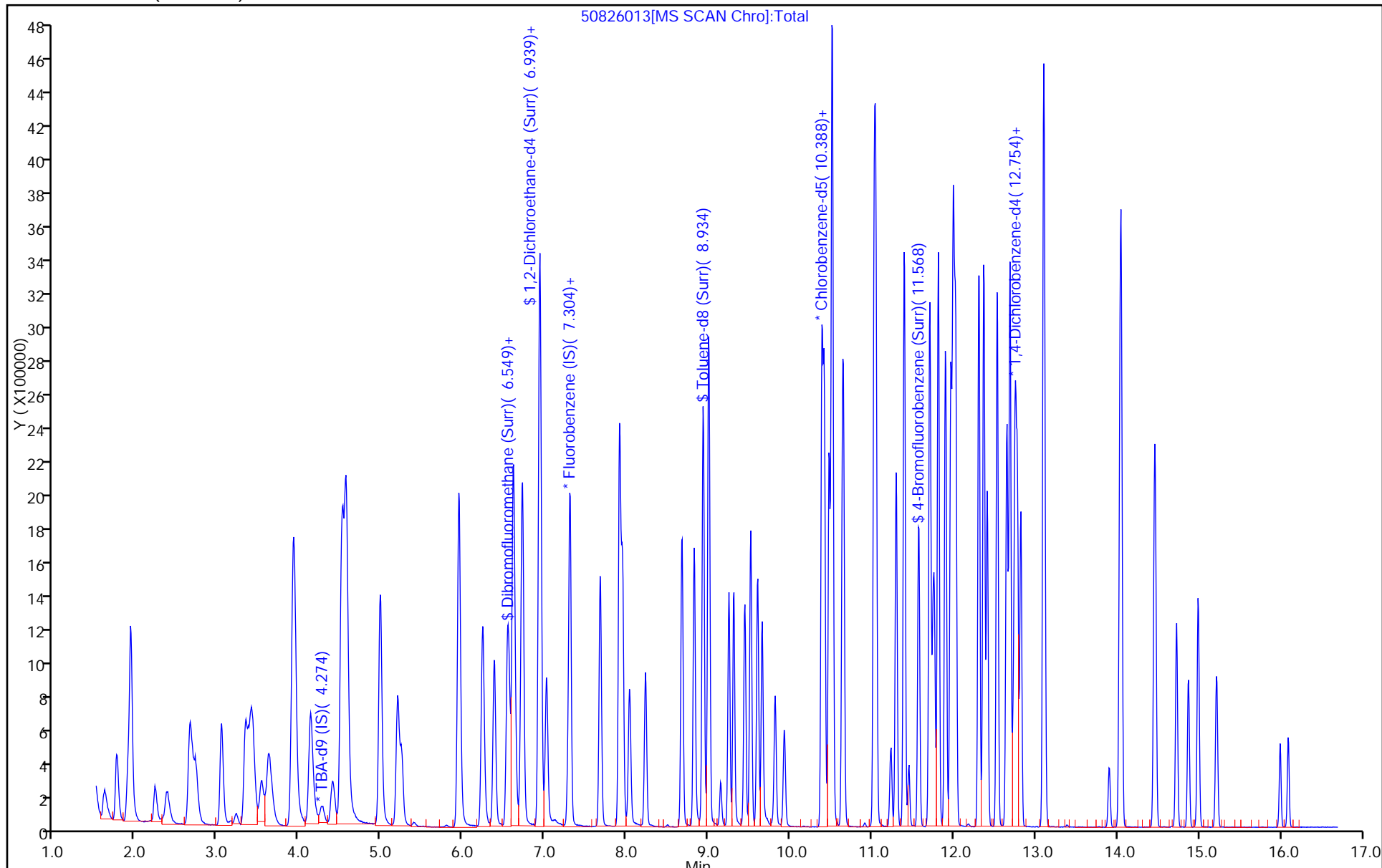
Dil. Factor: 1.0000

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

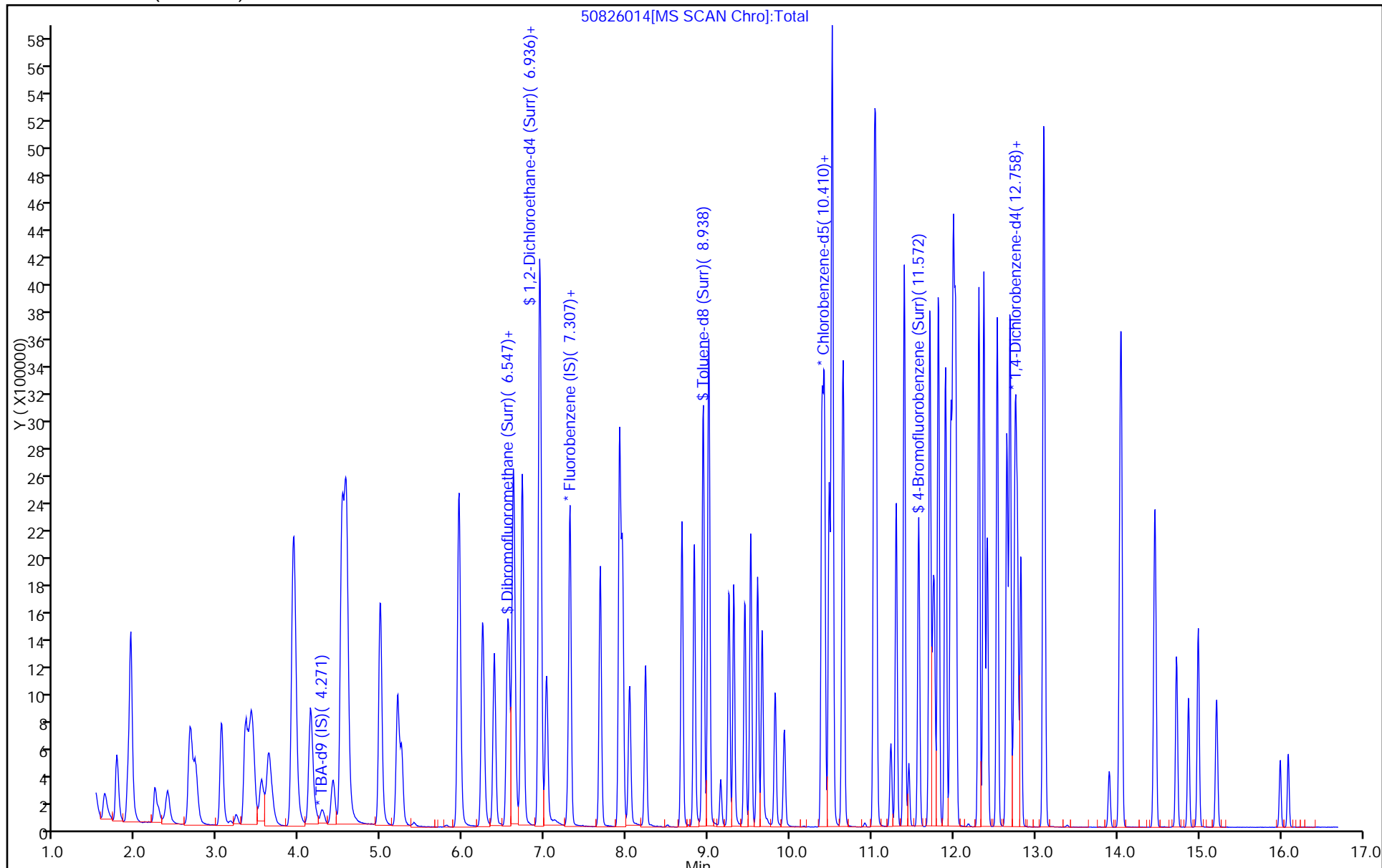
Dil. Factor: 1.0000

ALS Bottle#: 13

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





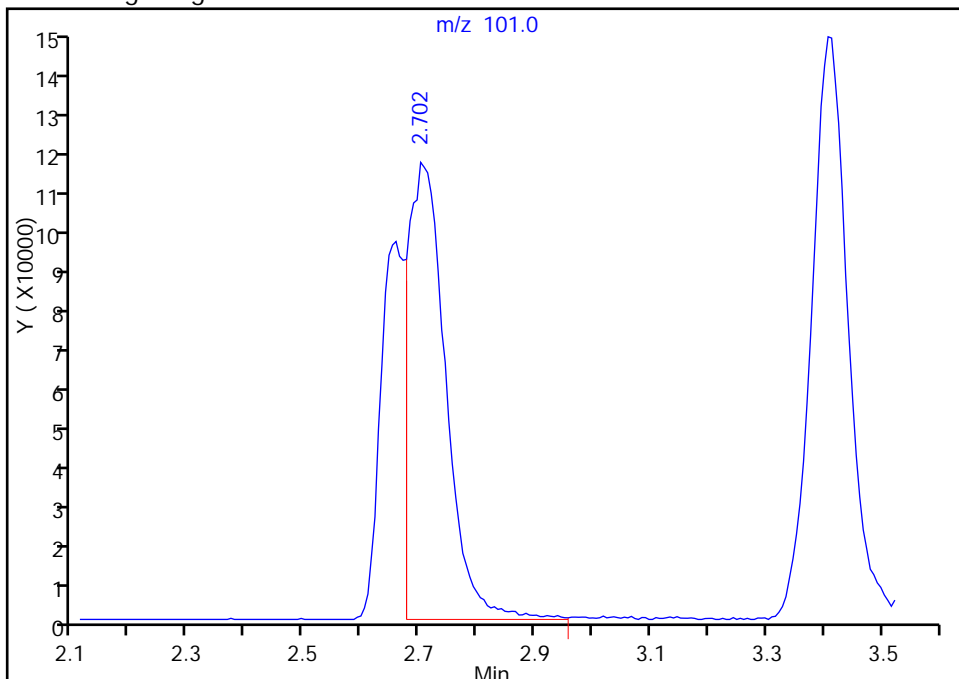
TestAmerica Pittsburgh

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

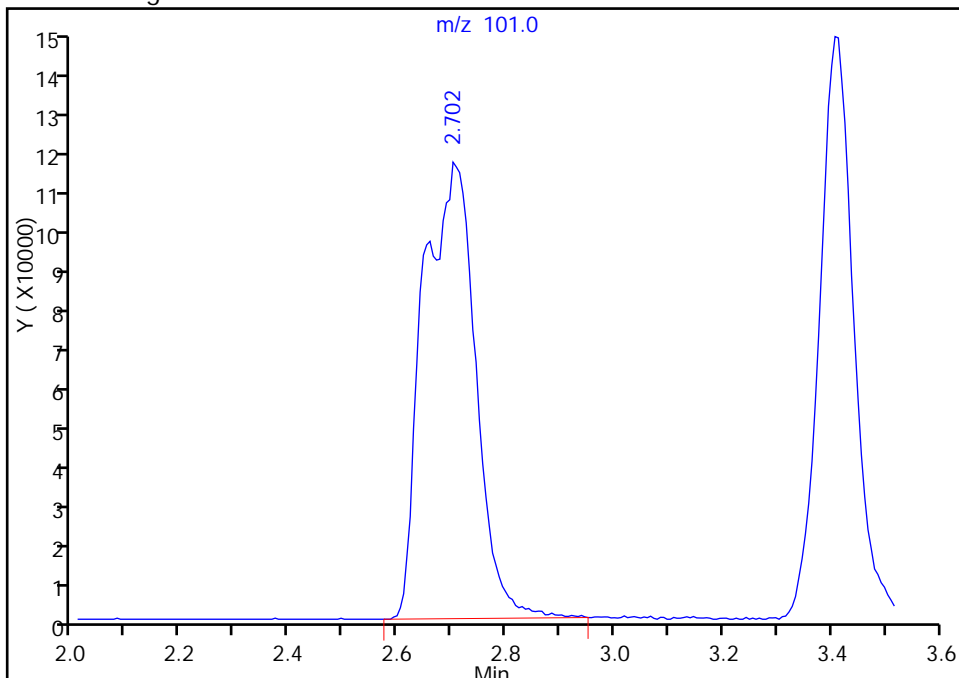
RT: 2.70  
Area: 496107  
Amount: 173.5779  
Amount Units: ng

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.: 180-47781-1 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.: 180-47781-1

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.: 180-47781-1

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.: 180-47781-1

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.: 180-47781-1 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.: 180-47781-1 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														
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.: 180-47781-1 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.: 180-47781-1

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.: 180-47781-1

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.: 180-47781-1

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.: 180-47781-1

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.: 180-47781-1 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.: 180-47781-1 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

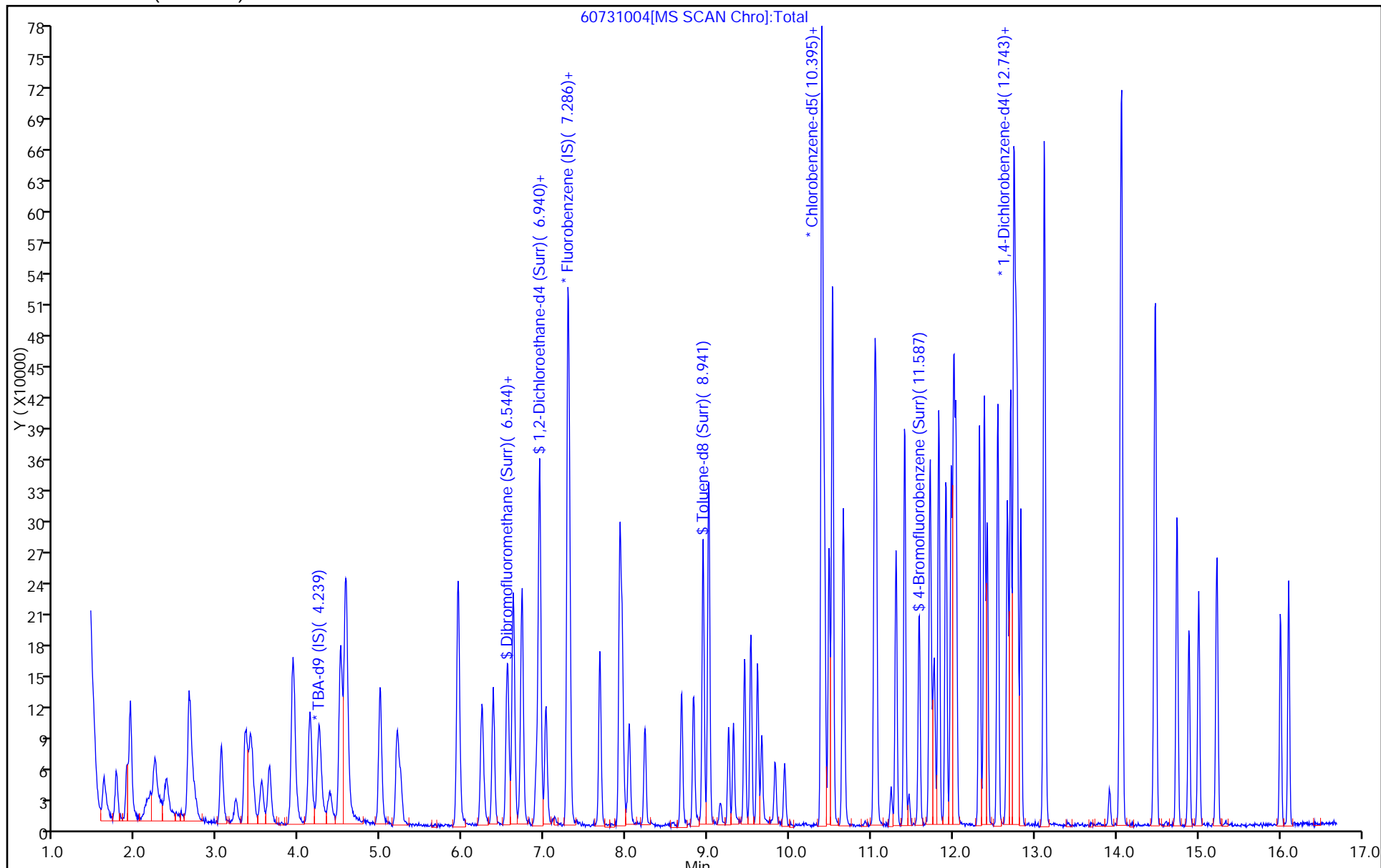
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



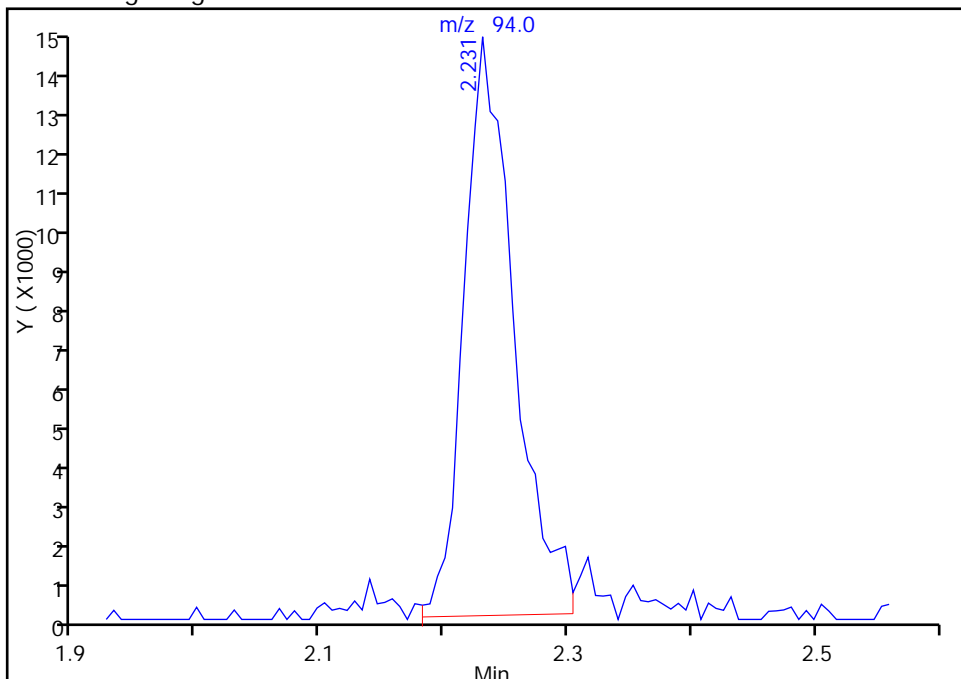
TestAmerica Pittsburgh

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

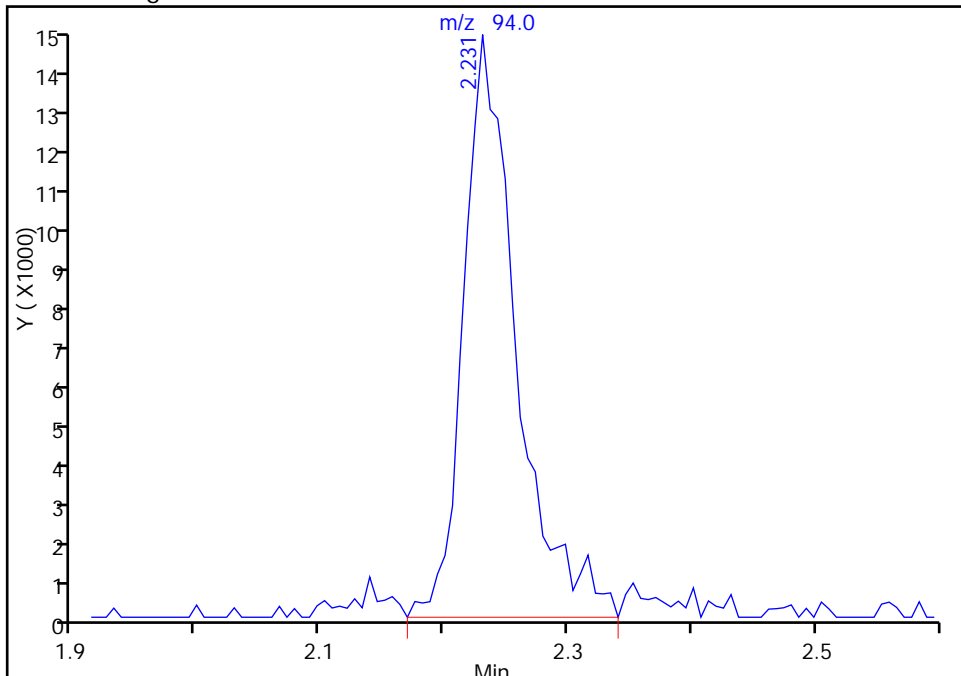
RT: 2.23  
Area: 40394  
Amount: 23.319863  
Amount Units: ng

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

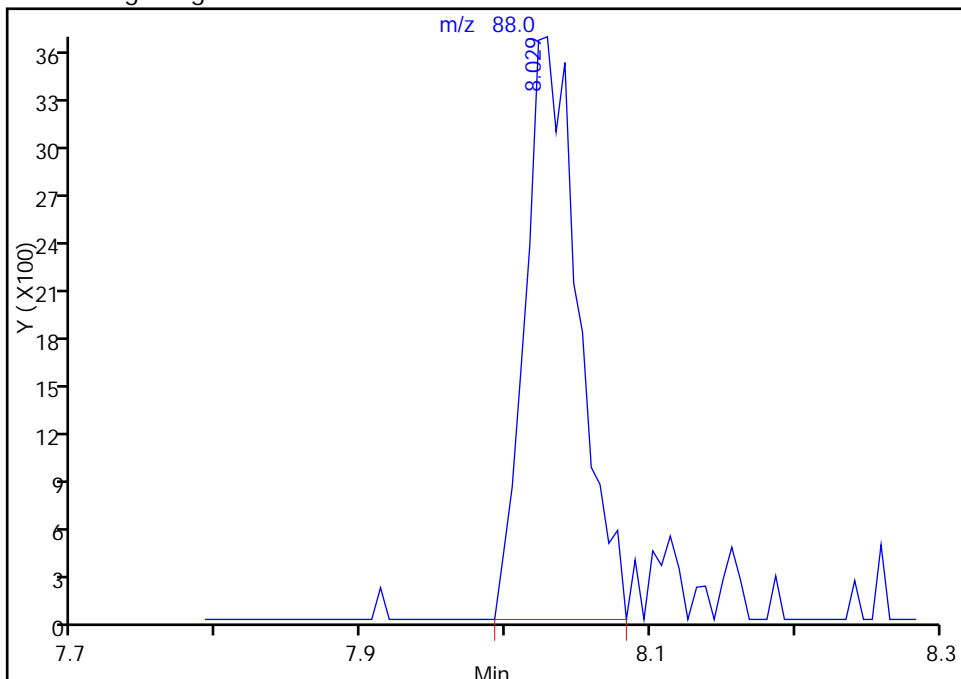
TestAmerica Pittsburgh

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

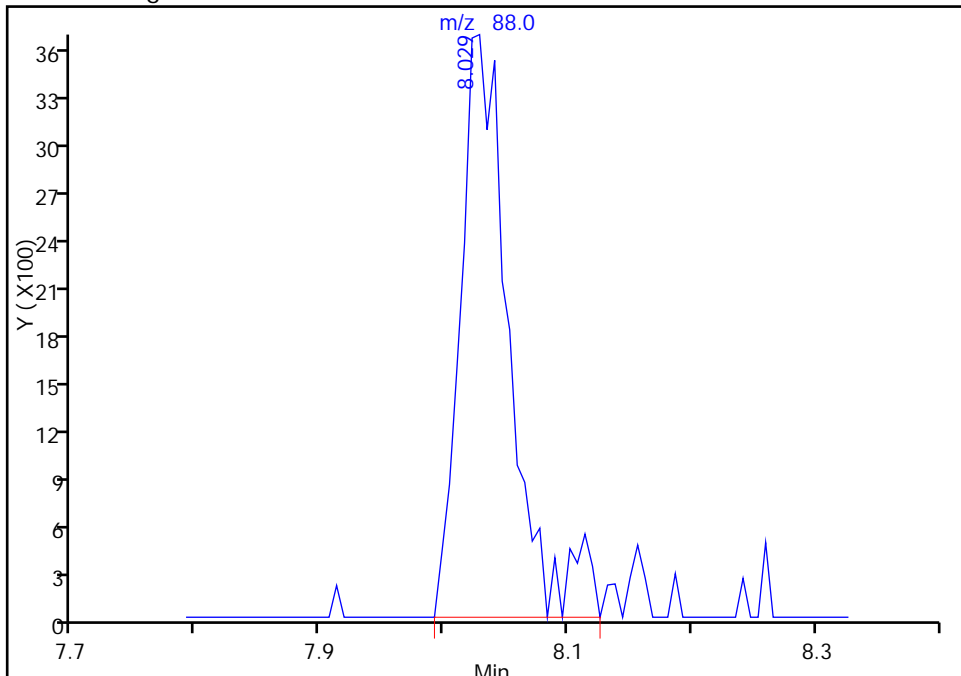
RT: 8.03  
Area: 9488  
Amount: 365.3313  
Amount Units: ng

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

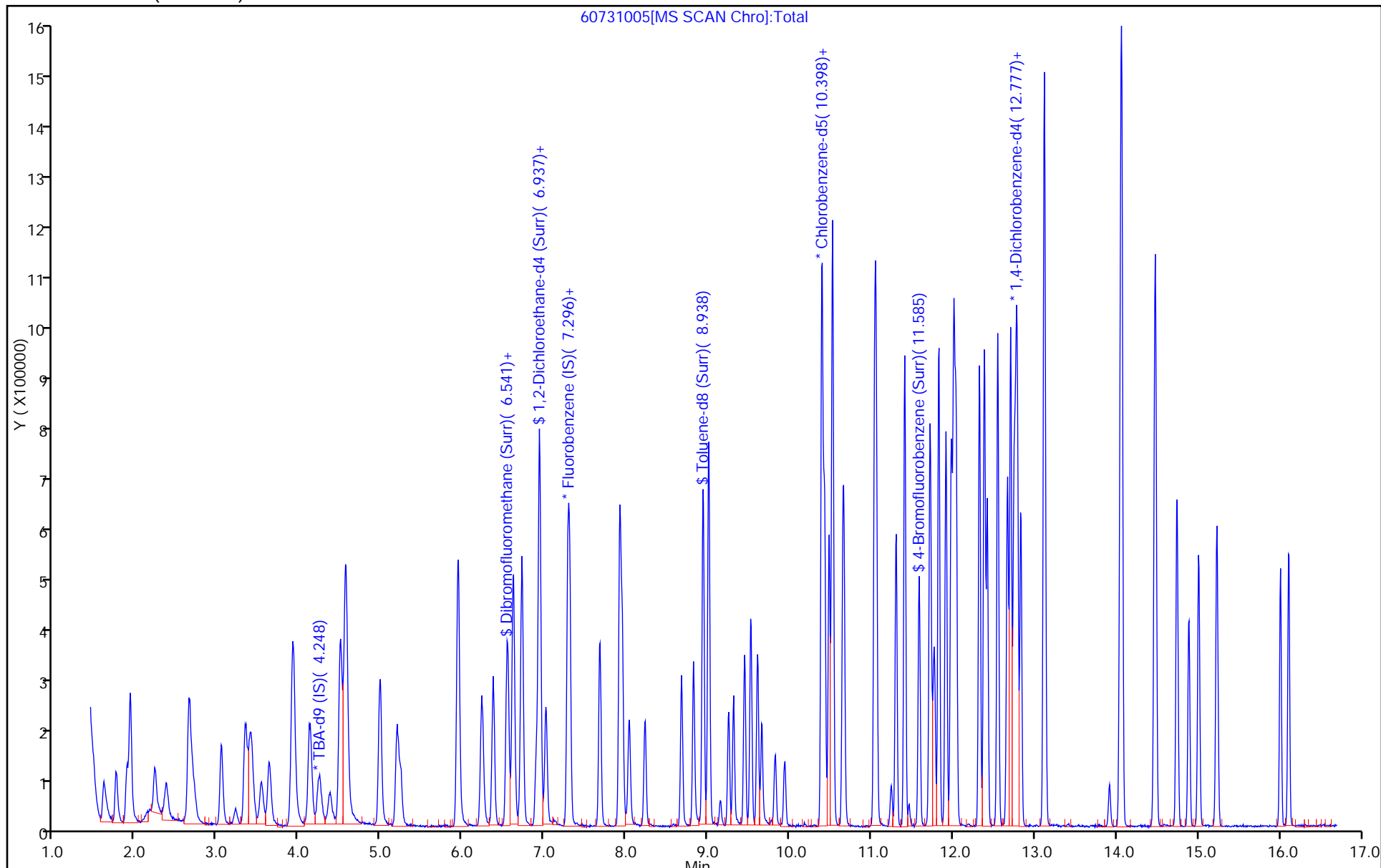
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



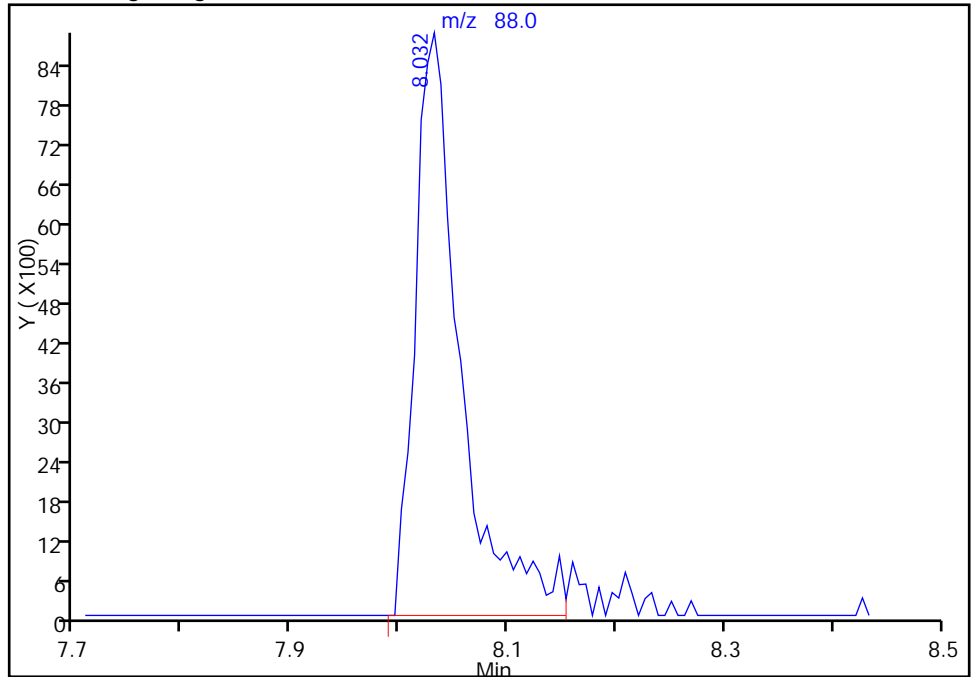
TestAmerica Pittsburgh

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

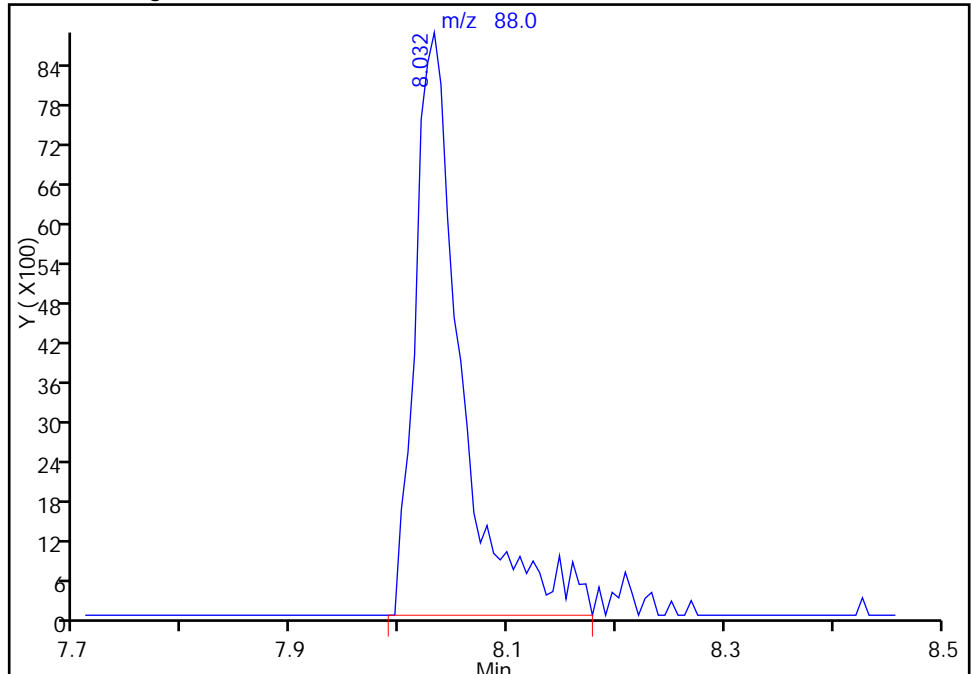
RT: 8.03  
Area: 25747  
Amount: 938.6160  
Amount Units: ng

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

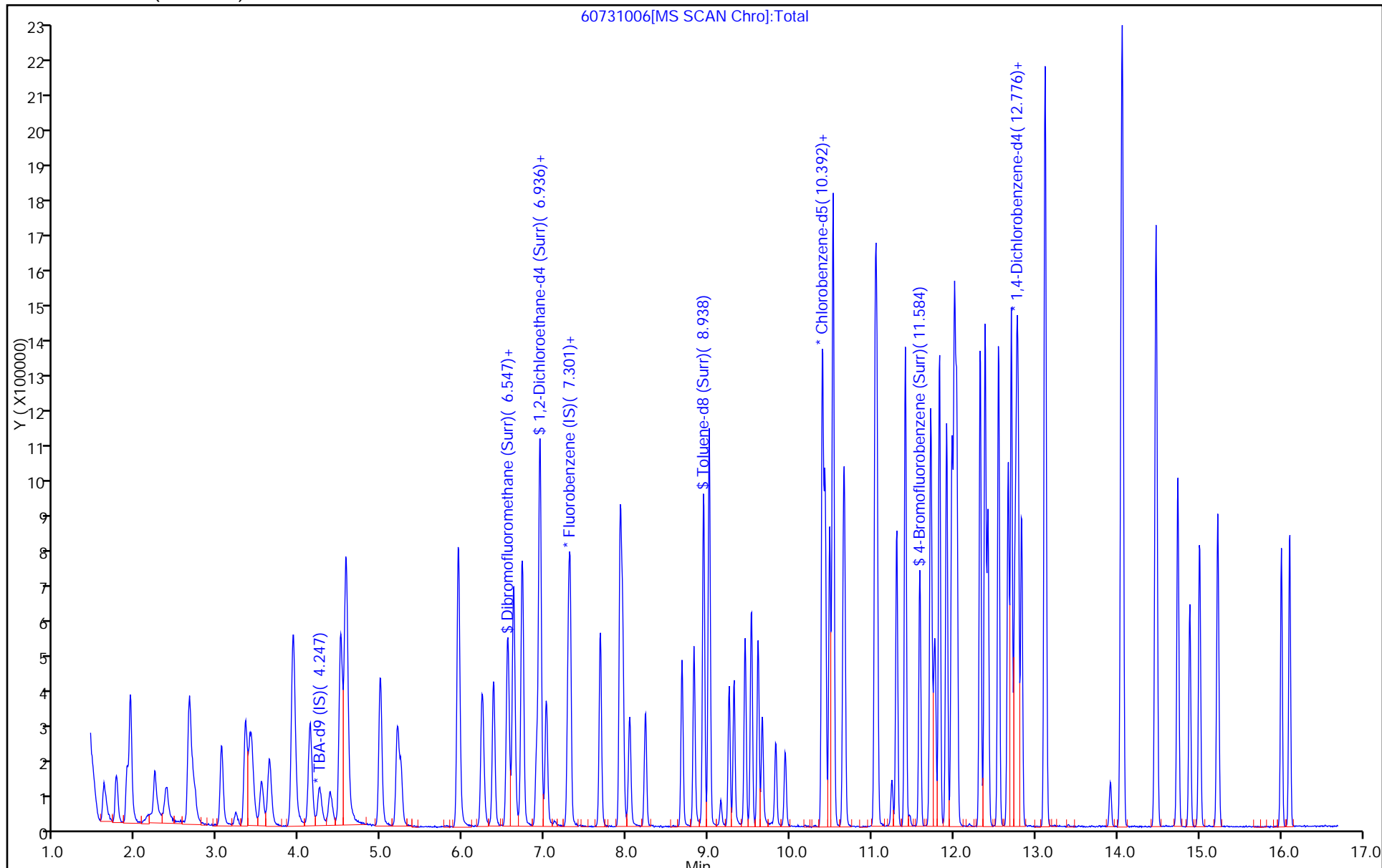
Dil. Factor: 1.0000

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

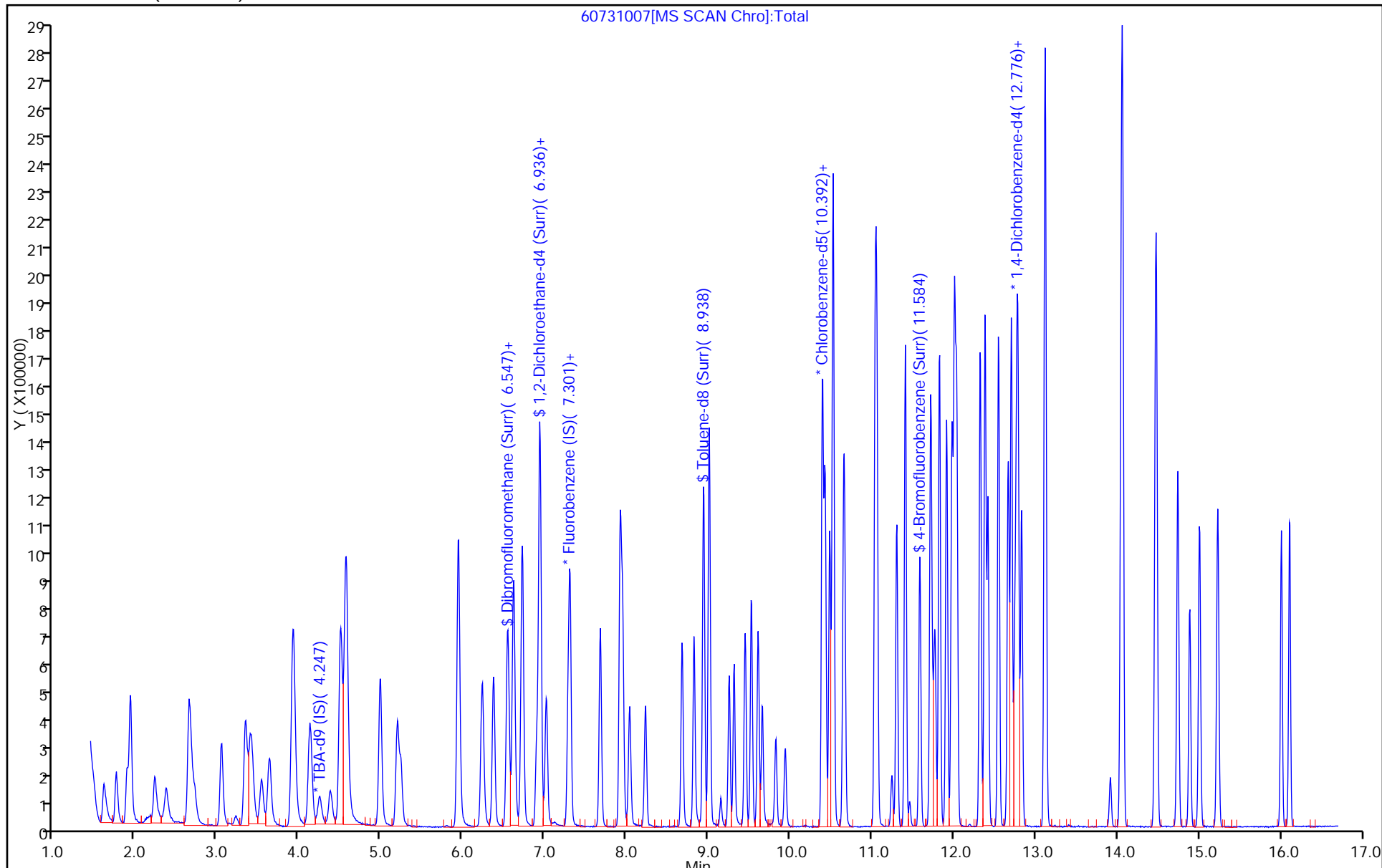
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





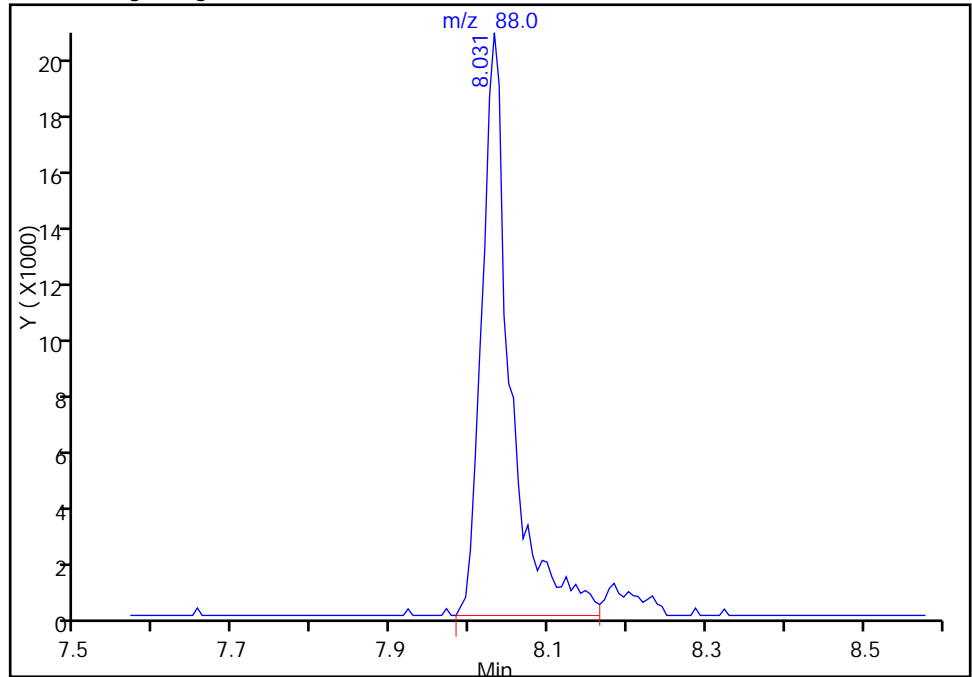
TestAmerica Pittsburgh

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

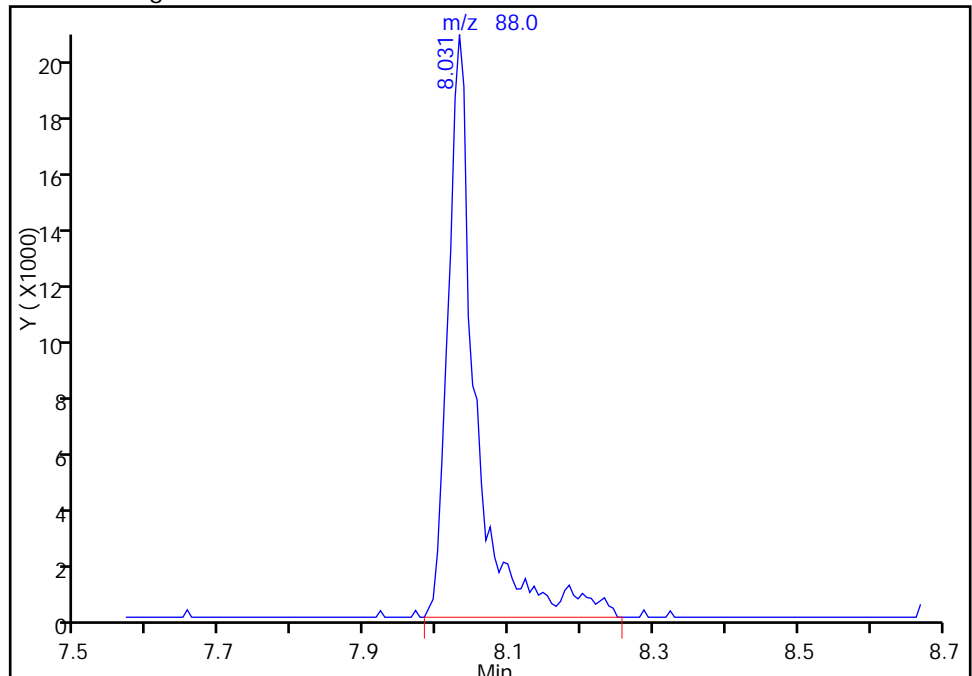
RT: 8.03  
Area: 51451  
Amount: 1915.4354  
Amount Units: ng

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

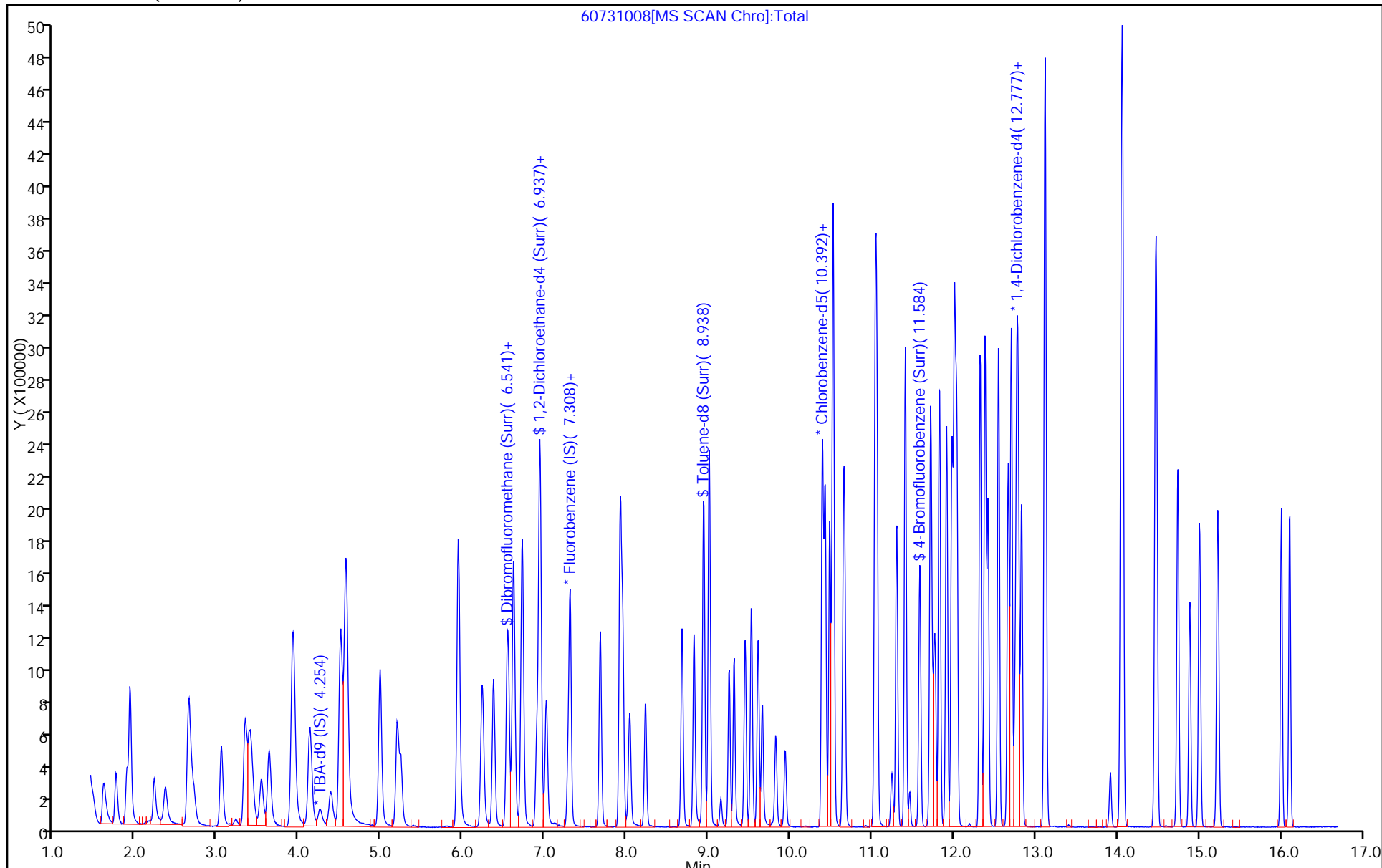
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



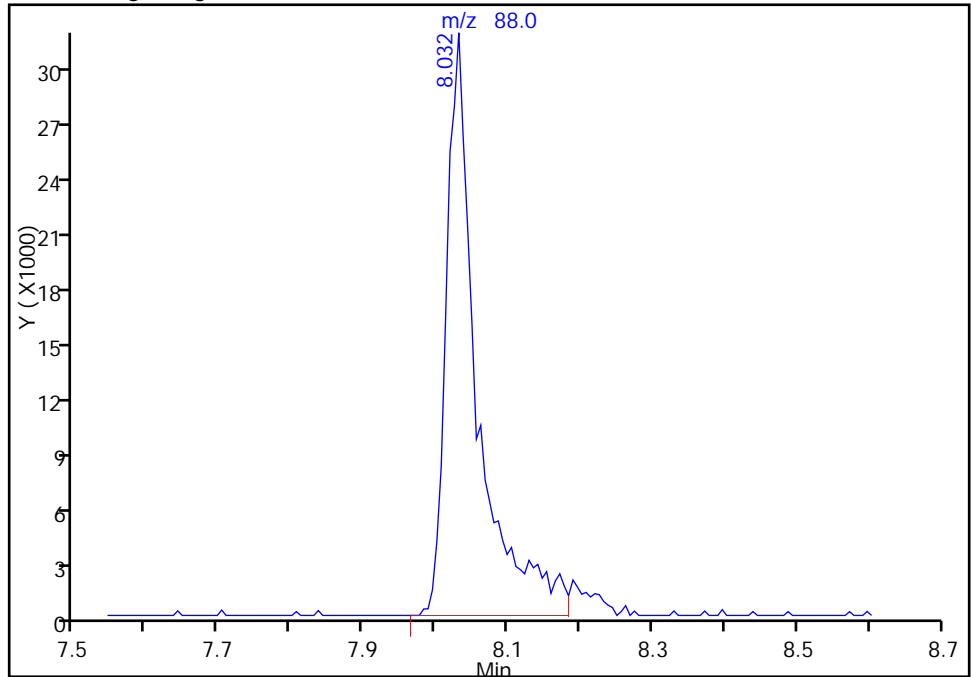
TestAmerica Pittsburgh

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

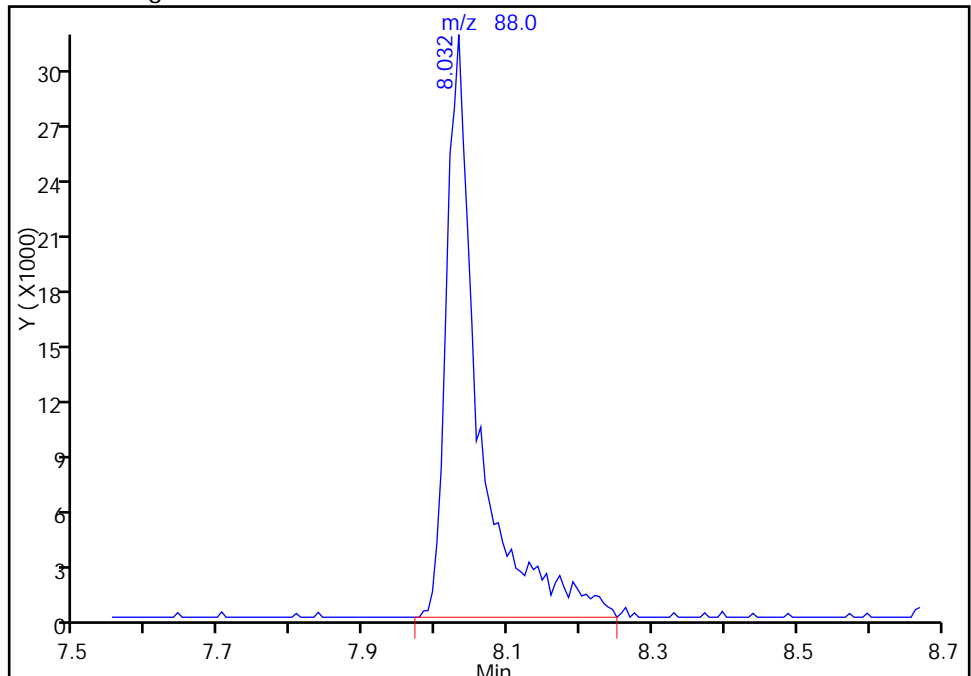
RT: 8.03  
Area: 94184  
Amount: 3581.4908  
Amount Units: ng

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:

VOA8260SURRE_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

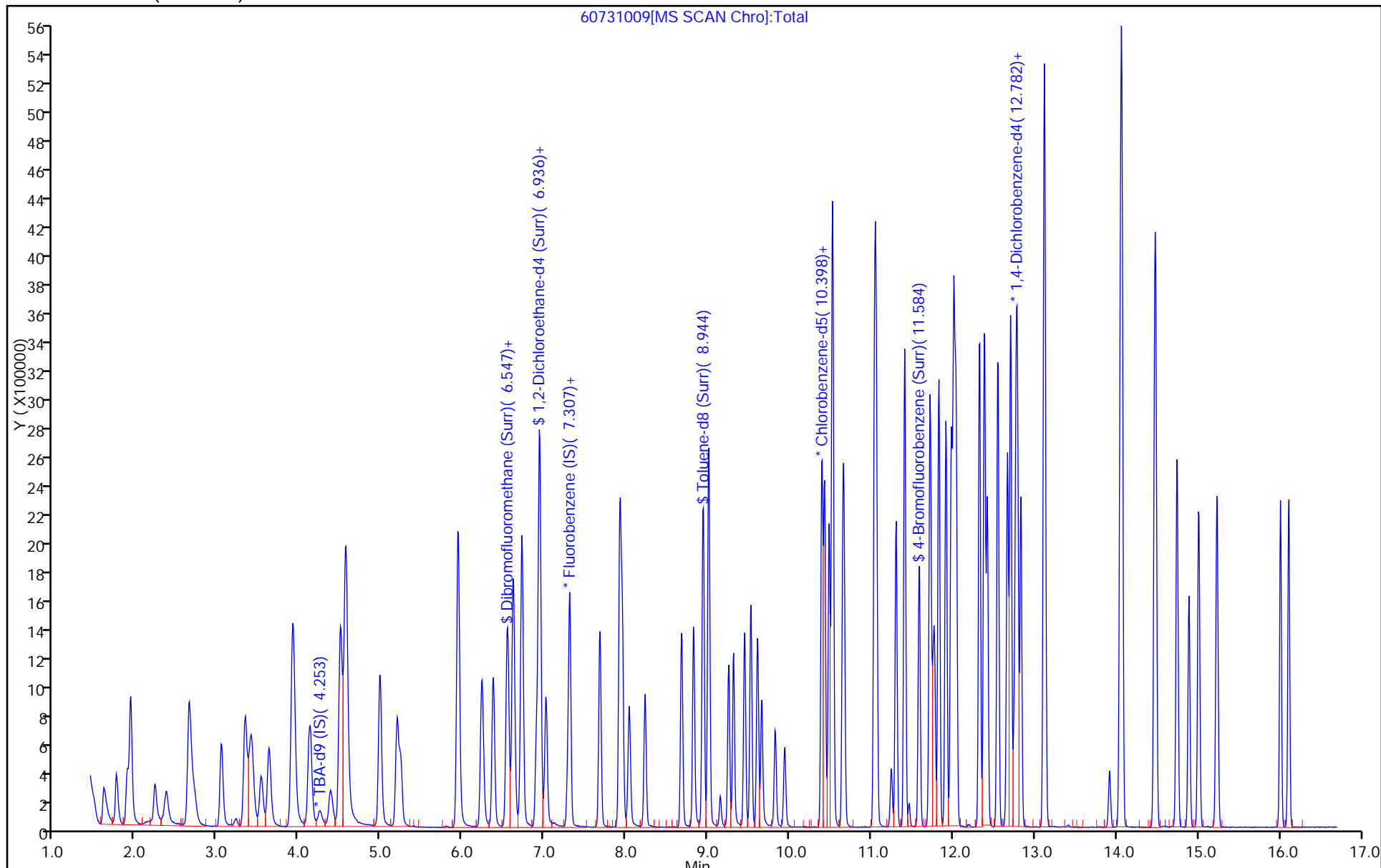
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



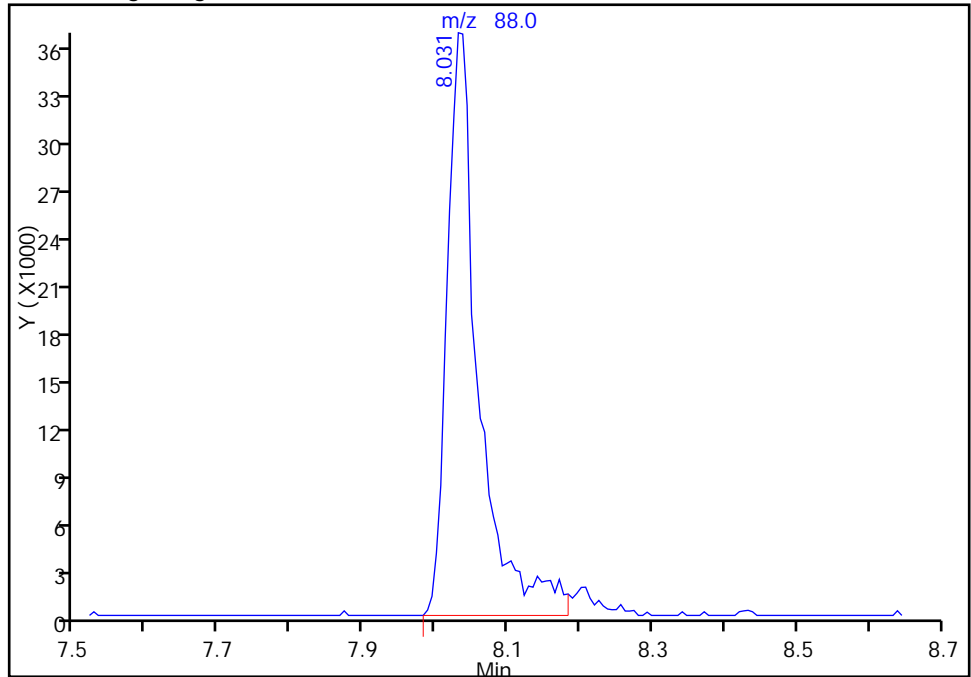
TestAmerica Pittsburgh

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

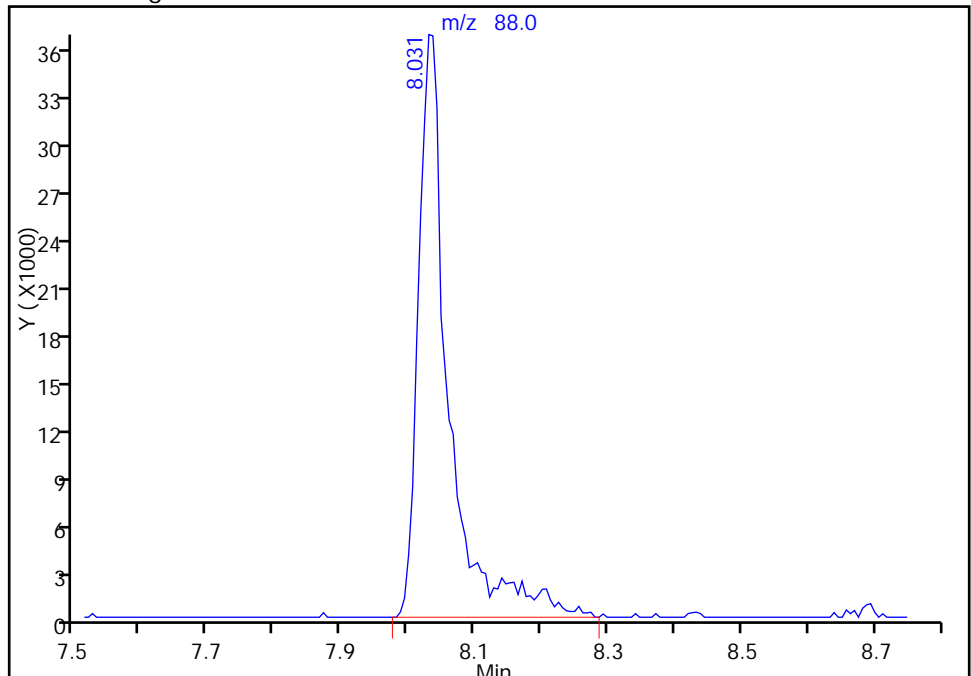
RT: 8.03  
Area: 109899  
Amount: 4509.0182  
Amount Units: ng

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

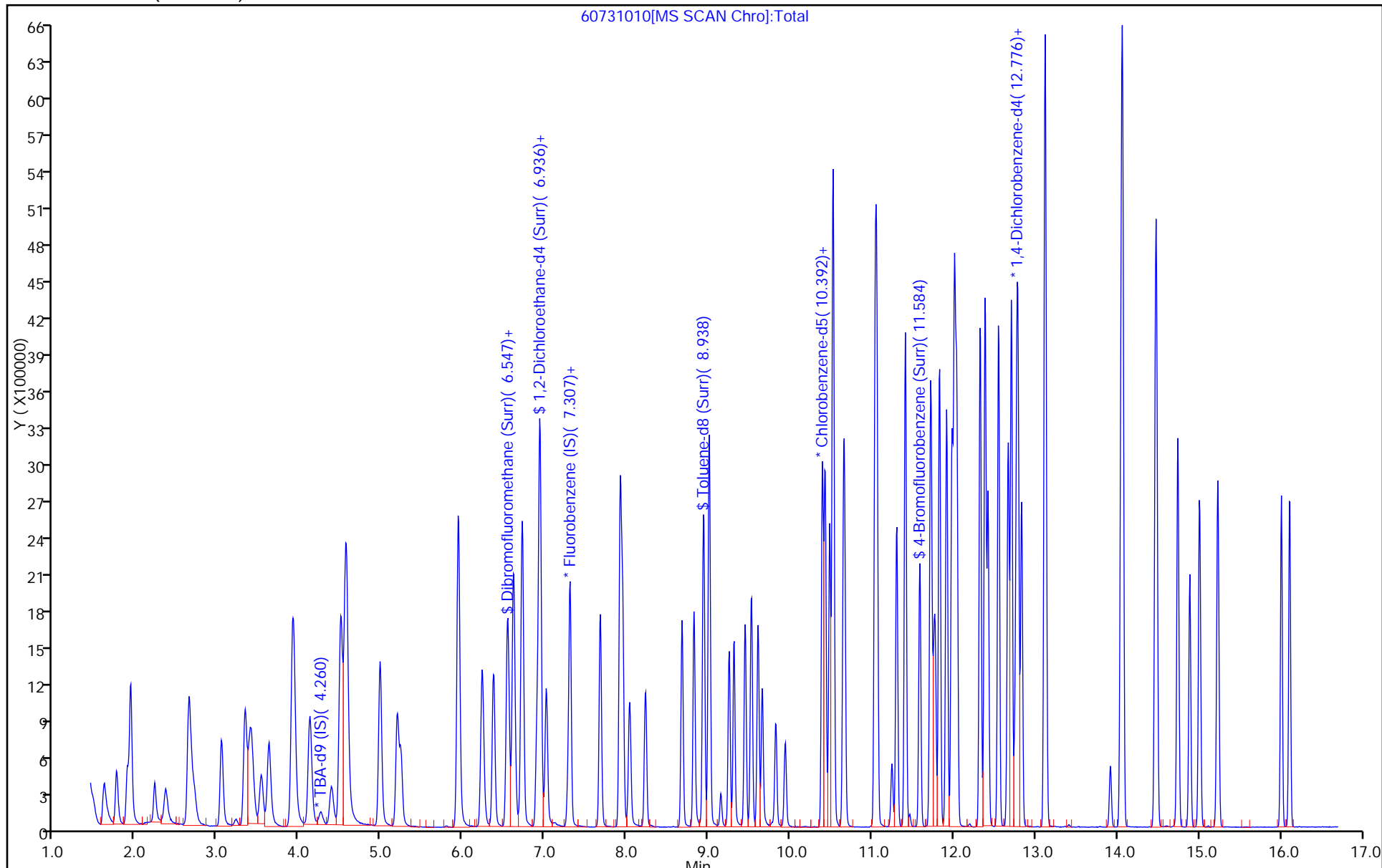
Dil. Factor: 1.0000

ALS Bottle#: 10

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



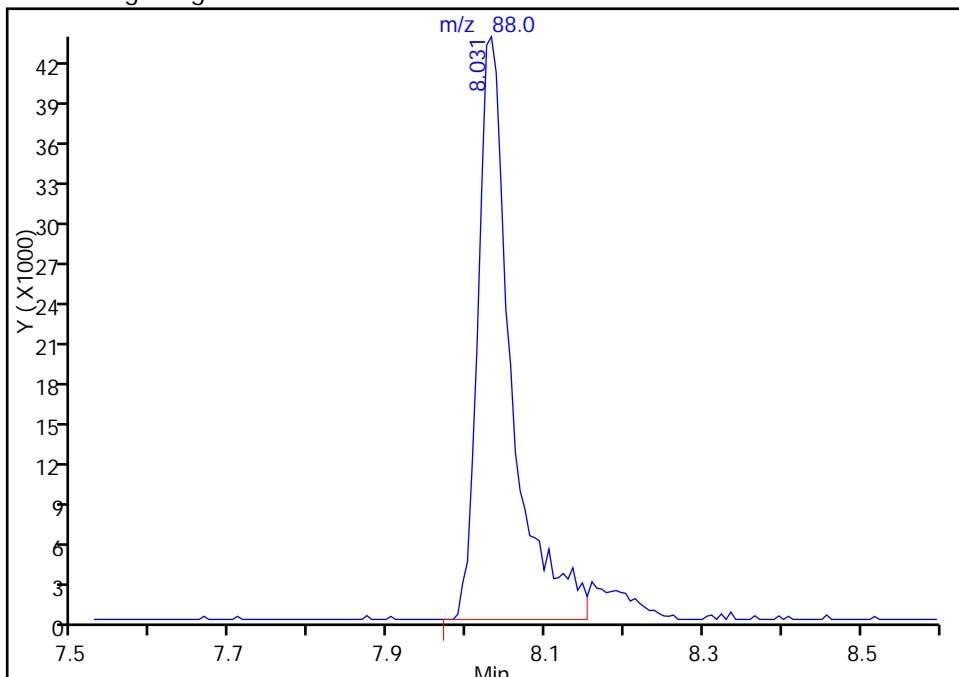
TestAmerica Pittsburgh

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

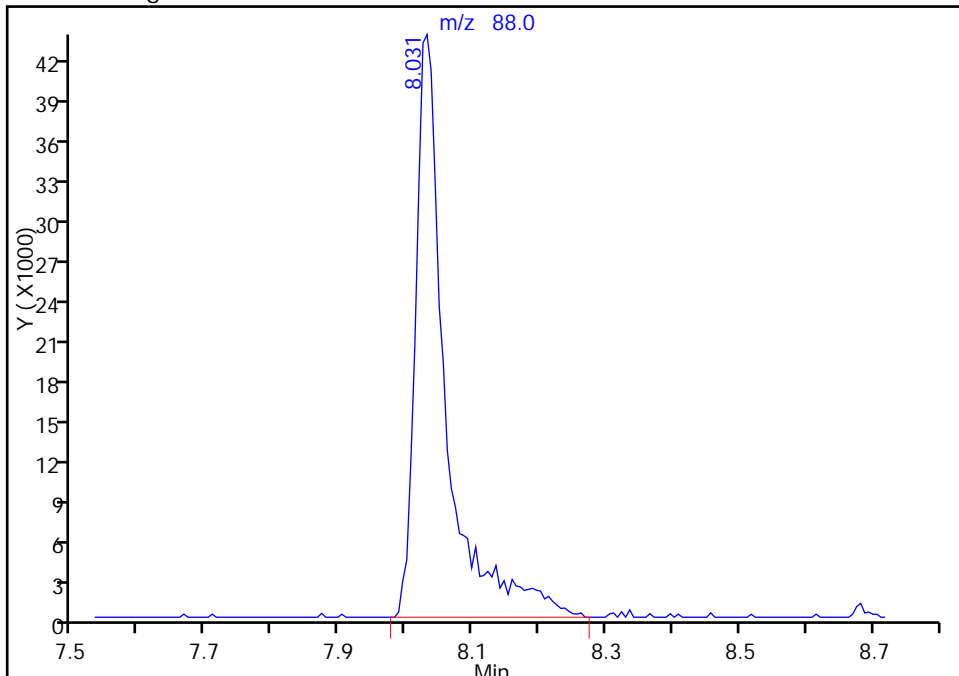
RT: 8.03  
Area: 130472  
Amount: 5026.0517  
Amount Units: ng

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

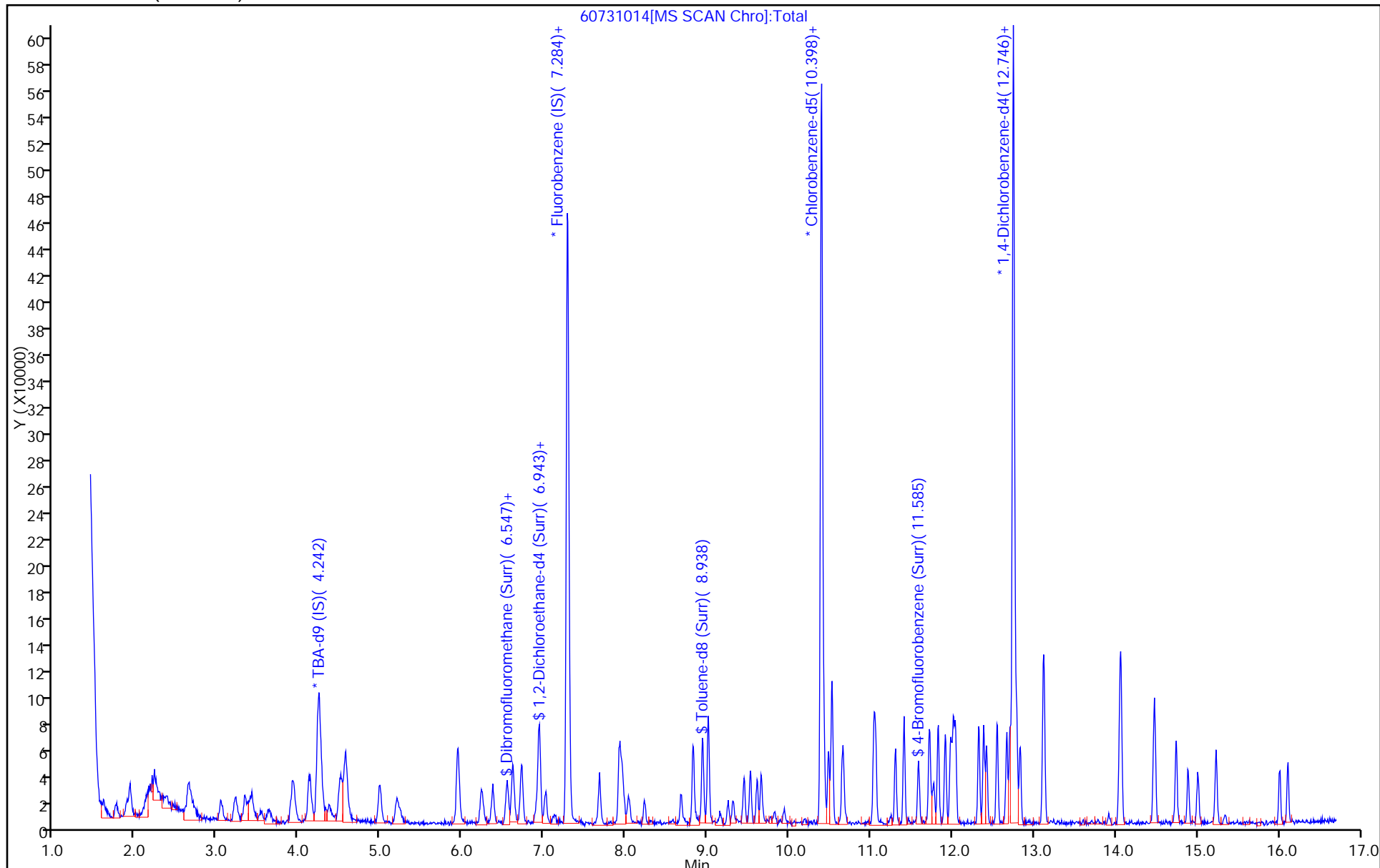
Dil. Factor: 1.0000

ALS Bottle#: 14

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



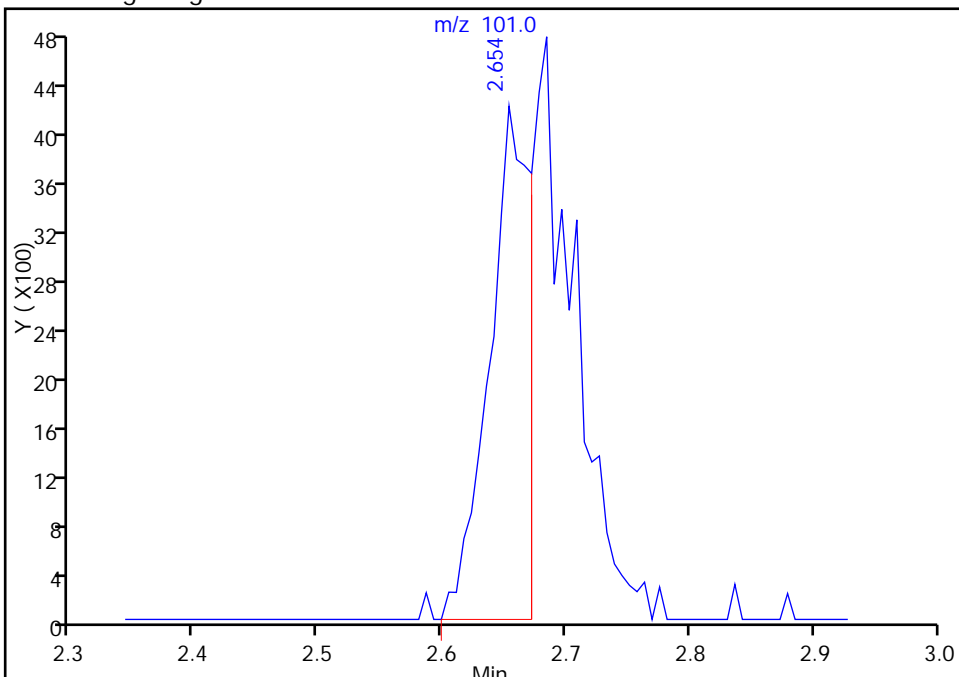
TestAmerica Pittsburgh

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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

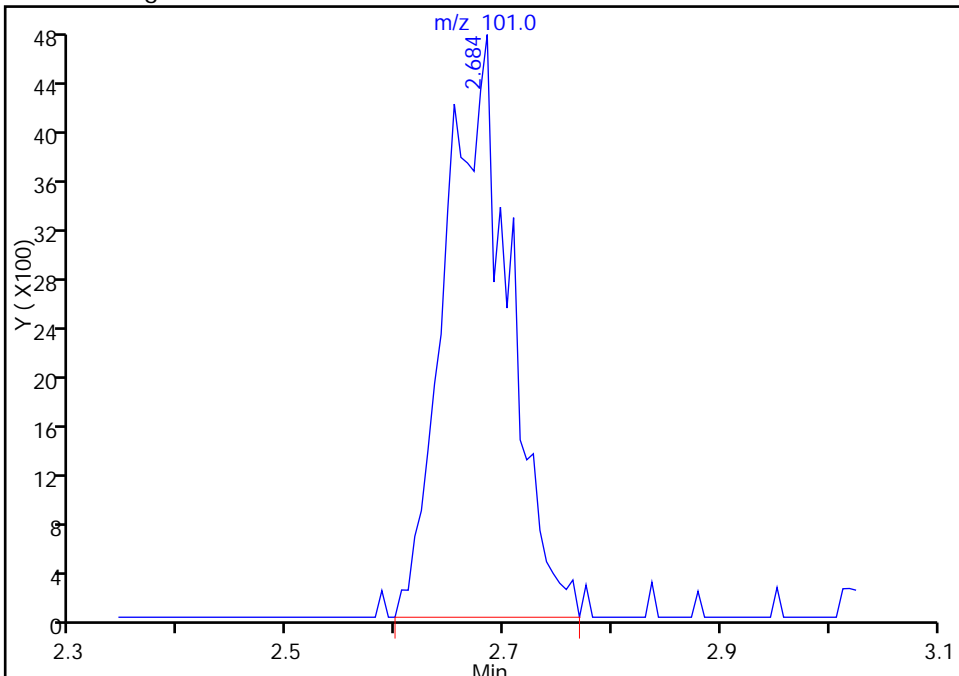
RT: 2.65  
Area: 9483  
Amount: 2.504798  
Amount Units: ng

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

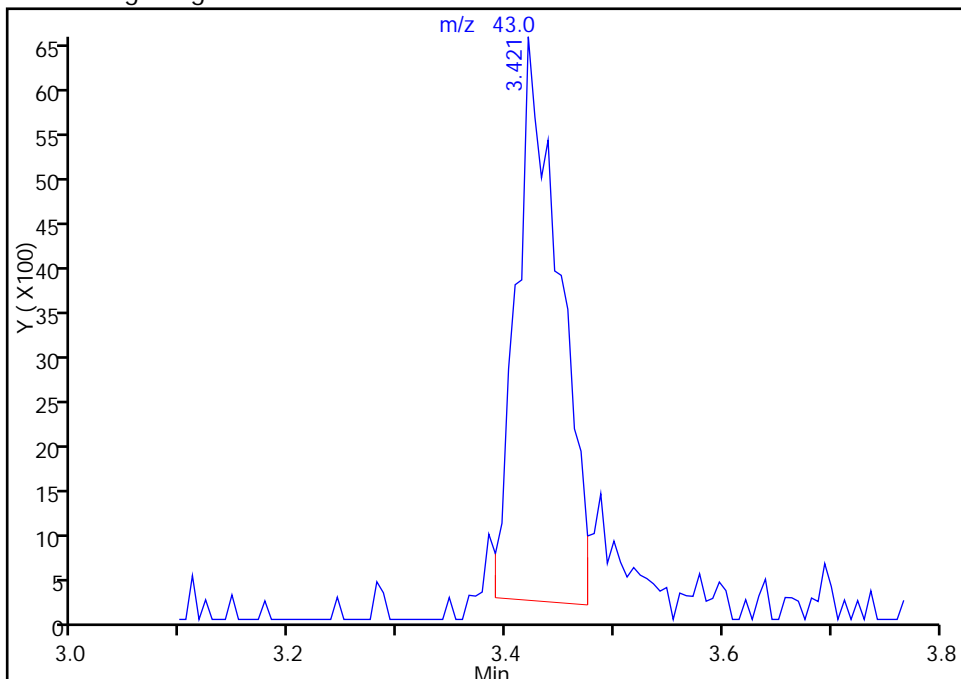
TestAmerica Pittsburgh

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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

24 Acetone, CAS: 67-64-1

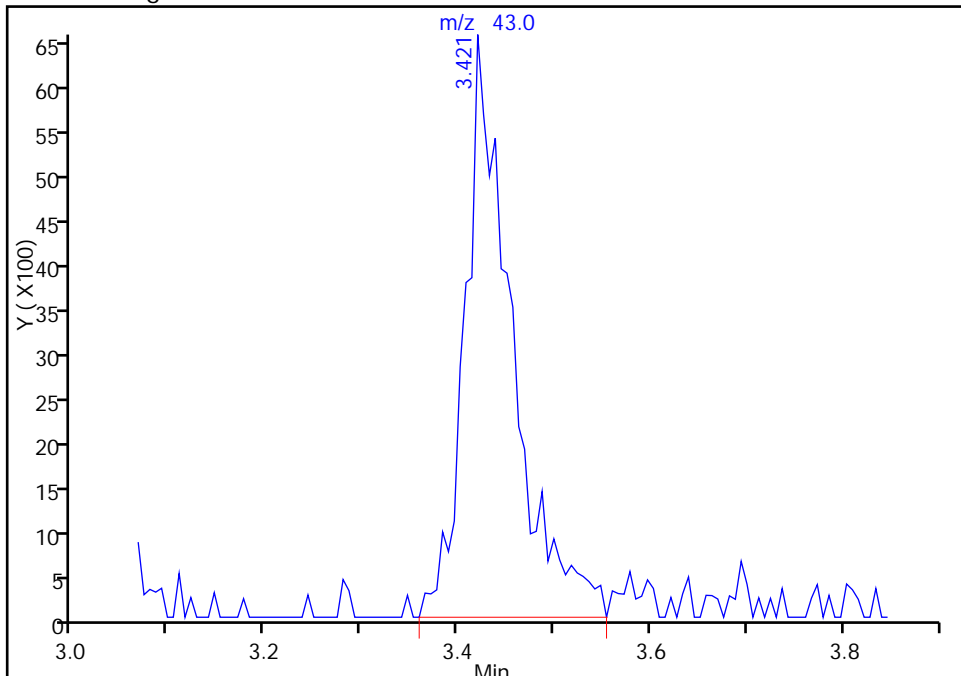
RT: 3.42  
Area: 17621  
Amount: 21.931508  
Amount Units: ng

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

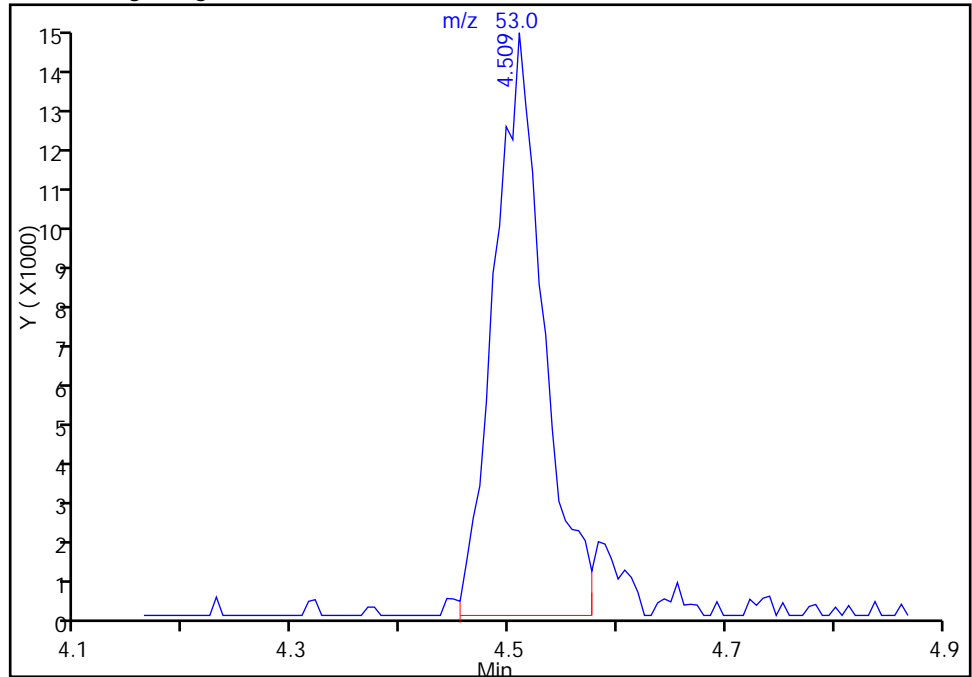
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Injection Date: 31-Jul-2015 18:02:30 Instrument ID: CHHP6  
Lims ID: IC VSTD1  
Client ID:  
Operator ID: 001562 ALS Bottle#: 14 Worklist Smp#: 14  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

33 Acrylonitrile, CAS: 107-13-1

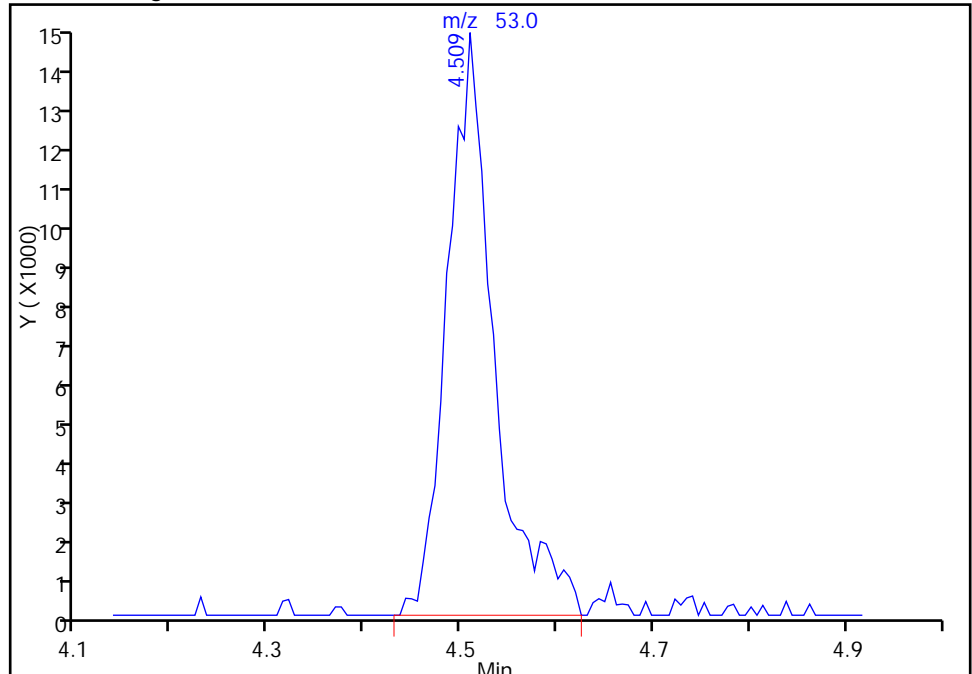
RT: 4.51  
Area: 45326  
Amount: 48.323975  
Amount Units: ng

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

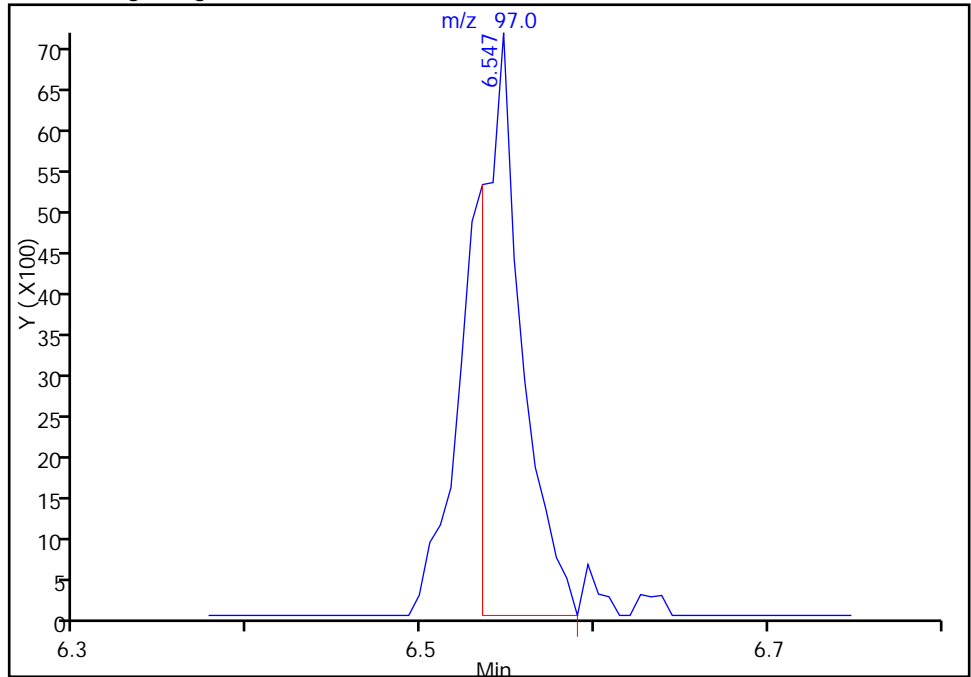
TestAmerica Pittsburgh

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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

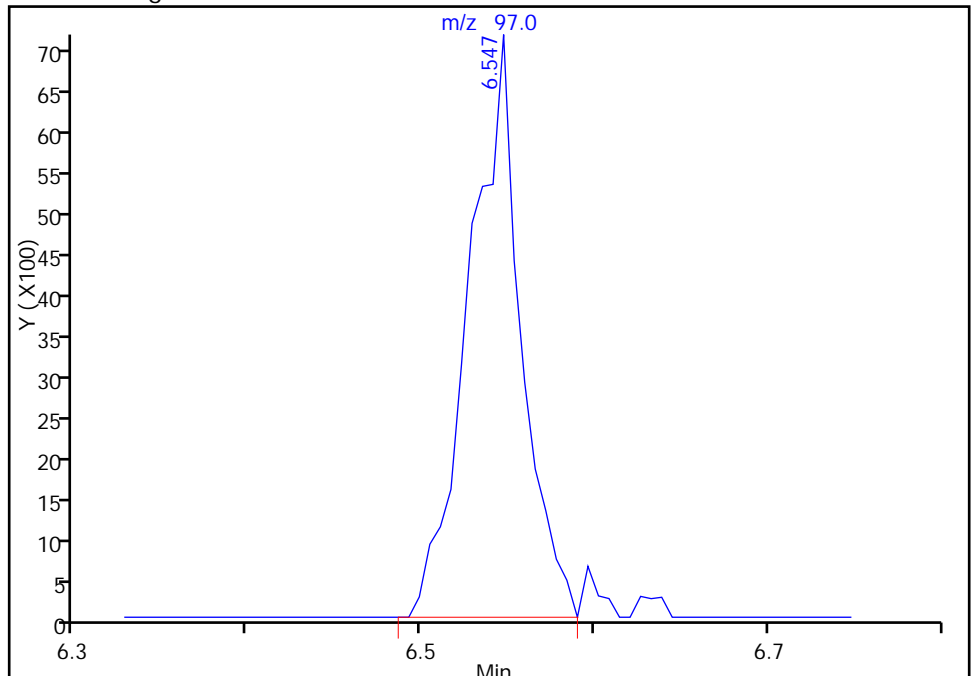
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Amount: 3.045023  
Amount Units: ng

Processing Integration Results



RT: 6.55  
Area: 15055  
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Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 11:05:58  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography



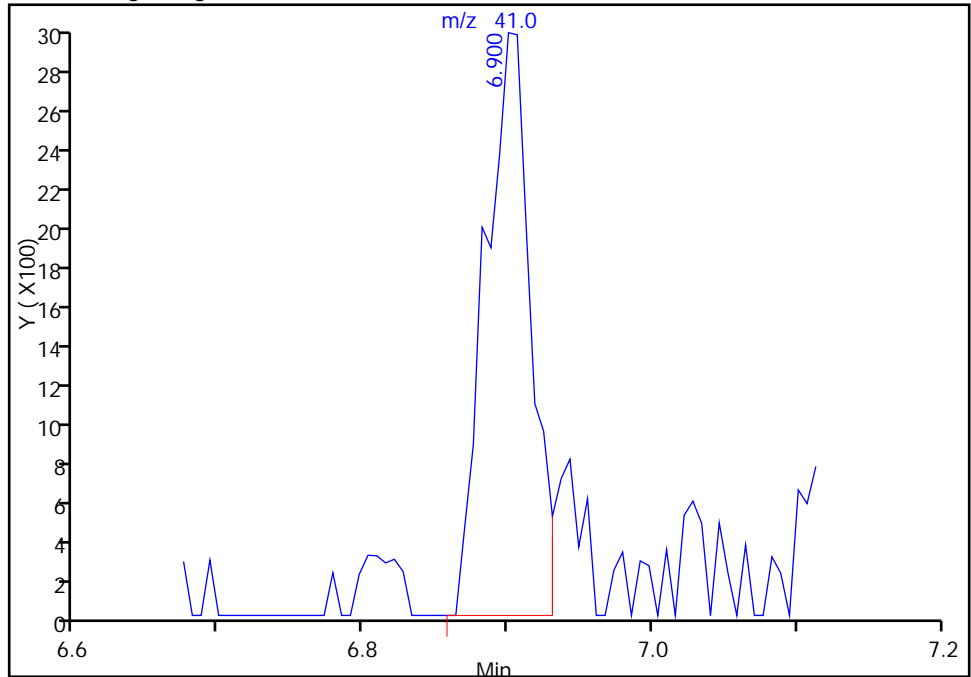
TestAmerica Pittsburgh

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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

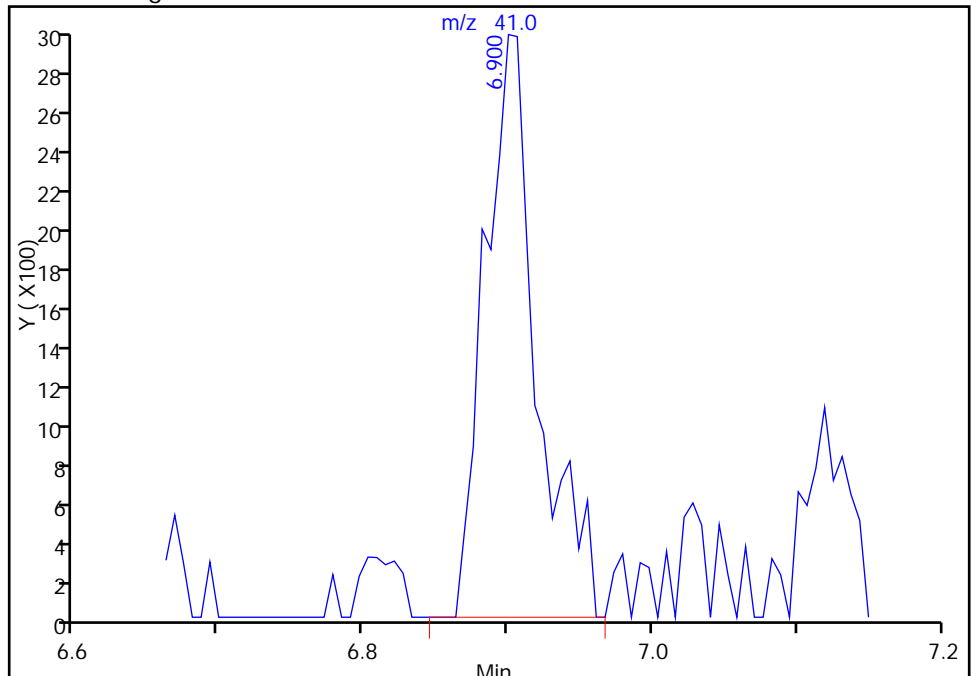
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Amount: 97.511814  
Amount Units: ng

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.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-154121/2 Calibration Date: 09/18/2015 12:26  
 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: 50918002.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	0.1411	0.0100	17.1	20.0	-14.6	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918002.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 18-Sep-2015 12:26:30 ALS Bottle#: 2 Worklist Smp#: 2  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: CCVIS  
 Misc. Info.: 180-0008580-002  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub12  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Sep-2015 13:57:45 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: XAWRK010

First Level Reviewer: fergusond

Date: 18-Sep-2015 13:50:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.271	4.271	0.000	0	102733	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.294	7.294	0.000	98	305756	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.385	0.000	88	68394	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.727	12.727	0.000	94	104854	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.564	6.564	0.000	93	62389	50.0	41.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.929	6.929	0.000	0	86503	50.0	41.9	
\$ 7 Toluene-d8 (Surr)	98	8.937	8.937	0.000	95	266109	50.0	50.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.571	11.571	0.000	88	93306	50.0	46.9	
11 Dichlorodifluoromethane	85	1.612	1.612	0.000	98	85271	50.0	49.4	
12 Chloromethane	50	1.764	1.764	0.000	99	103749	50.0	40.9	
13 Vinyl chloride	62	1.904	1.904	0.000	98	86562	50.0	38.5	
14 Butadiene	39	1.941	1.941	0.000	98	113023	50.0	42.5	
15 Bromomethane	94	2.239	2.239	0.000	90	31708	50.0	34.6	
16 Chloroethane	64	2.385	2.385	0.000	98	50926	50.0	37.5	
17 Dichlorofluoromethane	67	2.671	2.671	0.000	97	116832	50.0	40.6	
18 Trichlorofluoromethane	101	2.695	2.695	0.000	78	97165	50.0	45.1	
20 Ethyl ether	59	3.054	3.054	0.000	98	85756	50.0	43.0	
21 Acrolein	56	3.231	3.231	0.000	96	23438	150.0	78.8	
22 1,1-Dichloroethene	96	3.346	3.346	0.000	94	79822	50.0	46.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.425	3.425	0.000	93	85226	50.0	47.2	
24 Acetone	43	3.437	3.437	0.000	88	69586	100.0	112.8	
25 Iodomethane	142	3.541	3.541	0.000	98	113950	50.0	44.9	
26 Carbon disulfide	76	3.638	3.638	0.000	100	169959	50.0	43.0	
28 3-Chloro-1-propene	76	3.924	3.924	0.000	88	41368	50.0	42.9	
30 Methyl acetate	43	3.936	3.936	0.000	100	426720	250.0	231.5	
31 Methylene Chloride	84	4.131	4.131	0.000	94	97237	50.0	48.4	
32 2-Methyl-2-propanol	59	4.405	4.405	0.000	86	61762	500.0	534.1	
33 Acrylonitrile	53	4.526	4.526	0.000	99	425890	500.0	476.1	
34 trans-1,2-Dichloroethene	96	4.563	4.563	0.000	97	82303	50.0	44.5	
35 Methyl tert-butyl ether	73	4.581	4.581	0.000	95	184960	50.0	43.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.995	4.995	0.000	95	146077	50.0	47.1	
37 1,1-Dichloroethane	63	5.202	5.202	0.000	96	162209	50.0	44.5	
38 Vinyl acetate	43	5.250	5.250	0.000	97	166846	50.0	61.1	
45 cis-1,2-Dichloroethene	96	5.950	5.950	0.000	84	86240	50.0	43.7	
44 2,2-Dichloropropane	77	5.950	5.950	0.000	56	57572	50.0	39.4	
46 2-Butanone (MEK)	43	5.956	5.956	0.000	77	100534	100.0	108.5	
49 Chlorobromomethane	128	6.236	6.236	0.000	92	39159	50.0	45.1	
51 Tetrahydrofuran	42	6.248	6.248	0.000	90	63471	100.0	85.4	
52 Chloroform	83	6.382	6.382	0.000	96	139566	50.0	44.3	
53 1,1,1-Trichloroethane	97	6.540	6.540	0.000	96	105290	50.0	45.2	
54 Cyclohexane	56	6.619	6.619	0.000	98	184783	50.0	47.5	
56 Carbon tetrachloride	117	6.716	6.716	0.000	96	93505	50.0	47.2	
55 1,1-Dichloropropene	75	6.729	6.729	0.000	88	118033	50.0	45.9	
57 Isobutyl alcohol	41	6.929	6.929	0.000	94	72530	1250.0	1245.7	
58 Benzene	78	6.948	6.948	0.000	98	349246	50.0	46.3	
59 1,2-Dichloroethane	62	7.015	7.015	0.000	96	118788	50.0	45.6	
62 n-Heptane	43	7.313	7.313	0.000	96	140447	50.0	49.8	
64 Trichloroethene	130	7.672	7.672	0.000	96	82321	50.0	44.6	
66 Methylcyclohexane	83	7.915	7.915	0.000	95	134800	50.0	46.4	
67 1,2-Dichloropropane	63	7.951	7.951	0.000	95	84684	50.0	42.8	
70 1,4-Dioxane	88	8.030	8.030	0.000	39	11422	1000.0	837.5	
68 Dibromomethane	93	8.037	8.037	0.000	96	43211	50.0	43.0	
71 Dichlorobromomethane	83	8.231	8.231	0.000	98	83129	50.0	41.8	
73 2-Chloroethyl vinyl ether	63	8.529	8.529	0.000	90	86267	100.0	85.4	
74 cis-1,3-Dichloropropene	75	8.675	8.675	0.000	90	102879	50.0	44.2	
75 4-Methyl-2-pentanone (MIBK)	43	8.827	8.827	0.000	99	166445	100.0	98.8	
76 Toluene	91	9.004	9.004	0.000	97	359313	50.0	53.1	
77 trans-1,3-Dichloropropene	75	9.253	9.253	0.000	96	81282	50.0	46.0	
78 Ethyl methacrylate	69	9.308	9.308	0.000	95	79563	50.0	46.6	
79 1,1,2-Trichloroethane	97	9.448	9.448	0.000	95	63372	50.0	49.2	
80 Tetrachloroethene	164	9.515	9.515	0.000	95	67304	50.0	51.2	
81 1,3-Dichloropropane	76	9.600	9.600	0.000	98	115698	50.0	48.4	
82 2-Hexanone	43	9.661	9.661	0.000	99	125792	100.0	103.4	
84 Chlorodibromomethane	129	9.813	9.813	0.000	91	51776	50.0	46.4	
85 Ethylene Dibromide	107	9.929	9.929	0.000	98	57620	50.0	46.4	
86 3-Chlorobenzotrifluoride	180	10.391	10.391	0.000	86	117255	50.0	53.9	
87 Chlorobenzene	112	10.415	10.415	0.000	94	226855	50.0	52.0	
88 4-Chlorobenzotrifluoride	180	10.476	10.476	0.000	96	110154	50.0	53.5	
89 1,1,1,2-Tetrachloroethane	131	10.506	10.506	0.000	90	66438	50.0	46.8	
90 Ethylbenzene	106	10.513	10.513	0.000	100	116055	50.0	50.2	
91 m-Xylene & p-Xylene	106	10.652	10.652	0.000	0	146519	50.0	51.7	
92 o-Xylene	106	11.030	11.030	0.000	98	137222	50.0	50.9	
93 Styrene	104	11.048	11.048	0.000	95	235748	50.0	52.8	
94 Bromoform	173	11.230	11.230	0.000	95	28319	50.0	44.5	
96 2-Chlorobenzotrifluoride	180	11.297	11.297	0.000	96	116930	50.0	54.6	
97 Isopropylbenzene	105	11.395	11.395	0.000	97	356149	50.0	54.0	
99 1,1,2,2-Tetrachloroethane	83	11.705	11.705	0.000	77	87783	50.0	50.5	
100 Bromobenzene	156	11.711	11.711	0.000	96	84041	50.0	46.7	
102 trans-1,4-Dichloro-2-buten	53	11.741	11.741	0.000	81	28093	50.0	43.2	
101 1,2,3-Trichloropropane	110	11.766	11.766	0.000	88	29946	50.0	50.4	
103 N-Propylbenzene	120	11.814	11.814	0.000	99	104636	50.0	50.8	
104 2-Chlorotoluene	126	11.900	11.900	0.000	96	85540	50.0	48.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.966	11.966	0.000	95	89930	50.0	50.0	
106 1,3,5-Trimethylbenzene	105	11.997	11.997	0.000	95	316250	50.0	54.3	
107 4-Chlorotoluene	126	12.021	12.021	0.000	98	97711	50.0	50.7	
108 tert-Butylbenzene	119	12.307	12.307	0.000	95	247812	50.0	52.4	
110 1,2,4-Trimethylbenzene	105	12.368	12.368	0.000	98	315750	50.0	54.1	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.411	0.000	97	80952	50.0	49.8	
112 sec-Butylbenzene	105	12.532	12.532	0.000	95	356994	50.0	53.4	
113 1,3-Dichlorobenzene	146	12.648	12.648	0.000	97	164892	50.0	51.4	
114 4-Isopropyltoluene	119	12.690	12.690	0.000	97	311258	50.0	55.1	
115 1,4-Dichlorobenzene	146	12.751	12.751	0.000	93	164554	50.0	49.4	
116 2,4-Dichloro-1-(trifluorom	214	12.782	12.782	0.000	94	78463	50.0	52.1	
118 2,5-Dichlorobenzotrifluori	214	12.824	12.824	0.000	0	89594	50.0	55.0	
120 n-Butylbenzene	91	13.098	13.098	0.000	99	266964	50.0	55.2	
121 1,2-Dichlorobenzene	146	13.110	13.110	0.000	95	153011	50.0	51.1	
122 1,2-Dibromo-3-Chloropropan	75	13.901	13.901	0.000	78	11441	50.0	46.5	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.047	14.047	0.000	0	317721	150.0	185.7	
125 2,3- & 3,4- Dichlorotoluen	125	14.461	14.461	0.000	0	198087	100.0	121.4	
126 1,2,4-Trichlorobenzene	180	14.728	14.728	0.000	95	68816	50.0	59.1	
127 Hexachlorobutadiene	225	14.868	14.868	0.000	95	33648	50.0	59.9	
128 Naphthalene	128	14.990	14.990	0.000	97	179771	50.0	60.0	
129 1,2,3-Trichlorobenzene	180	15.215	15.215	0.000	96	59219	50.0	62.8	
131 2,4,5-Trichlorotoluene	159	15.994	15.994	0.000	0	21402	50.0	62.9	
130 2,3,6-Trichlorotoluene	159	16.091	16.091	0.000	94	21486	50.0	68.5	
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		100.0	102.7	
S 134 1,2-Dichloroethene, Total	96				0		100.0	88.2	
S 135 1,3-Dichloropropene, Total	1				0		100.0	90.2	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
voaWEE1stRest_00001	Amount Added: 2.00	Units: uL	
voaWKet1stRes_00001	Amount Added: 2.00	Units: uL	
VOA8260VOAPRI_00144	Amount Added: 2.00	Units: uL	
VOAVAPRI_00007	Amount Added: 2.00	Units: uL	
voaW2-cle2ndR_00005	Amount Added: 2.00	Units: uL	
VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918002.D

Injection Date: 18-Sep-2015 12:26:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

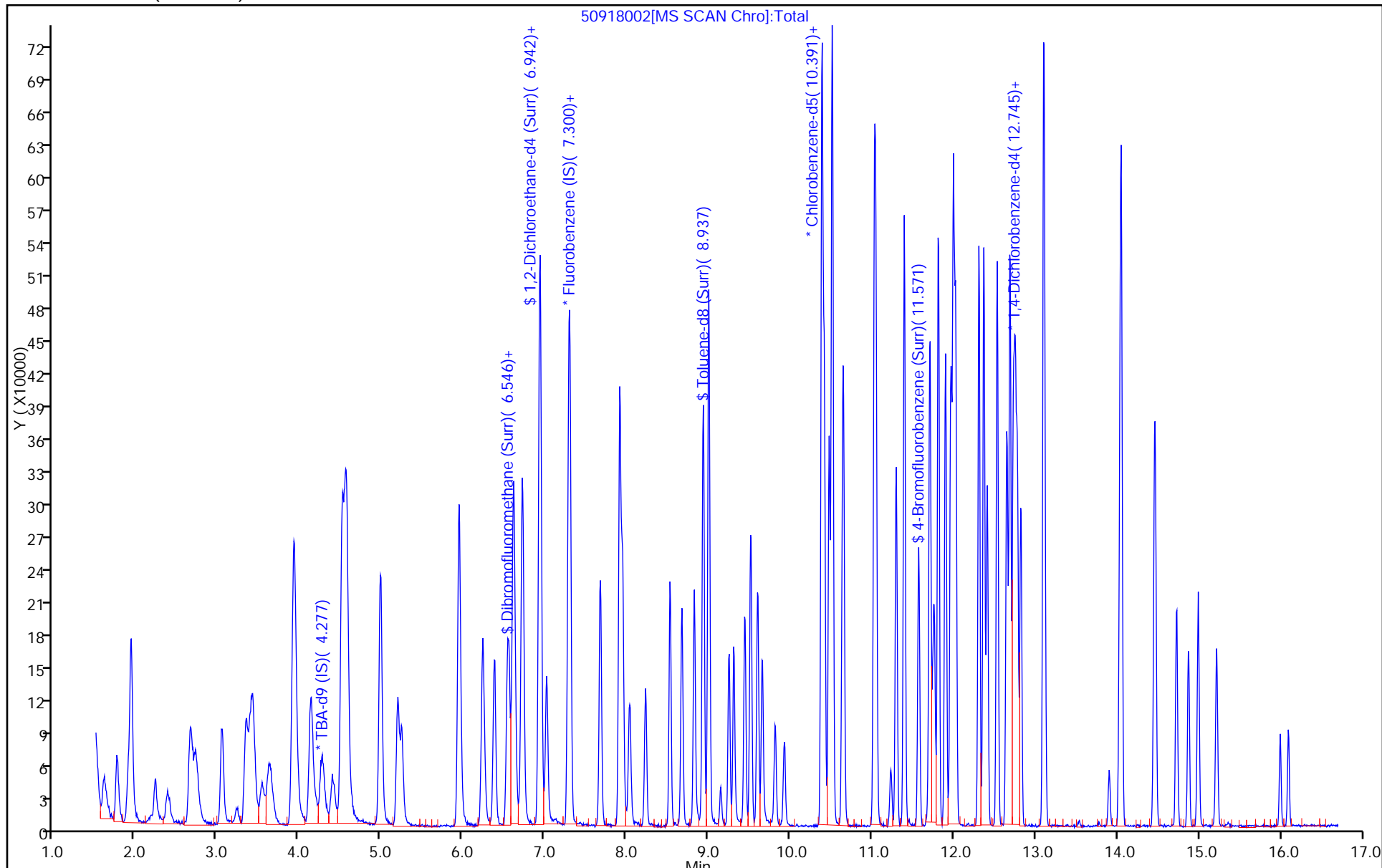
Dil. Factor: 1.0000

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.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-154121/2 Calibration Date: 09/18/2015 12:26  
 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: 50918002.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	0.2789	0.1000	9.87	10.0	-1.3	20.0
Chloromethane	Ave	0.4148	0.3393	0.1000	8.18	10.0	-18.2	20.0
Vinyl chloride	Ave	0.3679	0.2831	0.1000	7.69	10.0	-23.1*	20.0
1,3-Butadiene	Ave	0.4345	0.3697	0.0100	8.51	10.0	-14.9	20.0
Bromomethane	Ave	0.1497	0.1037	0.0500	6.93	10.0	-30.7*	20.0
Chloroethane	Ave	0.2220	0.1666	0.0500	7.50	10.0	-25.0*	20.0
Dichlorofluoromethane	Ave	0.4709	0.3821	0.0100	8.11	10.0	-18.9	20.0
Trichlorofluoromethane	Ave	0.3523	0.3178	0.1000	9.02	10.0	-9.8	20.0
Ethyl ether	Ave	0.3265	0.2805	0.0100	8.59	10.0	-14.1	20.0
Acrolein	Ave	0.0486	0.0256	0.0100	15.8	30.0	-47.5*	20.0
1,1-Dichloroethene	Ave	0.2785	0.2611	0.1000	9.37	10.0	-6.3	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2951	0.2787	0.1000	9.45	10.0	-5.5	20.0
Acetone	Ave	0.1009	0.1138	0.0500	22.6	20.0	12.8	20.0
Iodomethane	Ave	0.4150	0.3727	0.0100	8.98	10.0	-10.2	20.0
Carbon disulfide	Ave	0.6466	0.5559	0.1000	8.60	10.0	-14.0	20.0
Allyl chloride	Ave	0.1577	0.1353	0.0100	8.58	10.0	-14.2	20.0
Methyl acetate	Ave	0.3015	0.2791	0.1000	46.3	50.0	-7.4	20.0
Methylene Chloride	Lin2		0.3180	0.1000	9.69	10.0	-3.1	20.0
tert-Butyl alcohol	Ave	1.126	1.202	0.0100	107	100	6.8	20.0
Acrylonitrile	Ave	0.1463	0.1393	0.0100	95.2	100	-4.8	20.0
trans-1,2-Dichloroethene	Ave	0.3024	0.2692	0.1000	8.90	10.0	-11.0	20.0
Methyl tert-butyl ether	Ave	0.6999	0.6049	0.1000	8.64	10.0	-13.6	20.0
Hexane	Ave	0.5076	0.4778	0.0100	9.41	10.0	-5.9	20.0
1,1-Dichloroethane	Ave	0.5957	0.5305	0.2000	8.91	10.0	-10.9	20.0
Vinyl acetate	Ave	0.4469	0.5457	0.0100	12.2	10.0	22.1*	20.0
2,2-Dichloropropane	Ave	0.2387	0.1883	0.0100	7.89	10.0	-21.1*	20.0
cis-1,2-Dichloroethene	Ave	0.3230	0.2821	0.1000	8.73	10.0	-12.7	20.0
2-Butanone (MEK)	Ave	0.1516	0.1644	0.0500	21.7	20.0	8.5	20.0
Bromochloromethane	Ave	0.1418	0.1281	0.0100	9.03	10.0	-9.7	20.0
Tetrahydrofuran	Ave	0.1216	0.1038	0.0100	17.1	20.0	-14.6	20.0
Chloroform	Ave	0.5146	0.4565	0.2000	8.87	10.0	-11.3	20.0
1,1,1-Trichloroethane	Ave	0.3805	0.3444	0.1000	9.05	10.0	-9.5	20.0
Cyclohexane	Ave	0.6367	0.6044	0.1000	9.49	10.0	-5.1	20.0
Carbon tetrachloride	Ave	0.3240	0.3058	0.1000	9.44	10.0	-5.6	20.0
1,1-Dichloropropene	Ave	0.4208	0.3860	0.0100	9.17	10.0	-8.3	20.0
Isobutyl alcohol	Ave	0.0095	0.0095*	0.0100	249	250	-0.3	20.0
Benzene	Ave	1.233	1.142	0.5000	9.26	10.0	-7.4	20.0
1,2-Dichloroethane	Ave	0.4264	0.3885	0.1000	9.11	10.0	-8.9	20.0
n-Heptane	Ave	0.4611	0.4593	0.0100	9.96	10.0	-0.4	20.0
Trichloroethene	Ave	0.3016	0.2692	0.2000	8.93	10.0	-10.7	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-154121/2 Calibration Date: 09/18/2015 12:26  
 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: 50918002.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	0.4409	0.1000	9.27	10.0	-7.3	20.0
1,2-Dichloropropane	Ave	0.3235	0.2770	0.1000	8.56	10.0	-14.4	20.0
1,4-Dioxane	Ave	0.0022	0.0019*	0.0100	167	200	-16.3	20.0
Dibromomethane	Ave	0.1642	0.1413	0.0100	8.61	10.0	-13.9	20.0
Bromodichloromethane	Ave	0.3249	0.2719	0.2000	8.37	10.0	-16.3	20.0
cis-1,3-Dichloropropene	Ave	0.3807	0.3365	0.2000	8.84	10.0	-11.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.232	1.217	0.1000	19.8	20.0	-1.2	20.0
Toluene	Ave	4.950	5.254	0.4000	10.6	10.0	6.1	20.0
trans-1,3-Dichloropropene	Ave	1.292	1.188	0.1000	9.20	10.0	-8.0	20.0
Ethyl methacrylate	Ave	1.249	1.163	0.0100	9.31	10.0	-6.9	20.0
1,1,2-Trichloroethane	Ave	0.9416	0.9266	0.1000	9.84	10.0	-1.6	20.0
Tetrachloroethene	Ave	0.9609	0.9841	0.2000	10.2	10.0	2.4	20.0
1,3-Dichloropropane	Ave	1.748	1.692	0.0100	9.68	10.0	-3.2	20.0
2-Hexanone	Ave	0.8893	0.9196	0.1000	20.7	20.0	3.4	20.0
Dibromochloromethane	Ave	0.8152	0.7570	0.1000	9.29	10.0	-7.1	20.0
1,2-Dibromoethane (EDB)	Ave	0.9073	0.8425	0.1000	9.29	10.0	-7.1	20.0
3-Chlorobenzotrifluoride	Ave	1.591	1.714	0.0100	10.8	10.0	7.8	20.0
Chlorobenzene	Ave	3.187	3.317	0.5000	10.4	10.0	4.1	20.0
4-Chlorobenzotrifluoride	Ave	1.504	1.611	0.0100	10.7	10.0	7.1	20.0
1,1,1,2-Tetrachloroethane	Ave	1.039	0.9714	0.0100	9.35	10.0	-6.5	20.0
Ethylbenzene	Ave	1.690	1.697	0.1000	10.0	10.0	0.4	20.0
m-Xylene & p-Xylene	Ave	2.072	2.142	0.1000	10.3	10.0	3.4	20.0
o-Xylene	Ave	1.969	2.006	0.3000	10.2	10.0	1.9	20.0
Styrene	Ave	3.262	3.447	0.3000	10.6	10.0	5.7	20.0
Bromoform	Ave	0.4652	0.4141	0.1000	8.90	10.0	-11.0	20.0
2-Chlorobenzotrifluoride	Ave	1.565	1.710	0.0100	10.9	10.0	9.2	20.0
Isopropylbenzene	Ave	4.822	5.207	0.1000	10.8	10.0	8.0	20.0
1,1,2,2-Tetrachloroethane	Ave	1.270	1.283	0.3000	10.1	10.0	1.1	20.0
Bromobenzene	Ave	0.8583	0.8015	0.0100	9.34	10.0	-6.6	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3103	0.2679	0.0100	8.63	10.0	-13.7	20.0
1,2,3-Trichloropropane	Ave	0.2831	0.2856	0.0100	10.1	10.0	0.9	20.0
N-Propylbenzene	Ave	0.9825	0.998	0.0100	10.2	10.0	1.6	20.0
2-Chlorotoluene	Ave	0.8351	0.8158	0.0100	9.77	10.0	-2.3	20.0
3-Chlorotoluene	Ave	0.8583	0.8577	0.0100	9.99	10.0	-0.0	20.0
1,3,5-Trimethylbenzene	Ave	2.776	3.016	0.0100	10.9	10.0	8.6	20.0
4-Chlorotoluene	Ave	0.9190	0.9319	0.0100	10.1	10.0	1.4	20.0
tert-Butylbenzene	Ave	2.257	2.363	0.0100	10.5	10.0	4.7	20.0
1,2,4-Trimethylbenzene	Ave	2.781	3.011	0.0100	10.8	10.0	8.3	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.7754	0.7720	0.0100	9.96	10.0	-0.4	20.0
sec-Butylbenzene	Ave	3.187	3.405	0.0100	10.7	10.0	6.8	20.0
1,3-Dichlorobenzene	Ave	1.528	1.573	0.6000	10.3	10.0	2.9	20.0



FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-154121/2 Calibration Date: 09/18/2015 12:26  
 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: 50918002.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	2.968	0.0100	11.0	10.0	10.1	20.0
1,4-Dichlorobenzene	Ave	1.590	1.569	0.5000	9.87	10.0	-1.3	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7185	0.7483	0.0100	10.4	10.0	4.2	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.7765	0.8545	0.0100	11.0	10.0	10.0	20.0
n-Butylbenzene	Ave	2.307	2.546	0.0100	11.0	10.0	10.4	20.0
1,2-Dichlorobenzene	Ave	1.428	1.459	0.4000	10.2	10.0	2.2	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1173	0.1091	0.0500	9.30	10.0	-7.0	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	0.8157	1.010	0.0100	37.1	30.0	23.8*	20.0
2,3- & 3,4- Dichlorotoluene	Ave	0.7778	0.9446	0.0100	24.3	20.0	21.4*	20.0
1,2,4-Trichlorobenzene	Ave	0.5557	0.6563	0.2000	11.8	10.0	18.1	20.0
Hexachlorobutadiene	Ave	0.2677	0.3209	0.0100	12.0	10.0	19.9	20.0
Naphthalene	Ave	1.428	1.714	0.0100	12.0	10.0	20.0	20.0
1,2,3-Trichlorobenzene	Ave	0.4498	0.5648	0.0100	12.6	10.0	25.5*	20.0
2,4,5-Trichlorotoluene	Ave	0.1623	0.2041	0.0100	12.6	10.0	25.8*	20.0
2,3,6-Trichlorotoluene	Ave	0.1496	0.2049	0.0100	13.7	10.0	36.9*	20.0
Dibromofluoromethane (Surr)	Ave	0.2455	0.2041		8.31	10.0	-16.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3373	0.2829		8.39	10.0	-16.1	20.0
Toluene-d8 (Surr)	Ave	3.857	3.891		10.1	10.0	0.9	20.0
4-Bromofluorobenzene (Surr)	Ave	1.455	1.364		9.38	10.0	-6.2	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918002.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 18-Sep-2015 12:26:30 ALS Bottle#: 2 Worklist Smp#: 2  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: CCVIS  
 Misc. Info.: 180-0008580-002  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub12  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Sep-2015 13:57:45 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: XAWRK010

First Level Reviewer: fergusond

Date: 18-Sep-2015 13:50:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.271	4.271	0.000	0	102733	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.294	7.294	0.000	98	305756	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.385	0.000	88	68394	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.727	12.727	0.000	94	104854	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.564	6.564	0.000	93	62389	50.0	41.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.929	6.929	0.000	0	86503	50.0	41.9	
\$ 7 Toluene-d8 (Surr)	98	8.937	8.937	0.000	95	266109	50.0	50.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.571	11.571	0.000	88	93306	50.0	46.9	
11 Dichlorodifluoromethane	85	1.612	1.612	0.000	98	85271	50.0	49.4	
12 Chloromethane	50	1.764	1.764	0.000	99	103749	50.0	40.9	
13 Vinyl chloride	62	1.904	1.904	0.000	98	86562	50.0	38.5	
14 Butadiene	39	1.941	1.941	0.000	98	113023	50.0	42.5	
15 Bromomethane	94	2.239	2.239	0.000	90	31708	50.0	34.6	
16 Chloroethane	64	2.385	2.385	0.000	98	50926	50.0	37.5	
17 Dichlorofluoromethane	67	2.671	2.671	0.000	97	116832	50.0	40.6	
18 Trichlorofluoromethane	101	2.695	2.695	0.000	78	97165	50.0	45.1	
20 Ethyl ether	59	3.054	3.054	0.000	98	85756	50.0	43.0	
21 Acrolein	56	3.231	3.231	0.000	96	23438	150.0	78.8	
22 1,1-Dichloroethene	96	3.346	3.346	0.000	94	79822	50.0	46.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.425	3.425	0.000	93	85226	50.0	47.2	
24 Acetone	43	3.437	3.437	0.000	88	69586	100.0	112.8	
25 Iodomethane	142	3.541	3.541	0.000	98	113950	50.0	44.9	
26 Carbon disulfide	76	3.638	3.638	0.000	100	169959	50.0	43.0	
28 3-Chloro-1-propene	76	3.924	3.924	0.000	88	41368	50.0	42.9	
30 Methyl acetate	43	3.936	3.936	0.000	100	426720	250.0	231.5	
31 Methylene Chloride	84	4.131	4.131	0.000	94	97237	50.0	48.4	
32 2-Methyl-2-propanol	59	4.405	4.405	0.000	86	61762	500.0	534.1	
33 Acrylonitrile	53	4.526	4.526	0.000	99	425890	500.0	476.1	
34 trans-1,2-Dichloroethene	96	4.563	4.563	0.000	97	82303	50.0	44.5	
35 Methyl tert-butyl ether	73	4.581	4.581	0.000	95	184960	50.0	43.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.995	4.995	0.000	95	146077	50.0	47.1	
37 1,1-Dichloroethane	63	5.202	5.202	0.000	96	162209	50.0	44.5	
38 Vinyl acetate	43	5.250	5.250	0.000	97	166846	50.0	61.1	
45 cis-1,2-Dichloroethene	96	5.950	5.950	0.000	84	86240	50.0	43.7	
44 2,2-Dichloropropane	77	5.950	5.950	0.000	56	57572	50.0	39.4	
46 2-Butanone (MEK)	43	5.956	5.956	0.000	77	100534	100.0	108.5	
49 Chlorobromomethane	128	6.236	6.236	0.000	92	39159	50.0	45.1	
51 Tetrahydrofuran	42	6.248	6.248	0.000	90	63471	100.0	85.4	
52 Chloroform	83	6.382	6.382	0.000	96	139566	50.0	44.3	
53 1,1,1-Trichloroethane	97	6.540	6.540	0.000	96	105290	50.0	45.2	
54 Cyclohexane	56	6.619	6.619	0.000	98	184783	50.0	47.5	
56 Carbon tetrachloride	117	6.716	6.716	0.000	96	93505	50.0	47.2	
55 1,1-Dichloropropene	75	6.729	6.729	0.000	88	118033	50.0	45.9	
57 Isobutyl alcohol	41	6.929	6.929	0.000	94	72530	1250.0	1245.7	
58 Benzene	78	6.948	6.948	0.000	98	349246	50.0	46.3	
59 1,2-Dichloroethane	62	7.015	7.015	0.000	96	118788	50.0	45.6	
62 n-Heptane	43	7.313	7.313	0.000	96	140447	50.0	49.8	
64 Trichloroethene	130	7.672	7.672	0.000	96	82321	50.0	44.6	
66 Methylcyclohexane	83	7.915	7.915	0.000	95	134800	50.0	46.4	
67 1,2-Dichloropropane	63	7.951	7.951	0.000	95	84684	50.0	42.8	
70 1,4-Dioxane	88	8.030	8.030	0.000	39	11422	1000.0	837.5	
68 Dibromomethane	93	8.037	8.037	0.000	96	43211	50.0	43.0	
71 Dichlorobromomethane	83	8.231	8.231	0.000	98	83129	50.0	41.8	
73 2-Chloroethyl vinyl ether	63	8.529	8.529	0.000	90	86267	100.0	85.4	
74 cis-1,3-Dichloropropene	75	8.675	8.675	0.000	90	102879	50.0	44.2	
75 4-Methyl-2-pentanone (MIBK)	43	8.827	8.827	0.000	99	166445	100.0	98.8	
76 Toluene	91	9.004	9.004	0.000	97	359313	50.0	53.1	
77 trans-1,3-Dichloropropene	75	9.253	9.253	0.000	96	81282	50.0	46.0	
78 Ethyl methacrylate	69	9.308	9.308	0.000	95	79563	50.0	46.6	
79 1,1,2-Trichloroethane	97	9.448	9.448	0.000	95	63372	50.0	49.2	
80 Tetrachloroethene	164	9.515	9.515	0.000	95	67304	50.0	51.2	
81 1,3-Dichloropropane	76	9.600	9.600	0.000	98	115698	50.0	48.4	
82 2-Hexanone	43	9.661	9.661	0.000	99	125792	100.0	103.4	
84 Chlorodibromomethane	129	9.813	9.813	0.000	91	51776	50.0	46.4	
85 Ethylene Dibromide	107	9.929	9.929	0.000	98	57620	50.0	46.4	
86 3-Chlorobenzotrifluoride	180	10.391	10.391	0.000	86	117255	50.0	53.9	
87 Chlorobenzene	112	10.415	10.415	0.000	94	226855	50.0	52.0	
88 4-Chlorobenzotrifluoride	180	10.476	10.476	0.000	96	110154	50.0	53.5	
89 1,1,1,2-Tetrachloroethane	131	10.506	10.506	0.000	90	66438	50.0	46.8	
90 Ethylbenzene	106	10.513	10.513	0.000	100	116055	50.0	50.2	
91 m-Xylene & p-Xylene	106	10.652	10.652	0.000	0	146519	50.0	51.7	
92 o-Xylene	106	11.030	11.030	0.000	98	137222	50.0	50.9	
93 Styrene	104	11.048	11.048	0.000	95	235748	50.0	52.8	
94 Bromoform	173	11.230	11.230	0.000	95	28319	50.0	44.5	
96 2-Chlorobenzotrifluoride	180	11.297	11.297	0.000	96	116930	50.0	54.6	
97 Isopropylbenzene	105	11.395	11.395	0.000	97	356149	50.0	54.0	
99 1,1,2,2-Tetrachloroethane	83	11.705	11.705	0.000	77	87783	50.0	50.5	
100 Bromobenzene	156	11.711	11.711	0.000	96	84041	50.0	46.7	
102 trans-1,4-Dichloro-2-buten	53	11.741	11.741	0.000	81	28093	50.0	43.2	
101 1,2,3-Trichloropropane	110	11.766	11.766	0.000	88	29946	50.0	50.4	
103 N-Propylbenzene	120	11.814	11.814	0.000	99	104636	50.0	50.8	
104 2-Chlorotoluene	126	11.900	11.900	0.000	96	85540	50.0	48.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.966	11.966	0.000	95	89930	50.0	50.0	
106 1,3,5-Trimethylbenzene	105	11.997	11.997	0.000	95	316250	50.0	54.3	
107 4-Chlorotoluene	126	12.021	12.021	0.000	98	97711	50.0	50.7	
108 tert-Butylbenzene	119	12.307	12.307	0.000	95	247812	50.0	52.4	
110 1,2,4-Trimethylbenzene	105	12.368	12.368	0.000	98	315750	50.0	54.1	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.411	0.000	97	80952	50.0	49.8	
112 sec-Butylbenzene	105	12.532	12.532	0.000	95	356994	50.0	53.4	
113 1,3-Dichlorobenzene	146	12.648	12.648	0.000	97	164892	50.0	51.4	
114 4-Isopropyltoluene	119	12.690	12.690	0.000	97	311258	50.0	55.1	
115 1,4-Dichlorobenzene	146	12.751	12.751	0.000	93	164554	50.0	49.4	
116 2,4-Dichloro-1-(trifluorom	214	12.782	12.782	0.000	94	78463	50.0	52.1	
118 2,5-Dichlorobenzotrifluori	214	12.824	12.824	0.000	0	89594	50.0	55.0	
120 n-Butylbenzene	91	13.098	13.098	0.000	99	266964	50.0	55.2	
121 1,2-Dichlorobenzene	146	13.110	13.110	0.000	95	153011	50.0	51.1	
122 1,2-Dibromo-3-Chloropropan	75	13.901	13.901	0.000	78	11441	50.0	46.5	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.047	14.047	0.000	0	317721	150.0	185.7	
125 2,3- & 3,4- Dichlorotoluen	125	14.461	14.461	0.000	0	198087	100.0	121.4	
126 1,2,4-Trichlorobenzene	180	14.728	14.728	0.000	95	68816	50.0	59.1	
127 Hexachlorobutadiene	225	14.868	14.868	0.000	95	33648	50.0	59.9	
128 Naphthalene	128	14.990	14.990	0.000	97	179771	50.0	60.0	
129 1,2,3-Trichlorobenzene	180	15.215	15.215	0.000	96	59219	50.0	62.8	
131 2,4,5-Trichlorotoluene	159	15.994	15.994	0.000	0	21402	50.0	62.9	
130 2,3,6-Trichlorotoluene	159	16.091	16.091	0.000	94	21486	50.0	68.5	
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		100.0	102.7	
S 134 1,2-Dichloroethene, Total	96				0		100.0	88.2	
S 135 1,3-Dichloropropene, Total	1				0		100.0	90.2	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
voaWEE1stRest_00001	Amount Added: 2.00	Units: uL	
voaWKet1stRes_00001	Amount Added: 2.00	Units: uL	
VOA8260VOAPRI_00144	Amount Added: 2.00	Units: uL	
VOAVAPRI_00007	Amount Added: 2.00	Units: uL	
voaW2-cle2ndR_00005	Amount Added: 2.00	Units: uL	
VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918002.D

Injection Date: 18-Sep-2015 12:26:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

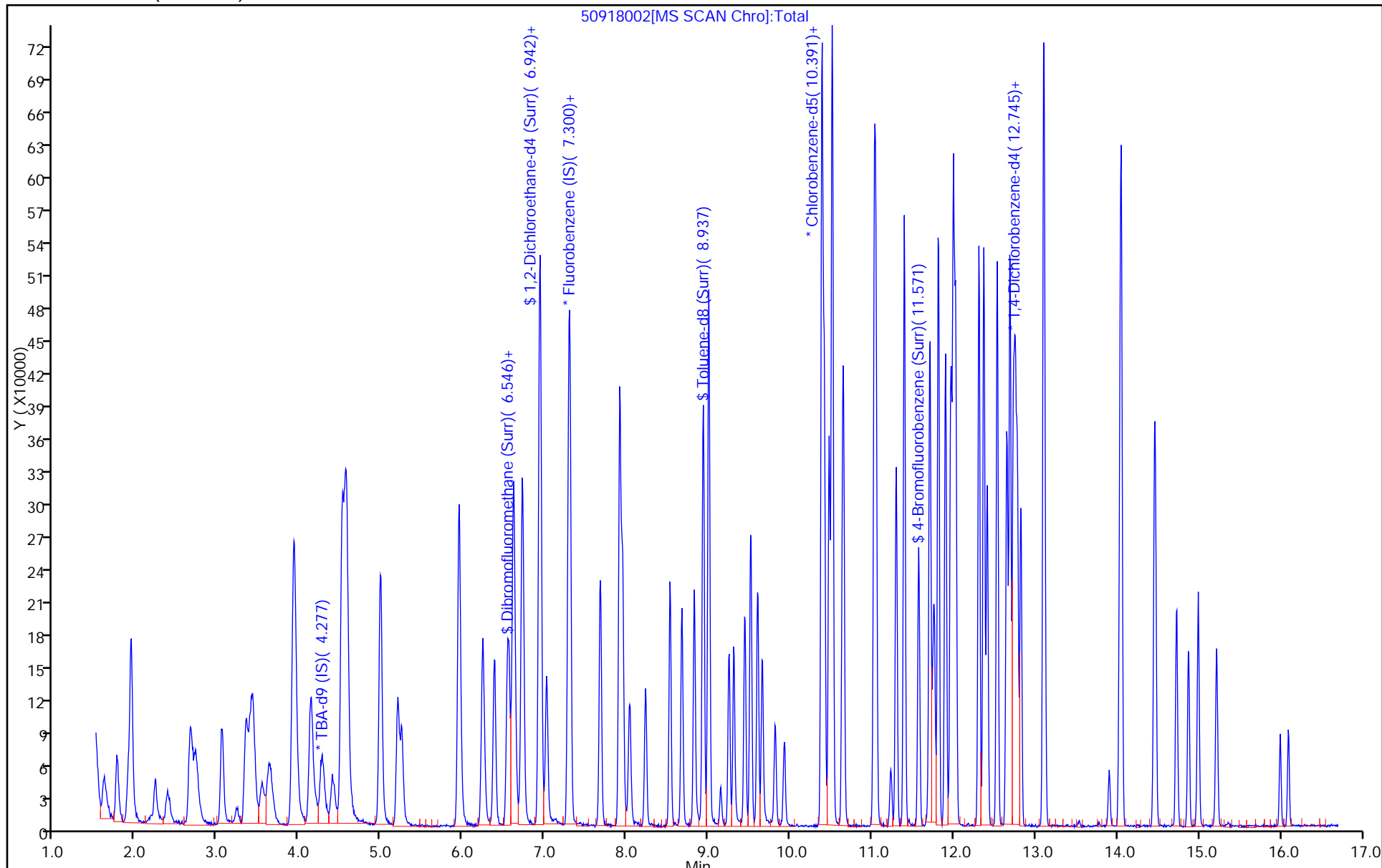
Dil. Factor: 1.0000

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.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-154425/2 Calibration Date: 09/22/2015 13:22  
 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: 50922002.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	0.1855	0.0100	22.5	20.0	12.3	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922002.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 22-Sep-2015 13:22:30 ALS Bottle#: 2 Worklist Smp#: 2  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: CCVIS  
 Misc. Info.: 180-0008620-002  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub12  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 22-Sep-2015 14:41:59 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: XAWRK019

First Level Reviewer: fergusond

Date: 22-Sep-2015 13:59:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.273	4.273	0.000	0	149622	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	97	366314	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.393	10.393	0.000	89	85398	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.729	12.729	0.000	94	125251	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.566	6.566	0.000	93	79684	50.0	44.3	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	120367	50.0	48.7	
\$ 7 Toluene-d8 (Surr)	98	8.939	8.939	0.000	95	351827	50.0	53.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.573	11.573	0.000	87	128392	50.0	51.7	
11 Dichlorodifluoromethane	85	1.614	1.614	0.000	98	116158	50.0	56.1	
12 Chloromethane	50	1.766	1.766	0.000	99	192587	50.0	63.4	
13 Vinyl chloride	62	1.906	1.906	0.000	98	152759	50.0	56.7	
14 Butadiene	39	1.943	1.943	0.000	98	204746	50.0	64.3	
15 Bromomethane	94	2.247	2.247	0.000	91	51769	50.0	47.2	
16 Chloroethane	64	2.405	2.405	0.000	99	85563	50.0	52.6	
17 Dichlorofluoromethane	67	2.673	2.673	0.000	96	176655	50.0	51.2	
18 Trichlorofluoromethane	101	2.709	2.709	0.000	95	128375	50.0	49.7	
20 Ethyl ether	59	3.050	3.050	0.000	98	114952	50.0	48.1	
21 Acrolein	56	3.226	3.226	0.000	98	47286	150.0	132.7	
22 1,1-Dichloroethene	96	3.348	3.348	0.000	92	93640	50.0	45.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.421	3.421	0.000	93	101450	50.0	46.9	
24 Acetone	43	3.439	3.439	0.000	97	108824	100.0	147.2	
25 Iodomethane	142	3.543	3.543	0.000	98	139067	50.0	45.7	
26 Carbon disulfide	76	3.634	3.634	0.000	100	234148	50.0	49.4	
28 3-Chloro-1-propene	76	3.920	3.920	0.000	87	55727	50.0	48.2	
30 Methyl acetate	43	3.938	3.938	0.000	100	607513	250.0	275.1	
31 Methylene Chloride	84	4.133	4.133	0.000	94	115606	50.0	48.0	
32 2-Methyl-2-propanol	59	4.394	4.394	0.000	87	90622	500.0	538.1	
33 Acrylonitrile	53	4.516	4.516	0.000	98	603948	500.0	563.6	
34 trans-1,2-Dichloroethene	96	4.565	4.565	0.000	92	104513	50.0	47.2	
35 Methyl tert-butyl ether	73	4.577	4.577	0.000	93	241758	50.0	47.2	

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	96	192898	50.0	51.9	
37 1,1-Dichloroethane	63	5.204	5.204	0.000	96	209144	50.0	47.9	
38 Vinyl acetate	43	5.252	5.252	0.000	97	252317	50.0	77.1	
44 2,2-Dichloropropane	77	5.946	5.946	0.000	52	60425	50.0	34.6	
45 cis-1,2-Dichloroethene	96	5.952	5.952	0.000	87	109148	50.0	46.1	
46 2-Butanone (MEK)	43	5.964	5.964	0.000	95	149964	100.0	135.0	
49 Chlorobromomethane	128	6.238	6.238	0.000	88	48467	50.0	46.6	
51 Tetrahydrofuran	42	6.250	6.250	0.000	94	100773	100.0	113.1	
52 Chloroform	83	6.384	6.384	0.000	98	178832	50.0	47.4	
53 1,1,1-Trichloroethane	97	6.542	6.542	0.000	93	123166	50.0	44.2	
54 Cyclohexane	56	6.615	6.615	0.000	98	240956	50.0	51.7	
56 Carbon tetrachloride	117	6.712	6.712	0.000	96	107830	50.0	45.4	
55 1,1-Dichloropropene	75	6.730	6.730	0.000	88	149761	50.0	48.6	
57 Isobutyl alcohol	41	6.925	6.925	0.000	92	108863	1250.0	1560.6	
58 Benzene	78	6.943	6.943	0.000	96	452962	50.0	50.1	
59 1,2-Dichloroethane	62	7.022	7.022	0.000	95	150974	50.0	48.3	
62 n-Heptane	43	7.308	7.308	0.000	97	200315	50.0	59.3	
64 Trichloroethene	130	7.679	7.679	0.000	97	106842	50.0	48.4	
66 Methylcyclohexane	83	7.917	7.917	0.000	96	172416	50.0	49.5	
67 1,2-Dichloropropane	63	7.947	7.947	0.000	96	127143	50.0	53.6	
68 Dibromomethane	93	8.032	8.032	0.000	96	57209	50.0	47.6	
70 1,4-Dioxane	88	8.032	8.032	0.000	46	19709	1000.0	1206.2	
71 Dichlorobromomethane	83	8.233	8.233	0.000	97	115118	50.0	48.4	
73 2-Chloroethyl vinyl ether	63	8.531	8.531	0.000	89	135931	100.0	112.3	
74 cis-1,3-Dichloropropene	75	8.671	8.671	0.000	88	137479	50.0	49.3	
75 4-Methyl-2-pentanone (MIBK)	43	8.829	8.829	0.000	99	249205	100.0	118.4	
76 Toluene	91	9.006	9.006	0.000	97	466979	50.0	55.2	
77 trans-1,3-Dichloropropene	75	9.249	9.249	0.000	98	112129	50.0	50.8	
78 Ethyl methacrylate	69	9.310	9.310	0.000	95	119782	50.0	56.1	
79 1,1,2-Trichloroethane	97	9.444	9.444	0.000	93	84711	50.0	52.7	
80 Tetrachloroethene	164	9.517	9.517	0.000	97	89306	50.0	54.4	
81 1,3-Dichloropropane	76	9.602	9.602	0.000	98	164851	50.0	55.2	
82 2-Hexanone	43	9.657	9.657	0.000	98	194727	100.0	128.2	
84 Chlorodibromomethane	129	9.815	9.815	0.000	92	72800	50.0	52.3	
85 Ethylene Dibromide	107	9.930	9.930	0.000	100	83448	50.0	53.8	
86 3-Chlorobenzotrifluoride	180	10.387	10.387	0.000	86	152677	50.0	56.2	
87 Chlorobenzene	112	10.417	10.417	0.000	92	291992	50.0	53.6	
88 4-Chlorobenzotrifluoride	180	10.478	10.478	0.000	95	141553	50.0	55.1	
89 1,1,1,2-Tetrachloroethane	131	10.508	10.508	0.000	87	88511	50.0	49.9	
90 Ethylbenzene	106	10.514	10.514	0.000	98	162599	50.0	56.3	
91 m-Xylene & p-Xylene	106	10.648	10.648	0.000	0	205607	50.0	58.1	
92 o-Xylene	106	11.025	11.025	0.000	98	189611	50.0	56.4	
93 Styrene	104	11.050	11.050	0.000	95	324011	50.0	58.2	
94 Bromoform	173	11.232	11.232	0.000	95	45747	50.0	57.6	
96 2-Chlorobenzotrifluoride	180	11.299	11.299	0.000	97	145803	50.0	54.5	
97 Isopropylbenzene	105	11.396	11.396	0.000	97	495148	50.0	60.1	
99 1,1,2,2-Tetrachloroethane	83	11.707	11.707	0.000	94	119662	50.0	55.2	
100 Bromobenzene	156	11.713	11.713	0.000	96	117486	50.0	54.6	
102 trans-1,4-Dichloro-2-buten	53	11.743	11.743	0.000	74	26166	50.0	33.7	
101 1,2,3-Trichloropropane	110	11.761	11.761	0.000	88	40441	50.0	57.0	
103 N-Propylbenzene	120	11.810	11.810	0.000	99	132574	50.0	53.9	
104 2-Chlorotoluene	126	11.901	11.901	0.000	95	116065	50.0	55.5	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.962	11.962	0.000	96	112236	50.0	52.2	
106 1,3,5-Trimethylbenzene	105	11.993	11.993	0.000	95	410272	50.0	59.0	
107 4-Chlorotoluene	126	12.023	12.023	0.000	98	125768	50.0	54.6	
108 tert-Butylbenzene	119	12.309	12.309	0.000	95	324908	50.0	57.5	
110 1,2,4-Trimethylbenzene	105	12.370	12.370	0.000	98	405481	50.0	58.2	
111 1,2-dichloro-4-(trifluorom	214	12.406	12.406	0.000	98	103076	50.0	53.1	
112 sec-Butylbenzene	105	12.534	12.534	0.000	95	476958	50.0	59.8	
113 1,3-Dichlorobenzene	146	12.650	12.650	0.000	98	216707	50.0	56.6	
114 4-Isopropyltoluene	119	12.686	12.686	0.000	97	394962	50.0	58.5	
115 1,4-Dichlorobenzene	146	12.753	12.753	0.000	93	223027	50.0	56.0	
116 2,4-Dichloro-1-(trifluorom	214	12.777	12.777	0.000	96	99919	50.0	55.5	
118 2,5-Dichlorobenzotrifluori	214	12.820	12.820	0.000	0	102287	50.0	52.6	
120 n-Butylbenzene	91	13.100	13.100	0.000	98	328080	50.0	56.8	
121 1,2-Dichlorobenzene	146	13.106	13.106	0.000	96	197224	50.0	55.1	
122 1,2-Dibromo-3-Chloropropan	75	13.897	13.897	0.000	73	17155	50.0	58.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.043	14.043	0.000	0	331924	150.0	162.4	
125 2,3- & 3,4- Dichlorotoluen	125	14.456	14.456	0.000	0	210247	100.0	107.9	
126 1,2,4-Trichlorobenzene	180	14.724	14.724	0.000	94	79489	50.0	57.1	
127 Hexachlorobutadiene	225	14.876	14.876	0.000	96	39954	50.0	59.6	
128 Naphthalene	128	14.992	14.992	0.000	98	208351	50.0	58.2	
129 1,2,3-Trichlorobenzene	180	15.217	15.217	0.000	96	62966	50.0	55.9	
131 2,4,5-Trichlorotoluene	159	15.990	15.990	0.000	0	19430	50.0	47.8	
130 2,3,6-Trichlorotoluene	159	16.087	16.087	0.000	94	19337	50.0	51.6	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	93.3	
S 133 Xylenes, Total	106				0		100.0	114.5	
S 135 1,3-Dichloropropene, Total	1				0		100.0	100.1	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
voaWKet1stRes_00001	Amount Added: 2.00	Units: uL	
VOA8260VOAPRI_00144	Amount Added: 2.00	Units: uL	
VOAVAPRI_00007	Amount Added: 2.00	Units: uL	
voaW2-cle2ndR_00005	Amount Added: 2.00	Units: uL	
voaEE2Restek_00001	Amount Added: 2.00	Units: uL	
VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922002.D

Injection Date: 22-Sep-2015 13:22:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

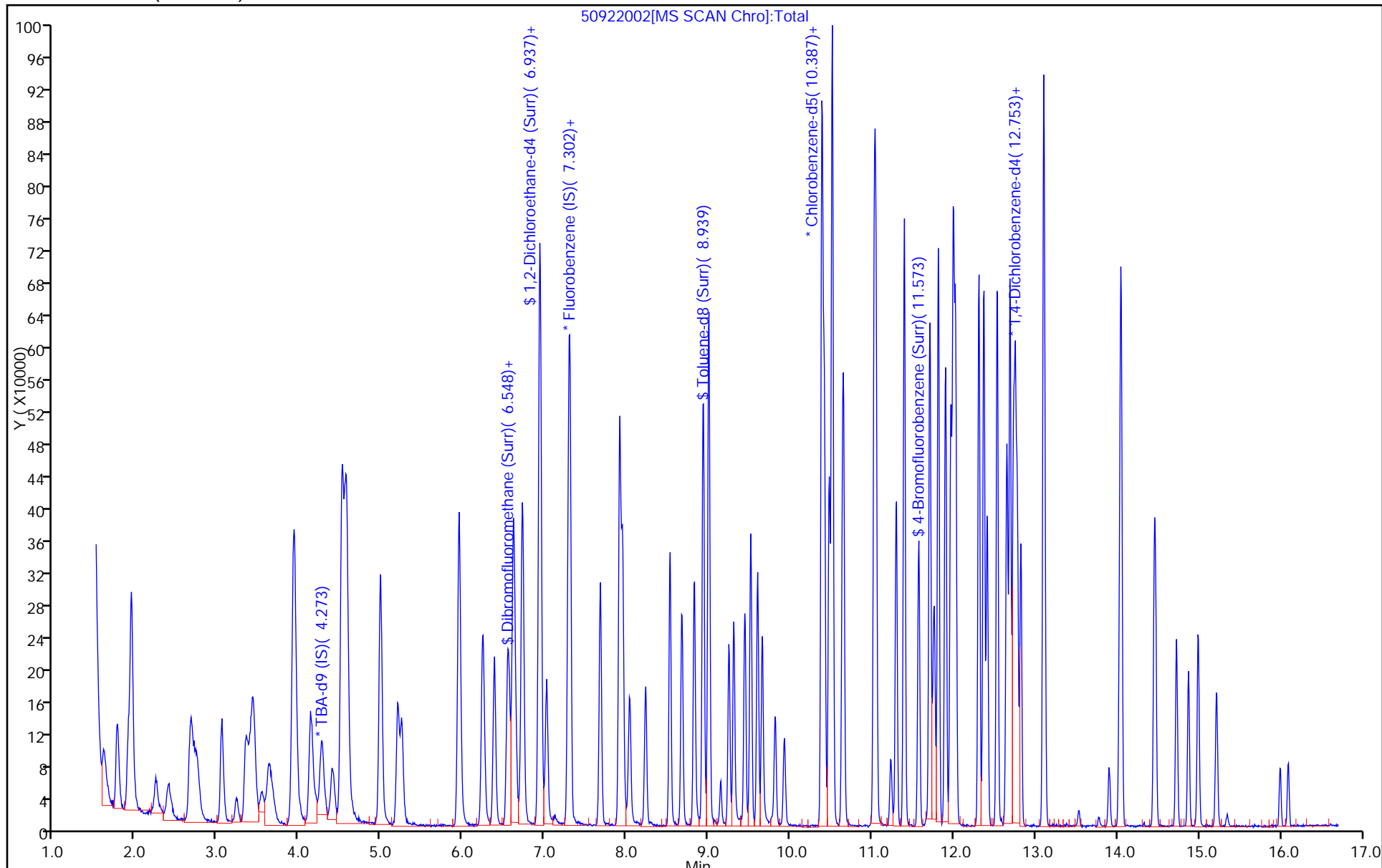
Dil. Factor: 1.0000

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.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-154425/2 Calibration Date: 09/22/2015 13:22  
 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: 50922002.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	0.3171	0.1000	11.2	10.0	12.3	20.0
Chloromethane	Ave	0.4148	0.5257	0.1000	12.7	10.0	26.8*	20.0
Vinyl chloride	Ave	0.3679	0.4170	0.1000	11.3	10.0	13.3	20.0
1,3-Butadiene	Ave	0.4345	0.5589	0.0100	12.9	10.0	28.6*	20.0
Bromomethane	Ave	0.1497	0.1413	0.0500	9.44	10.0	-5.6	20.0
Chloroethane	Ave	0.2220	0.2336	0.0500	10.5	10.0	5.2	20.0
Dichlorofluoromethane	Ave	0.4709	0.4823	0.0100	10.2	10.0	2.4	20.0
Trichlorofluoromethane	Ave	0.3523	0.3505	0.1000	9.95	10.0	-0.5	20.0
Ethyl ether	Ave	0.3265	0.3138	0.0100	9.61	10.0	-3.9	20.0
Acrolein	Ave	0.0486	0.0430	0.0100	26.5	30.0	-11.5	20.0
1,1-Dichloroethene	Ave	0.2785	0.2556	0.1000	9.18	10.0	-8.2	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2951	0.2770	0.1000	9.39	10.0	-6.1	20.0
Acetone	Ave	0.1009	0.1485	0.0500	29.4	20.0	47.2*	20.0
Iodomethane	Ave	0.4150	0.3796	0.0100	9.15	10.0	-8.5	20.0
Carbon disulfide	Ave	0.6466	0.6392	0.1000	9.88	10.0	-1.2	20.0
Allyl chloride	Ave	0.1577	0.1521	0.0100	9.65	10.0	-3.5	20.0
Methyl acetate	Ave	0.3015	0.3317	0.1000	55.0	50.0	10.0	20.0
Methylene Chloride	Lin2		0.3156	0.1000	9.60	10.0	-4.0	20.0
tert-Butyl alcohol	Ave	1.126	1.211	0.0100	108	100	7.6	20.0
Acrylonitrile	Ave	0.1463	0.1649	0.0100	113	100	12.7	20.0
trans-1,2-Dichloroethene	Ave	0.3024	0.2853	0.1000	9.44	10.0	-5.6	20.0
Methyl tert-butyl ether	Ave	0.6999	0.6600	0.1000	9.43	10.0	-5.7	20.0
Hexane	Ave	0.5076	0.5266	0.0100	10.4	10.0	3.7	20.0
1,1-Dichloroethane	Ave	0.5957	0.5709	0.2000	9.59	10.0	-4.1	20.0
Vinyl acetate	Ave	0.4469	0.6888	0.0100	15.4	10.0	54.1*	20.0
2,2-Dichloropropane	Ave	0.2387	0.1650	0.0100	6.91	10.0	-30.9*	20.0
cis-1,2-Dichloroethene	Ave	0.3230	0.2980	0.1000	9.22	10.0	-7.8	20.0
2-Butanone (MEK)	Ave	0.1516	0.2047	0.0500	27.0	20.0	35.0*	20.0
Bromochloromethane	Ave	0.1418	0.1323	0.0100	9.33	10.0	-6.7	20.0
Tetrahydrofuran	Ave	0.1216	0.1376	0.0100	22.6	20.0	13.1	20.0
Chloroform	Ave	0.5146	0.4882	0.2000	9.49	10.0	-5.1	20.0
1,1,1-Trichloroethane	Ave	0.3805	0.3362	0.1000	8.84	10.0	-11.6	20.0
Cyclohexane	Ave	0.6367	0.6578	0.1000	10.3	10.0	3.3	20.0
Carbon tetrachloride	Ave	0.3240	0.2944	0.1000	9.08	10.0	-9.2	20.0
1,1-Dichloropropene	Ave	0.4208	0.4088	0.0100	9.72	10.0	-2.8	20.0
Isobutyl alcohol	Ave	0.0095	0.0119	0.0100	312	250	24.8*	20.0
Benzene	Ave	1.233	1.237	0.5000	10.0	10.0	0.3	20.0
1,2-Dichloroethane	Ave	0.4264	0.4121	0.1000	9.67	10.0	-3.3	20.0
n-Heptane	Ave	0.4611	0.5468	0.0100	11.9	10.0	18.6	20.0
Trichloroethene	Ave	0.3016	0.2917	0.2000	9.67	10.0	-3.3	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-154425/2 Calibration Date: 09/22/2015 13:22  
 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: 50922002.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	0.4707	0.1000	9.90	10.0	-1.0	20.0
1,2-Dichloropropane	Ave	0.3235	0.3471	0.1000	10.7	10.0	7.3	20.0
1,4-Dioxane	Ave	0.0022	0.0027*	0.0100	241	200	20.6*	20.0
Dibromomethane	Ave	0.1642	0.1562	0.0100	9.51	10.0	-4.9	20.0
Bromodichloromethane	Ave	0.3249	0.3143	0.2000	9.67	10.0	-3.3	20.0
cis-1,3-Dichloropropene	Ave	0.3807	0.3753	0.2000	9.86	10.0	-1.4	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.232	1.459	0.1000	23.7	20.0	18.4	20.0
Toluene	Ave	4.950	5.468	0.4000	11.0	10.0	10.5	20.0
trans-1,3-Dichloropropene	Ave	1.292	1.313	0.1000	10.2	10.0	1.6	20.0
Ethyl methacrylate	Ave	1.249	1.403	0.0100	11.2	10.0	12.3	20.0
1,1,2-Trichloroethane	Ave	0.9416	0.9920	0.1000	10.5	10.0	5.3	20.0
Tetrachloroethene	Ave	0.9609	1.046	0.2000	10.9	10.0	8.8	20.0
1,3-Dichloropropane	Ave	1.748	1.930	0.0100	11.0	10.0	10.4	20.0
2-Hexanone	Ave	0.8893	1.140	0.1000	25.6	20.0	28.2*	20.0
Dibromochloromethane	Ave	0.8152	0.8525	0.1000	10.5	10.0	4.6	20.0
1,2-Dibromoethane (EDB)	Ave	0.9073	0.9772	0.1000	10.8	10.0	7.7	20.0
3-Chlorobenzotrifluoride	Ave	1.591	1.788	0.0100	11.2	10.0	12.4	20.0
Chlorobenzene	Ave	3.187	3.419	0.5000	10.7	10.0	7.3	20.0
4-Chlorobenzotrifluoride	Ave	1.504	1.658	0.0100	11.0	10.0	10.2	20.0
1,1,1,2-Tetrachloroethane	Ave	1.039	1.036	0.0100	9.98	10.0	-0.2	20.0
Ethylbenzene	Ave	1.690	1.904	0.1000	11.3	10.0	12.7	20.0
m-Xylene & p-Xylene	Ave	2.072	2.408	0.1000	11.6	10.0	16.2	20.0
o-Xylene	Ave	1.969	2.220	0.3000	11.3	10.0	12.8	20.0
Styrene	Ave	3.262	3.794	0.3000	11.6	10.0	16.3	20.0
Bromoform	Ave	0.4652	0.5357	0.1000	11.5	10.0	15.2	20.0
2-Chlorobenzotrifluoride	Ave	1.565	1.707	0.0100	10.9	10.0	9.1	20.0
Isopropylbenzene	Ave	4.822	5.798	0.1000	12.0	10.0	20.3*	20.0
1,1,2,2-Tetrachloroethane	Ave	1.270	1.401	0.3000	11.0	10.0	10.3	20.0
Bromobenzene	Ave	0.8583	0.9380	0.0100	10.9	10.0	9.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3103	0.2089	0.0100	6.73	10.0	-32.7*	20.0
1,2,3-Trichloropropane	Ave	0.2831	0.3229	0.0100	11.4	10.0	14.1	20.0
N-Propylbenzene	Ave	0.9825	1.058	0.0100	10.8	10.0	7.7	20.0
2-Chlorotoluene	Ave	0.8351	0.9267	0.0100	11.1	10.0	11.0	20.0
3-Chlorotoluene	Ave	0.8583	0.8961	0.0100	10.4	10.0	4.4	20.0
1,3,5-Trimethylbenzene	Ave	2.776	3.276	0.0100	11.8	10.0	18.0	20.0
4-Chlorotoluene	Ave	0.9190	1.004	0.0100	10.9	10.0	9.3	20.0
tert-Butylbenzene	Ave	2.257	2.594	0.0100	11.5	10.0	14.9	20.0
1,2,4-Trimethylbenzene	Ave	2.781	3.237	0.0100	11.6	10.0	16.4	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.7754	0.8230	0.0100	10.6	10.0	6.1	20.0
sec-Butylbenzene	Ave	3.187	3.808	0.0100	12.0	10.0	19.5	20.0
1,3-Dichlorobenzene	Ave	1.528	1.730	0.6000	11.3	10.0	13.2	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-154425/2 Calibration Date: 09/22/2015 13:22  
 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: 50922002.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	3.153	0.0100	11.7	10.0	17.0	20.0
1,4-Dichlorobenzene	Ave	1.590	1.781	0.5000	11.2	10.0	12.0	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7185	0.7978	0.0100	11.1	10.0	11.0	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.7765	0.8167	0.0100	10.5	10.0	5.2	20.0
n-Butylbenzene	Ave	2.307	2.619	0.0100	11.4	10.0	13.5	20.0
1,2-Dichlorobenzene	Ave	1.428	1.575	0.4000	11.0	10.0	10.2	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1173	0.1370	0.0500	11.7	10.0	16.8	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	0.8157	0.8834	0.0100	32.5	30.0	8.3	20.0
2,3- & 3,4- Dichlorotoluene	Ave	0.7778	0.8393	0.0100	21.6	20.0	7.9	20.0
1,2,4-Trichlorobenzene	Ave	0.5557	0.6346	0.2000	11.4	10.0	14.2	20.0
Hexachlorobutadiene	Ave	0.2677	0.3190	0.0100	11.9	10.0	19.2	20.0
Naphthalene	Ave	1.428	1.663	0.0100	11.6	10.0	16.5	20.0
1,2,3-Trichlorobenzene	Ave	0.4498	0.5027	0.0100	11.2	10.0	11.8	20.0
2,4,5-Trichlorotoluene	Ave	0.1623	0.1551	0.0100	9.56	10.0	-4.4	20.0
2,3,6-Trichlorotoluene	Ave	0.1496	0.1544	0.0100	10.3	10.0	3.2	20.0
Dibromofluoromethane (Surr)	Ave	0.2455	0.2175		8.86	10.0	-11.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3373	0.3286		9.74	10.0	-2.6	20.0
Toluene-d8 (Surr)	Ave	3.857	4.120		10.7	10.0	6.8	20.0
4-Bromofluorobenzene (Surr)	Ave	1.455	1.503		10.3	10.0	3.3	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922002.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 22-Sep-2015 13:22:30 ALS Bottle#: 2 Worklist Smp#: 2  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: CCVIS  
 Misc. Info.: 180-0008620-002  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub12  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 22-Sep-2015 14:41:59 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: XAWRK019

First Level Reviewer: fergusond

Date: 22-Sep-2015 13:59:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.273	4.273	0.000	0	149622	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	97	366314	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.393	10.393	0.000	89	85398	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.729	12.729	0.000	94	125251	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.566	6.566	0.000	93	79684	50.0	44.3	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	120367	50.0	48.7	
\$ 7 Toluene-d8 (Surr)	98	8.939	8.939	0.000	95	351827	50.0	53.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.573	11.573	0.000	87	128392	50.0	51.7	
11 Dichlorodifluoromethane	85	1.614	1.614	0.000	98	116158	50.0	56.1	
12 Chloromethane	50	1.766	1.766	0.000	99	192587	50.0	63.4	
13 Vinyl chloride	62	1.906	1.906	0.000	98	152759	50.0	56.7	
14 Butadiene	39	1.943	1.943	0.000	98	204746	50.0	64.3	
15 Bromomethane	94	2.247	2.247	0.000	91	51769	50.0	47.2	
16 Chloroethane	64	2.405	2.405	0.000	99	85563	50.0	52.6	
17 Dichlorofluoromethane	67	2.673	2.673	0.000	96	176655	50.0	51.2	
18 Trichlorofluoromethane	101	2.709	2.709	0.000	95	128375	50.0	49.7	
20 Ethyl ether	59	3.050	3.050	0.000	98	114952	50.0	48.1	
21 Acrolein	56	3.226	3.226	0.000	98	47286	150.0	132.7	
22 1,1-Dichloroethene	96	3.348	3.348	0.000	92	93640	50.0	45.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.421	3.421	0.000	93	101450	50.0	46.9	
24 Acetone	43	3.439	3.439	0.000	97	108824	100.0	147.2	
25 Iodomethane	142	3.543	3.543	0.000	98	139067	50.0	45.7	
26 Carbon disulfide	76	3.634	3.634	0.000	100	234148	50.0	49.4	
28 3-Chloro-1-propene	76	3.920	3.920	0.000	87	55727	50.0	48.2	
30 Methyl acetate	43	3.938	3.938	0.000	100	607513	250.0	275.1	
31 Methylene Chloride	84	4.133	4.133	0.000	94	115606	50.0	48.0	
32 2-Methyl-2-propanol	59	4.394	4.394	0.000	87	90622	500.0	538.1	
33 Acrylonitrile	53	4.516	4.516	0.000	98	603948	500.0	563.6	
34 trans-1,2-Dichloroethene	96	4.565	4.565	0.000	92	104513	50.0	47.2	
35 Methyl tert-butyl ether	73	4.577	4.577	0.000	93	241758	50.0	47.2	

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	96	192898	50.0	51.9	
37 1,1-Dichloroethane	63	5.204	5.204	0.000	96	209144	50.0	47.9	
38 Vinyl acetate	43	5.252	5.252	0.000	97	252317	50.0	77.1	
44 2,2-Dichloropropane	77	5.946	5.946	0.000	52	60425	50.0	34.6	
45 cis-1,2-Dichloroethene	96	5.952	5.952	0.000	87	109148	50.0	46.1	
46 2-Butanone (MEK)	43	5.964	5.964	0.000	95	149964	100.0	135.0	
49 Chlorobromomethane	128	6.238	6.238	0.000	88	48467	50.0	46.6	
51 Tetrahydrofuran	42	6.250	6.250	0.000	94	100773	100.0	113.1	
52 Chloroform	83	6.384	6.384	0.000	98	178832	50.0	47.4	
53 1,1,1-Trichloroethane	97	6.542	6.542	0.000	93	123166	50.0	44.2	
54 Cyclohexane	56	6.615	6.615	0.000	98	240956	50.0	51.7	
56 Carbon tetrachloride	117	6.712	6.712	0.000	96	107830	50.0	45.4	
55 1,1-Dichloropropene	75	6.730	6.730	0.000	88	149761	50.0	48.6	
57 Isobutyl alcohol	41	6.925	6.925	0.000	92	108863	1250.0	1560.6	
58 Benzene	78	6.943	6.943	0.000	96	452962	50.0	50.1	
59 1,2-Dichloroethane	62	7.022	7.022	0.000	95	150974	50.0	48.3	
62 n-Heptane	43	7.308	7.308	0.000	97	200315	50.0	59.3	
64 Trichloroethene	130	7.679	7.679	0.000	97	106842	50.0	48.4	
66 Methylcyclohexane	83	7.917	7.917	0.000	96	172416	50.0	49.5	
67 1,2-Dichloropropane	63	7.947	7.947	0.000	96	127143	50.0	53.6	
68 Dibromomethane	93	8.032	8.032	0.000	96	57209	50.0	47.6	
70 1,4-Dioxane	88	8.032	8.032	0.000	46	19709	1000.0	1206.2	
71 Dichlorobromomethane	83	8.233	8.233	0.000	97	115118	50.0	48.4	
73 2-Chloroethyl vinyl ether	63	8.531	8.531	0.000	89	135931	100.0	112.3	
74 cis-1,3-Dichloropropene	75	8.671	8.671	0.000	88	137479	50.0	49.3	
75 4-Methyl-2-pentanone (MIBK)	43	8.829	8.829	0.000	99	249205	100.0	118.4	
76 Toluene	91	9.006	9.006	0.000	97	466979	50.0	55.2	
77 trans-1,3-Dichloropropene	75	9.249	9.249	0.000	98	112129	50.0	50.8	
78 Ethyl methacrylate	69	9.310	9.310	0.000	95	119782	50.0	56.1	
79 1,1,2-Trichloroethane	97	9.444	9.444	0.000	93	84711	50.0	52.7	
80 Tetrachloroethene	164	9.517	9.517	0.000	97	89306	50.0	54.4	
81 1,3-Dichloropropane	76	9.602	9.602	0.000	98	164851	50.0	55.2	
82 2-Hexanone	43	9.657	9.657	0.000	98	194727	100.0	128.2	
84 Chlorodibromomethane	129	9.815	9.815	0.000	92	72800	50.0	52.3	
85 Ethylene Dibromide	107	9.930	9.930	0.000	100	83448	50.0	53.8	
86 3-Chlorobenzotrifluoride	180	10.387	10.387	0.000	86	152677	50.0	56.2	
87 Chlorobenzene	112	10.417	10.417	0.000	92	291992	50.0	53.6	
88 4-Chlorobenzotrifluoride	180	10.478	10.478	0.000	95	141553	50.0	55.1	
89 1,1,1,2-Tetrachloroethane	131	10.508	10.508	0.000	87	88511	50.0	49.9	
90 Ethylbenzene	106	10.514	10.514	0.000	98	162599	50.0	56.3	
91 m-Xylene & p-Xylene	106	10.648	10.648	0.000	0	205607	50.0	58.1	
92 o-Xylene	106	11.025	11.025	0.000	98	189611	50.0	56.4	
93 Styrene	104	11.050	11.050	0.000	95	324011	50.0	58.2	
94 Bromoform	173	11.232	11.232	0.000	95	45747	50.0	57.6	
96 2-Chlorobenzotrifluoride	180	11.299	11.299	0.000	97	145803	50.0	54.5	
97 Isopropylbenzene	105	11.396	11.396	0.000	97	495148	50.0	60.1	
99 1,1,2,2-Tetrachloroethane	83	11.707	11.707	0.000	94	119662	50.0	55.2	
100 Bromobenzene	156	11.713	11.713	0.000	96	117486	50.0	54.6	
102 trans-1,4-Dichloro-2-buten	53	11.743	11.743	0.000	74	26166	50.0	33.7	
101 1,2,3-Trichloropropane	110	11.761	11.761	0.000	88	40441	50.0	57.0	
103 N-Propylbenzene	120	11.810	11.810	0.000	99	132574	50.0	53.9	
104 2-Chlorotoluene	126	11.901	11.901	0.000	95	116065	50.0	55.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.962	11.962	0.000	96	112236	50.0	52.2	
106 1,3,5-Trimethylbenzene	105	11.993	11.993	0.000	95	410272	50.0	59.0	
107 4-Chlorotoluene	126	12.023	12.023	0.000	98	125768	50.0	54.6	
108 tert-Butylbenzene	119	12.309	12.309	0.000	95	324908	50.0	57.5	
110 1,2,4-Trimethylbenzene	105	12.370	12.370	0.000	98	405481	50.0	58.2	
111 1,2-dichloro-4-(trifluorom	214	12.406	12.406	0.000	98	103076	50.0	53.1	
112 sec-Butylbenzene	105	12.534	12.534	0.000	95	476958	50.0	59.8	
113 1,3-Dichlorobenzene	146	12.650	12.650	0.000	98	216707	50.0	56.6	
114 4-Isopropyltoluene	119	12.686	12.686	0.000	97	394962	50.0	58.5	
115 1,4-Dichlorobenzene	146	12.753	12.753	0.000	93	223027	50.0	56.0	
116 2,4-Dichloro-1-(trifluorom	214	12.777	12.777	0.000	96	99919	50.0	55.5	
118 2,5-Dichlorobenzotrifluori	214	12.820	12.820	0.000	0	102287	50.0	52.6	
120 n-Butylbenzene	91	13.100	13.100	0.000	98	328080	50.0	56.8	
121 1,2-Dichlorobenzene	146	13.106	13.106	0.000	96	197224	50.0	55.1	
122 1,2-Dibromo-3-Chloropropan	75	13.897	13.897	0.000	73	17155	50.0	58.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.043	14.043	0.000	0	331924	150.0	162.4	
125 2,3- & 3,4- Dichlorotoluen	125	14.456	14.456	0.000	0	210247	100.0	107.9	
126 1,2,4-Trichlorobenzene	180	14.724	14.724	0.000	94	79489	50.0	57.1	
127 Hexachlorobutadiene	225	14.876	14.876	0.000	96	39954	50.0	59.6	
128 Naphthalene	128	14.992	14.992	0.000	98	208351	50.0	58.2	
129 1,2,3-Trichlorobenzene	180	15.217	15.217	0.000	96	62966	50.0	55.9	
131 2,4,5-Trichlorotoluene	159	15.990	15.990	0.000	0	19430	50.0	47.8	
130 2,3,6-Trichlorotoluene	159	16.087	16.087	0.000	94	19337	50.0	51.6	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	93.3	
S 133 Xylenes, Total	106				0		100.0	114.5	
S 135 1,3-Dichloropropene, Total	1				0		100.0	100.1	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
voaWKet1stRes_00001	Amount Added: 2.00	Units: uL	
VOA8260VOAPRI_00144	Amount Added: 2.00	Units: uL	
VOAVAPRI_00007	Amount Added: 2.00	Units: uL	
voaW2-cle2ndR_00005	Amount Added: 2.00	Units: uL	
voaEE2Restek_00001	Amount Added: 2.00	Units: uL	
VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922002.D

Injection Date: 22-Sep-2015 13:22:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

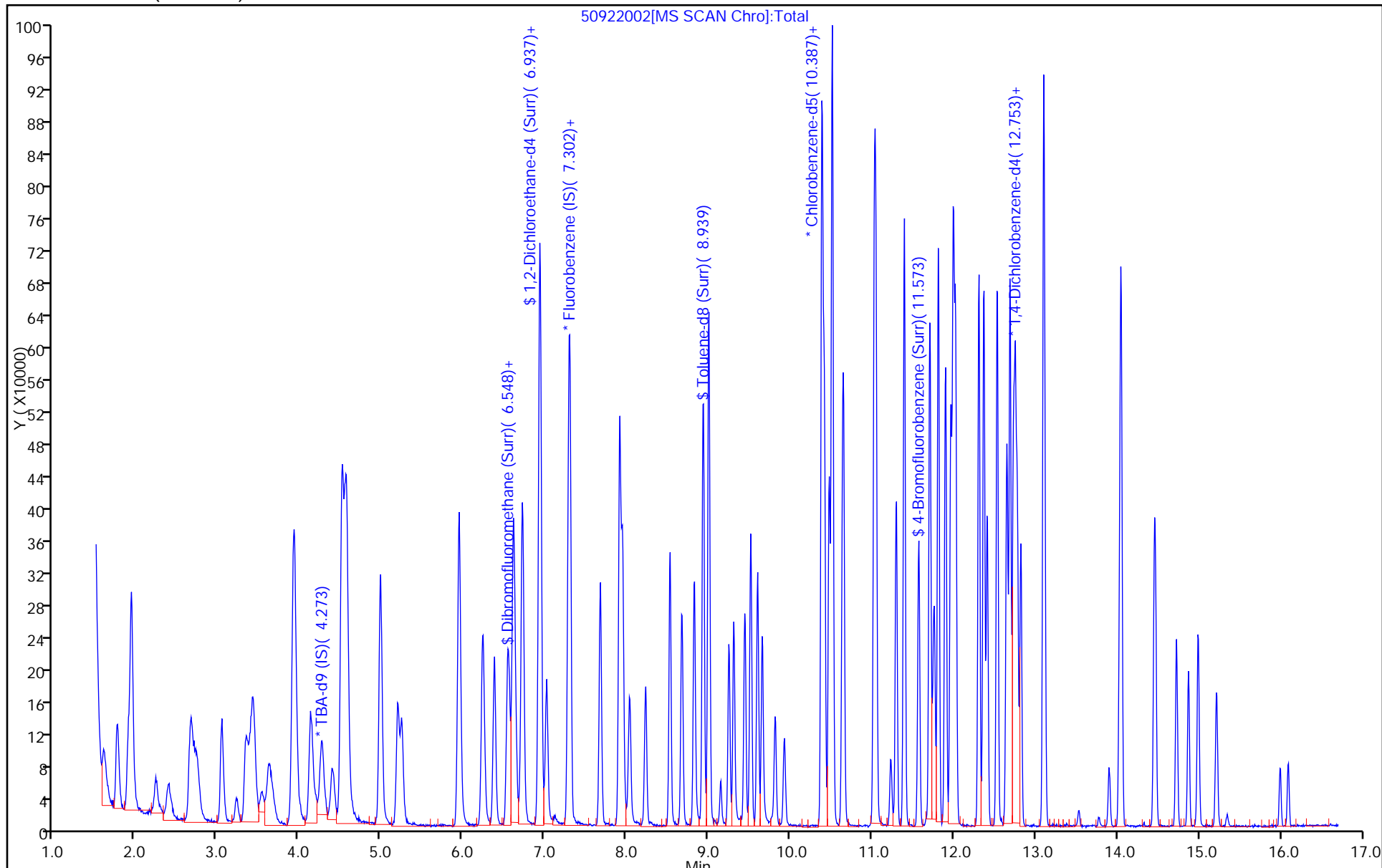
Dil. Factor: 1.0000

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.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-154736/2 Calibration Date: 09/24/2015 11:05  
 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: 50924002.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	0.1616	0.0100	19.6	20.0	-2.2	20.0
1,3,5-Trichlorobenzene	Ave	0.9577	0.8624	0.0100	9.00	10.0	-10.0	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\50924002.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 24-Sep-2015 11:05:30 ALS Bottle#: 2 Worklist Smp#: 2  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: CCVIS  
 Misc. Info.: 180-0008665-002  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub11  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 24-Sep-2015 13:48:25 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: XAWRK003

First Level Reviewer: fergusond

Date: 24-Sep-2015 13:48:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.286	4.286	0.000	0	159608	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.285	7.285	0.000	98	388764	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.388	0.000	89	88837	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.730	0.000	94	146526	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.555	6.555	0.000	93	86860	50.0	45.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.933	0.000	0	127570	50.0	48.6	
\$ 7 Toluene-d8 (Surr)	98	8.934	8.934	0.000	95	347179	50.0	50.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.568	11.568	0.000	87	128730	50.0	49.8	
11 Dichlorodifluoromethane	85	1.597	1.597	0.000	98	138409	50.0	63.0	
12 Chloromethane	50	1.768	1.768	0.000	99	203388	50.0	63.1	
13 Vinyl chloride	62	1.908	1.908	0.000	98	160861	50.0	56.2	
14 Butadiene	39	1.938	1.938	0.000	98	232362	50.0	68.8	
15 Bromomethane	94	2.236	2.236	0.000	91	47088	50.0	40.5	
16 Chloroethane	64	2.382	2.382	0.000	98	93372	50.0	54.1	
17 Dichlorofluoromethane	67	2.662	2.662	0.000	97	185711	50.0	50.7	
18 Trichlorofluoromethane	101	2.692	2.692	0.000	97	140769	50.0	51.4	M
20 Ethyl ether	59	3.045	3.045	0.000	96	130535	50.0	51.4	
21 Acrolein	56	3.222	3.222	0.000	96	46938	150.0	124.1	
22 1,1-Dichloroethene	96	3.337	3.337	0.000	95	104421	50.0	48.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.422	3.422	0.000	93	116928	50.0	51.0	
24 Acetone	43	3.447	3.447	0.000	97	112999	100.0	144.1	
25 Iodomethane	142	3.532	3.532	0.000	99	154321	50.0	47.8	
26 Carbon disulfide	76	3.629	3.629	0.000	100	285420	50.0	56.8	
28 3-Chloro-1-propene	76	3.909	3.909	0.000	87	55103	50.0	44.9	
30 Methyl acetate	43	3.940	3.940	0.000	100	681802	250.0	290.9	
31 Methylene Chloride	84	4.134	4.134	0.000	94	131665	50.0	52.0	
32 2-Methyl-2-propanol	59	4.408	4.408	0.000	87	92582	500.0	515.4	
33 Acrylonitrile	53	4.517	4.517	0.000	99	649393	500.0	571.0	
34 trans-1,2-Dichloroethene	96	4.554	4.554	0.000	95	110871	50.0	47.2	
35 Methyl tert-butyl ether	73	4.578	4.578	0.000	94	256670	50.0	47.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.980	4.980	0.000	94	207566	50.0	52.6	
37 1,1-Dichloroethane	63	5.199	5.199	0.000	96	235705	50.0	50.9	
38 Vinyl acetate	43	5.248	5.248	0.000	97	241719	50.0	69.6	
44 2,2-Dichloropropane	77	5.941	5.941	0.000	60	85838	50.0	46.2	
45 cis-1,2-Dichloroethene	96	5.947	5.947	0.000	86	112563	50.0	44.8	
46 2-Butanone (MEK)	43	5.959	5.959	0.000	92	150414	100.0	127.6	
49 Chlorobromomethane	128	6.233	6.233	0.000	87	50471	50.0	45.8	
51 Tetrahydrofuran	42	6.251	6.251	0.000	92	97905	100.0	103.6	
52 Chloroform	83	6.379	6.379	0.000	97	192126	50.0	48.0	
53 1,1,1-Trichloroethane	97	6.537	6.537	0.000	94	143031	50.0	48.3	
54 Cyclohexane	56	6.610	6.610	0.000	97	255439	50.0	51.6	
56 Carbon tetrachloride	117	6.714	6.714	0.000	97	124445	50.0	49.4	
55 1,1-Dichloropropene	75	6.726	6.726	0.000	88	164251	50.0	50.2	
57 Isobutyl alcohol	41	6.927	6.927	0.000	88	116925	1250.0	1579.3	
58 Benzene	78	6.939	6.939	0.000	98	482787	50.0	50.4	
59 1,2-Dichloroethane	62	7.018	7.018	0.000	95	163186	50.0	49.2	
62 n-Heptane	43	7.304	7.304	0.000	96	206555	50.0	57.6	
64 Trichloroethene	130	7.675	7.675	0.000	97	108096	50.0	46.1	
66 Methylcyclohexane	83	7.918	7.918	0.000	96	176695	50.0	47.8	
67 1,2-Dichloropropane	63	7.949	7.949	0.000	95	127899	50.0	50.8	
68 Dibromomethane	93	8.034	8.034	0.000	94	57439	50.0	45.0	
70 1,4-Dioxane	88	8.040	8.040	0.000	42	20441	1000.0	1178.7	
71 Dichlorobromomethane	83	8.228	8.228	0.000	97	125237	50.0	49.6	
73 2-Chloroethyl vinyl ether	63	8.526	8.526	0.000	89	125626	100.0	97.8	
74 cis-1,3-Dichloropropene	75	8.673	8.673	0.000	87	142188	50.0	48.0	
75 4-Methyl-2-pentanone (MIBK)	43	8.825	8.825	0.000	99	210032	100.0	96.0	
76 Toluene	91	9.001	9.001	0.000	97	463826	50.0	52.7	
77 trans-1,3-Dichloropropene	75	9.250	9.250	0.000	94	115840	50.0	50.5	
78 Ethyl methacrylate	69	9.311	9.311	0.000	94	107346	50.0	48.4	
79 1,1,2-Trichloroethane	97	9.445	9.445	0.000	95	86072	50.0	51.4	
80 Tetrachloroethene	164	9.518	9.518	0.000	97	93778	50.0	54.9	
81 1,3-Dichloropropane	76	9.603	9.603	0.000	94	159716	50.0	51.4	
82 2-Hexanone	43	9.652	9.652	0.000	98	164803	100.0	104.3	
84 Chlorodibromomethane	129	9.816	9.816	0.000	90	76628	50.0	52.9	
85 Ethylene Dibromide	107	9.932	9.932	0.000	99	83090	50.0	51.5	
86 3-Chlorobenzotrifluoride	180	10.388	10.388	0.000	83	149010	50.0	52.7	
87 Chlorobenzene	112	10.418	10.418	0.000	92	285376	50.0	50.4	
88 4-Chlorobenzotrifluoride	180	10.473	10.473	0.000	95	139991	50.0	52.4	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.510	0.000	90	93802	50.0	50.8	
90 Ethylbenzene	106	10.516	10.516	0.000	98	160830	50.0	53.6	
91 m-Xylene & p-Xylene	106	10.644	10.644	0.000	0	196784	50.0	53.5	
92 o-Xylene	106	11.027	11.027	0.000	98	186840	50.0	53.4	
93 Styrene	104	11.051	11.051	0.000	96	330916	50.0	57.1	
94 Bromoform	173	11.228	11.228	0.000	95	44607	50.0	54.0	
96 2-Chlorobenzotrifluoride	180	11.301	11.301	0.000	97	147069	50.0	52.9	
97 Isopropylbenzene	105	11.398	11.398	0.000	97	472879	50.0	55.2	
99 1,1,2,2-Tetrachloroethane	83	11.708	11.708	0.000	79	124092	50.0	55.0	
100 Bromobenzene	156	11.708	11.708	0.000	95	121217	50.0	48.2	
102 trans-1,4-Dichloro-2-buten	53	11.751	11.751	0.000	64	22249	50.0	24.5	
101 1,2,3-Trichloropropane	110	11.763	11.763	0.000	92	40366	50.0	48.7	
103 N-Propylbenzene	120	11.812	11.812	0.000	99	133997	50.0	46.5	
104 2-Chlorotoluene	126	11.897	11.897	0.000	95	113008	50.0	46.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.964	11.964	0.000	96	113741	50.0	45.2	
106 1,3,5-Trimethylbenzene	105	11.994	11.994	0.000	95	414675	50.0	51.0	
107 4-Chlorotoluene	126	12.024	12.024	0.000	98	127960	50.0	47.5	
108 tert-Butylbenzene	119	12.310	12.310	0.000	96	315469	50.0	47.7	
110 1,2,4-Trimethylbenzene	105	12.365	12.365	0.000	98	418827	50.0	51.4	
111 1,2-dichloro-4-(trifluorom	214	12.408	12.408	0.000	97	111655	50.0	49.1	
112 sec-Butylbenzene	105	12.529	12.529	0.000	95	473584	50.0	50.7	
113 1,3-Dichlorobenzene	146	12.645	12.645	0.000	98	227017	50.0	50.7	
114 4-Isopropyltoluene	119	12.688	12.688	0.000	97	385863	50.0	48.8	
115 1,4-Dichlorobenzene	146	12.755	12.755	0.000	96	237419	50.0	51.0	
116 2,4-Dichloro-1-(trifluorom	214	12.779	12.779	0.000	95	102275	50.0	48.6	
118 2,5-Dichlorobenzotrifluori	214	12.821	12.821	0.000	0	118225	50.0	52.0	
120 n-Butylbenzene	91	13.095	13.095	0.000	98	324845	50.0	48.1	
121 1,2-Dichlorobenzene	146	13.107	13.107	0.000	95	213202	50.0	50.9	
122 1,2-Dibromo-3-Chloropropan	75	13.898	13.898	0.000	74	17966	50.0	52.3	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.044	14.044	0.000	0	352467	150.0	147.5	
124 1,3,5-Trichlorobenzene	180	14.087	14.087	0.000	96	126363	50.0	45.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.458	14.458	0.000	0	222384	100.0	97.6	
126 1,2,4-Trichlorobenzene	180	14.726	14.726	0.000	95	87431	50.0	53.7	
127 Hexachlorobutadiene	225	14.872	14.872	0.000	96	46283	50.0	59.0	
128 Naphthalene	128	14.987	14.987	0.000	98	210744	50.0	50.4	
129 1,2,3-Trichlorobenzene	180	15.212	15.212	0.000	94	70925	50.0	53.8	
131 2,4,5-Trichlorotoluene	159	15.991	15.991	0.000	0	20216	50.0	42.5	
130 2,3,6-Trichlorotoluene	159	16.088	16.088	0.000	96	21734	50.0	49.6	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	106.9	
S 134 1,2-Dichloroethene, Total	96				0		100.0	92.0	
S 135 1,3-Dichloropropene, Total	1				0		100.0	98.5	

### 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	
VOA8260VOAPRI_00145	Amount Added: 2.00	Units: uL	
VOAVAPRI_00007	Amount Added: 2.00	Units: uL	
voaW2-cle2ndR_00005	Amount Added: 2.00	Units: uL	
voaEE2Restek_00001	Amount Added: 2.00	Units: uL	
voaW135tcbRes_00003	Amount Added: 2.00	Units: uL	
VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\50924002.D

Injection Date: 24-Sep-2015 11:05:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

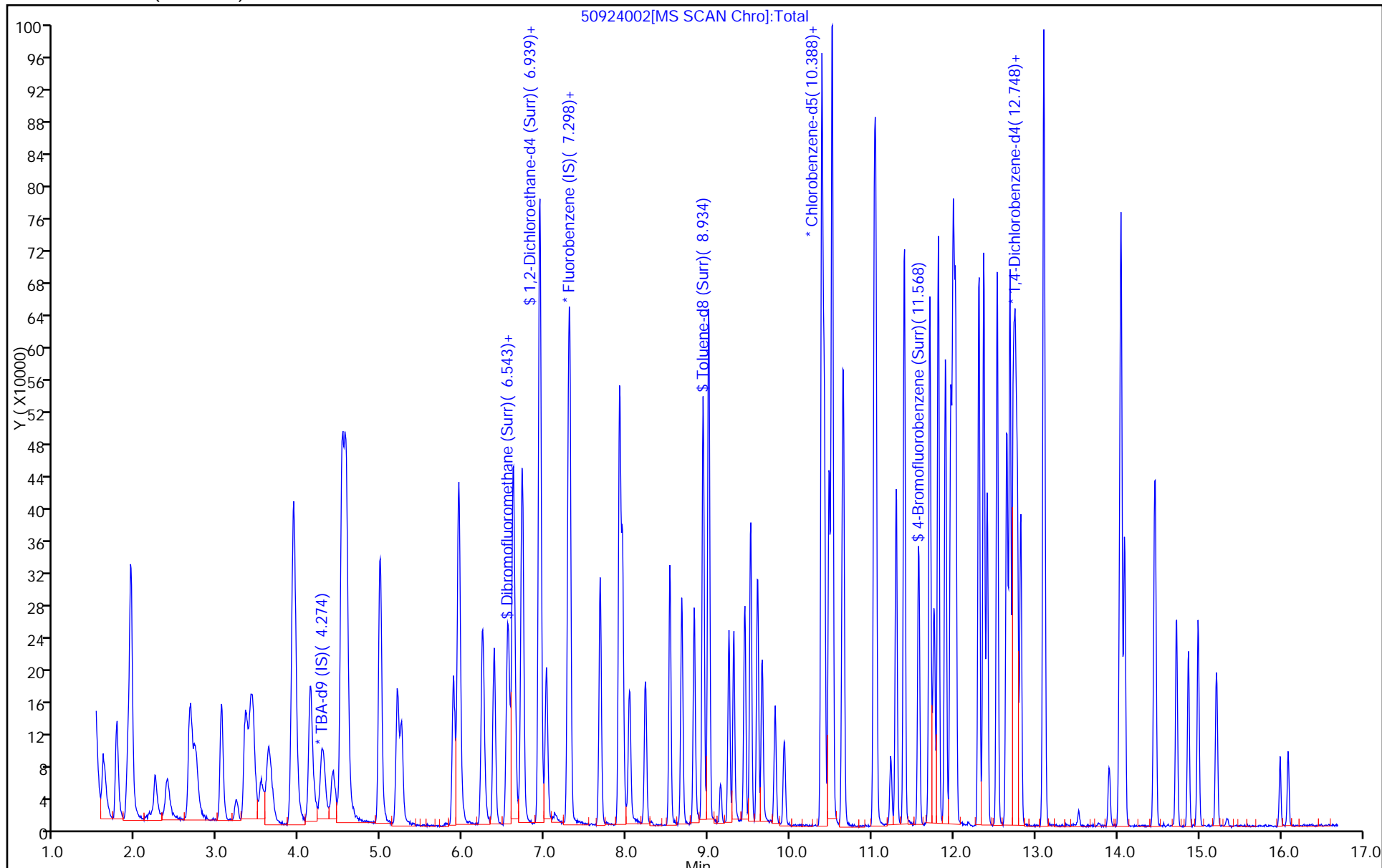
Dil. Factor: 1.0000

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.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-154736/2 Calibration Date: 09/24/2015 11:05  
 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: 50924002.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	0.3560	0.1000	12.6	10.0	26.0*	20.0
Chloromethane	Ave	0.4148	0.5232	0.1000	12.6	10.0	26.1*	20.0
Vinyl chloride	Ave	0.3679	0.4138	0.1000	11.2	10.0	12.5	20.0
1,3-Butadiene	Ave	0.4345	0.5977	0.0100	13.8	10.0	37.6*	20.0
Bromomethane	Ave	0.1497	0.1211	0.0500	8.09	10.0	-19.1	20.0
Chloroethane	Ave	0.2220	0.2402	0.0500	10.8	10.0	8.2	20.0
Dichlorofluoromethane	Ave	0.4709	0.4777	0.0100	10.1	10.0	1.4	20.0
Trichlorofluoromethane	Ave	0.3523	0.3621	0.1000	10.3	10.0	2.8	20.0
Ethyl ether	Ave	0.3265	0.3358	0.0100	10.3	10.0	2.8	20.0
Acrolein	Ave	0.0486	0.0403	0.0100	24.8	30.0	-17.3	20.0
1,1-Dichloroethene	Ave	0.2785	0.2686	0.1000	9.65	10.0	-3.5	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2951	0.3008	0.1000	10.2	10.0	1.9	20.0
Acetone	Ave	0.1009	0.1453	0.0500	28.8	20.0	44.1*	20.0
Iodomethane	Ave	0.4150	0.3970	0.0100	9.56	10.0	-4.4	20.0
Carbon disulfide	Ave	0.6466	0.7342	0.1000	11.4	10.0	13.5	20.0
Allyl chloride	Ave	0.1577	0.1417	0.0100	8.99	10.0	-10.1	20.0
Methyl acetate	Ave	0.3015	0.3508	0.1000	58.2	50.0	16.4	20.0
Methylene Chloride	Lin2		0.3387	0.1000	10.4	10.0	4.0	20.0
tert-Butyl alcohol	Ave	1.126	1.160	0.0100	103	100	3.1	20.0
Acrylonitrile	Ave	0.1463	0.1670	0.0100	114	100	14.2	20.0
trans-1,2-Dichloroethene	Ave	0.3024	0.2852	0.1000	9.43	10.0	-5.7	20.0
Methyl tert-butyl ether	Ave	0.6999	0.6602	0.1000	9.43	10.0	-5.7	20.0
Hexane	Ave	0.5076	0.5339	0.0100	10.5	10.0	5.2	20.0
1,1-Dichloroethane	Ave	0.5957	0.6063	0.2000	10.2	10.0	1.8	20.0
Vinyl acetate	Ave	0.4469	0.6218	0.0100	13.9	10.0	39.1*	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	0.2895	0.1000	8.96	10.0	-10.4	20.0
2-Butanone (MEK)	Ave	0.1516	0.1935	0.0500	25.5	20.0	27.6*	20.0
Bromochloromethane	Ave	0.1418	0.1298	0.0100	9.15	10.0	-8.5	20.0
Tetrahydrofuran	Ave	0.1216	0.1259	0.0100	20.7	20.0	3.6	20.0
Chloroform	Ave	0.5146	0.4942	0.2000	9.60	10.0	-4.0	20.0
1,1,1-Trichloroethane	Ave	0.3805	0.3679	0.1000	9.67	10.0	-3.3	20.0
Cyclohexane	Ave	0.6367	0.6571	0.1000	10.3	10.0	3.2	20.0
Carbon tetrachloride	Ave	0.3240	0.3201	0.1000	9.88	10.0	-1.2	20.0
1,1-Dichloropropene	Ave	0.4208	0.4225	0.0100	10.0	10.0	0.4	20.0
Isobutyl alcohol	Ave	0.0095	0.0120	0.0100	316	250	26.3*	20.0
Benzene	Ave	1.233	1.242	0.5000	10.1	10.0	0.7	20.0
1,2-Dichloroethane	Ave	0.4264	0.4198	0.1000	9.84	10.0	-1.6	20.0
n-Heptane	Ave	0.4611	0.5313	0.0100	11.5	10.0	15.2	20.0
Trichloroethene	Ave	0.3016	0.2781	0.2000	9.22	10.0	-7.8	20.0



FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-154736/2 Calibration Date: 09/24/2015 11:05  
 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: 50924002.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	0.4545	0.1000	9.56	10.0	-4.4	20.0
1,2-Dichloropropane	Ave	0.3235	0.3290	0.1000	10.2	10.0	1.7	20.0
Dibromomethane	Ave	0.1642	0.1478	0.0100	9.00	10.0	-10.0	20.0
1,4-Dioxane	Ave	0.0022	0.0026*	0.0100	236	200	17.9	20.0
Bromodichloromethane	Ave	0.3249	0.3221	0.2000	9.92	10.0	-0.8	20.0
cis-1,3-Dichloropropene	Ave	0.3807	0.3657	0.2000	9.61	10.0	-3.9	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.232	1.182	0.1000	19.2	20.0	-4.0	20.0
Toluene	Ave	4.950	5.221	0.4000	10.5	10.0	5.5	20.0
trans-1,3-Dichloropropene	Ave	1.292	1.304	0.1000	10.1	10.0	0.9	20.0
Ethyl methacrylate	Ave	1.249	1.208	0.0100	9.67	10.0	-3.3	20.0
1,1,2-Trichloroethane	Ave	0.9416	0.9689	0.1000	10.3	10.0	2.9	20.0
Tetrachloroethene	Ave	0.9609	1.056	0.2000	11.0	10.0	9.9	20.0
1,3-Dichloropropane	Ave	1.748	1.798	0.0100	10.3	10.0	2.8	20.0
2-Hexanone	Ave	0.8893	0.9276	0.1000	20.9	20.0	4.3	20.0
Dibromochloromethane	Ave	0.8152	0.8626	0.1000	10.6	10.0	5.8	20.0
1,2-Dibromoethane (EDB)	Ave	0.9073	0.9353	0.1000	10.3	10.0	3.1	20.0
3-Chlorobenzotrifluoride	Ave	1.591	1.677	0.0100	10.5	10.0	5.4	20.0
Chlorobenzene	Ave	3.187	3.212	0.5000	10.1	10.0	0.8	20.0
4-Chlorobenzotrifluoride	Ave	1.504	1.576	0.0100	10.5	10.0	4.8	20.0
1,1,1,2-Tetrachloroethane	Ave	1.039	1.056	0.0100	10.2	10.0	1.6	20.0
Ethylbenzene	Ave	1.690	1.810	0.1000	10.7	10.0	7.1	20.0
m-Xylene & p-Xylene	Ave	2.072	2.215	0.1000	10.7	10.0	6.9	20.0
o-Xylene	Ave	1.969	2.103	0.3000	10.7	10.0	6.8	20.0
Styrene	Ave	3.262	3.725	0.3000	11.4	10.0	14.2	20.0
Bromoform	Ave	0.4652	0.5021	0.1000	10.8	10.0	7.9	20.0
2-Chlorobenzotrifluoride	Ave	1.565	1.655	0.0100	10.6	10.0	5.8	20.0
Isopropylbenzene	Ave	4.822	5.323	0.1000	11.0	10.0	10.4	20.0
1,1,2,2-Tetrachloroethane	Ave	1.270	1.397	0.3000	11.0	10.0	10.0	20.0
Bromobenzene	Ave	0.8583	0.8273	0.0100	9.64	10.0	-3.6	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3103	0.1518	0.0100	4.89	10.0	-51.1*	20.0
1,2,3-Trichloropropane	Ave	0.2831	0.2755	0.0100	9.73	10.0	-2.7	20.0
N-Propylbenzene	Ave	0.9825	0.9145	0.0100	9.31	10.0	-6.9	20.0
2-Chlorotoluene	Ave	0.8351	0.7713	0.0100	9.23	10.0	-7.7	20.0
3-Chlorotoluene	Ave	0.8583	0.7763	0.0100	9.04	10.0	-9.6	20.0
1,3,5-Trimethylbenzene	Ave	2.776	2.830	0.0100	10.2	10.0	1.9	20.0
4-Chlorotoluene	Ave	0.9190	0.8733	0.0100	9.50	10.0	-5.0	20.0
tert-Butylbenzene	Ave	2.257	2.153	0.0100	9.54	10.0	-4.6	20.0
1,2,4-Trimethylbenzene	Ave	2.781	2.858	0.0100	10.3	10.0	2.8	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.7754	0.7620	0.0100	9.83	10.0	-1.7	20.0
sec-Butylbenzene	Ave	3.187	3.232	0.0100	10.1	10.0	1.4	20.0
1,3-Dichlorobenzene	Ave	1.528	1.549	0.6000	10.1	10.0	1.4	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-154736/2 Calibration Date: 09/24/2015 11:05  
 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: 50924002.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	2.633	0.0100	9.77	10.0	-2.3	20.0
1,4-Dichlorobenzene	Ave	1.590	1.620	0.5000	10.2	10.0	1.9	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7185	0.6980	0.0100	9.72	10.0	-2.8	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.7765	0.8069	0.0100	10.4	10.0	3.9	20.0
n-Butylbenzene	Ave	2.307	2.217	0.0100	9.61	10.0	-3.9	20.0
1,2-Dichlorobenzene	Ave	1.428	1.455	0.4000	10.2	10.0	1.9	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1173	0.1226	0.0500	10.5	10.0	4.6	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	0.8157	0.8018	0.0100	29.5	30.0	-1.7	20.0
2,3- & 3,4- Dichlorotoluene	Ave	0.7778	0.7589	0.0100	19.5	20.0	-2.4	20.0
1,2,4-Trichlorobenzene	Ave	0.5557	0.5967	0.2000	10.7	10.0	7.4	20.0
Hexachlorobutadiene	Ave	0.2677	0.3159	0.0100	11.8	10.0	18.0	20.0
Naphthalene	Ave	1.428	1.438	0.0100	10.1	10.0	0.7	20.0
1,2,3-Trichlorobenzene	Ave	0.4498	0.4840	0.0100	10.8	10.0	7.6	20.0
2,4,5-Trichlorotoluene	Ave	0.1623	0.1380	0.0100	8.50	10.0	-15.0	20.0
2,3,6-Trichlorotoluene	Ave	0.1496	0.1483	0.0100	9.91	10.0	-0.9	20.0
Dibromofluoromethane (Surr)	Ave	0.2455	0.2234		9.10	10.0	-9.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3373	0.3281		9.73	10.0	-2.7	20.0
Toluene-d8 (Surr)	Ave	3.857	3.908		10.1	10.0	1.3	20.0
4-Bromofluorobenzene (Surr)	Ave	1.455	1.449		9.96	10.0	-0.4	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\50924002.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 24-Sep-2015 11:05:30 ALS Bottle#: 2 Worklist Smp#: 2  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: CCVIS  
 Misc. Info.: 180-0008665-002  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub11  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 24-Sep-2015 13:48:25 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: XAWRK003

First Level Reviewer: fergusond

Date: 24-Sep-2015 13:48:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.286	4.286	0.000	0	159608	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.285	7.285	0.000	98	388764	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.388	0.000	89	88837	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.730	0.000	94	146526	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.555	6.555	0.000	93	86860	50.0	45.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.933	0.000	0	127570	50.0	48.6	
\$ 7 Toluene-d8 (Surr)	98	8.934	8.934	0.000	95	347179	50.0	50.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.568	11.568	0.000	87	128730	50.0	49.8	
11 Dichlorodifluoromethane	85	1.597	1.597	0.000	98	138409	50.0	63.0	
12 Chloromethane	50	1.768	1.768	0.000	99	203388	50.0	63.1	
13 Vinyl chloride	62	1.908	1.908	0.000	98	160861	50.0	56.2	
14 Butadiene	39	1.938	1.938	0.000	98	232362	50.0	68.8	
15 Bromomethane	94	2.236	2.236	0.000	91	47088	50.0	40.5	
16 Chloroethane	64	2.382	2.382	0.000	98	93372	50.0	54.1	
17 Dichlorofluoromethane	67	2.662	2.662	0.000	97	185711	50.0	50.7	
18 Trichlorofluoromethane	101	2.692	2.692	0.000	97	140769	50.0	51.4	M
20 Ethyl ether	59	3.045	3.045	0.000	96	130535	50.0	51.4	
21 Acrolein	56	3.222	3.222	0.000	96	46938	150.0	124.1	
22 1,1-Dichloroethene	96	3.337	3.337	0.000	95	104421	50.0	48.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.422	3.422	0.000	93	116928	50.0	51.0	
24 Acetone	43	3.447	3.447	0.000	97	112999	100.0	144.1	
25 Iodomethane	142	3.532	3.532	0.000	99	154321	50.0	47.8	
26 Carbon disulfide	76	3.629	3.629	0.000	100	285420	50.0	56.8	
28 3-Chloro-1-propene	76	3.909	3.909	0.000	87	55103	50.0	44.9	
30 Methyl acetate	43	3.940	3.940	0.000	100	681802	250.0	290.9	
31 Methylene Chloride	84	4.134	4.134	0.000	94	131665	50.0	52.0	
32 2-Methyl-2-propanol	59	4.408	4.408	0.000	87	92582	500.0	515.4	
33 Acrylonitrile	53	4.517	4.517	0.000	99	649393	500.0	571.0	
34 trans-1,2-Dichloroethene	96	4.554	4.554	0.000	95	110871	50.0	47.2	
35 Methyl tert-butyl ether	73	4.578	4.578	0.000	94	256670	50.0	47.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.980	4.980	0.000	94	207566	50.0	52.6	
37 1,1-Dichloroethane	63	5.199	5.199	0.000	96	235705	50.0	50.9	
38 Vinyl acetate	43	5.248	5.248	0.000	97	241719	50.0	69.6	
44 2,2-Dichloropropane	77	5.941	5.941	0.000	60	85838	50.0	46.2	
45 cis-1,2-Dichloroethene	96	5.947	5.947	0.000	86	112563	50.0	44.8	
46 2-Butanone (MEK)	43	5.959	5.959	0.000	92	150414	100.0	127.6	
49 Chlorobromomethane	128	6.233	6.233	0.000	87	50471	50.0	45.8	
51 Tetrahydrofuran	42	6.251	6.251	0.000	92	97905	100.0	103.6	
52 Chloroform	83	6.379	6.379	0.000	97	192126	50.0	48.0	
53 1,1,1-Trichloroethane	97	6.537	6.537	0.000	94	143031	50.0	48.3	
54 Cyclohexane	56	6.610	6.610	0.000	97	255439	50.0	51.6	
56 Carbon tetrachloride	117	6.714	6.714	0.000	97	124445	50.0	49.4	
55 1,1-Dichloropropene	75	6.726	6.726	0.000	88	164251	50.0	50.2	
57 Isobutyl alcohol	41	6.927	6.927	0.000	88	116925	1250.0	1579.3	
58 Benzene	78	6.939	6.939	0.000	98	482787	50.0	50.4	
59 1,2-Dichloroethane	62	7.018	7.018	0.000	95	163186	50.0	49.2	
62 n-Heptane	43	7.304	7.304	0.000	96	206555	50.0	57.6	
64 Trichloroethene	130	7.675	7.675	0.000	97	108096	50.0	46.1	
66 Methylcyclohexane	83	7.918	7.918	0.000	96	176695	50.0	47.8	
67 1,2-Dichloropropane	63	7.949	7.949	0.000	95	127899	50.0	50.8	
68 Dibromomethane	93	8.034	8.034	0.000	94	57439	50.0	45.0	
70 1,4-Dioxane	88	8.040	8.040	0.000	42	20441	1000.0	1178.7	
71 Dichlorobromomethane	83	8.228	8.228	0.000	97	125237	50.0	49.6	
73 2-Chloroethyl vinyl ether	63	8.526	8.526	0.000	89	125626	100.0	97.8	
74 cis-1,3-Dichloropropene	75	8.673	8.673	0.000	87	142188	50.0	48.0	
75 4-Methyl-2-pentanone (MIBK)	43	8.825	8.825	0.000	99	210032	100.0	96.0	
76 Toluene	91	9.001	9.001	0.000	97	463826	50.0	52.7	
77 trans-1,3-Dichloropropene	75	9.250	9.250	0.000	94	115840	50.0	50.5	
78 Ethyl methacrylate	69	9.311	9.311	0.000	94	107346	50.0	48.4	
79 1,1,2-Trichloroethane	97	9.445	9.445	0.000	95	86072	50.0	51.4	
80 Tetrachloroethene	164	9.518	9.518	0.000	97	93778	50.0	54.9	
81 1,3-Dichloropropane	76	9.603	9.603	0.000	94	159716	50.0	51.4	
82 2-Hexanone	43	9.652	9.652	0.000	98	164803	100.0	104.3	
84 Chlorodibromomethane	129	9.816	9.816	0.000	90	76628	50.0	52.9	
85 Ethylene Dibromide	107	9.932	9.932	0.000	99	83090	50.0	51.5	
86 3-Chlorobenzotrifluoride	180	10.388	10.388	0.000	83	149010	50.0	52.7	
87 Chlorobenzene	112	10.418	10.418	0.000	92	285376	50.0	50.4	
88 4-Chlorobenzotrifluoride	180	10.473	10.473	0.000	95	139991	50.0	52.4	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.510	0.000	90	93802	50.0	50.8	
90 Ethylbenzene	106	10.516	10.516	0.000	98	160830	50.0	53.6	
91 m-Xylene & p-Xylene	106	10.644	10.644	0.000	0	196784	50.0	53.5	
92 o-Xylene	106	11.027	11.027	0.000	98	186840	50.0	53.4	
93 Styrene	104	11.051	11.051	0.000	96	330916	50.0	57.1	
94 Bromoform	173	11.228	11.228	0.000	95	44607	50.0	54.0	
96 2-Chlorobenzotrifluoride	180	11.301	11.301	0.000	97	147069	50.0	52.9	
97 Isopropylbenzene	105	11.398	11.398	0.000	97	472879	50.0	55.2	
99 1,1,2,2-Tetrachloroethane	83	11.708	11.708	0.000	79	124092	50.0	55.0	
100 Bromobenzene	156	11.708	11.708	0.000	95	121217	50.0	48.2	
102 trans-1,4-Dichloro-2-buten	53	11.751	11.751	0.000	64	22249	50.0	24.5	
101 1,2,3-Trichloropropane	110	11.763	11.763	0.000	92	40366	50.0	48.7	
103 N-Propylbenzene	120	11.812	11.812	0.000	99	133997	50.0	46.5	
104 2-Chlorotoluene	126	11.897	11.897	0.000	95	113008	50.0	46.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.964	11.964	0.000	96	113741	50.0	45.2	
106 1,3,5-Trimethylbenzene	105	11.994	11.994	0.000	95	414675	50.0	51.0	
107 4-Chlorotoluene	126	12.024	12.024	0.000	98	127960	50.0	47.5	
108 tert-Butylbenzene	119	12.310	12.310	0.000	96	315469	50.0	47.7	
110 1,2,4-Trimethylbenzene	105	12.365	12.365	0.000	98	418827	50.0	51.4	
111 1,2-dichloro-4-(trifluorom	214	12.408	12.408	0.000	97	111655	50.0	49.1	
112 sec-Butylbenzene	105	12.529	12.529	0.000	95	473584	50.0	50.7	
113 1,3-Dichlorobenzene	146	12.645	12.645	0.000	98	227017	50.0	50.7	
114 4-Isopropyltoluene	119	12.688	12.688	0.000	97	385863	50.0	48.8	
115 1,4-Dichlorobenzene	146	12.755	12.755	0.000	96	237419	50.0	51.0	
116 2,4-Dichloro-1-(trifluorom	214	12.779	12.779	0.000	95	102275	50.0	48.6	
118 2,5-Dichlorobenzotrifluori	214	12.821	12.821	0.000	0	118225	50.0	52.0	
120 n-Butylbenzene	91	13.095	13.095	0.000	98	324845	50.0	48.1	
121 1,2-Dichlorobenzene	146	13.107	13.107	0.000	95	213202	50.0	50.9	
122 1,2-Dibromo-3-Chloropropan	75	13.898	13.898	0.000	74	17966	50.0	52.3	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.044	14.044	0.000	0	352467	150.0	147.5	
124 1,3,5-Trichlorobenzene	180	14.087	14.087	0.000	96	126363	50.0	45.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.458	14.458	0.000	0	222384	100.0	97.6	
126 1,2,4-Trichlorobenzene	180	14.726	14.726	0.000	95	87431	50.0	53.7	
127 Hexachlorobutadiene	225	14.872	14.872	0.000	96	46283	50.0	59.0	
128 Naphthalene	128	14.987	14.987	0.000	98	210744	50.0	50.4	
129 1,2,3-Trichlorobenzene	180	15.212	15.212	0.000	94	70925	50.0	53.8	
131 2,4,5-Trichlorotoluene	159	15.991	15.991	0.000	0	20216	50.0	42.5	
130 2,3,6-Trichlorotoluene	159	16.088	16.088	0.000	96	21734	50.0	49.6	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	106.9	
S 134 1,2-Dichloroethene, Total	96				0		100.0	92.0	
S 135 1,3-Dichloropropene, Total	1				0		100.0	98.5	

### 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	
VOA8260VOAPRI_00145	Amount Added: 2.00	Units: uL	
VOAVAPRI_00007	Amount Added: 2.00	Units: uL	
voaW2-cle2ndR_00005	Amount Added: 2.00	Units: uL	
voaEE2Restek_00001	Amount Added: 2.00	Units: uL	
voaW135tcbRes_00003	Amount Added: 2.00	Units: uL	
VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\50924002.D

Injection Date: 24-Sep-2015 11:05:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

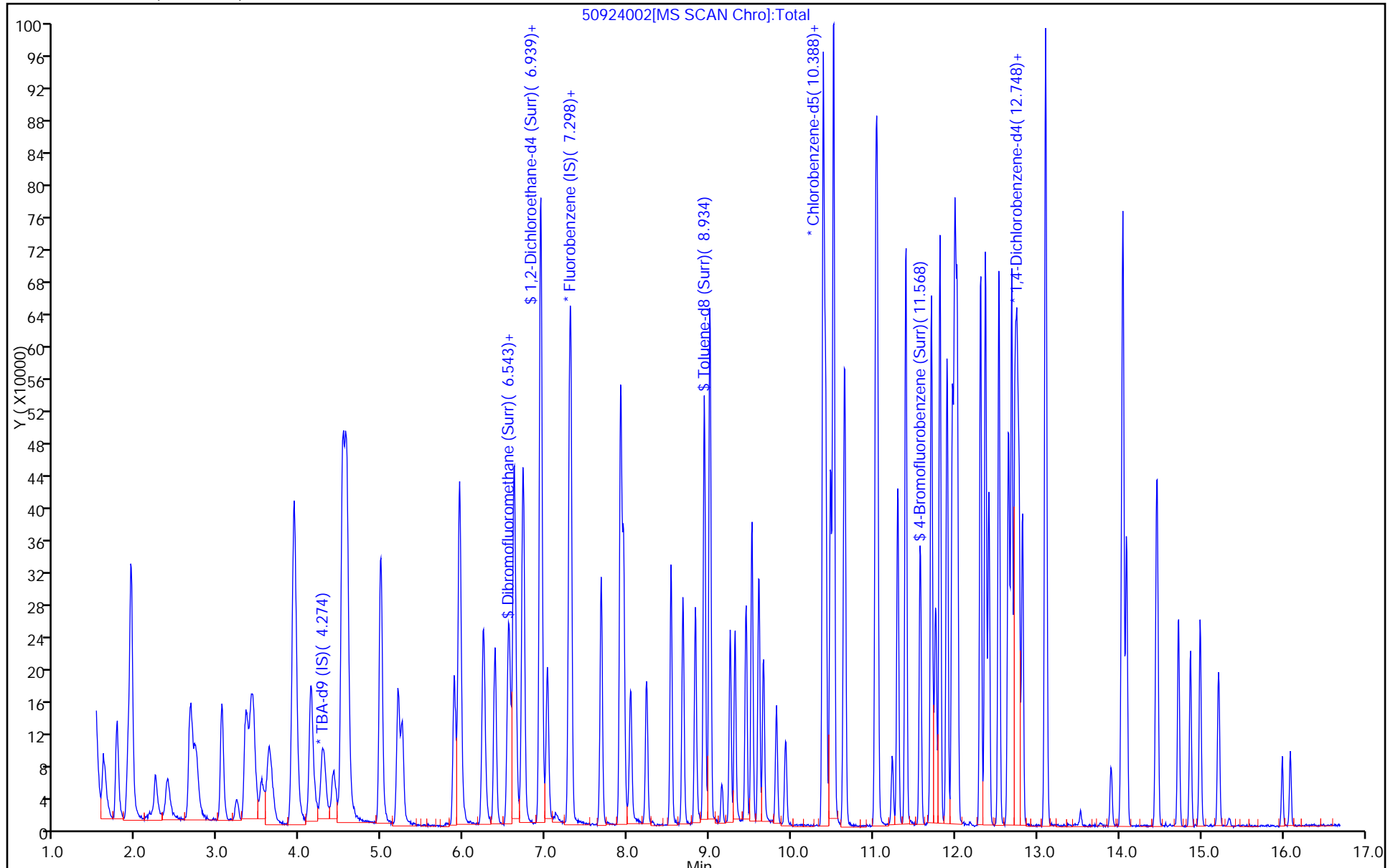
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



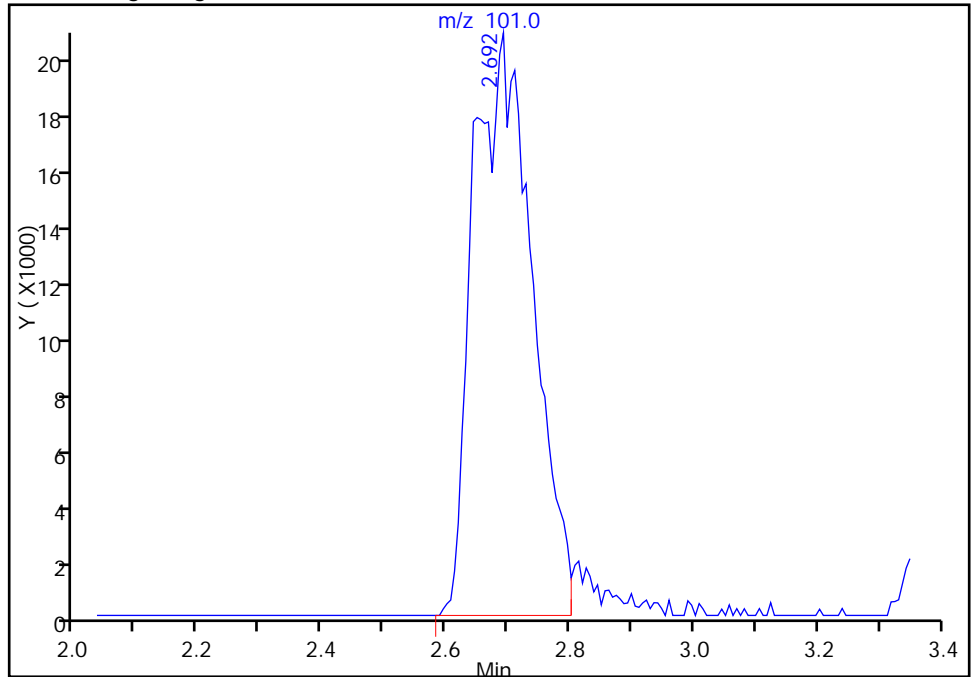
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\50924002.D  
Injection Date: 24-Sep-2015 11:05:30 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

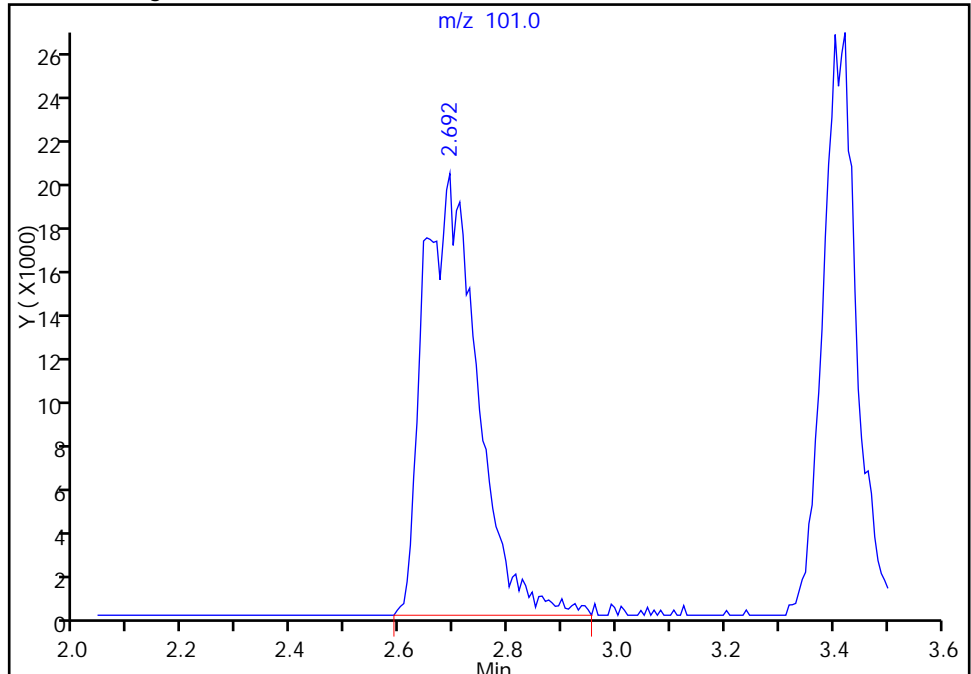
RT: 2.69  
Area: 134159  
Amount: 48.979398  
Amount Units: ng

Processing Integration Results



RT: 2.69  
Area: 140769  
Amount: 51.392607  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 24-Sep-2015 11:28:40  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration



FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-154553/2 Calibration Date: 09/23/2015 11:04  
 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: 60923002.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	0.2818	0.1000	8.14	10.0	-18.6	20.0
Chloromethane	Ave	0.2984	0.3190	0.1000	10.7	10.0	6.9	20.0
Vinyl chloride	Ave	0.3214	0.3044	0.1000	9.47	10.0	-5.3	20.0
1,3-Butadiene	Ave	0.3013	0.3102	0.0100	10.3	10.0	3.0	20.0
Bromomethane	Ave	0.1735	0.1511	0.0500	8.70	10.0	-13.0	20.0
Chloroethane	Ave	0.2194	0.1938	0.0500	8.83	10.0	-11.7	20.0
Dichlorofluoromethane	Ave	0.5106	0.4424	0.0100	8.66	10.0	-13.4	20.0
Trichlorofluoromethane	Ave	0.4072	0.3643	0.1000	8.95	10.0	-10.5	20.0
Ethyl ether	Ave	0.2886	0.2636	0.0100	9.13	10.0	-8.7	20.0
Acrolein	Ave	0.0315	0.0256	0.0100	24.4	30.0	-18.6	20.0
1,1-Dichloroethene	Ave	0.2517	0.2258	0.1000	8.97	10.0	-10.3	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2657	0.2642	0.1000	9.94	10.0	-0.6	20.0
Acetone	Ave	0.0885	0.1045	0.0500	23.6	20.0	18.1	20.0
Iodomethane	Ave	0.3379	0.3483	0.0100	10.3	10.0	3.1	20.0
Carbon disulfide	Ave	0.6522	0.5374	0.1000	8.24	10.0	-17.6	20.0
Allyl chloride	Ave	0.1419	0.1208	0.0100	8.51	10.0	-14.9	20.0
Methyl acetate	Ave	0.2074	0.2187	0.1000	52.7	50.0	5.5	20.0
Methylene Chloride	Lin2		0.3227	0.1000	9.17	10.0	-8.3	20.0
tert-Butyl alcohol	Ave	1.125	1.140	0.0100	101	100	1.3	20.0
Acrylonitrile	Ave	0.1046	0.1097	0.0100	105	100	4.9	20.0
Methyl tert-butyl ether	Ave	0.8703	0.7377	0.1000	8.48	10.0	-15.2	20.0
trans-1,2-Dichloroethene	Ave	0.2905	0.2667	0.1000	9.18	10.0	-8.2	20.0
Hexane	Ave	0.3936	0.3698	0.0100	9.39	10.0	-6.1	20.0
1,1-Dichloroethane	Ave	0.5200	0.5090	0.2000	9.79	10.0	-2.1	20.0
Vinyl acetate	Ave	0.4197	0.4423	0.0100	10.5	10.0	5.4	20.0
2,2-Dichloropropane	Ave	0.2629	0.2263	0.0100	8.61	10.0	-13.9	20.0
cis-1,2-Dichloroethene	Ave	0.3158	0.2813	0.1000	8.91	10.0	-10.9	20.0
2-Butanone (MEK)	Ave	0.1207	0.1402	0.0500	23.2	20.0	16.1	20.0
Bromochloromethane	Ave	0.1269	0.1416	0.0100	11.2	10.0	11.6	20.0
Chloroform	Ave	0.5161	0.4951	0.2000	9.59	10.0	-4.1	20.0
1,1,1-Trichloroethane	Ave	0.3814	0.3590	0.1000	9.41	10.0	-5.9	20.0
Cyclohexane	Ave	0.4886	0.4569	0.1000	9.35	10.0	-6.5	20.0
Tetrahydrofuran	Ave	0.0813	0.0651	0.0100	16.0	20.0	-20.0	20.0
Carbon tetrachloride	Ave	0.2694	0.2906	0.1000	10.8	10.0	7.9	20.0
1,1-Dichloropropene	Ave	0.4102	0.3777	0.0100	9.21	10.0	-7.9	20.0
Isobutyl alcohol	Ave	0.0072	0.0079*	0.0100	272	250	8.8	20.0
Benzene	Ave	1.165	1.168	0.5000	10.0	10.0	0.2	20.0
1,2-Dichloroethane	Ave	0.4694	0.4776	0.1000	10.2	10.0	1.8	20.0
n-Heptane	Ave	0.3168	0.3690	0.0100	11.6	10.0	16.5	20.0
Trichloroethene	Ave	0.2430	0.2688	0.2000	11.1	10.0	10.6	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-154553/2 Calibration Date: 09/23/2015 11:04  
 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: 60923002.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	0.4304	0.1000	8.73	10.0	-12.7	20.0
1,2-Dichloropropane	Ave	0.2784	0.3068	0.1000	11.0	10.0	10.2	20.0
1,4-Dioxane	Ave	0.0027	0.0027*	0.0100	193	200	-3.4	20.0
Dibromomethane	Ave	0.1690	0.1806	0.0100	10.7	10.0	6.8	20.0
Bromodichloromethane	Ave	0.3176	0.3174	0.2000	9.99	10.0	-0.0	20.0
cis-1,3-Dichloropropene	Ave	0.3489	0.3636	0.2000	10.4	10.0	4.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.028	0.9707	0.1000	18.9	20.0	-5.6	20.0
Toluene	Ave	5.159	5.105	0.4000	9.89	10.0	-1.1	20.0
trans-1,3-Dichloropropene	Ave	1.310	1.246	0.1000	9.51	10.0	-4.9	20.0
Ethyl methacrylate	Ave	1.391	1.228	0.0100	8.83	10.0	-11.7	20.0
1,1,2-Trichloroethane	Ave	1.067	1.080	0.1000	10.1	10.0	1.2	20.0
Tetrachloroethene	Ave	0.8800	0.9385	0.2000	10.7	10.0	6.7	20.0
1,3-Dichloropropane	Ave	1.971	1.983	0.0100	10.1	10.0	0.6	20.0
2-Hexanone	Ave	0.6750	0.7323	0.1000	21.7	20.0	8.5	20.0
Dibromochloromethane	Ave	0.7283	0.8237	0.1000	11.3	10.0	13.1	20.0
1,2-Dibromoethane (EDB)	Ave	0.9442	0.9686	0.1000	10.3	10.0	2.6	20.0
3-Chlorobenzotrifluoride	Ave	1.652	1.707	0.0100	10.3	10.0	3.3	20.0
Chlorobenzene	Ave	3.171	3.306	0.5000	10.4	10.0	4.3	20.0
4-Chlorobenzotrifluoride	Ave	1.531	1.613	0.0100	10.5	10.0	5.3	20.0
1,1,1,2-Tetrachloroethane	Ave	0.8691	0.9505	0.0100	10.9	10.0	9.4	20.0
Ethylbenzene	Ave	1.789	1.719	0.1000	9.61	10.0	-3.9	20.0
m-Xylene & p-Xylene	Ave	2.220	2.225	0.1000	10.0	10.0	0.2	20.0
o-Xylene	Ave	2.221	2.064	0.3000	9.29	10.0	-7.1	20.0
Styrene	Ave	3.411	3.552	0.3000	10.4	10.0	4.2	20.0
Bromoform	Ave	0.3887	0.4422	0.1000	11.4	10.0	13.7	20.0
2-Chlorobenzotrifluoride	Ave	1.692	1.757	0.0100	10.4	10.0	3.8	20.0
Isopropylbenzene	Ave	5.314	5.258	0.1000	9.89	10.0	-1.1	20.0
1,1,2,2-Tetrachloroethane	Ave	1.428	1.326	0.3000	9.29	10.0	-7.1	20.0
Bromobenzene	Ave	0.8038	0.7535	0.0100	9.37	10.0	-6.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2549	0.2024	0.0100	7.94	10.0	-20.6*	20.0
1,2,3-Trichloropropane	Ave	0.3057	0.2578	0.0100	8.43	10.0	-15.7	20.0
N-Propylbenzene	Ave	0.9257	0.8091	0.0100	8.74	10.0	-12.6	20.0
2-Chlorotoluene	Ave	0.7686	0.7107	0.0100	9.25	10.0	-7.5	20.0
3-Chlorotoluene	Ave	0.8072	0.7482	0.0100	9.27	10.0	-7.3	20.0
1,3,5-Trimethylbenzene	Ave	3.010	2.626	0.0100	8.72	10.0	-12.8	20.0
4-Chlorotoluene	Ave	0.8119	0.8025	0.0100	9.88	10.0	-1.2	20.0
tert-Butylbenzene	Ave	2.378	1.945	0.0100	8.18	10.0	-18.2	20.0
1,2,4-Trimethylbenzene	Ave	3.078	2.671	0.0100	8.68	10.0	-13.2	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8719	0.7973	0.0100	9.14	10.0	-8.6	20.0
sec-Butylbenzene	Ave	3.550	3.085	0.0100	8.69	10.0	-13.1	20.0
1,3-Dichlorobenzene	Ave	1.570	1.449	0.6000	9.23	10.0	-7.7	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-154553/2 Calibration Date: 09/23/2015 11:04  
 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: 60923002.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	2.567	0.0100	8.62	10.0	-13.8	20.0
1,4-Dichlorobenzene	Ave	1.605	1.569	0.5000	9.78	10.0	-2.2	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.8674	0.7531	0.0100	8.68	10.0	-13.2	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.9687	0.9204	0.0100	9.50	10.0	-5.0	20.0
n-Butylbenzene	Ave	2.974	2.356	0.0100	7.92	10.0	-20.8*	20.0
1,2-Dichlorobenzene	Ave	1.585	1.452	0.4000	9.16	10.0	-8.4	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1454	0.1034	0.0500	7.12	10.0	-28.8*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.380	1.180	0.0100	25.7	30.0	-14.5	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.522	1.285	0.0100	16.9	20.0	-15.6	20.0
1,2,4-Trichlorobenzene	Ave	1.229	1.062	0.2000	8.65	10.0	-13.5	20.0
Hexachlorobutadiene	Ave	0.4839	0.4507	0.0100	9.31	10.0	-6.9	20.0
Naphthalene	Ave	2.479	2.041	0.0100	8.23	10.0	-17.7	20.0
1,2,3-Trichlorobenzene	Ave	1.150	0.9341	0.0100	8.13	10.0	-18.7	20.0
2,4,5-Trichlorotoluene	Ave	0.7719	0.5125	0.0100	6.64	10.0	-33.6*	20.0
2,3,6-Trichlorotoluene	Ave	0.7323	0.5357	0.0100	7.32	10.0	-26.8*	20.0
Dibromofluoromethane (Surr)	Ave	0.2303	0.2296		9.97	10.0	-0.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3715	0.3735		10.1	10.0	0.5	20.0
Toluene-d8 (Surr)	Ave	3.944	3.902		9.89	10.0	-1.1	20.0
4-Bromofluorobenzene (Surr)	Ave	1.751	1.591		9.09	10.0	-9.1	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923002.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 23-Sep-2015 11:04:30 ALS Bottle#: 2 Worklist Smp#: 2  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: CCVIS  
 Misc. Info.: 180-0008638-002  
 Operator ID: 001562 Instrument ID: CHHP6  
 Sublist: chrom-MSVOA\_LL\_CHHP6\*sub10  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 23-Sep-2015 12:34:30 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: XAWRK005

First Level Reviewer: fergusond

Date: 23-Sep-2015 11:36:02

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	4.236	0.000	88	154606	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.284	7.284	0.000	97	462910	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	90	107940	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.747	0.000	93	198533	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.548	6.548	0.000	92	106283	50.0	49.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.925	6.925	0.000	70	172908	50.0	50.3	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	421205	50.0	49.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.585	0.000	84	171771	50.0	45.4	
11 Dichlorodifluoromethane	85	1.602	1.602	0.000	98	130424	50.0	40.7	
12 Chloromethane	50	1.760	1.760	0.000	99	147682	50.0	53.5	
13 Vinyl chloride	62	1.900	1.900	0.000	98	140888	50.0	47.3	
14 Butadiene	39	1.930	1.930	0.000	96	143595	50.0	51.5	
15 Bromomethane	94	2.222	2.222	0.000	92	69922	50.0	43.5	
16 Chloroethane	64	2.374	2.374	0.000	99	89716	50.0	44.2	
17 Dichlorofluoromethane	67	2.654	2.654	0.000	98	204801	50.0	43.3	
18 Trichlorofluoromethane	101	2.672	2.672	0.000	97	168637	50.0	44.7	
20 Ethyl ether	59	3.044	3.044	0.000	93	122001	50.0	45.7	
21 Acrolein	56	3.214	3.214	0.000	99	35566	150.0	122.0	
22 1,1-Dichloroethene	96	3.336	3.336	0.000	95	104506	50.0	44.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.396	3.396	0.000	93	122286	50.0	49.7	
24 Acetone	43	3.415	3.415	0.000	100	96703	100.0	118.1	
25 Iodomethane	142	3.536	3.536	0.000	99	161220	50.0	51.5	
26 Carbon disulfide	76	3.634	3.634	0.000	100	248784	50.0	41.2	
29 3-Chloro-1-propene	76	3.913	3.913	0.000	85	55910	50.0	42.6	
30 Methyl acetate	43	3.926	3.926	0.000	97	506291	250.0	263.6	
31 Methylene Chloride	84	4.126	4.126	0.000	97	149377	50.0	45.9	
32 2-Methyl-2-propanol	59	4.364	4.364	0.000	87	88125	500.0	506.5	
33 Acrylonitrile	53	4.497	4.497	0.000	98	507738	500.0	524.5	
35 Methyl tert-butyl ether	73	4.564	4.564	0.000	96	341480	50.0	42.4	
34 trans-1,2-Dichloroethene	96	4.564	4.564	0.000	93	123467	50.0	45.9	

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	95	171167	50.0	47.0	
37 1,1-Dichloroethane	63	5.197	5.197	0.000	97	235634	50.0	48.9	
38 Vinyl acetate	43	5.240	5.240	0.000	98	204729	50.0	52.7	
42 2,2-Dichloropropane	77	5.939	5.939	0.000	60	104735	50.0	43.0	
43 cis-1,2-Dichloroethene	96	5.939	5.939	0.000	86	130227	50.0	44.5	
44 2-Butanone (MEK)	43	5.945	5.945	0.000	69	129795	100.0	116.1	
48 Chlorobromomethane	128	6.225	6.225	0.000	96	65558	50.0	55.8	
50 Chloroform	83	6.377	6.377	0.000	96	229195	50.0	48.0	
51 1,1,1-Trichloroethane	97	6.535	6.535	0.000	97	166161	50.0	47.1	
52 Cyclohexane	56	6.615	6.615	0.000	95	211512	50.0	46.8	
49 Tetrahydrofuran	42	6.615	6.615	0.000	49	60225	100.0	80.0	
53 Carbon tetrachloride	117	6.712	6.712	0.000	80	134513	50.0	53.9	
54 1,1-Dichloropropene	75	6.724	6.724	0.000	91	174826	50.0	46.0	
55 Isobutyl alcohol	41	6.894	6.894	0.000	87	91064	1250.0	1359.7	
56 Benzene	78	6.937	6.937	0.000	98	540750	50.0	50.1	
57 1,2-Dichloroethane	62	7.010	7.010	0.000	98	221075	50.0	50.9	
59 n-Heptane	43	7.308	7.308	0.000	90	170817	50.0	58.2	
61 Trichloroethene	130	7.673	7.673	0.000	96	124407	50.0	55.3	
63 Methylcyclohexane	83	7.922	7.922	0.000	92	199240	50.0	43.6	
64 1,2-Dichloropropane	63	7.953	7.953	0.000	94	142033	50.0	55.1	
65 1,4-Dioxane	88	8.032	8.032	0.000	39	24574	1000.0	966.0	M
67 Dibromomethane	93	8.038	8.038	0.000	95	83584	50.0	53.4	
68 Dichlorobromomethane	83	8.227	8.227	0.000	97	146943	50.0	50.0	
70 2-Chloroethyl vinyl ether	63	8.531	8.531	0.000	95	149436	100.0	87.6	
71 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	89	168317	50.0	52.1	
72 4-Methyl-2-pentanone (MIBK)	43	8.823	8.823	0.000	97	209564	100.0	94.4	
73 Toluene	91	9.011	9.011	0.000	98	550994	50.0	49.5	
74 trans-1,3-Dichloropropene	75	9.255	9.255	0.000	99	134455	50.0	47.6	
75 Ethyl methacrylate	69	9.316	9.316	0.000	89	132533	50.0	44.1	
76 1,1,2-Trichloroethane	97	9.443	9.443	0.000	96	116538	50.0	50.6	
77 Tetrachloroethene	164	9.529	9.529	0.000	94	101303	50.0	53.3	
78 1,3-Dichloropropane	76	9.608	9.608	0.000	96	214033	50.0	50.3	
79 2-Hexanone	43	9.662	9.662	0.000	98	158081	100.0	108.5	
81 Chlorodibromomethane	129	9.827	9.827	0.000	90	88911	50.0	56.6	
82 Ethylene Dibromide	107	9.942	9.942	0.000	100	104545	50.0	51.3	
83 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	92	184227	50.0	51.7	
84 Chlorobenzene	112	10.429	10.429	0.000	92	356873	50.0	52.1	
85 4-Chlorobenzotrifluoride	180	10.484	10.484	0.000	96	174089	50.0	52.7	
86 1,1,1,2-Tetrachloroethane	131	10.520	10.520	0.000	89	102596	50.0	54.7	
87 Ethylbenzene	106	10.526	10.526	0.000	99	185525	50.0	48.0	
88 m-Xylene & p-Xylene	106	10.660	10.660	0.000	99	240198	50.0	50.1	
89 o-Xylene	106	11.037	11.037	0.000	97	222781	50.0	46.5	
90 Styrene	104	11.062	11.062	0.000	95	383453	50.0	52.1	
91 Bromoform	173	11.244	11.244	0.000	93	47726	50.0	56.9	
92 2-Chlorobenzotrifluoride	180	11.299	11.299	0.000	96	189621	50.0	51.9	
93 Isopropylbenzene	105	11.408	11.408	0.000	98	567594	50.0	49.5	
96 1,1,2,2-Tetrachloroethane	83	11.712	11.712	0.000	96	143153	50.0	46.5	
95 Bromobenzene	156	11.725	11.725	0.000	98	149588	50.0	46.9	
97 trans-1,4-Dichloro-2-buten	53	11.749	11.749	0.000	62	40174	50.0	39.7	
98 1,2,3-Trichloropropane	110	11.773	11.773	0.000	86	51177	50.0	42.2	
99 N-Propylbenzene	120	11.828	11.828	0.000	99	160626	50.0	43.7	
100 2-Chlorotoluene	126	11.913	11.913	0.000	94	141103	50.0	46.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
101 3-Chlorotoluene	126	11.980	11.980	0.000	97	148535	50.0	46.3	
102 1,3,5-Trimethylbenzene	105	12.011	12.011	0.000	95	521297	50.0	43.6	
103 4-Chlorotoluene	126	12.035	12.035	0.000	99	159313	50.0	49.4	
104 tert-Butylbenzene	119	12.327	12.327	0.000	93	386132	50.0	40.9	
106 1,2,4-Trimethylbenzene	105	12.382	12.382	0.000	99	530369	50.0	43.4	
107 1,2-dichloro-4-(trifluorom	214	12.418	12.418	0.000	97	158280	50.0	45.7	
108 sec-Butylbenzene	105	12.546	12.546	0.000	96	612566	50.0	43.5	
109 1,3-Dichlorobenzene	146	12.668	12.668	0.000	95	287588	50.0	46.1	
110 4-Isopropyltoluene	119	12.704	12.704	0.000	95	509579	50.0	43.1	
111 1,4-Dichlorobenzene	146	12.771	12.771	0.000	91	311528	50.0	48.9	
113 2,4-Dichloro-1-(trifluorom	214	12.789	12.789	0.000	94	149512	50.0	43.4	
114 2,5-Dichlorobenzotrifluori	214	12.832	12.832	0.000	98	182733	50.0	47.5	
116 n-Butylbenzene	91	13.112	13.112	0.000	98	467752	50.0	39.6	
117 1,2-Dichlorobenzene	146	13.124	13.124	0.000	94	288294	50.0	45.8	
118 1,2-Dibromo-3-Chloropropan	75	13.915	13.915	0.000	72	20537	50.0	35.6	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.061	14.061	0.000	99	702644	150.0	128.3	
121 2,3- & 3,4- Dichlorotoluen	125	14.474	14.474	0.000	99	510395	100.0	84.4	
122 1,2,4-Trichlorobenzene	180	14.742	14.742	0.000	94	210912	50.0	43.2	
123 Hexachlorobutadiene	225	14.888	14.888	0.000	96	89483	50.0	46.6	
124 Naphthalene	128	15.010	15.010	0.000	98	405200	50.0	41.2	
125 1,2,3-Trichlorobenzene	180	15.229	15.229	0.000	94	185452	50.0	40.6	
126 2,4,5-Trichlorotoluene	159	16.007	16.007	0.000	0	101751	50.0	33.2	
127 2,3,6-Trichlorotoluene	159	16.111	16.111	0.000	93	106356	50.0	36.6	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-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 131 Xylenes, Total	106				0		100.0	96.6	
S 130 1,2-Dichloroethene, Total	96				0		100.0	90.4	
S 132 1,3-Dichloropropene, Total	1				0		100.0	99.7	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

#### Review Flags

M - Manually Integrated

### Reagents:

VOA8260VOAPRI_00144	Amount Added: 2.00	Units: uL	
voaWKet1stRes_00001	Amount Added: 2.00	Units: uL	
VOAVAPRI_00007	Amount Added: 2.00	Units: uL	
voaW2-cle2ndR_00005	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
voaEE2Restek_00001	Amount Added: 2.00	Units: uL	
VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923002.D

Injection Date: 23-Sep-2015 11:04:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

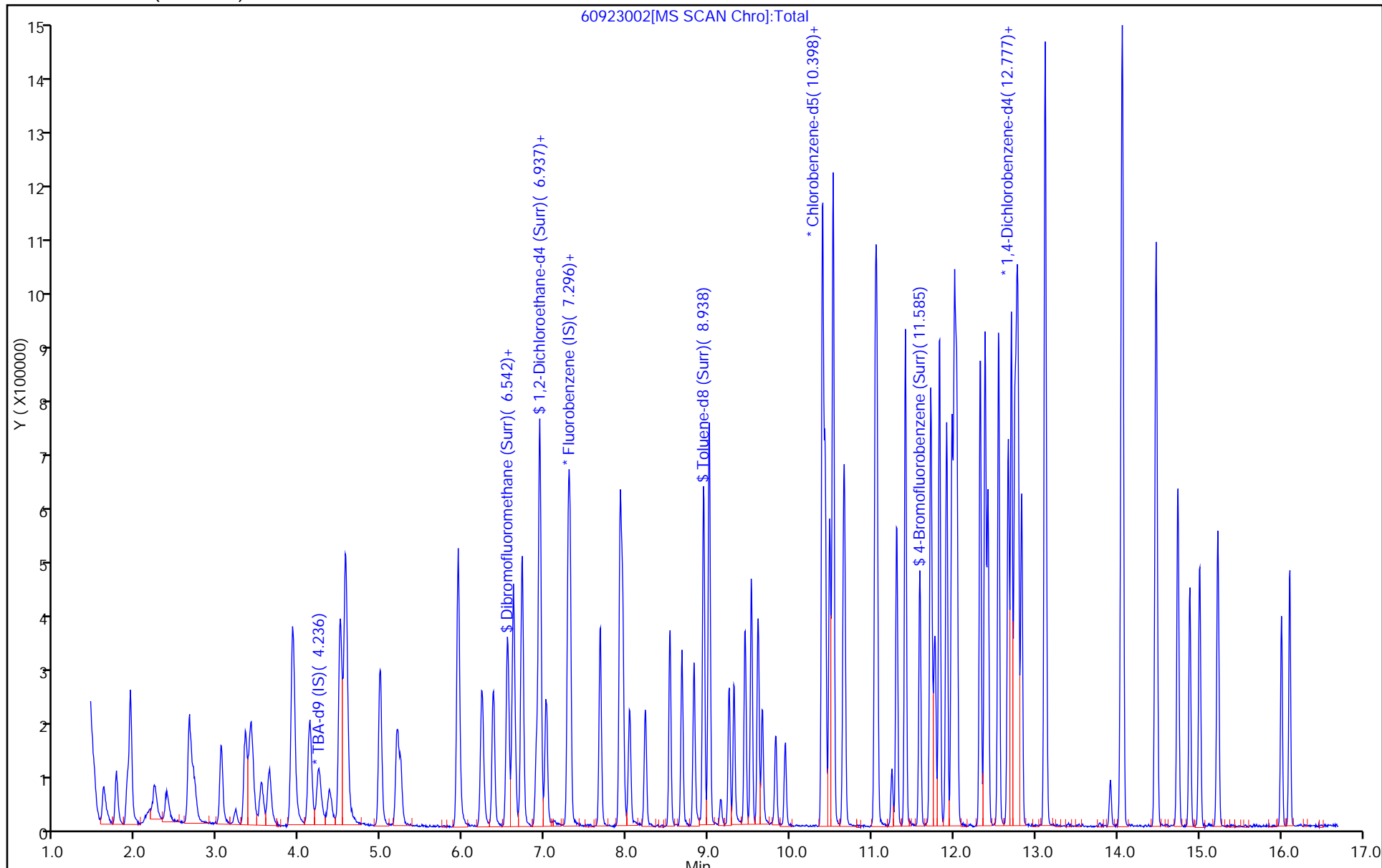
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



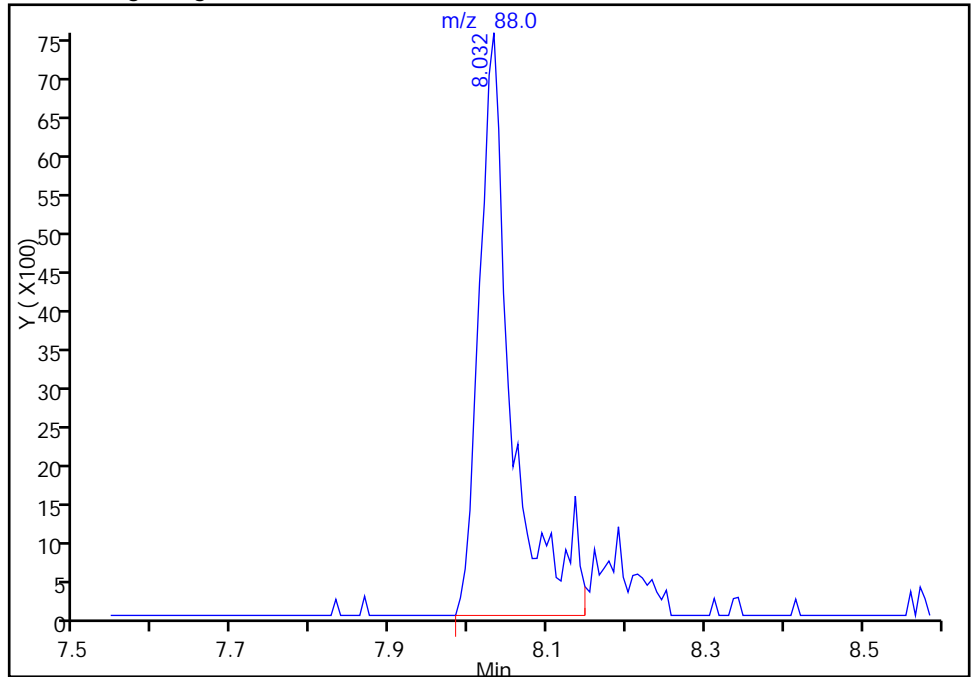
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923002.D  
Injection Date: 23-Sep-2015 11:04:30 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

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

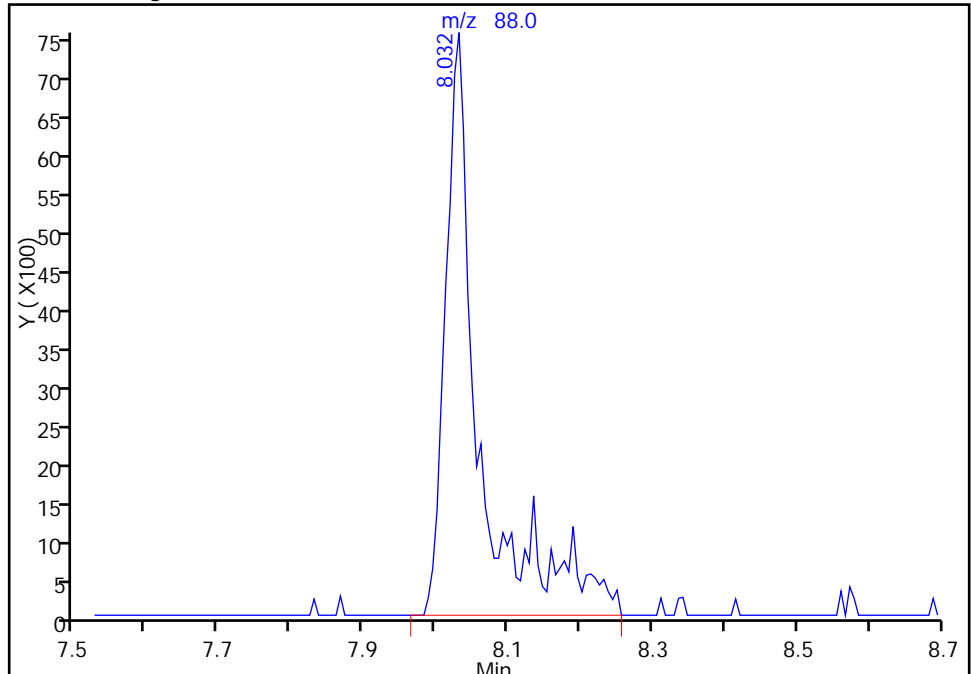
RT: 8.03  
Area: 21398  
Amount: 841.1146  
Amount Units: ng

Processing Integration Results



RT: 8.03  
Area: 24574  
Amount: 965.9571  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 23-Sep-2015 11:36:02  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration



FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-154553/2 Calibration Date: 09/23/2015 11:04  
 Instrument ID: CHHP6 Calib Start Date: 09/10/2015 15:09  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 09/10/2015 17:58  
 Lab File ID: 60923002.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	0.1843	0.1614	0.0100	17.5	20.0	-12.4	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923002.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 23-Sep-2015 11:04:30 ALS Bottle#: 2 Worklist Smp#: 2  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: CCVIS  
 Misc. Info.: 180-0008638-002  
 Operator ID: 001562 Instrument ID: CHHP6  
 Sublist: chrom-MSVOA\_LL\_CHHP6\*sub10  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 23-Sep-2015 12:34:30 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: XAWRK005

First Level Reviewer: fergusond

Date: 23-Sep-2015 11:36:02

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	4.236	0.000	88	154606	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.284	7.284	0.000	97	462910	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	90	107940	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.747	0.000	93	198533	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.548	6.548	0.000	92	106283	50.0	49.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.925	6.925	0.000	70	172908	50.0	50.3	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	421205	50.0	49.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.585	0.000	84	171771	50.0	45.4	
11 Dichlorodifluoromethane	85	1.602	1.602	0.000	98	130424	50.0	40.7	
12 Chloromethane	50	1.760	1.760	0.000	99	147682	50.0	53.5	
13 Vinyl chloride	62	1.900	1.900	0.000	98	140888	50.0	47.3	
14 Butadiene	39	1.930	1.930	0.000	96	143595	50.0	51.5	
15 Bromomethane	94	2.222	2.222	0.000	92	69922	50.0	43.5	
16 Chloroethane	64	2.374	2.374	0.000	99	89716	50.0	44.2	
17 Dichlorofluoromethane	67	2.654	2.654	0.000	98	204801	50.0	43.3	
18 Trichlorofluoromethane	101	2.672	2.672	0.000	97	168637	50.0	44.7	
20 Ethyl ether	59	3.044	3.044	0.000	93	122001	50.0	45.7	
21 Acrolein	56	3.214	3.214	0.000	99	35566	150.0	122.0	
22 1,1-Dichloroethene	96	3.336	3.336	0.000	95	104506	50.0	44.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.396	3.396	0.000	93	122286	50.0	49.7	
24 Acetone	43	3.415	3.415	0.000	100	96703	100.0	118.1	
25 Iodomethane	142	3.536	3.536	0.000	99	161220	50.0	51.5	
26 Carbon disulfide	76	3.634	3.634	0.000	100	248784	50.0	41.2	
29 3-Chloro-1-propene	76	3.913	3.913	0.000	85	55910	50.0	42.6	
30 Methyl acetate	43	3.926	3.926	0.000	97	506291	250.0	263.6	
31 Methylene Chloride	84	4.126	4.126	0.000	97	149377	50.0	45.9	
32 2-Methyl-2-propanol	59	4.364	4.364	0.000	87	88125	500.0	506.5	
33 Acrylonitrile	53	4.497	4.497	0.000	98	507738	500.0	524.5	
35 Methyl tert-butyl ether	73	4.564	4.564	0.000	96	341480	50.0	42.4	
34 trans-1,2-Dichloroethene	96	4.564	4.564	0.000	93	123467	50.0	45.9	

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	95	171167	50.0	47.0	
37 1,1-Dichloroethane	63	5.197	5.197	0.000	97	235634	50.0	48.9	
38 Vinyl acetate	43	5.240	5.240	0.000	98	204729	50.0	52.7	
42 2,2-Dichloropropane	77	5.939	5.939	0.000	60	104735	50.0	43.0	
43 cis-1,2-Dichloroethene	96	5.939	5.939	0.000	86	130227	50.0	44.5	
44 2-Butanone (MEK)	43	5.945	5.945	0.000	69	129795	100.0	116.1	
48 Chlorobromomethane	128	6.225	6.225	0.000	96	65558	50.0	55.8	
50 Chloroform	83	6.377	6.377	0.000	96	229195	50.0	48.0	
51 1,1,1-Trichloroethane	97	6.535	6.535	0.000	97	166161	50.0	47.1	
52 Cyclohexane	56	6.615	6.615	0.000	95	211512	50.0	46.8	
49 Tetrahydrofuran	42	6.615	6.615	0.000	49	60225	100.0	80.0	
53 Carbon tetrachloride	117	6.712	6.712	0.000	80	134513	50.0	53.9	
54 1,1-Dichloropropene	75	6.724	6.724	0.000	91	174826	50.0	46.0	
55 Isobutyl alcohol	41	6.894	6.894	0.000	87	91064	1250.0	1359.7	
56 Benzene	78	6.937	6.937	0.000	98	540750	50.0	50.1	
57 1,2-Dichloroethane	62	7.010	7.010	0.000	98	221075	50.0	50.9	
59 n-Heptane	43	7.308	7.308	0.000	90	170817	50.0	58.2	
61 Trichloroethene	130	7.673	7.673	0.000	96	124407	50.0	55.3	
63 Methylcyclohexane	83	7.922	7.922	0.000	92	199240	50.0	43.6	
64 1,2-Dichloropropane	63	7.953	7.953	0.000	94	142033	50.0	55.1	
65 1,4-Dioxane	88	8.032	8.032	0.000	39	24574	1000.0	966.0	M
67 Dibromomethane	93	8.038	8.038	0.000	95	83584	50.0	53.4	
68 Dichlorobromomethane	83	8.227	8.227	0.000	97	146943	50.0	50.0	
70 2-Chloroethyl vinyl ether	63	8.531	8.531	0.000	95	149436	100.0	87.6	
71 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	89	168317	50.0	52.1	
72 4-Methyl-2-pentanone (MIBK)	43	8.823	8.823	0.000	97	209564	100.0	94.4	
73 Toluene	91	9.011	9.011	0.000	98	550994	50.0	49.5	
74 trans-1,3-Dichloropropene	75	9.255	9.255	0.000	99	134455	50.0	47.6	
75 Ethyl methacrylate	69	9.316	9.316	0.000	89	132533	50.0	44.1	
76 1,1,2-Trichloroethane	97	9.443	9.443	0.000	96	116538	50.0	50.6	
77 Tetrachloroethene	164	9.529	9.529	0.000	94	101303	50.0	53.3	
78 1,3-Dichloropropane	76	9.608	9.608	0.000	96	214033	50.0	50.3	
79 2-Hexanone	43	9.662	9.662	0.000	98	158081	100.0	108.5	
81 Chlorodibromomethane	129	9.827	9.827	0.000	90	88911	50.0	56.6	
82 Ethylene Dibromide	107	9.942	9.942	0.000	100	104545	50.0	51.3	
83 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	92	184227	50.0	51.7	
84 Chlorobenzene	112	10.429	10.429	0.000	92	356873	50.0	52.1	
85 4-Chlorobenzotrifluoride	180	10.484	10.484	0.000	96	174089	50.0	52.7	
86 1,1,1,2-Tetrachloroethane	131	10.520	10.520	0.000	89	102596	50.0	54.7	
87 Ethylbenzene	106	10.526	10.526	0.000	99	185525	50.0	48.0	
88 m-Xylene & p-Xylene	106	10.660	10.660	0.000	99	240198	50.0	50.1	
89 o-Xylene	106	11.037	11.037	0.000	97	222781	50.0	46.5	
90 Styrene	104	11.062	11.062	0.000	95	383453	50.0	52.1	
91 Bromoform	173	11.244	11.244	0.000	93	47726	50.0	56.9	
92 2-Chlorobenzotrifluoride	180	11.299	11.299	0.000	96	189621	50.0	51.9	
93 Isopropylbenzene	105	11.408	11.408	0.000	98	567594	50.0	49.5	
96 1,1,2,2-Tetrachloroethane	83	11.712	11.712	0.000	96	143153	50.0	46.5	
95 Bromobenzene	156	11.725	11.725	0.000	98	149588	50.0	46.9	
97 trans-1,4-Dichloro-2-buten	53	11.749	11.749	0.000	62	40174	50.0	39.7	
98 1,2,3-Trichloropropane	110	11.773	11.773	0.000	86	51177	50.0	42.2	
99 N-Propylbenzene	120	11.828	11.828	0.000	99	160626	50.0	43.7	
100 2-Chlorotoluene	126	11.913	11.913	0.000	94	141103	50.0	46.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
101 3-Chlorotoluene	126	11.980	11.980	0.000	97	148535	50.0	46.3	
102 1,3,5-Trimethylbenzene	105	12.011	12.011	0.000	95	521297	50.0	43.6	
103 4-Chlorotoluene	126	12.035	12.035	0.000	99	159313	50.0	49.4	
104 tert-Butylbenzene	119	12.327	12.327	0.000	93	386132	50.0	40.9	
106 1,2,4-Trimethylbenzene	105	12.382	12.382	0.000	99	530369	50.0	43.4	
107 1,2-dichloro-4-(trifluorom	214	12.418	12.418	0.000	97	158280	50.0	45.7	
108 sec-Butylbenzene	105	12.546	12.546	0.000	96	612566	50.0	43.5	
109 1,3-Dichlorobenzene	146	12.668	12.668	0.000	95	287588	50.0	46.1	
110 4-Isopropyltoluene	119	12.704	12.704	0.000	95	509579	50.0	43.1	
111 1,4-Dichlorobenzene	146	12.771	12.771	0.000	91	311528	50.0	48.9	
113 2,4-Dichloro-1-(trifluorom	214	12.789	12.789	0.000	94	149512	50.0	43.4	
114 2,5-Dichlorobenzotrifluori	214	12.832	12.832	0.000	98	182733	50.0	47.5	
116 n-Butylbenzene	91	13.112	13.112	0.000	98	467752	50.0	39.6	
117 1,2-Dichlorobenzene	146	13.124	13.124	0.000	94	288294	50.0	45.8	
118 1,2-Dibromo-3-Chloropropan	75	13.915	13.915	0.000	72	20537	50.0	35.6	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.061	14.061	0.000	99	702644	150.0	128.3	
121 2,3- & 3,4- Dichlorotoluen	125	14.474	14.474	0.000	99	510395	100.0	84.4	
122 1,2,4-Trichlorobenzene	180	14.742	14.742	0.000	94	210912	50.0	43.2	
123 Hexachlorobutadiene	225	14.888	14.888	0.000	96	89483	50.0	46.6	
124 Naphthalene	128	15.010	15.010	0.000	98	405200	50.0	41.2	
125 1,2,3-Trichlorobenzene	180	15.229	15.229	0.000	94	185452	50.0	40.6	
126 2,4,5-Trichlorotoluene	159	16.007	16.007	0.000	0	101751	50.0	33.2	
127 2,3,6-Trichlorotoluene	159	16.111	16.111	0.000	93	106356	50.0	36.6	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-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 131 Xylenes, Total	106				0		100.0	96.6	
S 130 1,2-Dichloroethene, Total	96				0		100.0	90.4	
S 132 1,3-Dichloropropene, Total	1				0		100.0	99.7	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

#### Review Flags

M - Manually Integrated

### Reagents:

VOA8260VOAPRI_00144	Amount Added: 2.00	Units: uL	
voaWKet1stRes_00001	Amount Added: 2.00	Units: uL	
VOAVAPRI_00007	Amount Added: 2.00	Units: uL	
voaW2-cle2ndR_00005	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
voaEE2Restek_00001	Amount Added: 2.00	Units: uL	
VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923002.D

Injection Date: 23-Sep-2015 11:04:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

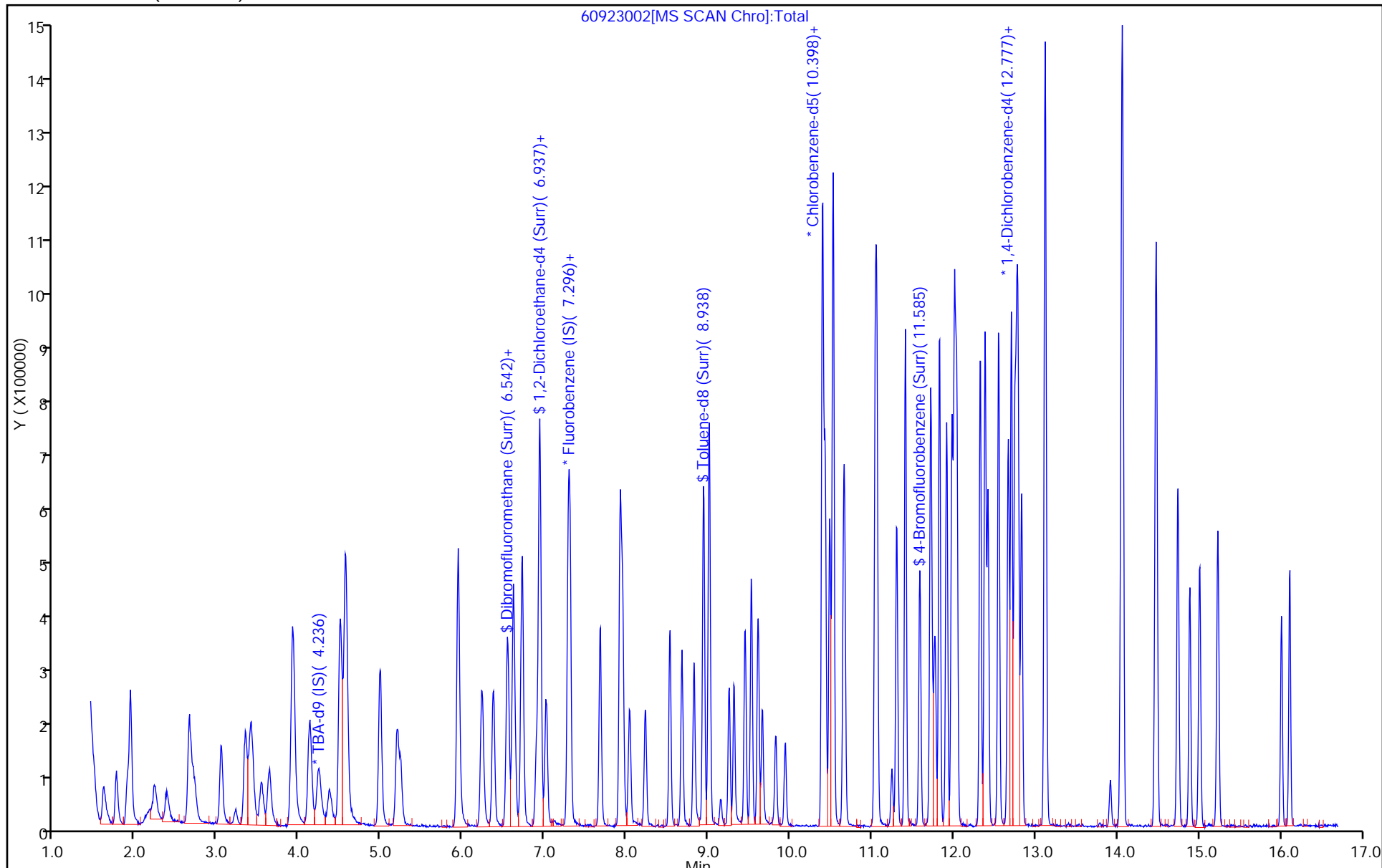
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
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

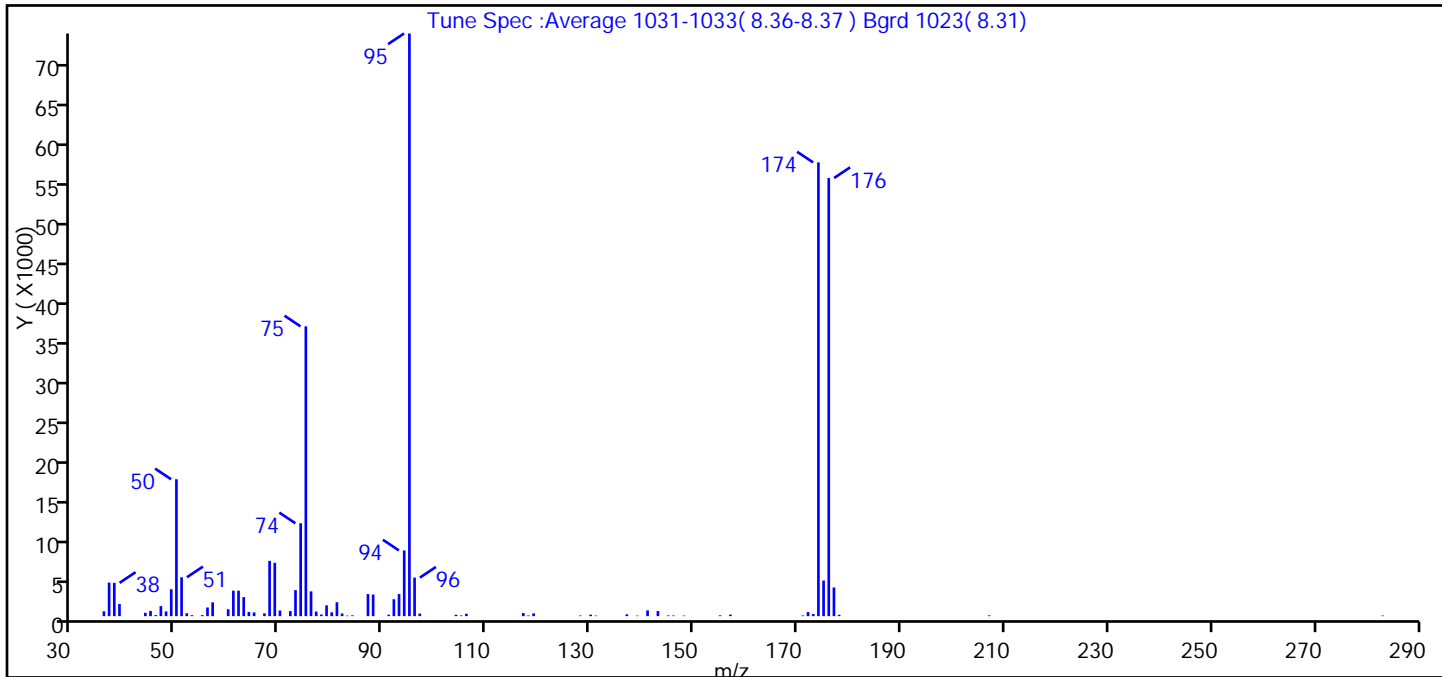
Reagents:

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

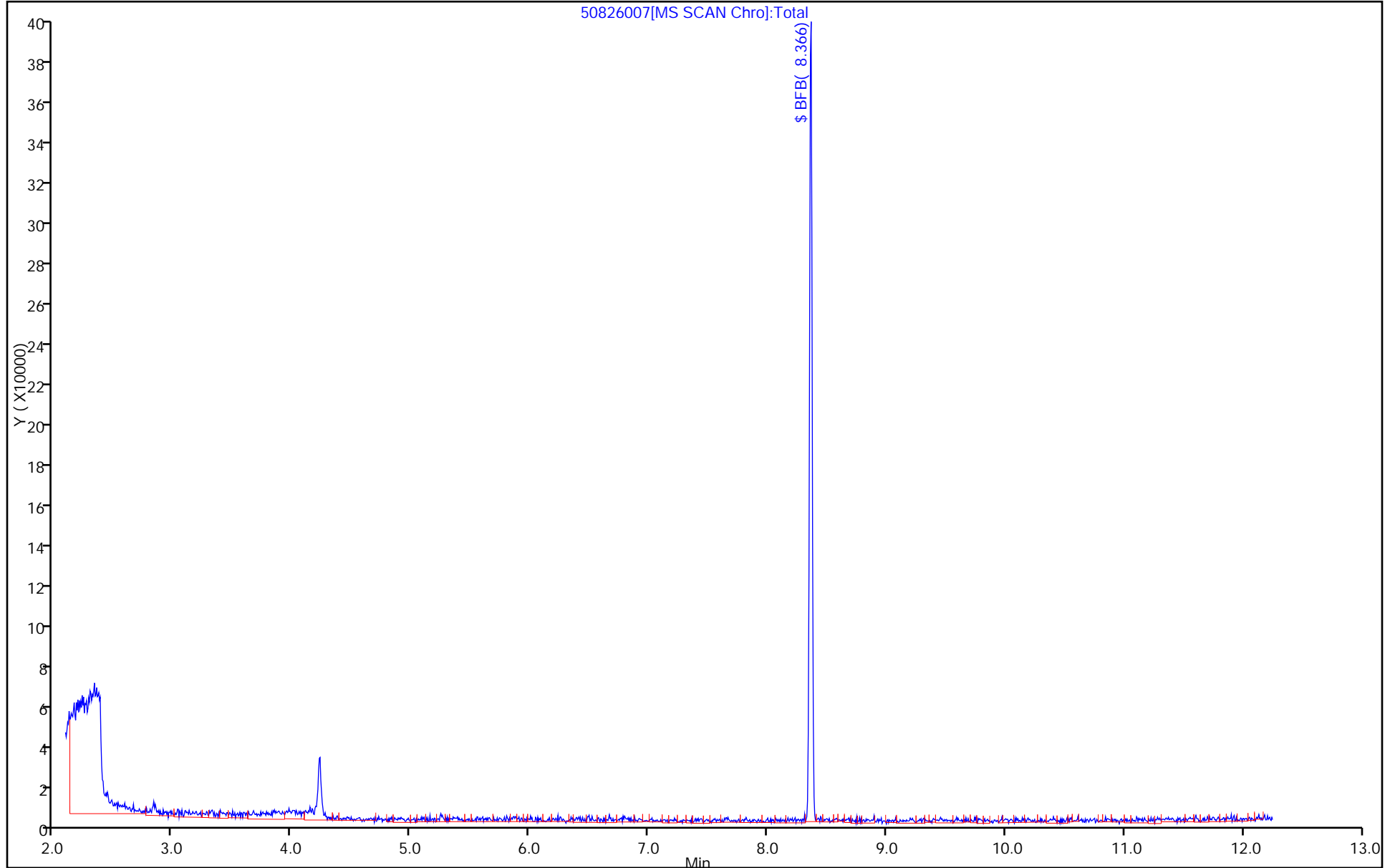
Dil. Factor: 1.0000

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\20150918-8580.b\50918005.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 18-Sep-2015 11:38:30 ALS Bottle#: 1 Worklist Smp#: 5  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Sample Info: BFB  
 Misc. Info.: 180-0008580-005  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Sep-2015 13:57:44 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: XAWRK010

First Level Reviewer: fergusond Date: 18-Sep-2015 11:55:28

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	8.362	8.362	0.000	0	36989	NR	NR	
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**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

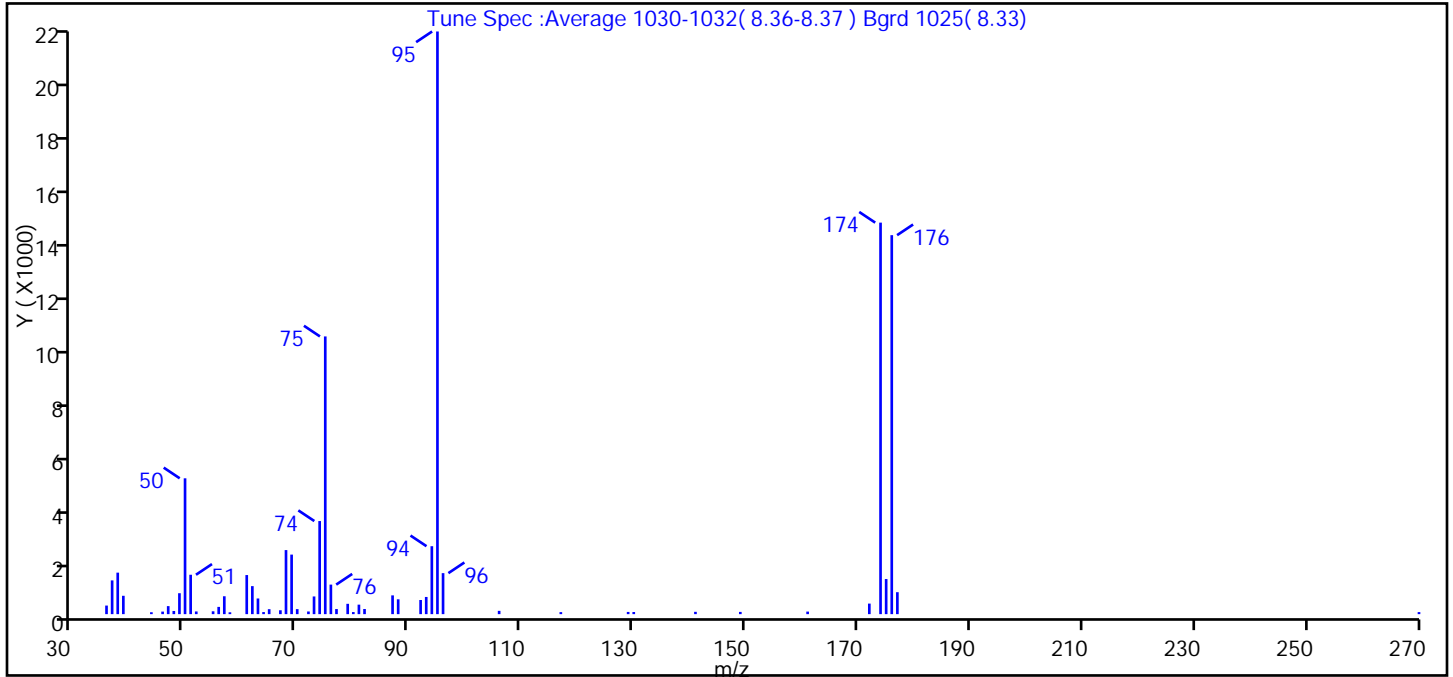
**Reagents:**

VOABFB25\_00066 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918005.D  
 Injection Date: 18-Sep-2015 11:38:30 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	23.3
75	30 to 60% of m/z 95	47.7
96	5 to 9% of m/z 95	7.0
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	67.2
175	5 to 9% of m/z 174	6.0 (9.0)
176	Greater than 95% but less than 101% of m/z 174	65.0 (96.8)
177	5 to 9% of m/z 176	3.8 (5.8)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918005.D\MSVOA\_LL\_CHHP5.rsl\spectr  
 Injection Date: 18-Sep-2015 11:38:30  
 Spectrum: Tune Spec :Average 1030-1032( 8.36-8.37 ) Bgrd 1025( 8.33)  
 Base Peak: 95.00  
 Minimum % Base Peak: 0  
 Number of Points: 55

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	310	57.00	646	75.00	10032	106.00	119
37.00	1219	58.00	67	76.00	1067	117.00	73
38.00	1499	61.00	1412	77.00	184	129.00	80
39.00	663	62.00	1012	79.00	373	130.00	77
44.00	69	63.00	566	80.00	75	141.00	84
46.00	92	64.00	75	81.00	343	149.00	81
47.00	290	65.00	179	82.00	186	161.00	92
48.00	114	67.00	140	87.00	678	172.00	381
49.00	756	68.00	2314	88.00	536	174.00	14143
50.00	4907	69.00	2151	92.00	511	175.00	1268
51.00	1423	70.00	181	93.00	621	176.00	13690
52.00	97	72.00	96	94.00	2454	177.00	793
55.00	103	73.00	639	95.00	21048	270.00	74
56.00	262	74.00	3363	96.00	1481		

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918005.D

Injection Date: 18-Sep-2015 11:38:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 5

Client ID:

Injection Vol: 5.0 mL

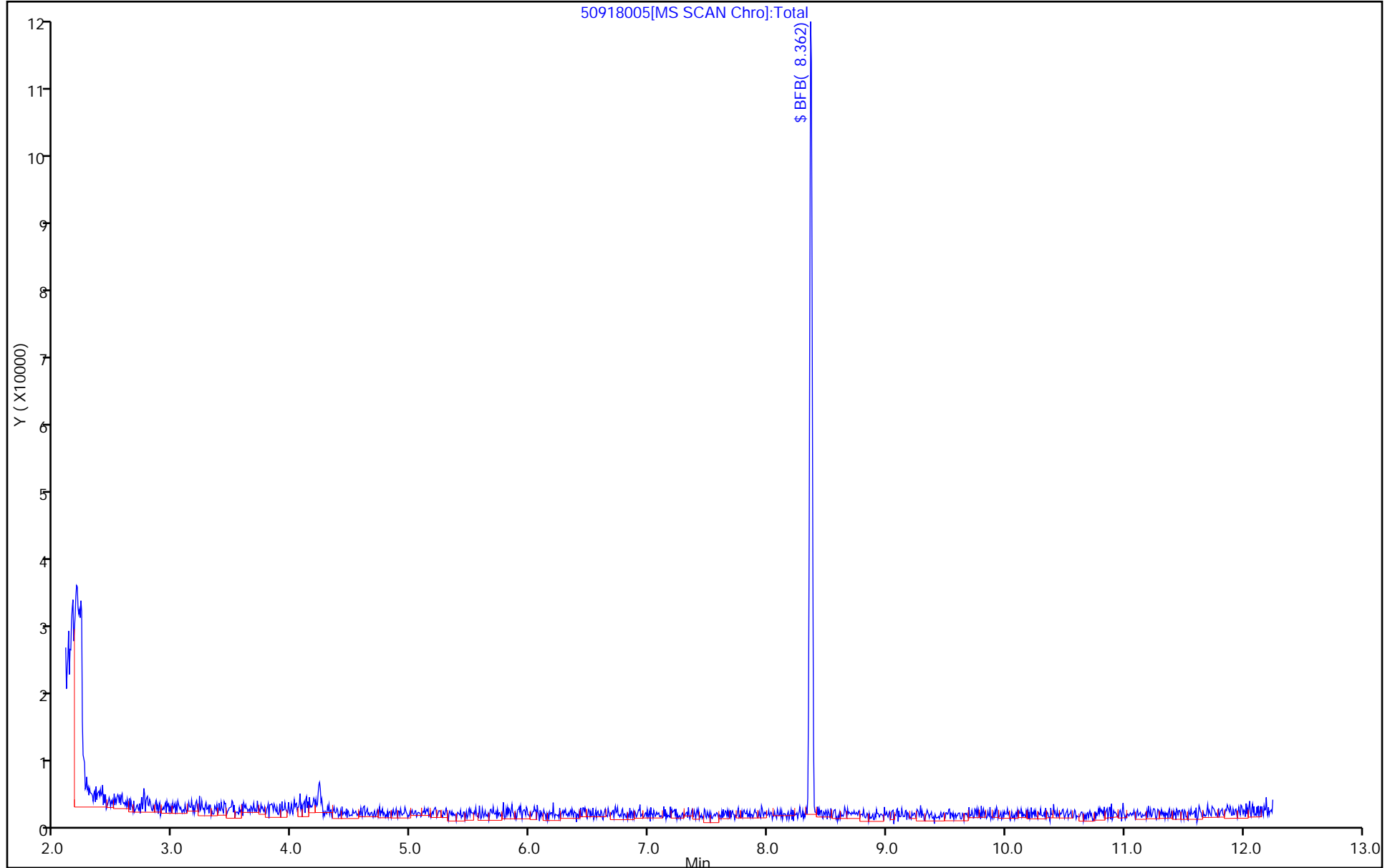
Dil. Factor: 1.0000

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\20150922-8620.b\50922008.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 22-Sep-2015 12:41:30 ALS Bottle#: 1 Worklist Smp#: 8  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Sample Info: BFB  
 Misc. Info.: 180-0008620-008  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 22-Sep-2015 14:41:58 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: XAWRK019

First Level Reviewer: fergusond Date: 22-Sep-2015 13:14:06

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	8.367	8.367	0.000	0	113091	NR	NR	
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**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

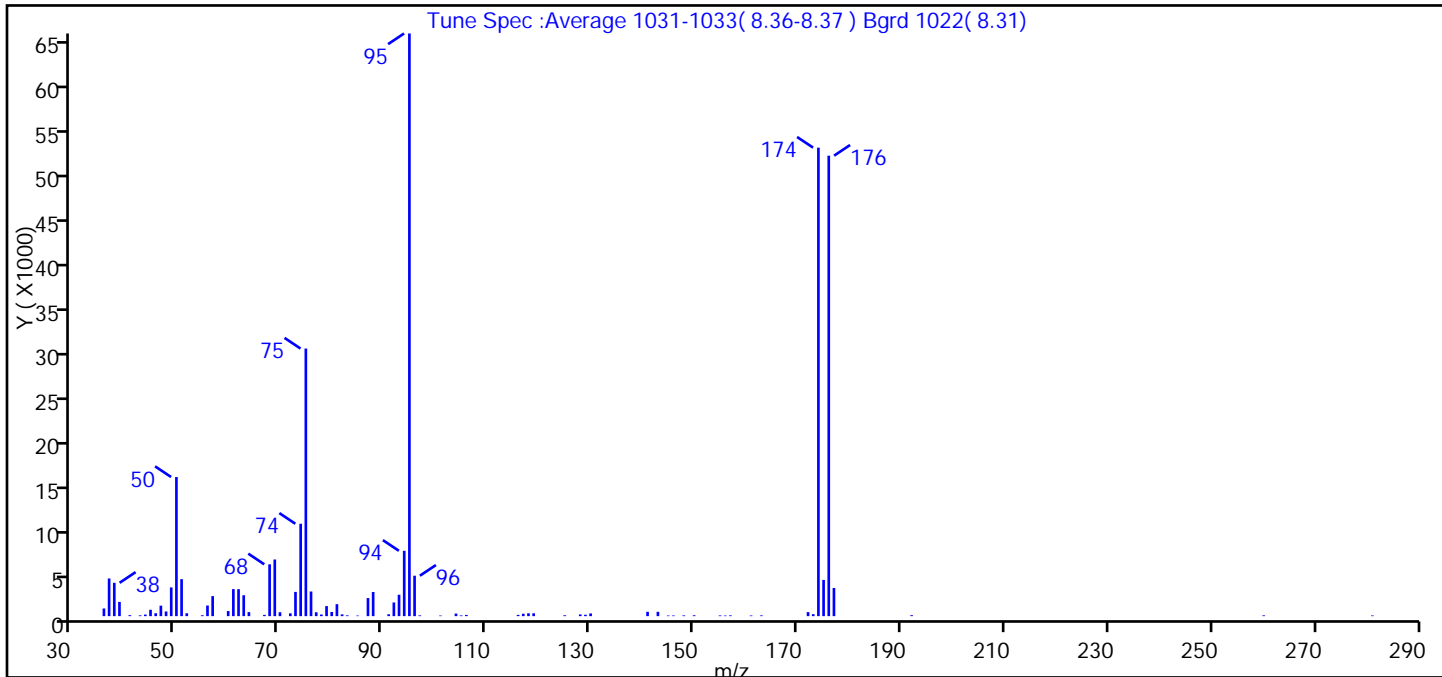
**Reagents:**

VOABFB25\_00066 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922008.D  
 Injection Date: 22-Sep-2015 12:41:30 Instrument ID: CHHP5  
 Lims ID: BFB  
 Client ID:  
 Operator ID: 001562 ALS Bottle#: 1 Worklist Smp#: 8  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
 Tune Method: BFB Method 8260

\$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	23.9
75	30 to 60% of m/z 95	45.9
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.3 (0.4)
174	50 to 120% of m/z 95	80.4
175	5 to 9% of m/z 174	6.2 (7.7)
176	Greater than 95% but less than 101% of m/z 174	79.0 (98.3)
177	5 to 9% of m/z 176	4.8 (6.1)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922008.D\MSVOA\_LL\_CHHP5.rsl\spectr  
 Injection Date: 22-Sep-2015 12:41:30  
 Spectrum: Tune Spec :Average 1031-1033( 8.36-8.37 ) Bgrd 1022( 8.31)  
 Base Peak: 95.00  
 Minimum % Base Peak: 0  
 Number of Points: 81

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	864	63.00	2356	91.00	211	145.00	70
37.00	4245	64.00	456	92.00	1540	146.00	74
38.00	3757	67.00	140	93.00	2413	148.00	85
39.00	1605	68.00	5841	94.00	7364	150.00	99
41.00	110	69.00	6383	95.00	65656	155.00	81
43.00	89	70.00	439	96.00	4555	156.00	68
44.00	178	72.00	317	97.00	87	157.00	88
45.00	717	73.00	2733	101.00	68	161.00	74
46.00	326	74.00	10410	104.00	289	163.00	86
47.00	1182	75.00	30152	105.00	82	172.00	455
48.00	528	76.00	2777	106.00	136	173.00	224
49.00	3236	77.00	440	116.00	140	174.00	52792
50.00	15678	78.00	184	117.00	270	175.00	4082
51.00	4167	79.00	1137	118.00	322	176.00	51888
52.00	325	80.00	473	119.00	319	177.00	3175
55.00	99	81.00	1349	125.00	99	192.00	108
56.00	1196	82.00	201	128.00	194	260.00	87
57.00	2258	83.00	90	129.00	157	281.00	77
60.00	575	85.00	68	130.00	306		
61.00	3046	87.00	2038	141.00	489		
62.00	3037	88.00	2721	143.00	488		



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922008.D

Injection Date: 22-Sep-2015 12:41:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 8

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\20150924-8665.b\50924001.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 24-Sep-2015 10:23:30 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Sample Info: BFB  
 Misc. Info.: 180-0008665-001  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 24-Sep-2015 12:28:56 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: 24-Sep-2015 10:34:33

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	8.366	8.366	0.000	0	50709	NR	NR	
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**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

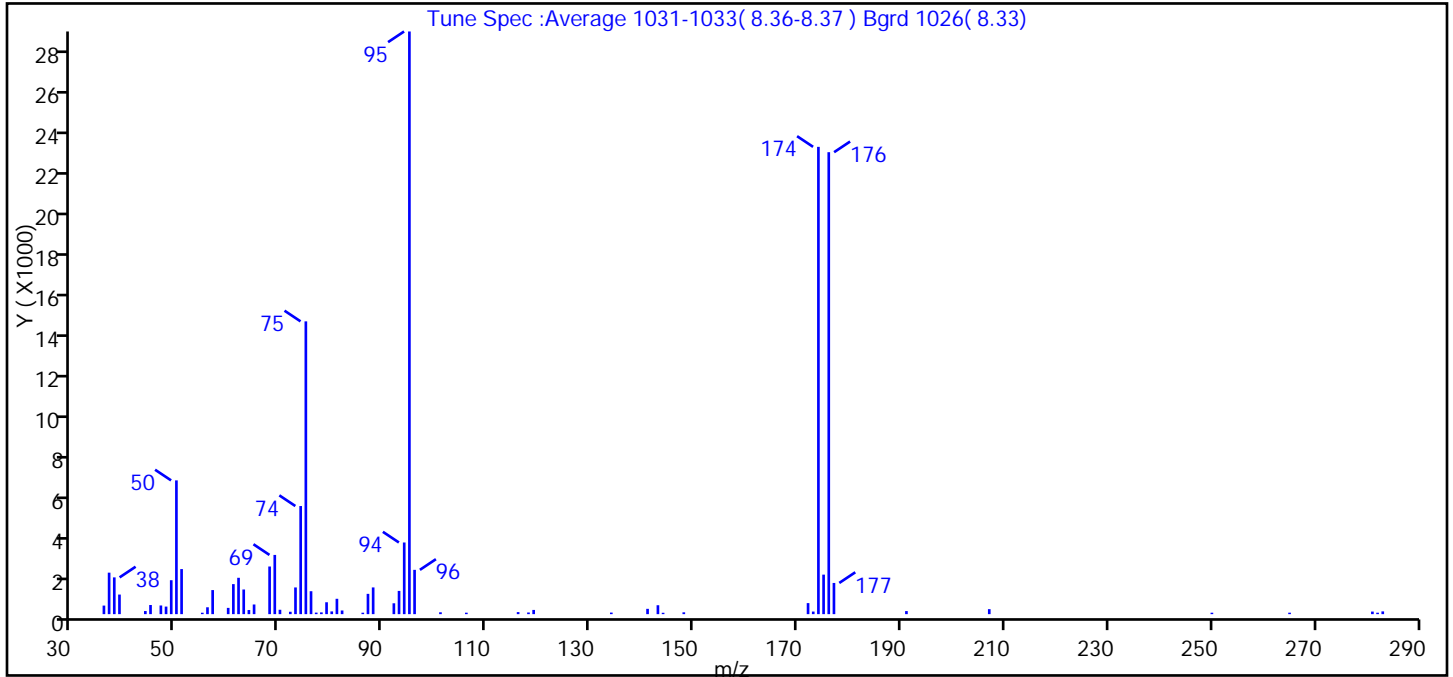
**Reagents:**

VOABFB25\_00066 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\50924001.D  
 Injection Date: 24-Sep-2015 10:23:30 Instrument ID: CHHP5  
 Lims ID: BFB  
 Client ID:  
 Operator ID: 001562 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
 Tune Method: BFB Method 8260

\$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	23.0
75	30 to 60% of m/z 95	50.3
96	5 to 9% of m/z 95	7.6
173	Less than 2% of m/z 174	0.4 (0.6)
174	50 to 120% of m/z 95	80.2
175	5 to 9% of m/z 174	6.8 (8.5)
176	Greater than 95% but less than 101% of m/z 174	79.3 (98.9)
177	5 to 9% of m/z 176	5.4 (6.8)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\50924001.D\MSVOA\_LL\_CHHP5.rsl\spectr  
 Injection Date: 24-Sep-2015 10:23:30  
 Spectrum: Tune Spec :Average 1031-1033( 8.36-8.37 ) Bgrd 1026( 8.33)  
 Base Peak: 95.00  
 Minimum % Base Peak: 0  
 Number of Points: 65

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	423	63.00	1217	86.00	71	148.00	90
37.00	2048	64.00	203	87.00	1002	172.00	545
38.00	1815	65.00	477	88.00	1319	173.00	128
39.00	967	68.00	2352	92.00	536	174.00	23072
44.00	153	69.00	2924	93.00	1147	175.00	1951
45.00	451	70.00	216	94.00	3538	176.00	22808
47.00	428	72.00	118	95.00	28768	177.00	1540
48.00	373	73.00	1318	96.00	2187	191.00	151
49.00	1675	74.00	5338	101.00	92	207.00	246
50.00	6604	75.00	14456	106.00	72	250.00	71
51.00	2225	76.00	1132	116.00	101	265.00	72
55.00	70	77.00	76	118.00	82	281.00	127
56.00	339	78.00	87	119.00	208	282.00	71
57.00	1188	79.00	587	134.00	78	283.00	136
60.00	309	80.00	135	141.00	262		
61.00	1482	81.00	758	143.00	440		
62.00	1795	82.00	181	144.00	68		

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\50924001.D

Injection Date: 24-Sep-2015 10:23:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

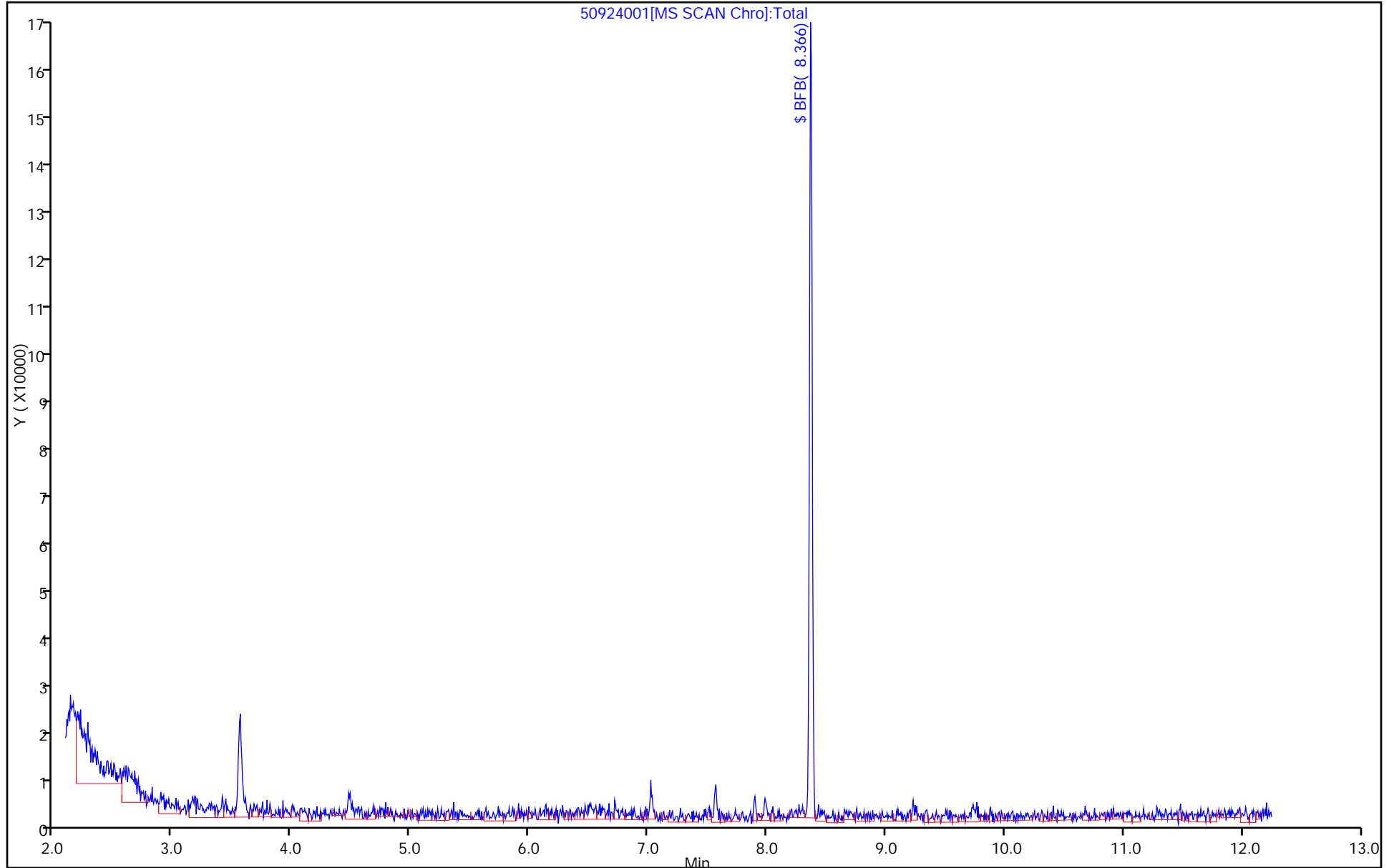
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\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

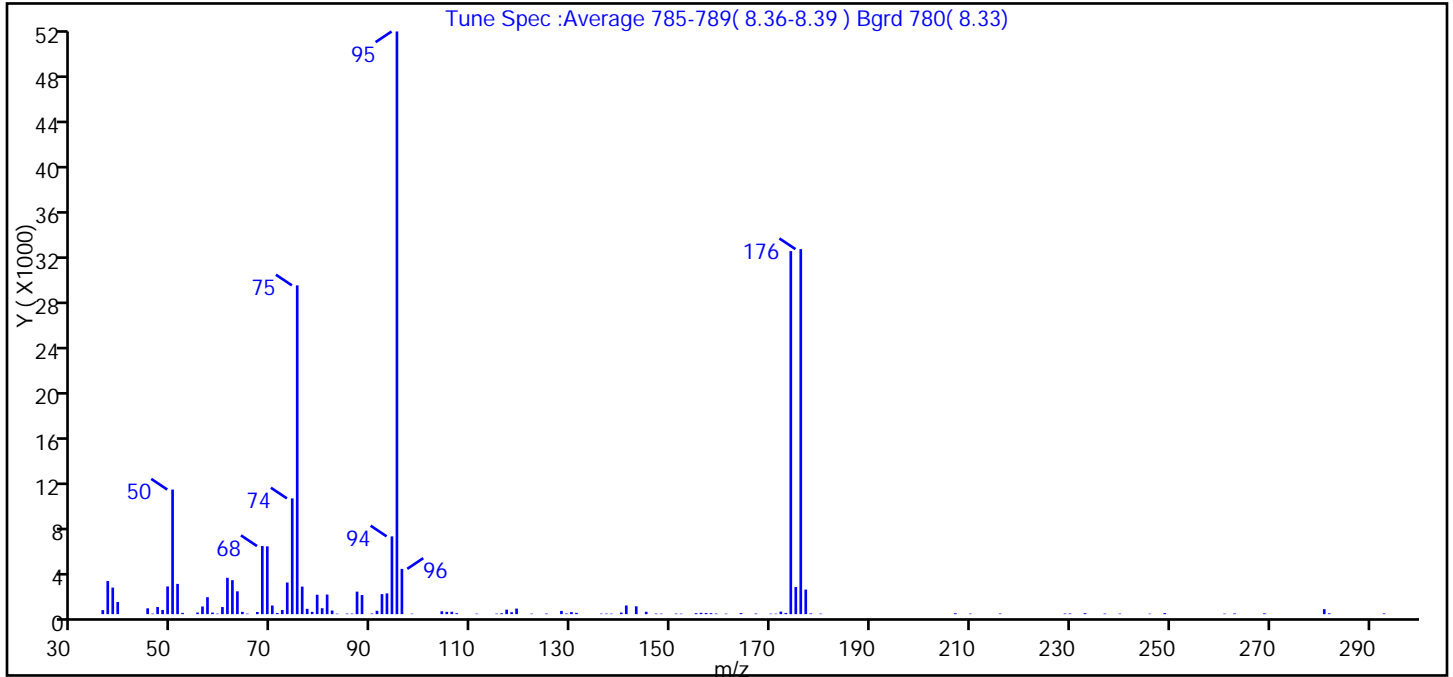
**Reagents:**

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\20150923-8638.b\60923001.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 23-Sep-2015 10:18:30 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Sample Info: BFB  
 Misc. Info.: 180-0008638-001  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 23-Sep-2015 12:34:28 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: XAWRK005

First Level Reviewer: fergusond Date: 23-Sep-2015 10:36:46

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	8.382	8.382	0.000	0	75464	NR	NR	
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**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

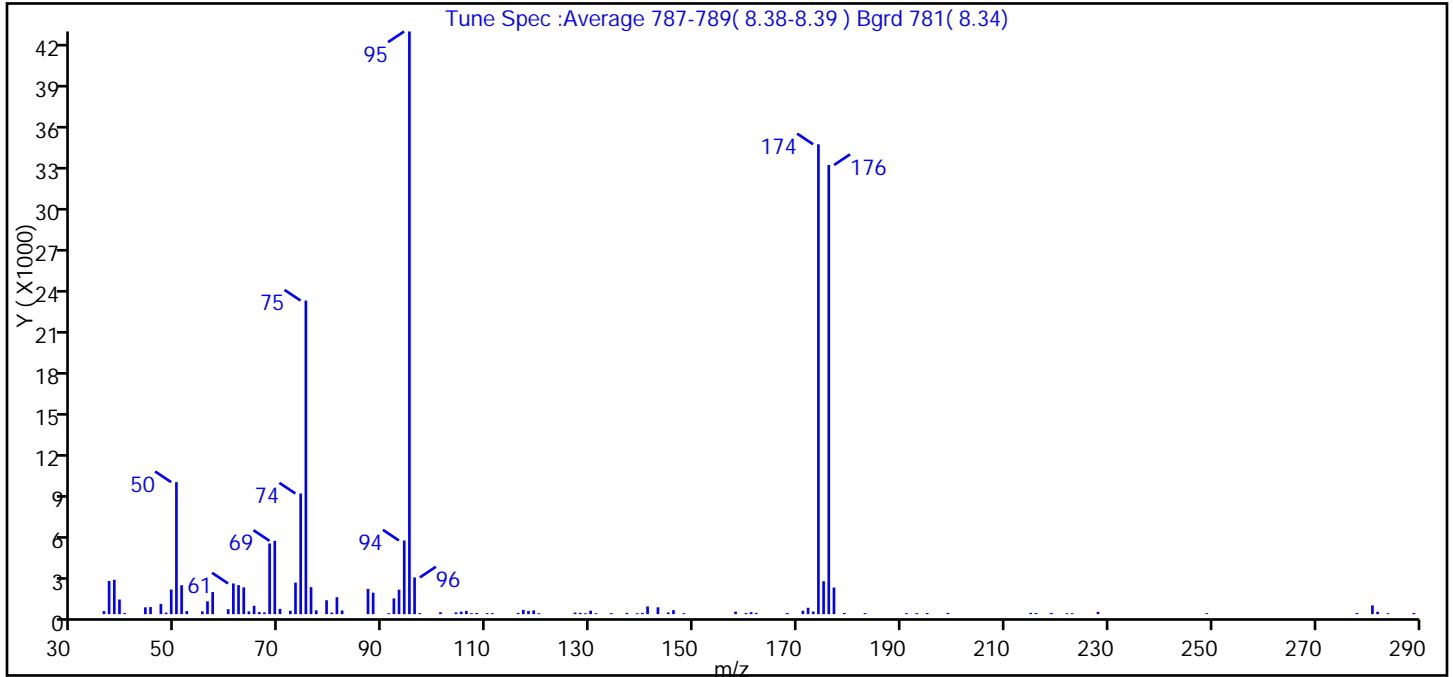
**Reagents:**

VOABFB25\_00066 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923001.D  
 Injection Date: 23-Sep-2015 10:18:30 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	22.7
75	30 to 60% of m/z 95	53.8
96	5 to 9% of m/z 95	6.3
173	Less than 2% of m/z 174	0.4 (0.6)
174	50 to 120% of m/z 95	80.6
175	5 to 9% of m/z 174	5.7 (7.0)
176	Greater than 95% but less than 101% of m/z 174	77.1 (95.6)
177	5 to 9% of m/z 176	4.6 (5.9)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923001.D\MSVOA\_LL\_CHHP6.rsl\spectr  
 Injection Date: 23-Sep-2015 10:18:30  
 Spectrum: Tune Spec :Average 787-789( 8.38-8.39 ) Bgrd 781( 8.34)  
 Base Peak: 95.00  
 Minimum % Base Peak: 0  
 Number of Points: 103

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	219	70.00	385	110.00	75	171.00	250
37.00	2412	72.00	248	111.00	73	172.00	464
38.00	2495	73.00	2290	116.00	95	173.00	190
39.00	1061	74.00	8762	117.00	309	174.00	34128
40.00	77	75.00	22776	118.00	224	175.00	2393
44.00	492	76.00	1961	119.00	273	176.00	32624
45.00	514	77.00	275	120.00	70	177.00	1930
47.00	747	79.00	1009	127.00	116	179.00	81
48.00	111	80.00	113	128.00	95	183.00	79
49.00	1789	81.00	1232	129.00	69	191.00	74
50.00	9589	82.00	267	130.00	253	193.00	76
51.00	2099	87.00	1833	131.00	68	195.00	82
52.00	223	88.00	1560	134.00	74	199.00	96
55.00	201	91.00	68	137.00	91	215.00	96
56.00	931	92.00	1144	139.00	71	216.00	82
57.00	1602	93.00	1777	140.00	93	219.00	89
60.00	360	94.00	5349	141.00	559	222.00	67
61.00	2228	95.00	42320	143.00	497	223.00	68
62.00	2109	96.00	2669	145.00	124	228.00	170
63.00	1944	97.00	78	146.00	290	249.00	67
64.00	199	101.00	139	148.00	70	278.00	82
65.00	608	104.00	128	158.00	185	281.00	636
66.00	148	105.00	183	160.00	83	282.00	175
67.00	127	106.00	236	161.00	145	284.00	66
68.00	5132	107.00	69	162.00	89	289.00	86
69.00	5323	108.00	84	168.00	80		

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923001.D

Injection Date: 23-Sep-2015 10:18:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

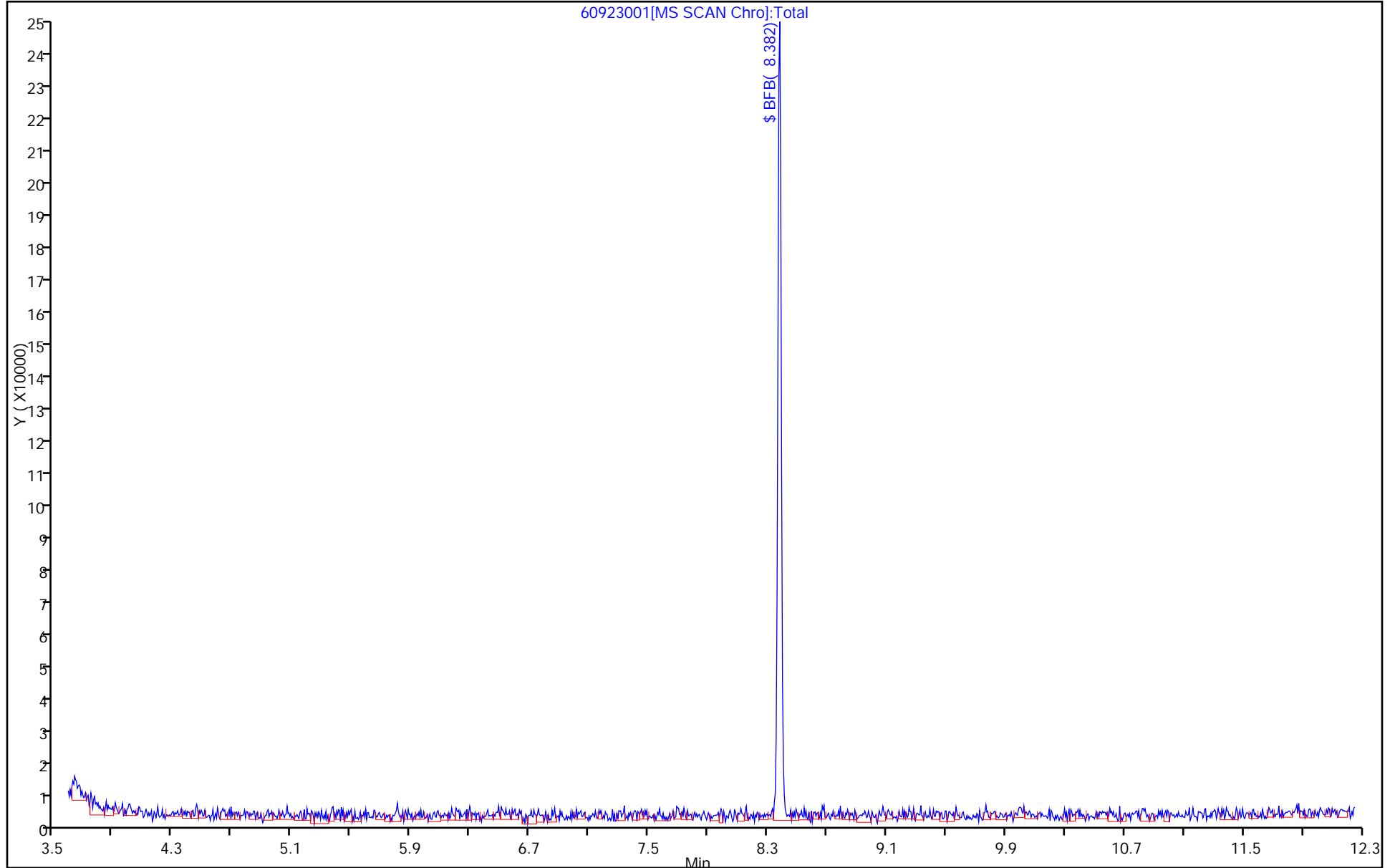
Dil. Factor: 1.0000

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.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-154121/6  
 Matrix: Water Lab File ID: 50918006.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/18/2015 13:41  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154121 Units: ug/L

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

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-154121/6  
 Matrix: Water Lab File ID: 50918006.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/18/2015 13:41  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154121 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		64-135
2037-26-5	Toluene-d8 (Surr)	99		71-118
460-00-4	4-Bromofluorobenzene (Surr)	99		70-118
1868-53-7	Dibromofluoromethane (Surr)	95		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918006.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 18-Sep-2015 13:41:30 ALS Bottle#: 5 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: MB  
 Misc. Info.: 180-0008580-006  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Sep-2015 14:02:51 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: XAWRK010

First Level Reviewer: fergusond Date: 18-Sep-2015 14:02:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.257	4.271	-0.014	0	113231	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.287	7.294	-0.007	98	302318	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.390	10.385	0.005	87	73384	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.732	12.727	0.005	98	104861	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.569	6.564	0.005	92	70737	50.0	47.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.940	6.929	0.011	0	100081	50.0	49.1	
\$ 7 Toluene-d8 (Surr)	98	8.936	8.937	-0.001	95	279042	50.0	49.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.570	11.571	-0.001	85	105983	50.0	49.6	
11 Dichlorodifluoromethane	85		1.612					ND	
12 Chloromethane	50		1.764					ND	
13 Vinyl chloride	62		1.904					ND	
14 Butadiene	39		1.941					ND	
15 Bromomethane	94		2.239					ND	
16 Chloroethane	64		2.385					ND	
17 Dichlorofluoromethane	67		2.671					ND	
18 Trichlorofluoromethane	101		2.695					ND	
19 Ethanol	45		2.957					ND	
20 Ethyl ether	59		3.054					ND	
21 Acrolein	56		3.231					ND	
22 1,1-Dichloroethene	96		3.346					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.425					ND	
24 Acetone	43		3.437					ND	
25 Iodomethane	142		3.541					ND	
26 Carbon disulfide	76		3.638					ND	
27 Isopropyl alcohol	45		3.706					ND	
29 Acetonitrile	40		3.870					ND	
28 3-Chloro-1-propene	76		3.924					ND	
30 Methyl acetate	43		3.936					ND	
31 Methylene Chloride	84		4.131					ND	
32 2-Methyl-2-propanol	59		4.405					ND	
33 Acrylonitrile	53		4.526					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		4.563					ND	
35 Methyl tert-butyl ether	73		4.581					ND	
36 Hexane	57		4.995					ND	
37 1,1-Dichloroethane	63		5.202					ND	
38 Vinyl acetate	43		5.250					ND	
41 Isopropyl ether	45		5.299					ND	
39 2-Chloro-1,3-butadiene	53		5.299					ND	
40 Isopropyl ether TIC	45		5.409					ND	
42 Tert-butyl ethyl ether	59		5.780					ND	
45 cis-1,2-Dichloroethene	96		5.950					ND	
44 2,2-Dichloropropane	77		5.950					ND	
46 2-Butanone (MEK)	43		5.956					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
48 Ethyl acetate	43		6.036					ND	
47 Propionitrile	54		6.036					ND	
50 Methacrylonitrile	41		6.212					ND	
49 Chlorobromomethane	128		6.236					ND	
51 Tetrahydrofuran	42		6.248					ND	
52 Chloroform	83		6.382					ND	
53 1,1,1-Trichloroethane	97		6.540					ND	
54 Cyclohexane	56		6.619					ND	
56 Carbon tetrachloride	117		6.716					ND	
55 1,1-Dichloropropene	75		6.729					ND	
57 Isobutyl alcohol	41		6.929					ND	
58 Benzene	78		6.948					ND	
59 1,2-Dichloroethane	62		7.015					ND	
61 Tert-amyl methyl ether	73		7.125					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.313					ND	
63 n-Butanol	56		7.629					ND	
64 Trichloroethene	130		7.672					ND	
65 Ethyl acrylate	55		7.800					ND	
66 Methylcyclohexane	83		7.915					ND	
67 1,2-Dichloropropane	63		7.951					ND	
70 1,4-Dioxane	88		8.030					ND	
69 Methyl methacrylate	69		8.031					ND	
68 Dibromomethane	93		8.037					ND	
71 Dichlorobromomethane	83		8.231					ND	
72 2-Nitropropane	41		8.451					ND	
73 2-Chloroethyl vinyl ether	63		8.529					ND	
74 cis-1,3-Dichloropropene	75		8.675					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.827					ND	
76 Toluene	91		9.004					ND	
77 trans-1,3-Dichloropropene	75		9.253					ND	
78 Ethyl methacrylate	69		9.308					ND	
79 1,1,2-Trichloroethane	97		9.448					ND	
80 Tetrachloroethene	164		9.515					ND	
81 1,3-Dichloropropane	76		9.600					ND	
82 2-Hexanone	43		9.661					ND	
83 n-Butyl acetate	43		9.783					ND	
84 Chlorodibromomethane	129		9.813					ND	
85 Ethylene Dibromide	107		9.929					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.391					ND	
87 Chlorobenzene	112		10.415					ND	
88 4-Chlorobenzotrifluoride	180		10.476					ND	
89 1,1,1,2-Tetrachloroethane	131		10.506					ND	
90 Ethylbenzene	106		10.513					ND	
91 m-Xylene & p-Xylene	106		10.652					ND	
92 o-Xylene	106		11.030					ND	
93 Styrene	104		11.048					ND	
94 Bromoform	173		11.230					ND	
95 Cyclohexanol	57		11.245					ND	
96 2-Chlorobenzotrifluoride	180		11.297					ND	
97 Isopropylbenzene	105		11.395					ND	
98 Cyclohexanone	55		11.480					ND	
99 1,1,2,2-Tetrachloroethane	83		11.705					ND	
100 Bromobenzene	156		11.711					ND	
102 trans-1,4-Dichloro-2-buten	53		11.741					ND	
101 1,2,3-Trichloropropane	110		11.766					ND	
103 N-Propylbenzene	120		11.814					ND	
104 2-Chlorotoluene	126		11.900					ND	
105 3-Chlorotoluene	126		11.966					ND	
106 1,3,5-Trimethylbenzene	105		11.997					ND	
107 4-Chlorotoluene	126		12.021					ND	
108 tert-Butylbenzene	119		12.307					ND	
109 Pentachloroethane	167		12.338					ND	
110 1,2,4-Trimethylbenzene	105		12.368					ND	
111 1,2-dichloro-4-(trifluorom	214		12.411					ND	
112 sec-Butylbenzene	105		12.532					ND	
113 1,3-Dichlorobenzene	146		12.648					ND	
114 4-Isopropyltoluene	119		12.690					ND	
115 1,4-Dichlorobenzene	146		12.751					ND	
117 1,2,3-Trimethylbenzene	105		12.776					ND	
116 2,4-Dichloro-1-(triflourom	214		12.782					ND	
118 2,5-Dichlorobenzotrifluori	214		12.824					ND	
119 Benzyl chloride	91		12.867					ND	
120 n-Butylbenzene	91		13.098					ND	
121 1,2-Dichlorobenzene	146		13.110					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.901					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.047					ND	
124 1,3,5-Trichlorobenzene	180		14.090					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.461					ND	
126 1,2,4-Trichlorobenzene	180		14.728					ND	
127 Hexachlorobutadiene	225		14.868					ND	
128 Naphthalene	128		14.990					ND	
129 1,2,3-Trichlorobenzene	180		15.215					ND	
131 2,4,5-Trichlorotoluene	159		15.994					ND	
130 2,3,6-Trichlorotoluene	159		16.091					ND	
132 2-Methylnaphthalene	142		16.134					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
151 Isooctane	57		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
147 2,4-Dichlorotoluene	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
150 2,6-Dichlorotoluene	1		0.000					ND	
146 2,5-Dichlorotoluene	1		0.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	
T 137 Tetrahydrofuran TIC	42		6.253					ND	
T 153 1,2 Epoxybutane TIC	42		6.253					ND	

**Reagents:**

VOA8260INT\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918006.D

Injection Date: 18-Sep-2015 13:41:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: MB

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

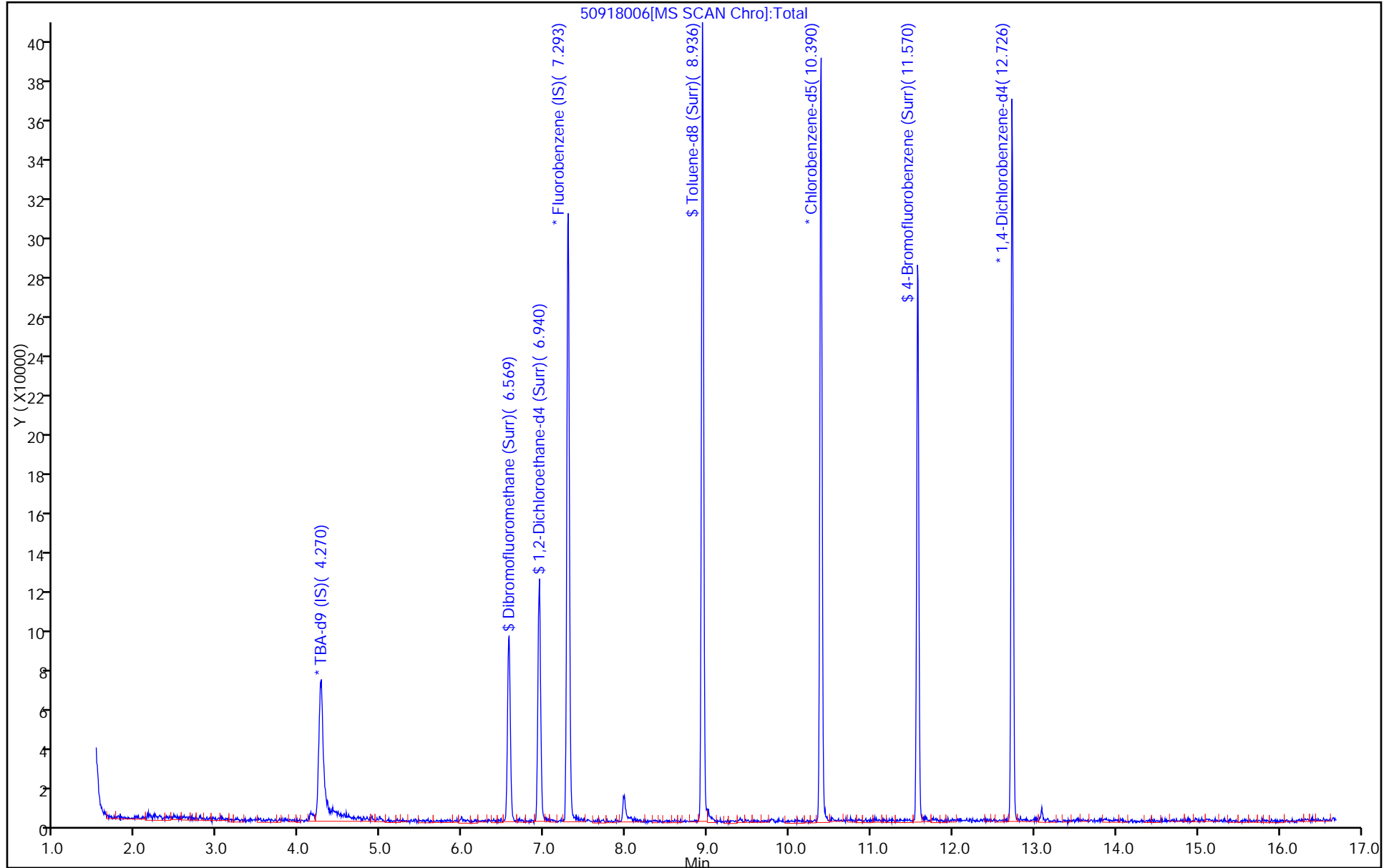
Dil. Factor: 1.0000

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.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-154425/9  
 Matrix: Water Lab File ID: 50922009.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/22/2015 14:26  
 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.: 154425 Units: ug/L

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

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-154425/9  
 Matrix: Water Lab File ID: 50922009.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/22/2015 14:26  
 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.: 154425 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		64-135
2037-26-5	Toluene-d8 (Surr)	105		71-118
460-00-4	4-Bromofluorobenzene (Surr)	102		70-118
1868-53-7	Dibromofluoromethane (Surr)	99		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922009.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 22-Sep-2015 14:26:30 ALS Bottle#: 4 Worklist Smp#: 9  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: MB  
 Misc. Info.: 180-0008620-009  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 22-Sep-2015 14:46:02 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: XAWRK019

First Level Reviewer: fergusond Date: 22-Sep-2015 14:46:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.265	4.273	-0.008	0	144735	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.290	-0.001	97	360052	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.393	-0.008	90	81897	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.734	12.729	0.005	97	129170	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.565	6.566	-0.001	94	87842	50.0	49.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.937	-0.001	0	130833	50.0	53.9	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.939	-0.001	95	331326	50.0	52.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.573	-0.001	88	121153	50.0	50.8	
11 Dichlorodifluoromethane	85		1.614					ND	
12 Chloromethane	50		1.766					ND	
13 Vinyl chloride	62		1.906					ND	
14 Butadiene	39		1.943					ND	
15 Bromomethane	94		2.247					ND	
16 Chloroethane	64		2.405					ND	
17 Dichlorofluoromethane	67		2.673					ND	
18 Trichlorofluoromethane	101		2.709					ND	
19 Ethanol	45		2.957					ND	
20 Ethyl ether	59		3.050					ND	
21 Acrolein	56		3.226					ND	
22 1,1-Dichloroethene	96		3.348					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.421					ND	
24 Acetone	43		3.439					ND	
25 Iodomethane	142		3.543					ND	
26 Carbon disulfide	76		3.634					ND	
27 Isopropyl alcohol	45		3.706					ND	
29 Acetonitrile	40		3.870					ND	
28 3-Chloro-1-propene	76		3.920					ND	
30 Methyl acetate	43		3.938					ND	
31 Methylene Chloride	84		4.133					ND	
32 2-Methyl-2-propanol	59		4.394					ND	
33 Acrylonitrile	53		4.516					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.565					ND	
35 Methyl tert-butyl ether	73		4.577					ND	
36 Hexane	57		4.991					ND	
37 1,1-Dichloroethane	63		5.204					ND	
38 Vinyl acetate	43		5.252					ND	
41 Isopropyl ether	45		5.299					ND	
39 2-Chloro-1,3-butadiene	53		5.299					ND	
40 Isopropyl ether TIC	45		5.409					ND	
42 Tert-butyl ethyl ether	59		5.780					ND	
44 2,2-Dichloropropane	77		5.946					ND	
45 cis-1,2-Dichloroethene	96		5.952					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
46 2-Butanone (MEK)	43		5.964					ND	
47 Propionitrile	54		6.036					ND	
48 Ethyl acetate	43		6.036					ND	
50 Methacrylonitrile	41		6.212					ND	
49 Chlorobromomethane	128		6.238					ND	
51 Tetrahydrofuran	42		6.250					ND	
52 Chloroform	83		6.384					ND	
53 1,1,1-Trichloroethane	97		6.542					ND	
54 Cyclohexane	56		6.615					ND	
56 Carbon tetrachloride	117		6.712					ND	
55 1,1-Dichloropropene	75		6.730					ND	
57 Isobutyl alcohol	41		6.925					ND	
58 Benzene	78		6.943					ND	
59 1,2-Dichloroethane	62		7.022					ND	
61 Tert-amyl methyl ether	73		7.125					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.308					ND	
63 n-Butanol	56		7.629					ND	
64 Trichloroethene	130		7.679					ND	
65 Ethyl acrylate	55		7.800					ND	
66 Methylcyclohexane	83		7.917					ND	
67 1,2-Dichloropropane	63		7.947					ND	
69 Methyl methacrylate	69		8.031					ND	
68 Dibromomethane	93		8.032					ND	
70 1,4-Dioxane	88		8.032					ND	
71 Dichlorobromomethane	83		8.233					ND	
72 2-Nitropropane	41		8.451					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		8.829					ND	
76 Toluene	91		9.006					ND	
77 trans-1,3-Dichloropropene	75		9.249					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		9.657					ND	
83 n-Butyl acetate	43		9.783					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		10.387					ND	
87 Chlorobenzene	112		10.417					ND	
88 4-Chlorobenzotrifluoride	180		10.478					ND	
89 1,1,1,2-Tetrachloroethane	131		10.508					ND	
90 Ethylbenzene	106		10.514					ND	
91 m-Xylene & p-Xylene	106		10.648					ND	
92 o-Xylene	106		11.025					ND	
93 Styrene	104		11.050					ND	
94 Bromoform	173		11.232					ND	
95 Cyclohexanol	57		11.245					ND	
96 2-Chlorobenzotrifluoride	180		11.299					ND	
97 Isopropylbenzene	105		11.396					ND	
98 Cyclohexanone	55		11.480					ND	
99 1,1,2,2-Tetrachloroethane	83		11.707					ND	
100 Bromobenzene	156		11.713					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		11.810					ND	
104 2-Chlorotoluene	126		11.901					ND	
105 3-Chlorotoluene	126		11.962					ND	
106 1,3,5-Trimethylbenzene	105		11.993					ND	
107 4-Chlorotoluene	126		12.023					ND	
108 tert-Butylbenzene	119		12.309					ND	
109 Pentachloroethane	167		12.338					ND	
110 1,2,4-Trimethylbenzene	105		12.370					ND	
111 1,2-dichloro-4-(trifluorom	214		12.406					ND	
112 sec-Butylbenzene	105		12.534					ND	
113 1,3-Dichlorobenzene	146		12.650					ND	
114 4-Isopropyltoluene	119		12.686					ND	
115 1,4-Dichlorobenzene	146		12.753					ND	
117 1,2,3-Trimethylbenzene	105		12.776					ND	
116 2,4-Dichloro-1-(triflourom	214		12.777					ND	
118 2,5-Dichlorobenzotrifluori	214		12.820					ND	
119 Benzyl chloride	91		12.867					ND	
120 n-Butylbenzene	91		13.100					ND	
121 1,2-Dichlorobenzene	146		13.106					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.897					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.043					ND	
124 1,3,5-Trichlorobenzene	180		14.090					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.456					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		15.990					ND	
130 2,3,6-Trichlorotoluene	159		16.087					ND	
132 2-Methylnaphthalene	142		16.134					ND	
147 2,4-Dichlorotoluene	1		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
150 2,6-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
146 2,5-Dichlorotoluene	1		0.000					ND	
151 Isooctane	57		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\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURRE\_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922009.D

Injection Date: 22-Sep-2015 14:26:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: MB

Worklist Smp#: 9

Client ID:

Purge Vol: 5.000 mL

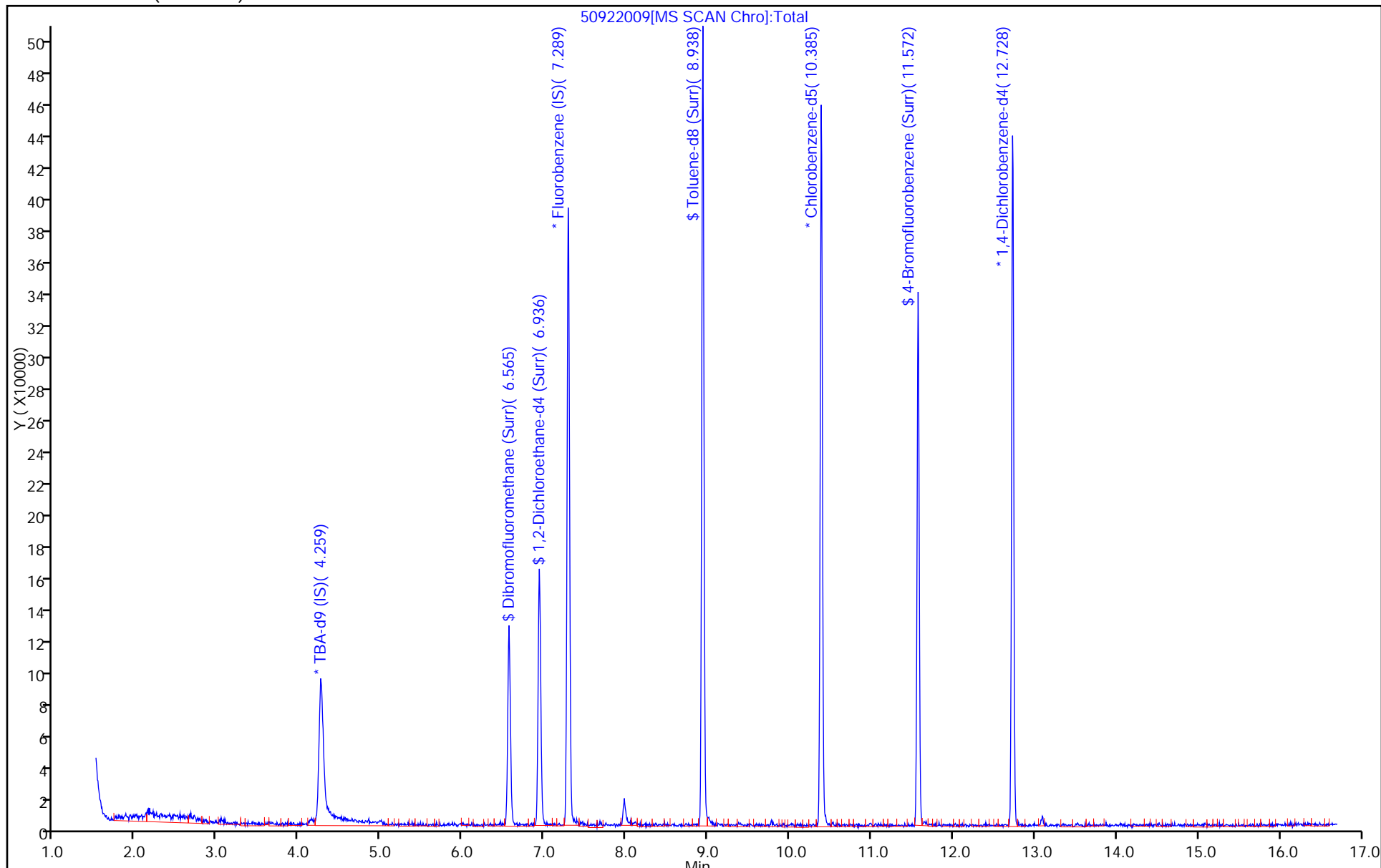
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-154553/4  
 Matrix: Water Lab File ID: 60923004.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 12:14  
 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.: 154553 Units: ug/L

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

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-154553/4  
 Matrix: Water Lab File ID: 60923004.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 12:14  
 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.: 154553 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	112		64-135
2037-26-5	Toluene-d8 (Surr)	100		71-118
460-00-4	4-Bromofluorobenzene (Surr)	89		70-118
1868-53-7	Dibromofluoromethane (Surr)	115		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923004.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 23-Sep-2015 12:14:30 ALS Bottle#: 4 Worklist Smp#: 4  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: MB  
 Misc. Info.: 180-0008638-004  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 23-Sep-2015 12:42:18 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: RT Order 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: XAWRK005

First Level Reviewer: fergusond

Date: 23-Sep-2015 12:42:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.217	4.236	-0.019	87	182934	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.284	7.284	0.000	97	460586	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	91	111554	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.747	-0.001	98	178864	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.554	6.548	0.006	92	122318	50.0	57.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.925	0.006	70	191909	50.0	56.1	
\$ 7 Toluene-d8 (Surr)	98	8.944	8.938	0.006	94	442064	50.0	50.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.585	0.000	84	174221	50.0	44.6	
11 Dichlorodifluoromethane	85		1.602					ND	
12 Chloromethane	50		1.760					ND	
13 Vinyl chloride	62		1.900					ND	
14 Butadiene	39		1.930					ND	
15 Bromomethane	94		2.222					ND	
16 Chloroethane	64		2.374					ND	
17 Dichlorofluoromethane	67		2.654					ND	
18 Trichlorofluoromethane	101		2.672					ND	
19 Ethanol	45		2.915					ND	
20 Ethyl ether	59		3.044					ND	
21 Acrolein	56		3.214					ND	
22 1,1-Dichloroethene	96		3.336					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.396					ND	
24 Acetone	43		3.415					ND	
25 Iodomethane	142		3.536					ND	
26 Carbon disulfide	76		3.634					ND	
27 Isopropyl alcohol	45		3.670					ND	
28 Acetonitrile	40		3.834					ND	
29 3-Chloro-1-propene	76		3.913					ND	
30 Methyl acetate	43		3.926					ND	
31 Methylene Chloride	84		4.126					ND	
32 2-Methyl-2-propanol	59		4.364					ND	
33 Acrylonitrile	53		4.497					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		4.564					ND	
34 trans-1,2-Dichloroethene	96		4.564					ND	
36 Hexane	57		4.990					ND	
37 1,1-Dichloroethane	63		5.197					ND	
38 Vinyl acetate	43		5.240					ND	
39 2-Chloro-1,3-butadiene	53		5.294					ND	
40 Isopropyl ether	45		5.294					ND	
41 Tert-butyl ethyl ether	59		5.768					ND	
42 2,2-Dichloropropane	77		5.939					ND	
43 cis-1,2-Dichloroethene	96		5.939					ND	
44 2-Butanone (MEK)	43		5.945					ND	
45 Propionitrile	54		6.012					ND	
46 Ethyl acetate	43		6.024					ND	
47 Methacrylonitrile	41		6.194					ND	
48 Chlorobromomethane	128		6.225					ND	
50 Chloroform	83		6.377					ND	
51 1,1,1-Trichloroethane	97		6.535					ND	
52 Cyclohexane	56		6.615					ND	
49 Tetrahydrofuran	42		6.615					ND	
53 Carbon tetrachloride	117		6.712					ND	
54 1,1-Dichloropropene	75		6.724					ND	
55 Isobutyl alcohol	41		6.894					ND	
56 Benzene	78		6.937					ND	
57 1,2-Dichloroethane	62		7.010					ND	
148 Isooctane	57		7.101					ND	
58 Tert-amyl methyl ether	73		7.119					ND	
59 n-Heptane	43		7.308					ND	
60 n-Butanol	56		7.612					ND	
61 Trichloroethene	130		7.673					ND	
62 Ethyl acrylate	55		7.794					ND	
63 Methylcyclohexane	83		7.922					ND	
64 1,2-Dichloropropane	63		7.953					ND	
66 Methyl methacrylate	69		8.025					ND	
65 1,4-Dioxane	88		8.032					ND	
67 Dibromomethane	93		8.038					ND	
68 Dichlorobromomethane	83		8.227					ND	
69 2-Nitropropane	41		8.445					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		9.011					ND	
74 trans-1,3-Dichloropropene	75		9.255					ND	
75 Ethyl methacrylate	69		9.316					ND	
76 1,1,2-Trichloroethane	97		9.443					ND	
77 Tetrachloroethene	164		9.529					ND	
78 1,3-Dichloropropane	76		9.608					ND	
79 2-Hexanone	43		9.662					ND	
80 n-Butyl acetate	43		9.783					ND	
81 Chlorodibromomethane	129		9.827					ND	
82 Ethylene Dibromide	107		9.942					ND	
83 3-Chlorobenzotrifluoride	180		10.392					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		11.037					ND	
90 Styrene	104		11.062					ND	
91 Bromoform	173		11.244					ND	
129 Cyclohexanol	57		11.246					ND	
92 2-Chlorobenzotrifluoride	180		11.299					ND	
93 Isopropylbenzene	105		11.408					ND	
94 Cyclohexanone	55		11.493					ND	
96 1,1,2,2-Tetrachloroethane	83		11.712					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		12.418					ND	
108 sec-Butylbenzene	105		12.546					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		12.880					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		14.474					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		16.007					ND	
127 2,3,6-Trichlorotoluene	159		16.111					ND	
128 2-Methylnaphthalene	142		16.153					ND	
145 2,3-Dichlorotoluene	1		0.000					ND	
144 2,4-Dichlorotoluene	1		0.000					ND	
151 Tert-amyl methyl ether (TI	1		0.000					ND	
153 1,2 Epoxybutane TIC	1		0.000					ND	
146 3,4-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	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
149 Isopropyl ether TIC	1		0.000					ND	
143 2,5-Dichlorotoluene	1		0.000					ND	
150 Tert-butyl ethyl ether (TI	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	

**Reagents:**

VOA8260INT\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923004.D

Injection Date: 23-Sep-2015 12:14:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: MB

Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL

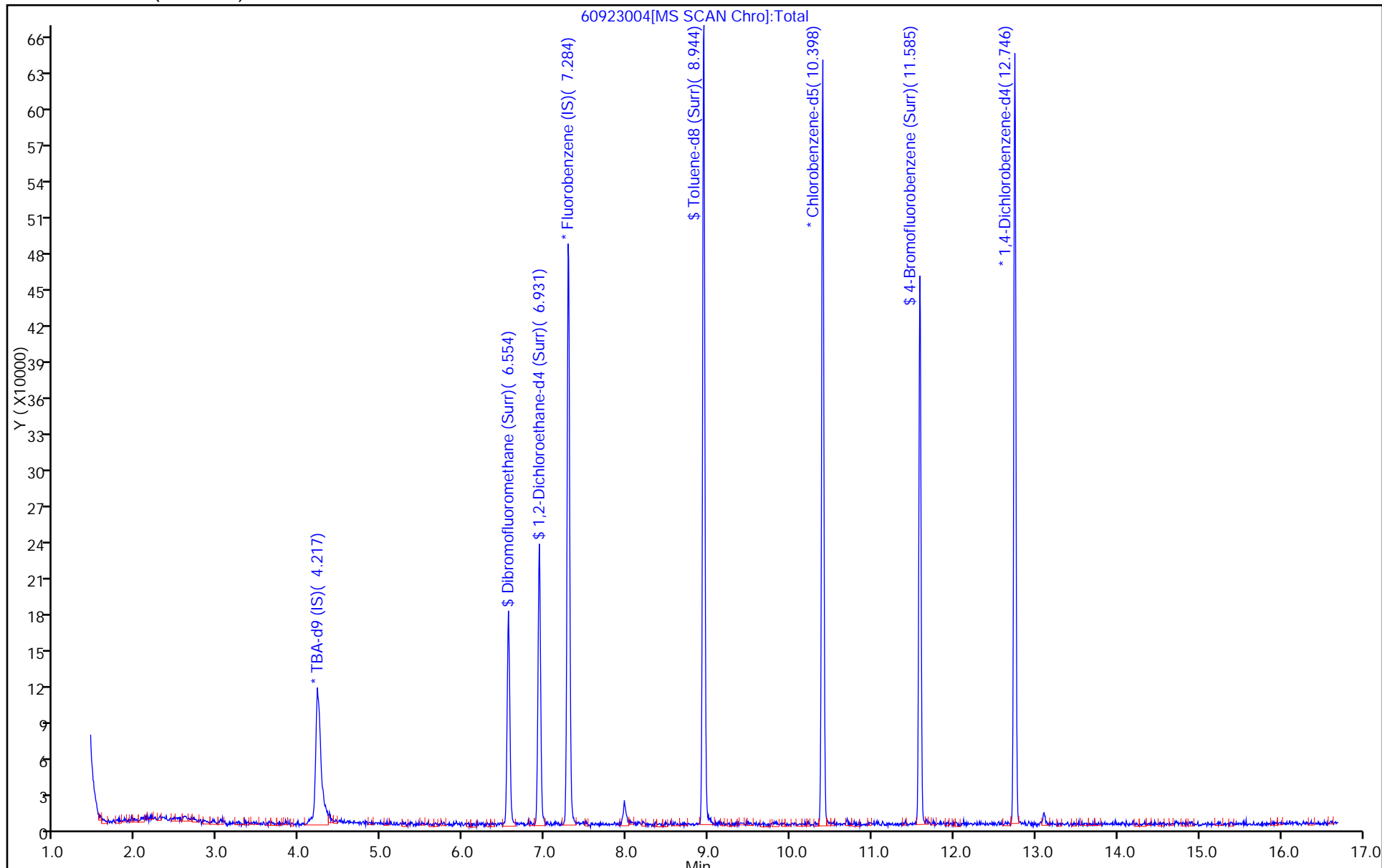
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA\_LL\_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.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-154736/4  
 Matrix: Water Lab File ID: 50924004.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/24/2015 12:10  
 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.: 154736 Units: ug/L

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

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-154736/4  
 Matrix: Water Lab File ID: 50924004.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/24/2015 12:10  
 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.: 154736 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		64-135
2037-26-5	Toluene-d8 (Surr)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	91		70-118
1868-53-7	Dibromofluoromethane (Surr)	101		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\50924004.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 24-Sep-2015 12:10:30 ALS Bottle#: 4 Worklist Smp#: 4  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: MB  
 Misc. Info.: 180-0008665-004  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 24-Sep-2015 13:05:32 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: 24-Sep-2015 13:05:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.259	4.286	-0.027	0	168117	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.285	0.004	97	369878	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.388	-0.003	90	87072	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.733	12.730	0.003	97	119209	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.565	6.555	0.010	94	92122	50.0	50.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.933	0.003	0	133678	50.0	53.6	
\$ 7 Toluene-d8 (Surr)	98	8.937	8.934	0.003	95	328162	50.0	48.9	
\$ 8 4-Bromofluorobenzene (Surr	95	11.571	11.568	0.003	87	115889	50.0	45.7	
11 Dichlorodifluoromethane	85		1.597					ND	
12 Chloromethane	50		1.768					ND	
13 Vinyl chloride	62		1.908					ND	
14 Butadiene	39		1.938					ND	
15 Bromomethane	94		2.236					ND	
16 Chloroethane	64		2.382					ND	
17 Dichlorofluoromethane	67		2.662					ND	
18 Trichlorofluoromethane	101		2.692					ND	
19 Ethanol	45		2.957					ND	
20 Ethyl ether	59		3.045					ND	
21 Acrolein	56		3.222					ND	
22 1,1-Dichloroethene	96		3.337					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.422					ND	
24 Acetone	43		3.447					ND	
25 Iodomethane	142		3.532					ND	
26 Carbon disulfide	76		3.629					ND	
27 Isopropyl alcohol	45		3.706					ND	
29 Acetonitrile	40		3.870					ND	
28 3-Chloro-1-propene	76		3.909					ND	
30 Methyl acetate	43		3.940					ND	
31 Methylene Chloride	84		4.134					ND	
32 2-Methyl-2-propanol	59		4.408					ND	
33 Acrylonitrile	53		4.517					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.554					ND	
35 Methyl tert-butyl ether	73		4.578					ND	
36 Hexane	57		4.980					ND	
37 1,1-Dichloroethane	63		5.199					ND	
38 Vinyl acetate	43		5.248					ND	
39 2-Chloro-1,3-butadiene	53		5.299					ND	
41 Isopropyl ether	45		5.299					ND	
40 Isopropyl ether TIC	45		5.409					ND	
42 Tert-butyl ethyl ether	59		5.780					ND	
44 2,2-Dichloropropane	77		5.941					ND	
45 cis-1,2-Dichloroethene	96		5.947					ND	
46 2-Butanone (MEK)	43		5.959					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
48 Ethyl acetate	43		6.036					ND	
47 Propionitrile	54		6.036					ND	
50 Methacrylonitrile	41		6.212					ND	
49 Chlorobromomethane	128		6.233					ND	
51 Tetrahydrofuran	42		6.251					ND	
52 Chloroform	83		6.379					ND	
53 1,1,1-Trichloroethane	97		6.537					ND	
54 Cyclohexane	56		6.610					ND	
56 Carbon tetrachloride	117		6.714					ND	
55 1,1-Dichloropropene	75		6.726					ND	
57 Isobutyl alcohol	41		6.927					ND	
58 Benzene	78		6.939					ND	
59 1,2-Dichloroethane	62		7.018					ND	
61 Tert-amyl methyl ether	73		7.125					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.304					ND	
63 n-Butanol	56		7.629					ND	
64 Trichloroethene	130		7.675					ND	
65 Ethyl acrylate	55		7.800					ND	
66 Methylcyclohexane	83		7.918					ND	
67 1,2-Dichloropropane	63		7.949					ND	
69 Methyl methacrylate	69		8.031					ND	
68 Dibromomethane	93		8.034					ND	
70 1,4-Dioxane	88		8.040					ND	
71 Dichlorobromomethane	83		8.228					ND	
72 2-Nitropropane	41		8.451					ND	
73 2-Chloroethyl vinyl ether	63		8.526					ND	
74 cis-1,3-Dichloropropene	75		8.673					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.825					ND	
76 Toluene	91		9.001					ND	
77 trans-1,3-Dichloropropene	75		9.250					ND	
78 Ethyl methacrylate	69		9.311					ND	
79 1,1,2-Trichloroethane	97		9.445					ND	
80 Tetrachloroethene	164		9.518					ND	
81 1,3-Dichloropropane	76		9.603					ND	
82 2-Hexanone	43		9.652					ND	
83 n-Butyl acetate	43		9.783					ND	
84 Chlorodibromomethane	129		9.816					ND	
85 Ethylene Dibromide	107		9.932					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.388					ND	
87 Chlorobenzene	112		10.418					ND	
88 4-Chlorobenzotrifluoride	180		10.473					ND	
89 1,1,1,2-Tetrachloroethane	131		10.510					ND	
90 Ethylbenzene	106		10.516					ND	
91 m-Xylene & p-Xylene	106		10.644					ND	
92 o-Xylene	106		11.027					ND	
93 Styrene	104		11.051					ND	
94 Bromoform	173		11.228					ND	
95 Cyclohexanol	57		11.245					ND	
96 2-Chlorobenzotrifluoride	180		11.301					ND	
97 Isopropylbenzene	105		11.398					ND	
98 Cyclohexanone	55		11.480					ND	
99 1,1,2,2-Tetrachloroethane	83		11.708					ND	
100 Bromobenzene	156		11.708					ND	
102 trans-1,4-Dichloro-2-buten	53		11.751					ND	
101 1,2,3-Trichloropropane	110		11.763					ND	
103 N-Propylbenzene	120		11.812					ND	
104 2-Chlorotoluene	126		11.897					ND	
105 3-Chlorotoluene	126		11.964					ND	
106 1,3,5-Trimethylbenzene	105		11.994					ND	
107 4-Chlorotoluene	126		12.024					ND	
108 tert-Butylbenzene	119		12.310					ND	
109 Pentachloroethane	167		12.338					ND	
110 1,2,4-Trimethylbenzene	105		12.365					ND	
111 1,2-dichloro-4-(trifluorom	214		12.408					ND	
112 sec-Butylbenzene	105		12.529					ND	
113 1,3-Dichlorobenzene	146		12.645					ND	
114 4-Isopropyltoluene	119		12.688					ND	
115 1,4-Dichlorobenzene	146		12.755					ND	
117 1,2,3-Trimethylbenzene	105		12.776					ND	
116 2,4-Dichloro-1-(triflourom	214		12.779					ND	
118 2,5-Dichlorobenzotrifluori	214		12.821					ND	
119 Benzyl chloride	91		12.867					ND	
120 n-Butylbenzene	91		13.095					ND	
121 1,2-Dichlorobenzene	146		13.107					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.898					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.044					ND	
124 1,3,5-Trichlorobenzene	180		14.087					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.458					ND	
126 1,2,4-Trichlorobenzene	180		14.726					ND	
127 Hexachlorobutadiene	225		14.872					ND	
128 Naphthalene	128		14.987					ND	
129 1,2,3-Trichlorobenzene	180		15.212					ND	
131 2,4,5-Trichlorotoluene	159		15.991					ND	
130 2,3,6-Trichlorotoluene	159		16.088					ND	
132 2-Methylnaphthalene	142		16.134					ND	
147 2,4-Dichlorotoluene	1		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
150 2,6-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
146 2,5-Dichlorotoluene	1		0.000						ND
151 Isooctane	57		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_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURRE_00042	Amount Added: 2.00	Units: uL	Run Reagent



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\50924004.D

Injection Date: 24-Sep-2015 12:10:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: MB

Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL

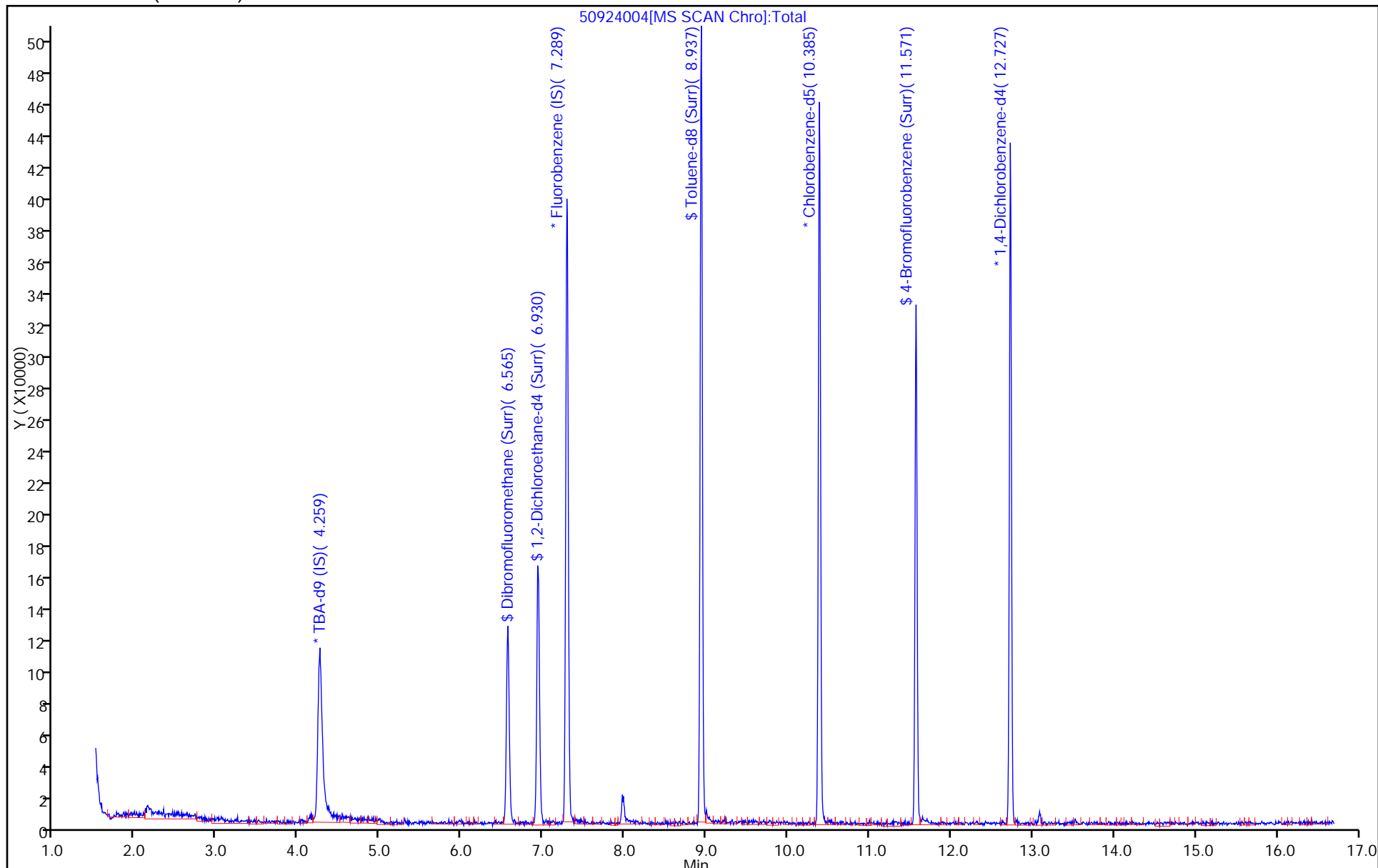
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-154121/9  
 Matrix: Water Lab File ID: 50918009.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/18/2015 15:07  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154121 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	9.06		1.0	0.28
75-01-4	Vinyl chloride	7.96		1.0	0.23
74-83-9	Bromomethane	7.75		1.0	0.31
75-00-3	Chloroethane	6.42		1.0	0.21
75-35-4	1,1-Dichloroethene	9.09		1.0	0.30
67-64-1	Acetone	21.8		5.0	2.5
75-15-0	Carbon disulfide	7.13		1.0	0.21
75-09-2	Methylene Chloride	9.07		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.03		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.73		1.0	0.18
75-34-3	1,1-Dichloroethane	8.81		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	8.86		1.0	0.24
74-97-5	Bromochloromethane	9.30		1.0	0.18
78-93-3	2-Butanone (MEK)	20.7		5.0	0.55
67-66-3	Chloroform	9.35		1.0	0.17
71-55-6	1,1,1-Trichloroethane	9.13		1.0	0.29
56-23-5	Carbon tetrachloride	9.59		1.0	0.14
71-43-2	Benzene	9.35		1.0	0.11
107-06-2	1,2-Dichloroethane	9.83		1.0	0.21
79-01-6	Trichloroethene	8.87		1.0	0.14
78-87-5	1,2-Dichloropropane	9.48		1.0	0.095
75-27-4	Bromodichloromethane	9.14		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.23		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	20.0		5.0	0.53
108-88-3	Toluene	10.5		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.65		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.5		1.0	0.20
127-18-4	Tetrachloroethene	9.45		1.0	0.15
591-78-6	2-Hexanone	19.3		5.0	0.16
124-48-1	Dibromochloromethane	9.15		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.3		1.0	0.18
108-90-7	Chlorobenzene	10.3		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.90		1.0	0.28
100-41-4	Ethylbenzene	10.2		1.0	0.23
1330-20-7	Xylenes, Total	20.4		3.0	0.49
100-42-5	Styrene	10.6		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-154121/9  
 Matrix: Water Lab File ID: 50918009.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/18/2015 15:07  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154121 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.11		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	8.84		1.0	0.20
107-13-1	Acrylonitrile	93.4		20	0.55
123-91-1	1,4-Dioxane	205		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		64-135
2037-26-5	Toluene-d8 (Surr)	95		71-118
460-00-4	4-Bromofluorobenzene (Surr)	83		70-118
1868-53-7	Dibromofluoromethane (Surr)	85		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918009.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 18-Sep-2015 15:07:30 ALS Bottle#: 8 Worklist Smp#: 9  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: LCS  
 Misc. Info.: 180-0008580-009  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Sep-2015 15:27:40 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: XAWRK010

First Level Reviewer: fergusond

Date: 18-Sep-2015 15:27:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.265	4.271	-0.006	0	129705	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.294	-0.005	97	360973	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.391	10.385	0.006	89	82008	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.727	12.727	0.000	96	107107	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.559	6.564	-0.005	92	75585	50.0	42.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.929	0.007	0	106816	50.0	43.9	
\$ 7 Toluene-d8 (Surr)	98	8.937	8.937	0.000	95	301228	50.0	47.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.571	11.571	0.000	85	99120	50.0	41.5	
11 Dichlorodifluoromethane	85	1.601	1.612	-0.011	99	87758	50.0	43.0	
12 Chloromethane	50	1.771	1.764	0.007	99	135588	50.0	45.3	
13 Vinyl chloride	62	1.905	1.904	0.001	98	105659	50.0	39.8	
14 Butadiene	39	1.941	1.941	0.000	98	132269	50.0	42.2	
15 Bromomethane	94	2.251	2.239	0.012	89	41904	50.0	38.8	
16 Chloroethane	64	2.391	2.385	0.006	98	51411	50.0	32.1	
17 Dichlorofluoromethane	67	2.677	2.671	0.006	97	138129	50.0	40.6	
18 Trichlorofluoromethane	101	2.689	2.695	-0.006	89	107007	50.0	42.1	
20 Ethyl ether	59	3.054	3.054	0.000	96	85983	50.0	36.5	
21 Acrolein	56	3.231	3.231	0.000	97	21438	150.0	61.1	
22 1,1-Dichloroethene	96	3.353	3.346	0.007	96	91400	50.0	45.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.432	3.425	0.007	94	99777	50.0	46.8	
24 Acetone	43	3.450	3.437	0.013	89	79411	100.0	109.0	
25 Iodomethane	142	3.547	3.541	0.006	97	127793	50.0	42.7	
26 Carbon disulfide	76	3.626	3.638	-0.012	99	166444	50.0	35.7	
28 3-Chloro-1-propene	76	3.912	3.924	-0.012	87	46317	50.0	40.7	
30 Methyl acetate	43	3.937	3.936	0.001	99	532302	250.0	244.6	
31 Methylene Chloride	84	4.143	4.131	0.012	97	108305	50.0	45.3	
32 2-Methyl-2-propanol	59	4.405	4.405	0.000	88	75525	500.0	517.3	
33 Acrylonitrile	53	4.521	4.526	-0.005	99	492916	500.0	466.8	
34 trans-1,2-Dichloroethene	96	4.563	4.563	0.000	94	98592	50.0	45.2	
35 Methyl tert-butyl ether	73	4.575	4.581	-0.006	95	220468	50.0	43.6	
36 Hexane	57	4.989	4.995	-0.006	96	155716	50.0	42.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.202	5.202	0.000	97	189407	50.0	44.0	
38 Vinyl acetate	43	5.251	5.250	0.001	98	159307	50.0	49.4	
45 cis-1,2-Dichloroethene	96	5.950	5.950	0.000	84	103323	50.0	44.3	
44 2,2-Dichloropropane	77	5.944	5.950	-0.006	59	70019	50.0	40.6	
46 2-Butanone (MEK)	43	5.956	5.956	0.000	98	113273	100.0	103.5	
49 Chlorobromomethane	128	6.230	6.236	-0.006	91	47600	50.0	46.5	
51 Tetrahydrofuran	42	6.248	6.248	0.000	89	71372	100.0	81.3	
52 Chloroform	83	6.382	6.382	0.000	96	173738	50.0	46.8	
53 1,1,1-Trichloroethane	97	6.540	6.540	0.000	94	125345	50.0	45.6	
54 Cyclohexane	56	6.613	6.619	-0.006	97	199956	50.0	43.5	
56 Carbon tetrachloride	117	6.711	6.716	-0.005	97	112172	50.0	47.9	
55 1,1-Dichloropropene	75	6.729	6.729	0.000	89	139647	50.0	46.0	
57 Isobutyl alcohol	41	6.924	6.929	-0.005	69	84360	1250.0	1227.2	
58 Benzene	78	6.948	6.948	0.000	97	416295	50.0	46.8	
59 1,2-Dichloroethane	62	7.021	7.015	0.006	97	151378	50.0	49.2	
62 n-Heptane	43	7.307	7.313	-0.006	96	150815	50.0	45.3	
64 Trichloroethene	130	7.678	7.672	0.006	95	96549	50.0	44.3	
66 Methylcyclohexane	83	7.915	7.915	0.000	94	149873	50.0	43.7	
67 1,2-Dichloropropane	63	7.952	7.951	0.001	95	110722	50.0	47.4	
70 1,4-Dioxane	88	8.031	8.030	0.001	39	16488	1000.0	1024.0	
68 Dibromomethane	93	8.037	8.037	0.000	94	56859	50.0	48.0	
71 Dichlorobromomethane	83	8.232	8.231	0.001	96	107240	50.0	45.7	
73 2-Chloroethyl vinyl ether	63	8.530	8.529	0.001	91	105369	100.0	88.3	
74 cis-1,3-Dichloropropene	75	8.676	8.675	0.001	89	126773	50.0	46.1	
75 4-Methyl-2-pentanone (MIBK)	43	8.828	8.827	0.001	99	201682	100.0	99.8	
76 Toluene	91	9.004	9.004	0.000	98	425245	50.0	52.4	
77 trans-1,3-Dichloropropene	75	9.247	9.253	-0.006	97	102232	50.0	48.2	
78 Ethyl methacrylate	69	9.314	9.308	0.006	93	100608	50.0	49.1	
79 1,1,2-Trichloroethane	97	9.448	9.448	0.000	93	81382	50.0	52.7	
80 Tetrachloroethene	164	9.521	9.515	0.006	91	74469	50.0	47.3	
81 1,3-Dichloropropane	76	9.600	9.600	0.000	99	148527	50.0	51.8	
82 2-Hexanone	43	9.655	9.661	-0.006	98	140815	100.0	96.5	
84 Chlorodibromomethane	129	9.819	9.813	0.006	91	61202	50.0	45.8	
85 Ethylene Dibromide	107	9.929	9.929	0.001	97	76980	50.0	51.7	
86 3-Chlorobenzotrifluoride	180	10.391	10.391	0.000	82	120590	50.0	46.2	
87 Chlorobenzene	112	10.415	10.415	0.000	93	268295	50.0	51.3	
88 4-Chlorobenzotrifluoride	180	10.476	10.476	0.000	97	113167	50.0	45.9	
89 1,1,1,2-Tetrachloroethane	131	10.513	10.506	0.007	90	84364	50.0	49.5	
90 Ethylbenzene	106	10.513	10.513	0.000	99	141403	50.0	51.0	
91 m-Xylene & p-Xylene	106	10.647	10.652	-0.005	0	175261	50.0	51.6	
92 o-Xylene	106	11.024	11.030	-0.006	97	163195	50.0	50.5	
93 Styrene	104	11.048	11.048	0.000	93	283701	50.0	53.0	
94 Bromoform	173	11.231	11.230	0.001	93	34761	50.0	45.6	
96 2-Chlorobenzotrifluoride	180	11.298	11.297	0.001	96	119922	50.0	46.7	
97 Isopropylbenzene	105	11.395	11.395	0.000	97	404272	50.0	51.1	
99 1,1,2,2-Tetrachloroethane	83	11.705	11.705	0.000	79	92074	50.0	44.2	
100 Bromobenzene	156	11.705	11.711	-0.006	95	90793	50.0	49.4	
102 trans-1,4-Dichloro-2-buten	53	11.742	11.741	0.001	76	25004	50.0	37.6	
101 1,2,3-Trichloropropane	110	11.760	11.766	-0.006	86	31252	50.0	51.5	
103 N-Propylbenzene	120	11.809	11.814	-0.005	99	107422	50.0	51.0	
104 2-Chlorotoluene	126	11.900	11.900	0.000	95	89927	50.0	50.3	
105 3-Chlorotoluene	126	11.967	11.966	0.001	96	87422	50.0	47.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.997	11.997	0.000	95	319168	50.0	53.7	
107 4-Chlorotoluene	126	12.022	12.021	0.001	98	97713	50.0	49.6	
108 tert-Butylbenzene	119	12.307	12.307	0.000	95	250484	50.0	51.8	
110 1,2,4-Trimethylbenzene	105	12.368	12.368	0.000	98	314219	50.0	52.7	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.411	0.000	97	80622	50.0	48.5	
112 sec-Butylbenzene	105	12.533	12.532	0.001	95	361391	50.0	52.9	
113 1,3-Dichlorobenzene	146	12.648	12.648	0.000	97	170935	50.0	52.2	
114 4-Isopropyltoluene	119	12.685	12.690	-0.005	97	311521	50.0	53.9	
115 1,4-Dichlorobenzene	146	12.752	12.751	0.001	94	169035	50.0	49.6	
116 2,4-Dichloro-1-(trifluorom	214	12.776	12.782	-0.006	96	76941	50.0	50.0	
118 2,5-Dichlorobenzotrifluori	214	12.818	12.824	-0.006	0	82367	50.0	49.5	
120 n-Butylbenzene	91	13.098	13.098	0.000	98	264594	50.0	53.5	
121 1,2-Dichlorobenzene	146	13.110	13.110	0.000	95	159301	50.0	52.1	
122 1,2-Dibromo-3-Chloropropan	75	13.901	13.901	0.000	70	16281	50.0	64.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.041	14.047	-0.006	0	304063	150.0	174.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.461	14.461	0.000	0	182434	100.0	109.5	
126 1,2,4-Trichlorobenzene	180	14.729	14.728	0.001	94	60598	50.0	50.9	
127 Hexachlorobutadiene	225	14.875	14.868	0.007	95	29991	50.0	52.3	
128 Naphthalene	128	14.990	14.990	0.000	97	160061	50.0	52.3	
129 1,2,3-Trichlorobenzene	180	15.215	15.215	0.000	94	49972	50.0	51.9	
131 2,4,5-Trichlorotoluene	159	15.994	15.994	0.000	0	13501	50.0	38.8	
130 2,3,6-Trichlorotoluene	159	16.085	16.091	-0.006	91	12890	50.0	40.2	
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	102.1	
S 134 1,2-Dichloroethene, Total	96				0		100.0	89.5	
S 135 1,3-Dichloropropene, Total	1				0		100.0	94.4	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOA8260VOA2ND_00143	Amount Added: 2.00	Units: uL	
voaW2-cle2ndR_00005	Amount Added: 2.00	Units: uL	
voaWVA2nd Res_00010	Amount Added: 2.00	Units: uL	
voaWKet1stRes_00001	Amount Added: 2.00	Units: uL	
voaEE2Restek_00001	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918009.D

Injection Date: 18-Sep-2015 15:07:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: LCS

Worklist Smp#: 9

Client ID:

Purge Vol: 5.000 mL

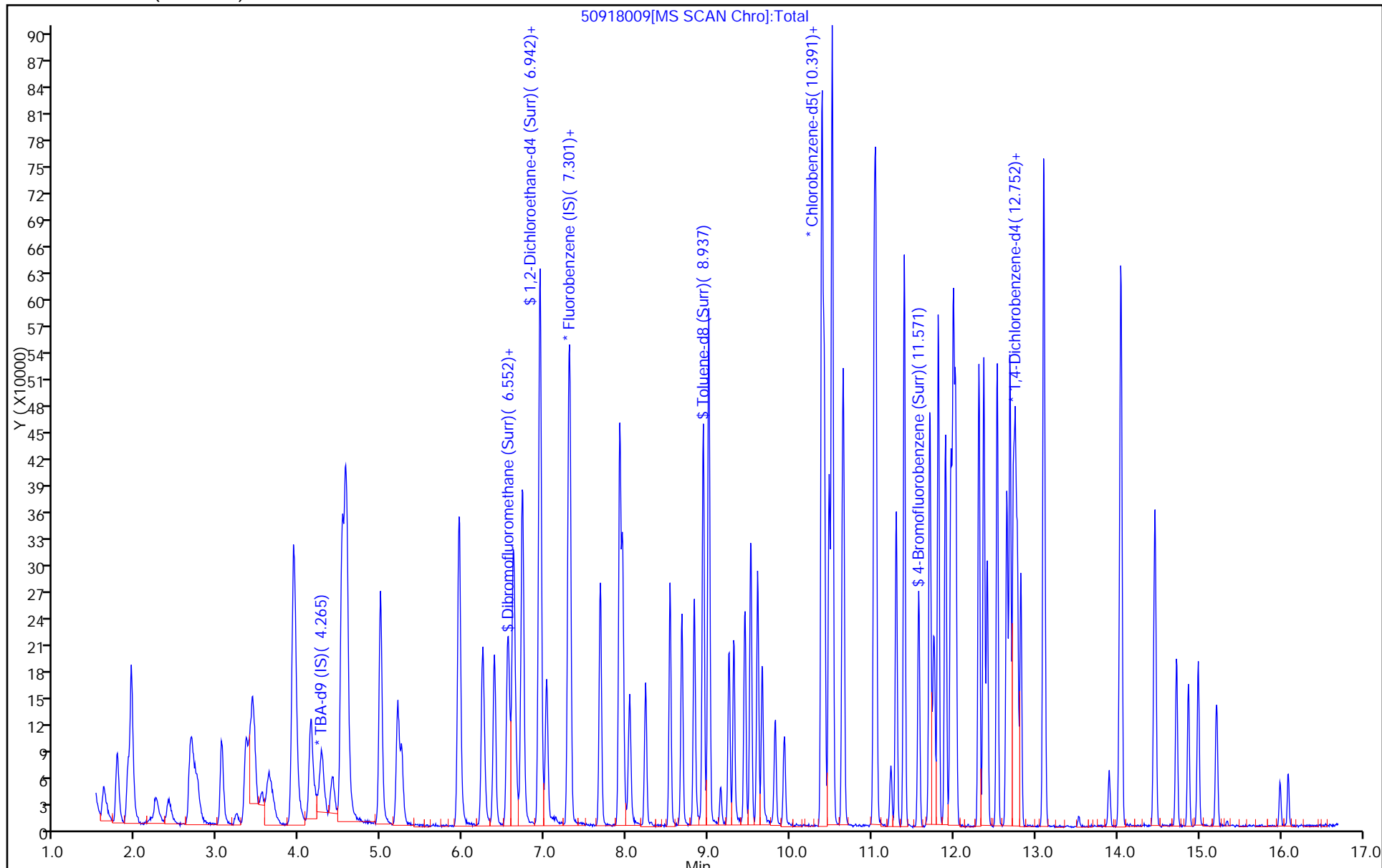
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-154425/12  
 Matrix: Water Lab File ID: 50922012.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/22/2015 15:51  
 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.: 154425 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	11.6		1.0	0.28
75-01-4	Vinyl chloride	10.3		1.0	0.23
74-83-9	Bromomethane	9.42		1.0	0.31
75-00-3	Chloroethane	9.27		1.0	0.21
75-35-4	1,1-Dichloroethene	8.31		1.0	0.30
67-64-1	Acetone	23.2		5.0	2.5
75-15-0	Carbon disulfide	8.73		1.0	0.21
75-09-2	Methylene Chloride	9.18		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	8.79		1.0	0.17
1634-04-4	Methyl tert-butyl ether	9.32		1.0	0.18
75-34-3	1,1-Dichloroethane	9.19		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	8.72		1.0	0.24
74-97-5	Bromochloromethane	8.91		1.0	0.18
78-93-3	2-Butanone (MEK)	22.0		5.0	0.55
67-66-3	Chloroform	9.26		1.0	0.17
71-55-6	1,1,1-Trichloroethane	8.39		1.0	0.29
56-23-5	Carbon tetrachloride	8.82		1.0	0.14
71-43-2	Benzene	9.45		1.0	0.11
107-06-2	1,2-Dichloroethane	9.47		1.0	0.21
79-01-6	Trichloroethene	9.17		1.0	0.14
78-87-5	1,2-Dichloropropane	9.92		1.0	0.095
75-27-4	Bromodichloromethane	9.62		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.24		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	19.2		5.0	0.53
108-88-3	Toluene	9.86		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	8.87		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.71		1.0	0.20
127-18-4	Tetrachloroethene	9.99		1.0	0.15
591-78-6	2-Hexanone	18.9		5.0	0.16
124-48-1	Dibromochloromethane	9.94		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.0		1.0	0.18
108-90-7	Chlorobenzene	9.79		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.48		1.0	0.28
100-41-4	Ethylbenzene	10.0		1.0	0.23
1330-20-7	Xylenes, Total	20.5		3.0	0.49
100-42-5	Styrene	10.6		1.0	0.097



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-154425/12  
 Matrix: Water Lab File ID: 50922012.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/22/2015 15:51  
 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.: 154425 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10.5		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.5		1.0	0.20
107-13-1	Acrylonitrile	108		20	0.55
123-91-1	1,4-Dioxane	248		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		64-135
2037-26-5	Toluene-d8 (Surr)	93		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	89		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922012.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 22-Sep-2015 15:51:30 ALS Bottle#: 7 Worklist Smp#: 12  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: LCS  
 Misc. Info.: 180-0008620-012  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 22-Sep-2015 16:07:24 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: XAWRK019

First Level Reviewer: fergusond

Date: 22-Sep-2015 16:07:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.281	4.273	0.008	0	139831	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.287	7.290	-0.003	97	361632	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.389	10.393	-0.004	89	86425	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.731	12.729	0.002	93	130084	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.563	6.566	-0.003	93	79072	50.0	44.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.940	6.937	0.003	0	113792	50.0	46.7	
\$ 7 Toluene-d8 (Surr)	98	8.935	8.939	-0.004	94	309198	50.0	46.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.569	11.573	-0.004	87	117502	50.0	46.7	
11 Dichlorodifluoromethane	85	1.617	1.614	0.003	98	98519	50.0	48.2	
12 Chloromethane	50	1.769	1.766	0.003	99	174425	50.0	58.1	
13 Vinyl chloride	62	1.903	1.906	-0.003	97	137464	50.0	51.7	
14 Butadiene	39	1.945	1.943	0.002	95	197573	50.0	62.9	
15 Bromomethane	94	2.243	2.247	-0.004	89	50980	50.0	47.1	
16 Chloroethane	64	2.402	2.405	-0.003	98	74394	50.0	46.3	
17 Dichlorofluoromethane	67	2.669	2.673	-0.004	97	156257	50.0	45.9	
18 Trichlorofluoromethane	101	2.712	2.709	0.003	90	114081	50.0	44.8	
20 Ethyl ether	59	3.053	3.050	0.003	96	108424	50.0	45.9	
21 Acrolein	56	3.229	3.226	0.003	98	36397	150.0	103.5	
22 1,1-Dichloroethene	96	3.357	3.348	0.009	93	83655	50.0	41.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.424	3.421	0.003	93	92693	50.0	43.4	
24 Acetone	43	3.442	3.439	0.003	97	84548	100.0	115.9	
25 Iodomethane	142	3.545	3.543	0.002	96	130097	50.0	43.3	
26 Carbon disulfide	76	3.643	3.634	0.009	100	204076	50.0	43.6	
28 3-Chloro-1-propene	76	3.922	3.920	0.002	88	49570	50.0	43.5	
30 Methyl acetate	43	3.941	3.938	0.003	100	620742	250.0	284.7	
31 Methylene Chloride	84	4.135	4.133	0.002	92	109687	50.0	45.9	
32 2-Methyl-2-propanol	59	4.409	4.394	0.015	88	80902	500.0	514.0	
33 Acrylonitrile	53	4.519	4.516	0.003	99	573905	500.0	542.5	
34 trans-1,2-Dichloroethene	96	4.567	4.565	0.002	92	96158	50.0	44.0	
35 Methyl tert-butyl ether	73	4.579	4.577	0.002	94	235805	50.0	46.6	
36 Hexane	57	4.987	4.991	-0.004	96	171276	50.0	46.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.200	5.204	-0.004	96	198012	50.0	46.0	
38 Vinyl acetate	43	5.255	5.252	0.003	97	179656	50.0	55.6	
44 2,2-Dichloropropane	77	5.942	5.946	-0.004	62	64039	50.0	37.1	
45 cis-1,2-Dichloroethene	96	5.948	5.952	-0.004	86	101842	50.0	43.6	
46 2-Butanone (MEK)	43	5.960	5.964	-0.004	72	120458	100.0	109.9	
49 Chlorobromomethane	128	6.240	6.238	0.002	87	45690	50.0	44.5	
51 Tetrahydrofuran	42	6.252	6.250	0.002	93	86145	100.0	98.0	
52 Chloroform	83	6.380	6.384	-0.004	98	172363	50.0	46.3	
53 1,1,1-Trichloroethane	97	6.544	6.542	0.002	94	115416	50.0	41.9	
54 Cyclohexane	56	6.617	6.615	0.002	97	214773	50.0	46.6	
56 Carbon tetrachloride	117	6.721	6.712	0.009	96	103326	50.0	44.1	
55 1,1-Dichloropropene	75	6.727	6.730	-0.003	91	137815	50.0	45.3	
57 Isobutyl alcohol	41	6.928	6.925	0.003	85	106037	1250.0	1539.7	
58 Benzene	78	6.946	6.943	0.003	98	421295	50.0	47.2	
59 1,2-Dichloroethane	62	7.019	7.022	-0.003	96	145964	50.0	47.3	
62 n-Heptane	43	7.311	7.308	0.003	97	173583	50.0	52.0	
64 Trichloroethene	130	7.676	7.679	-0.003	94	100026	50.0	45.9	
66 Methylcyclohexane	83	7.919	7.917	0.002	96	152479	50.0	44.4	
67 1,2-Dichloropropane	63	7.944	7.947	-0.003	96	116052	50.0	49.6	
68 Dibromomethane	93	8.035	8.032	0.003	96	53213	50.0	44.8	
70 1,4-Dioxane	88	8.035	8.032	0.003	43	20031	1000.0	1241.8	M
71 Dichlorobromomethane	83	8.230	8.233	-0.003	97	113032	50.0	48.1	
73 2-Chloroethyl vinyl ether	63	8.534	8.531	0.003	91	122023	100.0	102.1	
74 cis-1,3-Dichloropropene	75	8.674	8.671	0.003	88	127180	50.0	46.2	
75 4-Methyl-2-pentanone (MIBK)	43	8.826	8.829	-0.003	99	204543	100.0	96.1	
76 Toluene	91	9.002	9.006	-0.004	97	421636	50.0	49.3	
77 trans-1,3-Dichloropropene	75	9.252	9.249	0.003	97	98988	50.0	44.3	
78 Ethyl methacrylate	69	9.312	9.310	0.002	94	108591	50.0	50.3	
79 1,1,2-Trichloroethane	97	9.446	9.444	0.002	94	78976	50.0	48.5	
80 Tetrachloroethene	164	9.519	9.517	0.002	96	82937	50.0	49.9	
81 1,3-Dichloropropane	76	9.598	9.602	-0.004	99	150659	50.0	49.9	
82 2-Hexanone	43	9.659	9.657	0.002	98	145319	100.0	94.5	
84 Chlorodibromomethane	129	9.817	9.815	0.002	90	70047	50.0	49.7	
85 Ethylene Dibromide	107	9.927	9.930	-0.003	98	78470	50.0	50.0	
86 3-Chlorobenzotrifluoride	180	10.389	10.387	0.002	84	146179	50.0	53.2	
87 Chlorobenzene	112	10.414	10.417	-0.003	93	269629	50.0	48.9	
88 4-Chlorobenzotrifluoride	180	10.474	10.478	-0.004	95	136603	50.0	52.6	
89 1,1,1,2-Tetrachloroethane	131	10.505	10.508	-0.003	90	85129	50.0	47.4	
90 Ethylbenzene	106	10.517	10.514	0.003	98	146574	50.0	50.2	
91 m-Xylene & p-Xylene	106	10.645	10.648	-0.003	0	181740	50.0	50.8	
92 o-Xylene	106	11.028	11.025	0.003	97	175754	50.0	51.6	
93 Styrene	104	11.046	11.050	-0.004	95	298811	50.0	53.0	
94 Bromoform	173	11.229	11.232	-0.003	96	42190	50.0	52.5	
96 2-Chlorobenzotrifluoride	180	11.296	11.299	-0.003	96	137505	50.0	50.8	
97 Isopropylbenzene	105	11.393	11.396	-0.003	97	437902	50.0	52.5	
99 1,1,2,2-Tetrachloroethane	83	11.703	11.707	-0.004	81	115123	50.0	52.4	
100 Bromobenzene	156	11.709	11.713	-0.004	99	107856	50.0	48.3	
102 trans-1,4-Dichloro-2-buten	53	11.746	11.743	0.003	60	7007	50.0	8.68	
101 1,2,3-Trichloropropane	110	11.758	11.761	-0.003	89	38310	50.0	52.0	
103 N-Propylbenzene	120	11.813	11.810	0.003	99	122007	50.0	47.7	
104 2-Chlorotoluene	126	11.898	11.901	-0.003	95	108206	50.0	49.8	
105 3-Chlorotoluene	126	11.965	11.962	0.003	96	105922	50.0	47.4	

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	11.995	11.993	0.002	94	378930	50.0	52.5	
107 4-Chlorotoluene	126	12.026	12.023	0.003	98	117024	50.0	48.9	
108 tert-Butylbenzene	119	12.305	12.309	-0.004	96	285291	50.0	48.6	
110 1,2,4-Trimethylbenzene	105	12.366	12.370	-0.004	98	374981	50.0	51.8	
111 1,2-dichloro-4-(trifluorom	214	12.409	12.406	0.003	98	101574	50.0	50.3	
112 sec-Butylbenzene	105	12.531	12.534	-0.003	95	427153	50.0	51.5	
113 1,3-Dichlorobenzene	146	12.646	12.650	-0.004	98	203681	50.0	51.2	
114 4-Isopropyltoluene	119	12.689	12.686	0.003	97	357249	50.0	50.9	
115 1,4-Dichlorobenzene	146	12.756	12.753	0.003	94	213649	50.0	51.7	
116 2,4-Dichloro-1-(trifluorom	214	12.780	12.777	0.003	95	95084	50.0	50.9	
118 2,5-Dichlorobenzotrifluori	214	12.823	12.820	0.003	0	107924	50.0	53.4	
120 n-Butylbenzene	91	13.096	13.100	-0.004	98	292518	50.0	48.7	
121 1,2-Dichlorobenzene	146	13.108	13.106	0.002	96	191118	50.0	51.4	
122 1,2-Dibromo-3-Chloropropan	75	13.899	13.897	0.002	72	17546	50.0	57.5	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.045	14.043	0.002	0	326653	150.0	153.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.459	14.456	0.003	0	209505	100.0	103.5	
126 1,2,4-Trichlorobenzene	180	14.727	14.724	0.003	95	78405	50.0	54.2	
127 Hexachlorobutadiene	225	14.873	14.876	-0.003	96	38302	50.0	55.0	
128 Naphthalene	128	14.988	14.992	-0.004	97	208852	50.0	56.2	
129 1,2,3-Trichlorobenzene	180	15.213	15.217	-0.004	96	66223	50.0	56.6	
131 2,4,5-Trichlorotoluene	159	15.992	15.990	0.002	0	19131	50.0	45.3	
130 2,3,6-Trichlorotoluene	159	16.089	16.087	0.002	92	19215	50.0	49.4	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	102.4	
S 134 1,2-Dichloroethene, Total	96				0		100.0	87.6	
S 135 1,3-Dichloropropene, Total	1				0		100.0	90.5	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260VOA2ND_00143	Amount Added: 2.00	Units: uL	
voaWVA2nd Res_00010	Amount Added: 2.00	Units: uL	
voaEE2Restek_00001	Amount Added: 2.00	Units: uL	
voaW2-cle2ndR_00005	Amount Added: 2.00	Units: uL	
voaWKet1stRes_00001	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922012.D

Injection Date: 22-Sep-2015 15:51:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: LCS

Worklist Smp#: 12

Client ID:

Purge Vol: 5.000 mL

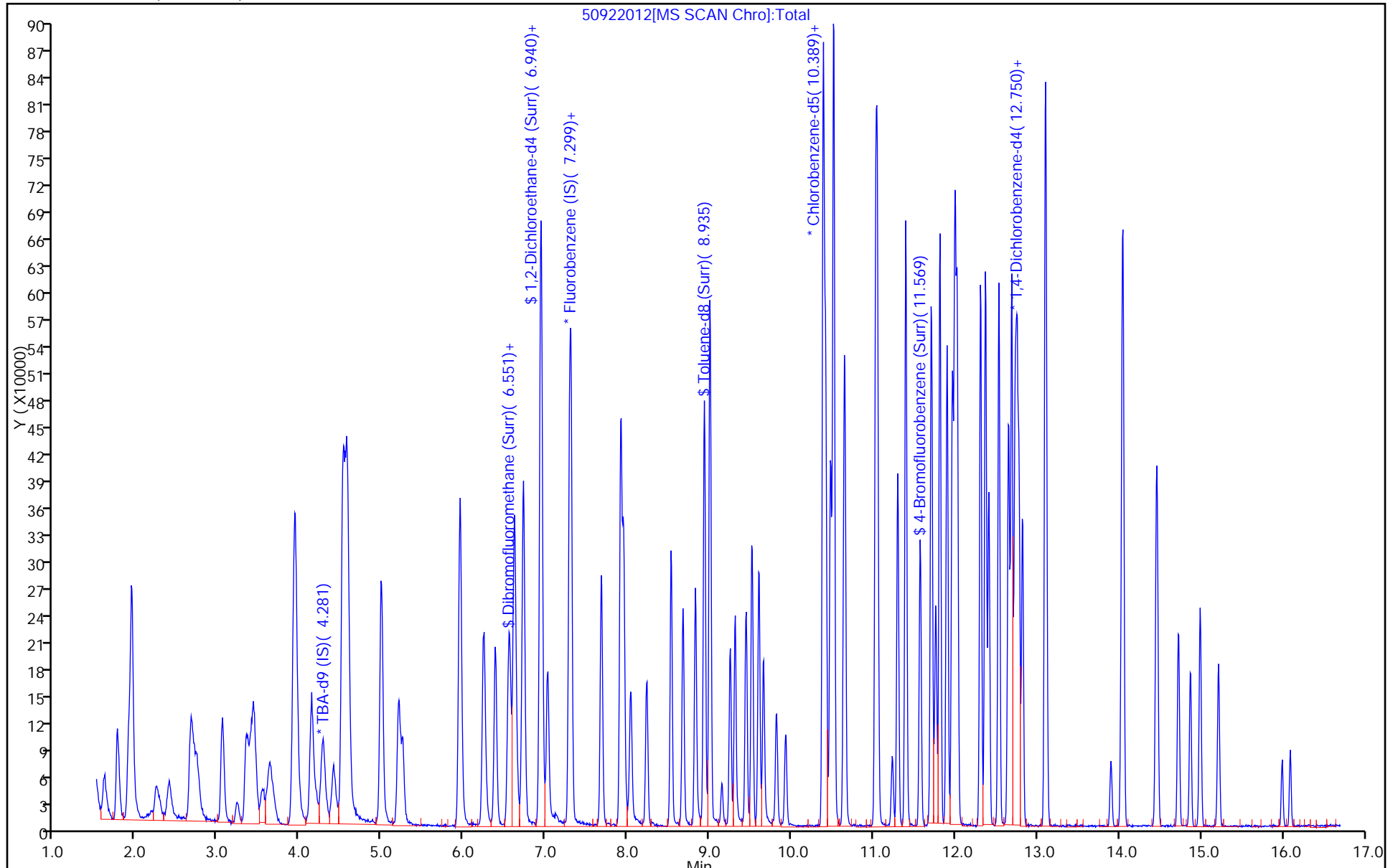
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



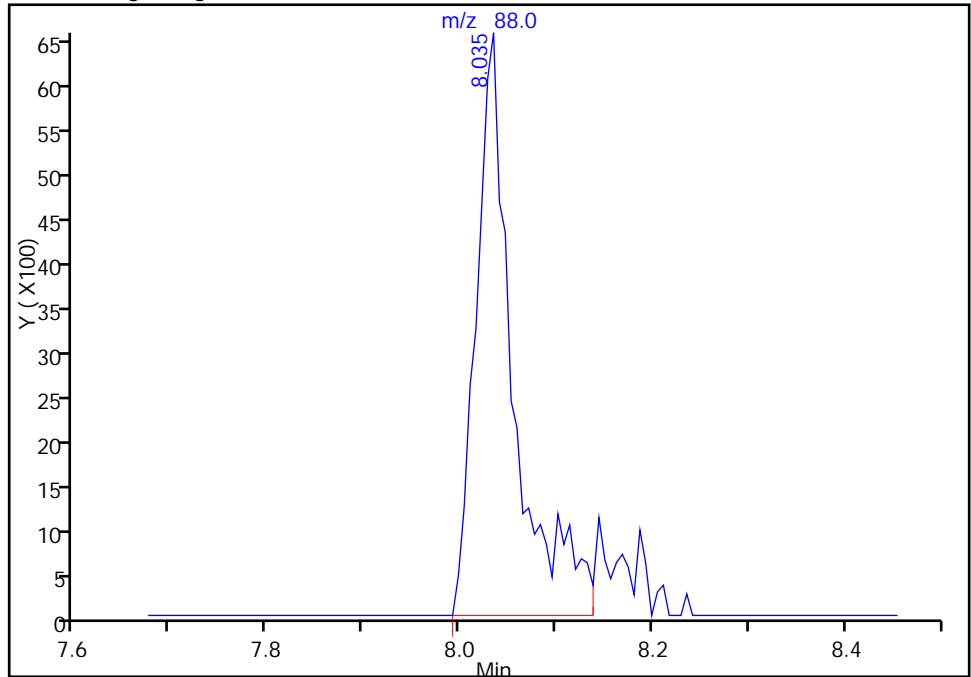
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922012.D  
Injection Date: 22-Sep-2015 15:51:30 Instrument ID: CHHP5  
Lims ID: LCS  
Client ID:  
Operator ID: 001562 ALS Bottle#: 7 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

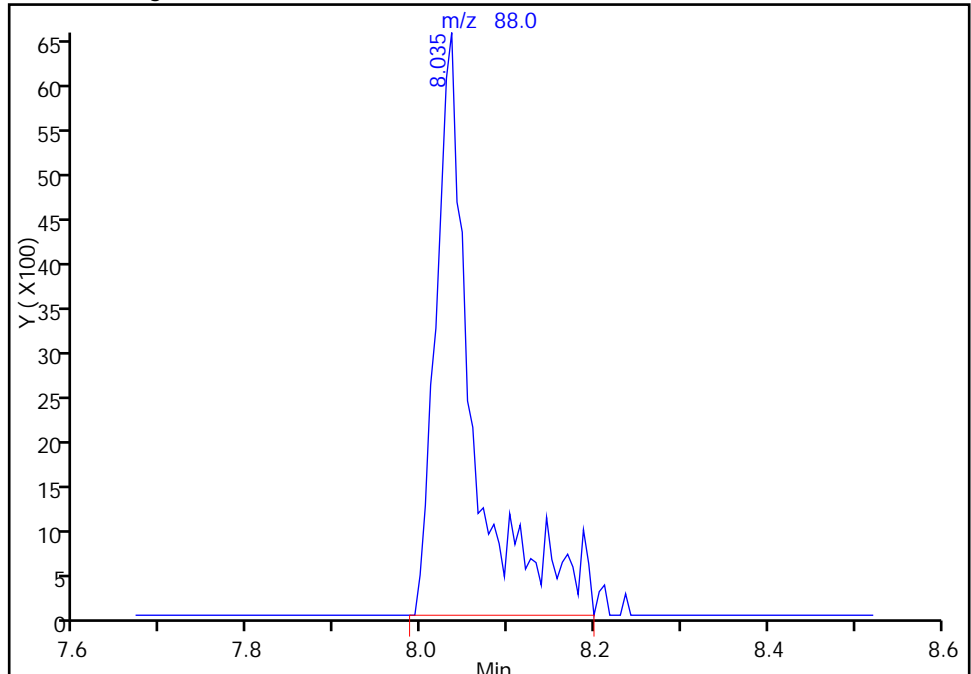
RT: 8.03  
Area: 17920  
Amount: 1110.8949  
Amount Units: ng

Processing Integration Results



RT: 8.03  
Area: 20031  
Amount: 1241.7598  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 22-Sep-2015 16:07:24  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-154553/10  
 Matrix: Water Lab File ID: 60923010.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 14:54  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154553 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	9.12		1.0	0.23
74-83-9	Bromomethane	7.85		1.0	0.31
75-00-3	Chloroethane	8.40		1.0	0.21
75-35-4	1,1-Dichloroethene	8.17		1.0	0.30
67-64-1	Acetone	21.7		5.0	2.5
75-15-0	Carbon disulfide	7.36		1.0	0.21
75-09-2	Methylene Chloride	8.39		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	8.64		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.86		1.0	0.18
75-34-3	1,1-Dichloroethane	9.67		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	8.57		1.0	0.24
74-97-5	Bromochloromethane	10.4		1.0	0.18
78-93-3	2-Butanone (MEK)	22.9		5.0	0.55
67-66-3	Chloroform	8.99		1.0	0.17
71-55-6	1,1,1-Trichloroethane	8.42		1.0	0.29
56-23-5	Carbon tetrachloride	8.68		1.0	0.14
71-43-2	Benzene	9.54		1.0	0.11
107-06-2	1,2-Dichloroethane	9.91		1.0	0.21
79-01-6	Trichloroethene	10.6		1.0	0.14
78-87-5	1,2-Dichloropropane	10.7		1.0	0.095
75-27-4	Bromodichloromethane	8.79		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.10		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	21.3		5.0	0.53
108-88-3	Toluene	9.56		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	8.53		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.58		1.0	0.20
127-18-4	Tetrachloroethene	10.3		1.0	0.15
591-78-6	2-Hexanone	23.3		5.0	0.16
124-48-1	Dibromochloromethane	9.16		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.96		1.0	0.18
108-90-7	Chlorobenzene	9.85		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.30		1.0	0.28
100-41-4	Ethylbenzene	9.64		1.0	0.23
1330-20-7	Xylenes, Total	18.7		3.0	0.49
100-42-5	Styrene	9.86		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-154553/10  
 Matrix: Water Lab File ID: 60923010.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 14:54  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154553 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.74		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.51		1.0	0.20
107-13-1	Acrylonitrile	114		20	0.55
123-91-1	1,4-Dioxane	183	J	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)	96		71-118
460-00-4	4-Bromofluorobenzene (Surr)	90		70-118
1868-53-7	Dibromofluoromethane (Surr)	95		70-128



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923010.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 23-Sep-2015 14:54:30 ALS Bottle#: 10 Worklist Smp#: 10  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: LCS  
 Misc. Info.: 180-0008638-010  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 23-Sep-2015 15:16:34 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: XAWRK005

First Level Reviewer: fergusond

Date: 23-Sep-2015 15:16:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.242	4.236	0.006	86	218938	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.284	7.284	0.000	98	488161	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	90	112436	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.747	0.000	95	196340	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.560	6.548	0.012	91	106703	50.0	47.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.925	0.006	70	180590	50.0	49.8	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	424049	50.0	47.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.585	0.000	84	177829	50.0	45.2	
11 Dichlorodifluoromethane	85	1.602	1.602	0.000	99	132948	50.0	39.3	
12 Chloromethane	50	1.760	1.760	0.000	99	156586	50.0	53.7	
13 Vinyl chloride	62	1.894	1.900	-0.006	98	143022	50.0	45.6	
14 Butadiene	39	1.936	1.930	0.006	96	160379	50.0	54.5	
15 Bromomethane	94	2.234	2.222	0.012	93	66487	50.0	39.2	
16 Chloroethane	64	2.380	2.374	0.006	99	89917	50.0	42.0	
17 Dichlorofluoromethane	67	2.654	2.654	0.000	98	199008	50.0	39.9	
18 Trichlorofluoromethane	101	2.691	2.672	0.019	93	156886	50.0	39.5	
20 Ethyl ether	59	3.043	3.044	-0.001	94	131089	50.0	46.5	
21 Acrolein	56	3.220	3.214	0.006	97	38311	150.0	124.6	
22 1,1-Dichloroethene	96	3.348	3.336	0.012	95	100341	50.0	40.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.415	3.396	0.019	94	121066	50.0	46.7	
24 Acetone	43	3.433	3.415	0.018	98	93589	100.0	108.4	
25 Iodomethane	142	3.542	3.536	0.006	99	157050	50.0	47.6	
26 Carbon disulfide	76	3.640	3.634	0.006	100	234289	50.0	36.8	
29 3-Chloro-1-propene	76	3.913	3.913	0.000	86	57035	50.0	41.2	
30 Methyl acetate	43	3.932	3.926	0.006	98	601398	250.0	297.0	
31 Methylene Chloride	84	4.132	4.126	0.006	98	145596	50.0	42.0	
32 2-Methyl-2-propanol	59	4.370	4.364	0.006	94	117850	500.0	478.3	
33 Acrylonitrile	53	4.504	4.497	0.007	97	582565	500.0	570.7	
34 trans-1,2-Dichloroethene	96	4.564	4.564	0.000	94	122487	50.0	43.2	
35 Methyl tert-butyl ether	73	4.577	4.564	0.012	96	376305	50.0	44.3	
36 Hexane	57	4.990	4.990	0.000	94	186145	50.0	48.4	

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	5.197	0.000	98	245496	50.0	48.4	
38 Vinyl acetate	43	5.240	5.240	0.000	98	214240	50.0	52.3	
42 2,2-Dichloropropane	77	5.945	5.939	0.006	59	109165	50.0	42.5	
43 cis-1,2-Dichloroethene	96	5.939	5.939	0.000	85	132123	50.0	42.8	
44 2-Butanone (MEK)	43	5.945	5.945	0.000	67	134992	100.0	114.5	
48 Chlorobromomethane	128	6.231	6.225	0.006	95	64590	50.0	52.1	
50 Chloroform	83	6.371	6.377	-0.006	96	226388	50.0	44.9	
51 1,1,1-Trichloroethane	97	6.541	6.535	0.006	97	156661	50.0	42.1	
52 Cyclohexane	56	6.614	6.615	-0.001	94	228752	50.0	47.9	
49 Tetrahydrofuran	42	6.621	6.615	0.006	49	56959	100.0	71.8	
53 Carbon tetrachloride	117	6.718	6.712	0.006	71	114106	50.0	43.4	
54 1,1-Dichloropropene	75	6.730	6.724	0.006	91	180492	50.0	45.1	
55 Isobutyl alcohol	41	6.894	6.894	0.000	87	110784	1250.0	1568.6	
56 Benzene	78	6.943	6.937	0.006	98	542974	50.0	47.7	
57 1,2-Dichloroethane	62	7.016	7.010	0.006	98	227166	50.0	49.6	
59 n-Heptane	43	7.308	7.308	0.000	94	179941	50.0	58.2	
61 Trichloroethene	130	7.679	7.673	0.006	96	125661	50.0	53.0	
63 Methylcyclohexane	83	7.922	7.922	0.000	95	205754	50.0	42.7	
64 1,2-Dichloropropane	63	7.953	7.953	0.000	83	145021	50.0	53.4	
65 1,4-Dioxane	88	8.020	8.032	-0.012	90	24579	1000.0	916.2	M
67 Dibromomethane	93	8.038	8.038	0.000	96	80009	50.0	48.5	
68 Dichlorobromomethane	83	8.233	8.227	0.006	98	136299	50.0	44.0	
70 2-Chloroethyl vinyl ether	63	8.525	8.531	-0.006	94	165457	100.0	91.9	
71 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	91	154984	50.0	45.5	
72 4-Methyl-2-pentanone (MIBK)	43	8.823	8.823	0.000	97	245865	100.0	106.4	
73 Toluene	91	9.011	9.011	0.000	97	554581	50.0	47.8	
74 trans-1,3-Dichloropropene	75	9.255	9.255	0.000	99	125663	50.0	42.7	
75 Ethyl methacrylate	69	9.316	9.316	0.000	91	152211	50.0	48.7	
76 1,1,2-Trichloroethane	97	9.449	9.443	0.006	96	114978	50.0	47.9	
77 Tetrachloroethene	164	9.522	9.529	-0.006	93	101584	50.0	51.3	
78 1,3-Dichloropropane	76	9.608	9.608	0.000	96	221655	50.0	50.0	
79 2-Hexanone	43	9.656	9.662	-0.006	99	177134	100.0	116.7	
81 Chlorodibromomethane	129	9.820	9.827	-0.007	91	75003	50.0	45.8	
82 Ethylene Dibromide	107	9.942	9.942	0.000	97	105767	50.0	49.8	
83 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	92	182689	50.0	49.2	
84 Chlorobenzene	112	10.429	10.429	0.000	92	351365	50.0	49.3	
85 4-Chlorobenzotrifluoride	180	10.484	10.484	0.000	96	168074	50.0	48.8	
86 1,1,1,2-Tetrachloroethane	131	10.520	10.520	0.000	84	90841	50.0	46.5	
87 Ethylbenzene	106	10.526	10.526	0.000	99	193791	50.0	48.2	
88 m-Xylene & p-Xylene	106	10.660	10.660	0.000	99	237361	50.0	47.5	
89 o-Xylene	106	11.043	11.037	0.006	98	229190	50.0	45.9	
90 Styrene	104	11.061	11.062	-0.001	95	378045	50.0	49.3	
91 Bromoform	173	11.244	11.244	0.000	94	42588	50.0	48.7	
92 2-Chlorobenzotrifluoride	180	11.305	11.299	0.006	96	181882	50.0	47.8	
93 Isopropylbenzene	105	11.408	11.408	0.000	97	577626	50.0	48.3	
96 1,1,2,2-Tetrachloroethane	83	11.712	11.712	0.000	96	152700	50.0	47.6	
95 Bromobenzene	156	11.725	11.725	0.000	98	149297	50.0	47.3	
97 trans-1,4-Dichloro-2-buten	53	11.755	11.749	0.006	65	37472	50.0	37.4	
98 1,2,3-Trichloropropane	110	11.773	11.773	0.000	88	56225	50.0	46.8	
99 N-Propylbenzene	120	11.828	11.828	0.000	99	159809	50.0	44.0	
100 2-Chlorotoluene	126	11.913	11.913	0.000	94	141731	50.0	47.0	
101 3-Chlorotoluene	126	11.980	11.980	0.000	97	145983	50.0	46.1	

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	12.011	12.011	-0.001	94	514018	50.0	43.5	
103 4-Chlorotoluene	126	12.035	12.035	0.000	99	153101	50.0	48.0	
104 tert-Butylbenzene	119	12.327	12.327	0.000	92	391197	50.0	41.9	
106 1,2,4-Trimethylbenzene	105	12.382	12.382	0.000	99	525507	50.0	43.5	
107 1,2-dichloro-4-(trifluorom	214	12.418	12.418	0.000	97	154484	50.0	45.1	
108 sec-Butylbenzene	105	12.546	12.546	0.000	96	604206	50.0	43.3	
109 1,3-Dichlorobenzene	146	12.668	12.668	0.000	95	281974	50.0	45.7	
110 4-Isopropyltoluene	119	12.704	12.704	0.000	96	505206	50.0	43.2	
111 1,4-Dichlorobenzene	146	12.771	12.771	0.000	91	301912	50.0	47.9	
113 2,4-Dichloro-1-(trifluorom	214	12.789	12.789	0.000	95	149700	50.0	44.0	
114 2,5-Dichlorobenzotrifluori	214	12.832	12.832	0.000	98	175869	50.0	46.2	
116 n-Butylbenzene	91	13.112	13.112	0.000	98	459080	50.0	39.3	
117 1,2-Dichlorobenzene	146	13.124	13.124	0.000	94	283237	50.0	45.5	
118 1,2-Dibromo-3-Chloropropan	75	13.915	13.915	0.000	67	20121	50.0	35.3	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.061	14.061	0.000	99	686584	150.0	126.7	
121 2,3- & 3,4- Dichlorotoluen	125	14.474	14.474	0.000	98	493612	100.0	82.6	
122 1,2,4-Trichlorobenzene	180	14.742	14.742	0.000	94	201426	50.0	41.8	
123 Hexachlorobutadiene	225	14.888	14.888	0.000	93	81882	50.0	43.1	
124 Naphthalene	128	15.004	15.010	-0.006	98	441051	50.0	45.3	
125 1,2,3-Trichlorobenzene	180	15.229	15.229	0.000	95	178727	50.0	39.6	
126 2,4,5-Trichlorotoluene	159	16.007	16.007	0.000	0	87611	50.0	28.9	
127 2,3,6-Trichlorotoluene	159	16.111	16.111	0.000	94	89909	50.0	31.3	
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		100.0	86.0	
S 131 Xylenes, Total	106				0		100.0	93.4	
S 132 1,3-Dichloropropene, Total	1				0		100.0	88.2	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

voaWKetmix2nd_00002	Amount Added: 2.00	Units: uL	
voaWVA2nd Res_00010	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00143	Amount Added: 2.00	Units: uL	
voaEE2Restek_00001	Amount Added: 2.00	Units: uL	
voaW2-cle2ndR_00005	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923010.D

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

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: LCS

Worklist Smp#: 10

Client ID:

Purge Vol: 5.000 mL

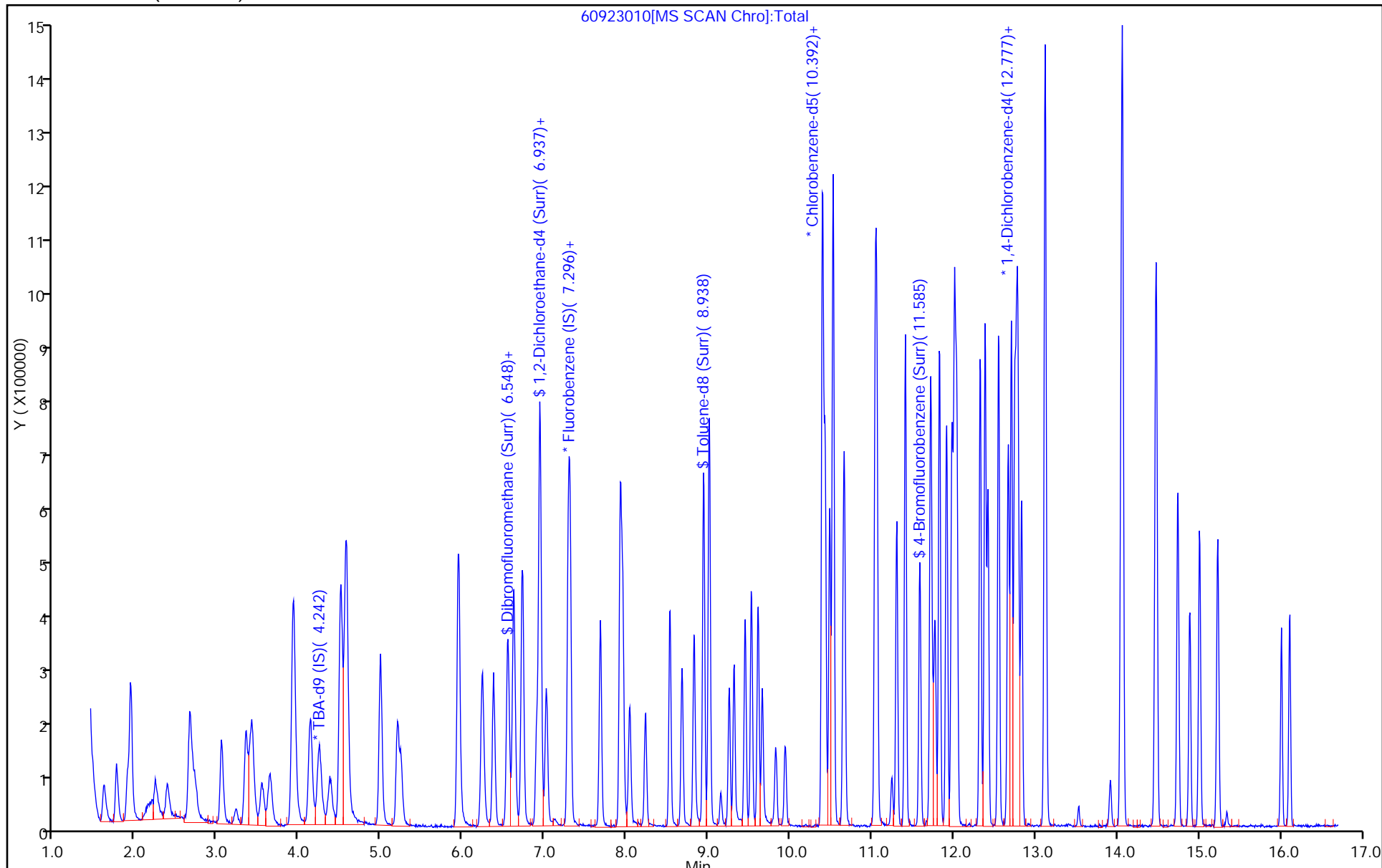
Dil. Factor: 1.0000

ALS Bottle#: 10

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



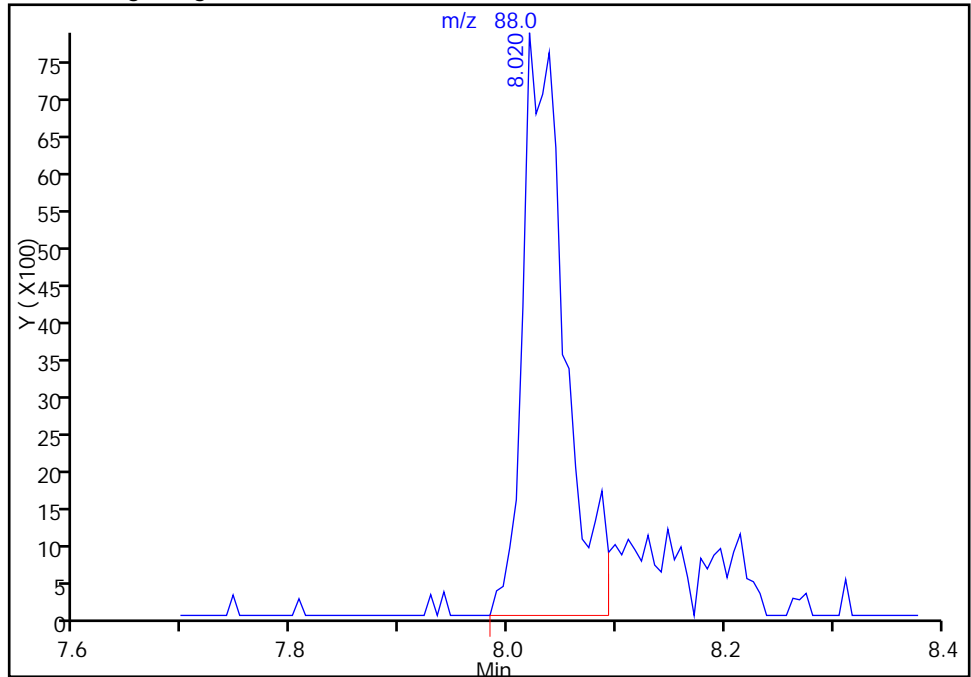
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923010.D  
Injection Date: 23-Sep-2015 14:54:30 Instrument ID: CHHP6  
Lims ID: LCS  
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

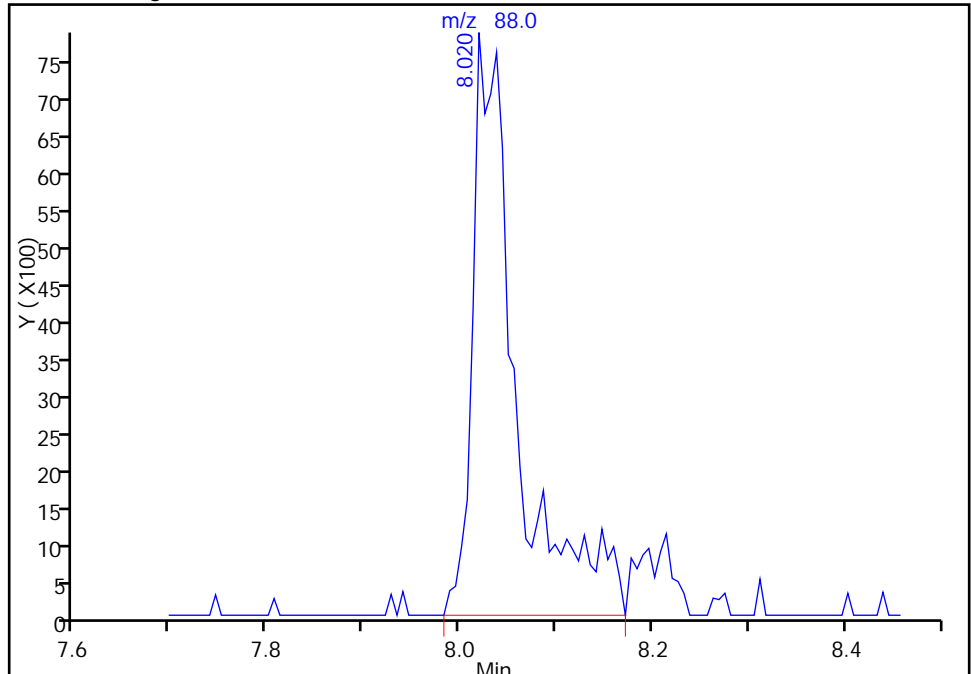
RT: 8.02  
Area: 20903  
Amount: 779.1554  
Amount Units: ng

Processing Integration Results



RT: 8.02  
Area: 24579  
Amount: 916.1777  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 23-Sep-2015 15:16:34  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-154736/7  
 Matrix: Water Lab File ID: 50924007.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/24/2015 13:37  
 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.: 154736 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	12.9		1.0	0.28
75-01-4	Vinyl chloride	11.0		1.0	0.23
74-83-9	Bromomethane	9.36		1.0	0.31
75-00-3	Chloroethane	10.6		1.0	0.21
75-35-4	1,1-Dichloroethene	7.97		1.0	0.30
67-64-1	Acetone	19.0		5.0	2.5
75-15-0	Carbon disulfide	8.54		1.0	0.21
75-09-2	Methylene Chloride	9.06		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	8.26		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.33		1.0	0.18
75-34-3	1,1-Dichloroethane	8.77		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	8.15		1.0	0.24
74-97-5	Bromochloromethane	8.20		1.0	0.18
78-93-3	2-Butanone (MEK)	20.9		5.0	0.55
67-66-3	Chloroform	9.03		1.0	0.17
71-55-6	1,1,1-Trichloroethane	8.20		1.0	0.29
56-23-5	Carbon tetrachloride	8.54		1.0	0.14
71-43-2	Benzene	8.91		1.0	0.11
107-06-2	1,2-Dichloroethane	9.39		1.0	0.21
79-01-6	Trichloroethene	8.49		1.0	0.14
78-87-5	1,2-Dichloropropane	9.65		1.0	0.095
75-27-4	Bromodichloromethane	10.1		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.72		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	20.6		5.0	0.53
108-88-3	Toluene	9.89		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	10.4		1.0	0.15
79-00-5	1,1,2-Trichloroethane	11.3		1.0	0.20
127-18-4	Tetrachloroethene	10.4		1.0	0.15
591-78-6	2-Hexanone	20.7		5.0	0.16
124-48-1	Dibromochloromethane	11.2		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	11.0		1.0	0.18
108-90-7	Chlorobenzene	10.6		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.9		1.0	0.28
100-41-4	Ethylbenzene	10.8		1.0	0.23
1330-20-7	Xylenes, Total	22.0		3.0	0.49
100-42-5	Styrene	11.9		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-154736/7  
 Matrix: Water Lab File ID: 50924007.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/24/2015 13:37  
 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.: 154736 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	12.0		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	12.5		1.0	0.20
107-13-1	Acrylonitrile	101		20	0.55
123-91-1	1,4-Dioxane	251		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		64-135
2037-26-5	Toluene-d8 (Surr)	96		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\CHHP5\20150924-8665.b\50924007.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 24-Sep-2015 13:37:30 ALS Bottle#: 7 Worklist Smp#: 7  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: LCS  
 Misc. Info.: 180-0008665-007  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 24-Sep-2015 13:57:23 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: XAWRK003

First Level Reviewer: fergusond

Date: 24-Sep-2015 13:57:22

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.284	4.286	-0.002	0	155467	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.295	7.285	0.010	97	413476	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.388	-0.002	90	96374	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.730	-0.002	94	152102	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.559	6.555	0.004	93	89095	50.0	43.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.933	0.003	0	127814	50.0	45.8	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.934	0.004	95	356215	50.0	47.9	
\$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.568	0.004	89	130478	50.0	46.5	
11 Dichlorodifluoromethane	85	1.607	1.597	0.010	98	142188	50.0	60.9	
12 Chloromethane	50	1.771	1.768	0.003	99	220979	50.0	64.4	
13 Vinyl chloride	62	1.911	1.908	0.003	97	167992	50.0	55.2	
14 Butadiene	39	1.942	1.938	0.004	97	244962	50.0	68.2	
15 Bromomethane	94	2.246	2.236	0.010	91	57940	50.0	46.8	
16 Chloroethane	64	2.392	2.382	0.010	98	97004	50.0	52.9	
17 Dichlorofluoromethane	67	2.666	2.662	0.004	97	197398	50.0	50.7	
18 Trichlorofluoromethane	101	2.690	2.692	-0.002	96	157574	50.0	54.1	M
20 Ethyl ether	59	3.055	3.045	0.010	97	113412	50.0	42.0	
21 Acrolein	56	3.232	3.222	0.010	96	43748	150.0	108.8	
22 1,1-Dichloroethene	96	3.347	3.337	0.010	91	91738	50.0	39.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.432	3.422	0.010	94	105090	50.0	43.1	
24 Acetone	43	3.444	3.447	-0.003	99	79262	100.0	95.0	
25 Iodomethane	142	3.542	3.532	0.010	97	142589	50.0	41.5	
26 Carbon disulfide	76	3.639	3.629	0.010	100	228296	50.0	42.7	
28 3-Chloro-1-propene	76	3.919	3.909	0.010	88	52614	50.0	40.3	
30 Methyl acetate	43	3.943	3.940	0.003	100	628446	250.0	252.1	
31 Methylene Chloride	84	4.144	4.134	0.010	95	124010	50.0	45.3	
32 2-Methyl-2-propanol	59	4.412	4.408	0.004	87	114958	500.0	657.0	
33 Acrylonitrile	53	4.521	4.517	0.004	97	609579	500.0	504.0	
34 trans-1,2-Dichloroethene	96	4.570	4.554	0.016	94	103229	50.0	41.3	
35 Methyl tert-butyl ether	73	4.588	4.578	0.010	92	241050	50.0	41.6	
36 Hexane	57	4.990	4.980	0.010	95	186656	50.0	44.5	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.209	5.199	0.010	98	215908	50.0	43.8	
38 Vinyl acetate	43	5.251	5.248	0.003	97	213816	50.0	57.9	
44 2,2-Dichloropropane	77	5.945	5.941	0.004	56	86696	50.0	43.9	
45 cis-1,2-Dichloroethene	96	5.957	5.947	0.010	86	108844	50.0	40.7	
46 2-Butanone (MEK)	43	5.963	5.959	0.004	85	131058	100.0	104.6	
49 Chlorobromomethane	128	6.237	6.233	0.004	87	48120	50.0	41.0	
51 Tetrahydrofuran	42	6.249	6.251	-0.002	94	95175	100.0	94.7	
52 Chloroform	83	6.383	6.379	0.004	96	192225	50.0	45.2	
53 1,1,1-Trichloroethane	97	6.541	6.537	0.004	94	128959	50.0	41.0	
54 Cyclohexane	56	6.614	6.610	0.004	98	226024	50.0	42.9	
56 Carbon tetrachloride	117	6.711	6.714	-0.003	97	114490	50.0	42.7	
55 1,1-Dichloropropene	75	6.730	6.726	0.004	87	145451	50.0	41.8	
57 Isobutyl alcohol	41	6.930	6.927	0.003	91	137857	1250.0	1750.8	
58 Benzene	78	6.942	6.939	0.003	97	454002	50.0	44.5	
59 1,2-Dichloroethane	62	7.022	7.018	0.004	96	165475	50.0	46.9	
62 n-Heptane	43	7.307	7.304	0.003	97	184362	50.0	48.4	
64 Trichloroethene	130	7.679	7.675	0.004	96	105818	50.0	42.4	
66 Methylcyclohexane	83	7.916	7.918	-0.002	96	155640	50.0	39.6	
67 1,2-Dichloropropane	63	7.946	7.949	-0.003	96	129057	50.0	48.2	
68 Dibromomethane	93	8.037	8.034	0.003	95	58753	50.0	43.3	
70 1,4-Dioxane	88	8.031	8.040	-0.009	44	23101	1000.0	1252.5	
71 Dichlorobromomethane	83	8.232	8.228	0.004	96	136007	50.0	50.6	
73 2-Chloroethyl vinyl ether	63	8.530	8.526	0.004	90	134117	100.0	98.2	
74 cis-1,3-Dichloropropene	75	8.676	8.673	0.004	88	152938	50.0	48.6	
75 4-Methyl-2-pentanone (MIBK)	43	8.828	8.825	0.003	98	244626	100.0	103.0	
76 Toluene	91	9.005	9.001	0.004	97	471869	50.0	49.5	
77 trans-1,3-Dichloropropene	75	9.248	9.250	-0.002	97	129440	50.0	52.0	
78 Ethyl methacrylate	69	9.309	9.311	-0.002	94	133620	50.0	55.5	
79 1,1,2-Trichloroethane	97	9.443	9.445	-0.002	94	102324	50.0	56.4	
80 Tetrachloroethene	164	9.516	9.518	-0.002	98	96074	50.0	51.9	
81 1,3-Dichloropropane	76	9.601	9.603	-0.002	96	178680	50.0	53.0	
82 2-Hexanone	43	9.656	9.652	0.004	97	177131	100.0	103.3	
84 Chlorodibromomethane	129	9.814	9.816	-0.002	89	87712	50.0	55.8	
85 Ethylene Dibromide	107	9.923	9.932	-0.009	98	95969	50.0	54.9	
86 3-Chlorobenzotrifluoride	180	10.386	10.388	-0.002	87	162057	50.0	52.9	
87 Chlorobenzene	112	10.416	10.418	-0.002	92	326620	50.0	53.2	
88 4-Chlorobenzotrifluoride	180	10.477	10.473	0.004	95	152070	50.0	52.5	
89 1,1,1,2-Tetrachloroethane	131	10.513	10.510	0.003	90	109337	50.0	54.6	
90 Ethylbenzene	106	10.513	10.516	-0.003	98	175049	50.0	53.8	
91 m-Xylene & p-Xylene	106	10.647	10.644	0.003	0	218184	50.0	54.6	
92 o-Xylene	106	11.024	11.027	-0.003	97	211458	50.0	55.7	
93 Styrene	104	11.049	11.051	-0.002	94	373549	50.0	59.4	
94 Bromoform	173	11.231	11.228	0.003	93	53769	50.0	60.0	
96 2-Chlorobenzotrifluoride	180	11.298	11.301	-0.003	97	155979	50.0	51.7	
97 Isopropylbenzene	105	11.396	11.398	-0.002	97	537892	50.0	57.9	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.708	-0.002	93	153204	50.0	62.6	
100 Bromobenzene	156	11.712	11.708	0.004	95	135890	50.0	52.0	
102 trans-1,4-Dichloro-2-buten	53	11.742	11.751	-0.009	69	22447	50.0	23.8	
101 1,2,3-Trichloropropane	110	11.761	11.763	-0.002	90	50031	50.0	58.1	
103 N-Propylbenzene	120	11.809	11.812	-0.003	99	150087	50.0	50.2	
104 2-Chlorotoluene	126	11.900	11.897	0.003	95	135032	50.0	53.2	
105 3-Chlorotoluene	126	11.967	11.964	0.003	95	125602	50.0	48.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.998	11.994	0.004	97	467996	50.0	55.4	
107 4-Chlorotoluene	126	12.022	12.024	-0.002	98	146922	50.0	52.6	
108 tert-Butylbenzene	119	12.308	12.310	-0.002	96	361273	50.0	52.6	
110 1,2,4-Trimethylbenzene	105	12.363	12.365	-0.002	99	467033	50.0	55.2	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.408	0.003	97	114749	50.0	48.6	
112 sec-Butylbenzene	105	12.533	12.529	0.004	95	526436	50.0	54.3	
113 1,3-Dichlorobenzene	146	12.649	12.645	0.004	98	263014	50.0	56.6	
114 4-Isopropyltoluene	119	12.685	12.688	-0.003	97	443115	50.0	54.0	
115 1,4-Dichlorobenzene	146	12.752	12.755	-0.002	94	275016	50.0	56.9	
116 2,4-Dichloro-1-(trifluorom	214	12.776	12.779	-0.003	96	110751	50.0	50.7	
118 2,5-Dichlorobenzotrifluori	214	12.819	12.821	-0.002	0	117684	50.0	49.8	
120 n-Butylbenzene	91	13.099	13.095	0.004	98	365470	50.0	52.1	
121 1,2-Dichlorobenzene	146	13.105	13.107	-0.002	95	251586	50.0	57.9	
122 1,2-Dibromo-3-Chloropropan	75	13.896	13.898	-0.002	75	23773	50.0	66.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.042	14.044	-0.002	0	363480	150.0	146.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.462	14.458	0.004	0	225202	100.0	95.2	
126 1,2,4-Trichlorobenzene	180	14.723	14.726	-0.003	95	99870	50.0	59.1	
127 Hexachlorobutadiene	225	14.869	14.872	-0.003	96	48528	50.0	59.6	
128 Naphthalene	128	14.991	14.987	0.004	97	254202	50.0	58.5	
129 1,2,3-Trichlorobenzene	180	15.216	15.212	0.004	94	77608	50.0	56.7	
131 2,4,5-Trichlorotoluene	159	15.989	15.991	-0.002	0	19715	50.0	39.9	
130 2,3,6-Trichlorotoluene	159	16.092	16.088	0.004	90	18449	50.0	40.5	
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	110.4	
S 134 1,2-Dichloroethene, Total	96				0		100.0	82.0	
S 135 1,3-Dichloropropene, Total	1				0		100.0	100.6	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260VOA2ND_00144	Amount Added: 2.00	Units: uL	
voaWKetmix2nd_00002	Amount Added: 2.00	Units: uL	
voaEE2Restek_00001	Amount Added: 2.00	Units: uL	
voaW2-cle2ndR_00005	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
voaWVA2nd Res_00010	Amount Added: 2.00	Units: uL	
VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150924-8665.b\50924007.D

Injection Date: 24-Sep-2015 13:37:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: LCS

Worklist Smp#: 7

Client ID:

Purge Vol: 5.000 mL

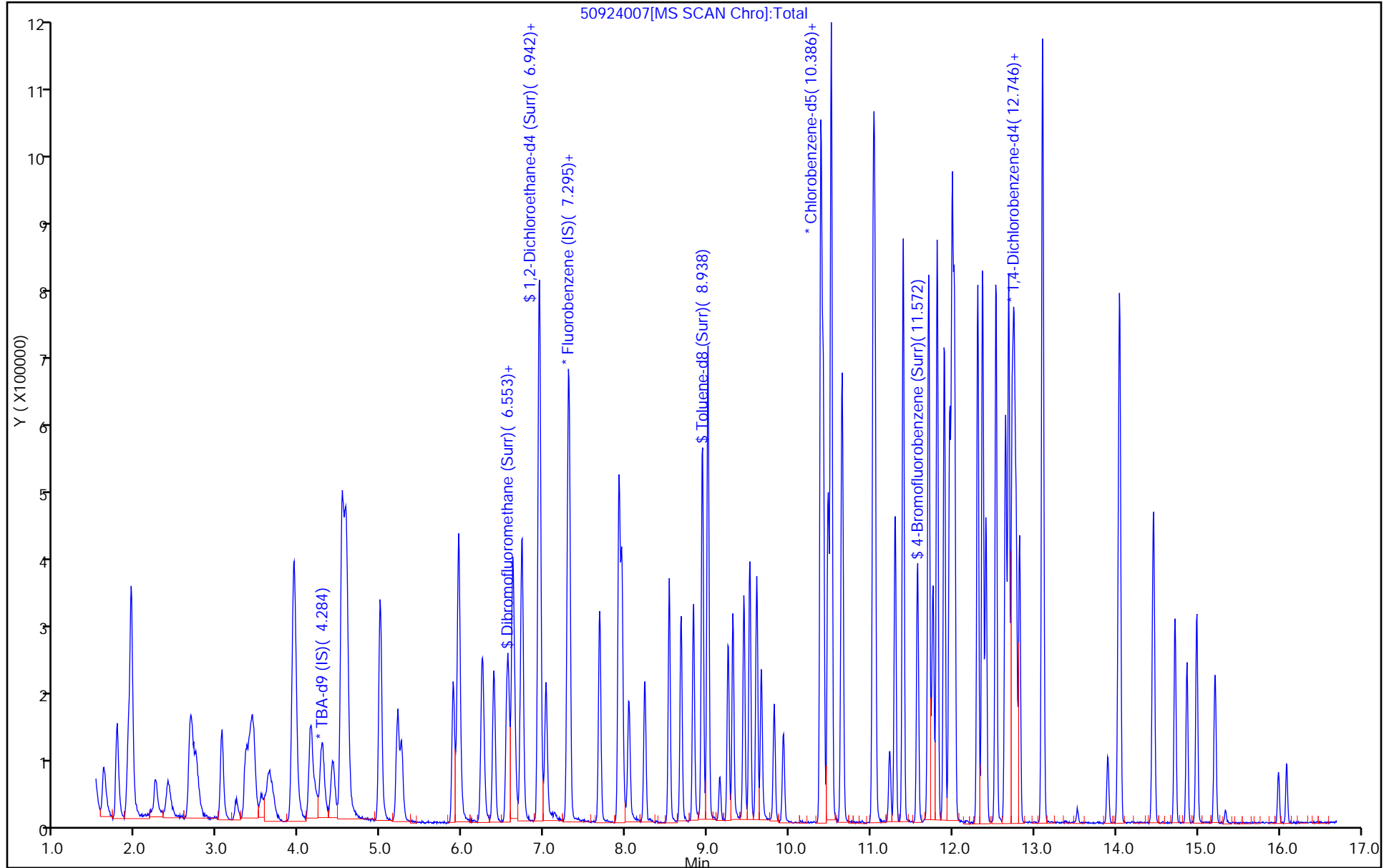
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-6-0/1-0 MS Lab Sample ID: 180-47781-1 MS  
 Matrix: Water Lab File ID: 50922013.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 10:40  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/22/2015 16:15  
 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.: 154425 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	11.4		1.0	0.28
75-01-4	Vinyl chloride	10.1		1.0	0.23
74-83-9	Bromomethane	9.86		1.0	0.31
75-00-3	Chloroethane	8.97		1.0	0.21
75-35-4	1,1-Dichloroethene	8.35		1.0	0.30
67-64-1	Acetone	19.9		5.0	2.5
75-15-0	Carbon disulfide	8.75		1.0	0.21
75-09-2	Methylene Chloride	9.42		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	8.96		1.0	0.17
1634-04-4	Methyl tert-butyl ether	9.75		1.0	0.18
75-34-3	1,1-Dichloroethane	9.47		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	9.12		1.0	0.24
74-97-5	Bromochloromethane	9.17		1.0	0.18
78-93-3	2-Butanone (MEK)	22.1		5.0	0.55
67-66-3	Chloroform	9.13		1.0	0.17
71-55-6	1,1,1-Trichloroethane	8.73		1.0	0.29
56-23-5	Carbon tetrachloride	8.83		1.0	0.14
71-43-2	Benzene	9.36		1.0	0.11
107-06-2	1,2-Dichloroethane	9.61		1.0	0.21
79-01-6	Trichloroethene	9.30		1.0	0.14
78-87-5	1,2-Dichloropropane	9.93		1.0	0.095
75-27-4	Bromodichloromethane	9.37		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	8.89		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	21.9		5.0	0.53
108-88-3	Toluene	10.3		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.63		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.3		1.0	0.20
127-18-4	Tetrachloroethene	10.2		1.0	0.15
591-78-6	2-Hexanone	21.6		5.0	0.16
124-48-1	Dibromochloromethane	10.6		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.9		1.0	0.18
108-90-7	Chlorobenzene	10.4		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.0		1.0	0.28
100-41-4	Ethylbenzene	10.6		1.0	0.23
1330-20-7	Xylenes, Total	22.0		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.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-6-0/1-0 MS Lab Sample ID: 180-47781-1 MS  
 Matrix: Water Lab File ID: 50922013.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 10:40  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/22/2015 16:15  
 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.: 154425 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10.3		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	11.2		1.0	0.20
107-13-1	Acrylonitrile	108		20	0.55
123-91-1	1,4-Dioxane	227		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		64-135
2037-26-5	Toluene-d8 (Surr)	100		71-118
460-00-4	4-Bromofluorobenzene (Surr)	103		70-118
1868-53-7	Dibromofluoromethane (Surr)	89		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922013.D  
 Lims ID: 180-47781-B-1 MS  
 Client ID:  
 Sample Type: MS  
 Inject. Date: 22-Sep-2015 16:15:30 ALS Bottle#: 8 Worklist Smp#: 13  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-47781-B-1 MS  
 Misc. Info.: 180-0008620-013  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 23-Sep-2015 00:05:06 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: XAWRK005

First Level Reviewer: fergusond

Date: 23-Sep-2015 07:54:40

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	4.273	0.001	0	111877	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.290	0.002	98	367735	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.393	-0.005	89	83137	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.729	0.001	95	126734	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.568	6.566	0.002	93	80167	50.0	44.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.939	6.937	0.002	0	115888	50.0	46.7	
\$ 7 Toluene-d8 (Surr)	98	8.934	8.939	-0.005	95	321836	50.0	50.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.568	11.573	-0.005	86	124766	50.0	51.6	
11 Dichlorodifluoromethane	85	1.610	1.614	-0.004	98	102082	50.0	49.1	
12 Chloromethane	50	1.768	1.766	0.002	99	173390	50.0	56.8	
13 Vinyl chloride	62	1.908	1.906	0.002	98	136383	50.0	50.4	
14 Butadiene	39	1.938	1.943	-0.005	98	202519	50.0	63.4	
15 Bromomethane	94	2.255	2.247	0.008	90	54302	50.0	49.3	
16 Chloroethane	64	2.401	2.405	-0.004	98	73250	50.0	44.9	
17 Dichlorofluoromethane	67	2.662	2.673	-0.011	97	152286	50.0	44.0	
18 Trichlorofluoromethane	101	2.711	2.709	0.002	97	119881	50.0	46.3	
20 Ethyl ether	59	3.052	3.050	0.002	98	110282	50.0	45.9	
21 Acrolein	56	3.234	3.226	0.008	99	37810	150.0	105.7	
22 1,1-Dichloroethene	96	3.350	3.348	0.002	93	85536	50.0	41.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.423	3.421	0.002	94	95930	50.0	44.2	
24 Acetone	43	3.453	3.439	0.014	97	73954	100.0	99.7	
25 Iodomethane	142	3.544	3.543	0.001	100	130210	50.0	42.7	
26 Carbon disulfide	76	3.636	3.634	0.002	100	208088	50.0	43.8	
28 3-Chloro-1-propene	76	3.922	3.920	0.002	88	51801	50.0	44.7	
30 Methyl acetate	43	3.940	3.938	0.002	100	637433	250.0	287.5	
31 Methylene Chloride	84	4.153	4.133	0.020	95	114116	50.0	47.1	
32 2-Methyl-2-propanol	59	4.408	4.394	0.014	89	76440	500.0	607.0	
33 Acrylonitrile	53	4.524	4.516	0.008	99	582458	500.0	541.4	
34 trans-1,2-Dichloroethene	96	4.566	4.565	0.001	93	99629	50.0	44.8	
35 Methyl tert-butyl ether	73	4.585	4.577	0.008	93	250817	50.0	48.7	
36 Hexane	57	4.992	4.991	0.001	97	178859	50.0	47.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.199	5.204	-0.005	96	207461	50.0	47.4	
38 Vinyl acetate	43	5.254	5.252	0.002	97	207898	50.0	63.3	
44 2,2-Dichloropropane	77	5.947	5.946	0.001	56	68334	50.0	38.9	
45 cis-1,2-Dichloroethene	96	5.953	5.952	0.001	86	108364	50.0	45.6	
46 2-Butanone (MEK)	43	5.959	5.964	-0.005	69	123369	100.0	110.7	
49 Chlorobromomethane	128	6.233	6.238	-0.005	87	47820	50.0	45.8	
51 Tetrahydrofuran	42	6.258	6.250	0.008	96	95747	100.0	107.1	
52 Chloroform	83	6.385	6.384	0.001	97	172747	50.0	45.6	
53 1,1,1-Trichloroethane	97	6.550	6.542	0.008	95	122191	50.0	43.7	
54 Cyclohexane	56	6.616	6.615	0.001	98	223345	50.0	47.7	
56 Carbon tetrachloride	117	6.720	6.712	0.008	93	105271	50.0	44.2	
55 1,1-Dichloropropene	75	6.732	6.730	0.002	90	144041	50.0	46.5	
57 Isobutyl alcohol	41	6.927	6.925	0.002	86	120009	1250.0	1713.7	
58 Benzene	78	6.945	6.943	0.002	98	424208	50.0	46.8	
59 1,2-Dichloroethane	62	7.018	7.022	-0.004	95	150673	50.0	48.0	
62 n-Heptane	43	7.310	7.308	0.002	97	176057	50.0	51.9	
64 Trichloroethene	130	7.681	7.679	0.002	97	103128	50.0	46.5	
66 Methylcyclohexane	83	7.918	7.917	0.001	97	161219	50.0	46.1	
67 1,2-Dichloropropane	63	7.949	7.947	0.002	95	118117	50.0	49.6	
68 Dibromomethane	93	8.034	8.032	0.002	95	54815	50.0	45.4	
70 1,4-Dioxane	88	8.028	8.032	-0.004	38	18656	1000.0	1137.3	
71 Dichlorobromomethane	83	8.235	8.233	0.002	97	111981	50.0	46.9	
74 cis-1,3-Dichloropropene	75	8.673	8.671	0.002	88	124480	50.0	44.5	
75 4-Methyl-2-pentanone (MIBK)	43	8.825	8.829	-0.004	99	224074	100.0	109.4	
76 Toluene	91	9.007	9.006	0.001	97	423450	50.0	51.4	
77 trans-1,3-Dichloropropene	75	9.251	9.249	0.002	97	103384	50.0	48.1	
78 Ethyl methacrylate	69	9.311	9.310	0.001	95	112012	50.0	53.9	
79 1,1,2-Trichloroethane	97	9.445	9.444	0.001	93	80915	50.0	51.7	
80 Tetrachloroethene	164	9.518	9.517	0.001	98	81832	50.0	51.2	
81 1,3-Dichloropropane	76	9.603	9.602	0.001	96	152896	50.0	52.6	
82 2-Hexanone	43	9.658	9.657	0.001	98	159527	100.0	107.9	
84 Chlorodibromomethane	129	9.816	9.815	0.001	90	71922	50.0	53.1	
85 Ethylene Dibromide	107	9.926	9.930	-0.004	98	82277	50.0	54.5	
86 3-Chlorobenzotrifluoride	180	10.388	10.387	0.001	87	144895	50.0	54.8	
87 Chlorobenzene	112	10.413	10.417	-0.004	93	275716	50.0	52.0	
88 4-Chlorobenzotrifluoride	180	10.473	10.478	-0.005	95	133712	50.0	53.5	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.508	0.002	92	86701	50.0	50.2	
90 Ethylbenzene	106	10.516	10.514	0.002	99	149296	50.0	53.1	
91 m-Xylene & p-Xylene	106	10.644	10.648	-0.004	0	187536	50.0	54.4	
92 o-Xylene	106	11.027	11.025	0.002	98	181383	50.0	55.4	
93 Styrene	104	11.051	11.050	0.001	95	309549	50.0	57.1	
94 Bromoform	173	11.234	11.232	0.002	93	39948	50.0	51.6	
96 2-Chlorobenzotrifluoride	180	11.295	11.299	-0.004	97	144137	50.0	55.4	
97 Isopropylbenzene	105	11.392	11.396	-0.004	97	460456	50.0	57.4	
99 1,1,2,2-Tetrachloroethane	83	11.708	11.707	0.001	77	117744	50.0	55.8	
100 Bromobenzene	156	11.708	11.713	-0.005	97	113760	50.0	52.3	
102 trans-1,4-Dichloro-2-buten	53	11.739	11.743	-0.004	68	8736	50.0	11.1	
101 1,2,3-Trichloropropane	110	11.763	11.761	0.002	89	37840	50.0	52.7	
103 N-Propylbenzene	120	11.812	11.810	0.002	99	124945	50.0	50.2	
104 2-Chlorotoluene	126	11.897	11.901	-0.004	95	107307	50.0	50.7	
105 3-Chlorotoluene	126	11.964	11.962	0.002	95	107238	50.0	49.3	
106 1,3,5-Trimethylbenzene	105	11.994	11.993	0.001	95	382203	50.0	54.3	

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	12.023	0.002	98	117181	50.0	50.3	
108 tert-Butylbenzene	119	12.305	12.309	-0.004	96	303263	50.0	53.0	
110 1,2,4-Trimethylbenzene	105	12.365	12.370	-0.005	98	378167	50.0	53.6	
111 1,2-dichloro-4-(trifluorom	214	12.414	12.406	0.008	98	101209	50.0	51.5	
112 sec-Butylbenzene	105	12.530	12.534	-0.004	95	443579	50.0	54.9	
113 1,3-Dichlorobenzene	146	12.651	12.650	0.001	98	211201	50.0	54.5	
114 4-Isopropyltoluene	119	12.688	12.686	0.002	97	360018	50.0	52.7	
115 1,4-Dichlorobenzene	146	12.755	12.753	0.002	93	213491	50.0	53.0	
116 2,4-Dichloro-1-(trifluorom	214	12.779	12.777	0.002	95	91714	50.0	50.4	
118 2,5-Dichlorobenzotrifluori	214	12.822	12.820	0.002	0	105258	50.0	53.5	
120 n-Butylbenzene	91	13.095	13.100	-0.005	99	294787	50.0	50.4	
121 1,2-Dichlorobenzene	146	13.108	13.106	0.002	96	196214	50.0	54.2	
122 1,2-Dibromo-3-Chloropropan	75	13.898	13.897	0.001	71	16789	50.0	56.5	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.044	14.043	0.001	0	311164	150.0	150.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.458	14.456	0.002	0	200247	100.0	101.6	
126 1,2,4-Trichlorobenzene	180	14.726	14.724	0.002	94	77339	50.0	54.9	
127 Hexachlorobutadiene	225	14.866	14.876	-0.010	95	36953	50.0	54.5	
128 Naphthalene	128	14.987	14.992	-0.005	98	224500	50.0	62.0	
129 1,2,3-Trichlorobenzene	180	15.212	15.217	-0.005	94	63399	50.0	55.6	
131 2,4,5-Trichlorotoluene	159	15.991	15.990	0.001	0	18570	50.0	45.1	
130 2,3,6-Trichlorotoluene	159	16.088	16.087	0.001	95	19203	50.0	50.6	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	90.4	
S 133 Xylenes, Total	106				0		100.0	109.8	
S 135 1,3-Dichloropropene, Total	1				0		100.0	92.6	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOA8260VOA2ND_00143	Amount Added: 2.00	Units: uL	
voaWVA2nd Res_00010	Amount Added: 2.00	Units: uL	
voaEE2Restek_00001	Amount Added: 2.00	Units: uL	
voaWKet1stRes_00001	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922013.D

Injection Date: 22-Sep-2015 16:15:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-47781-B-1 MS

Worklist Smp#: 13

Client ID:

Purge Vol: 5.000 mL

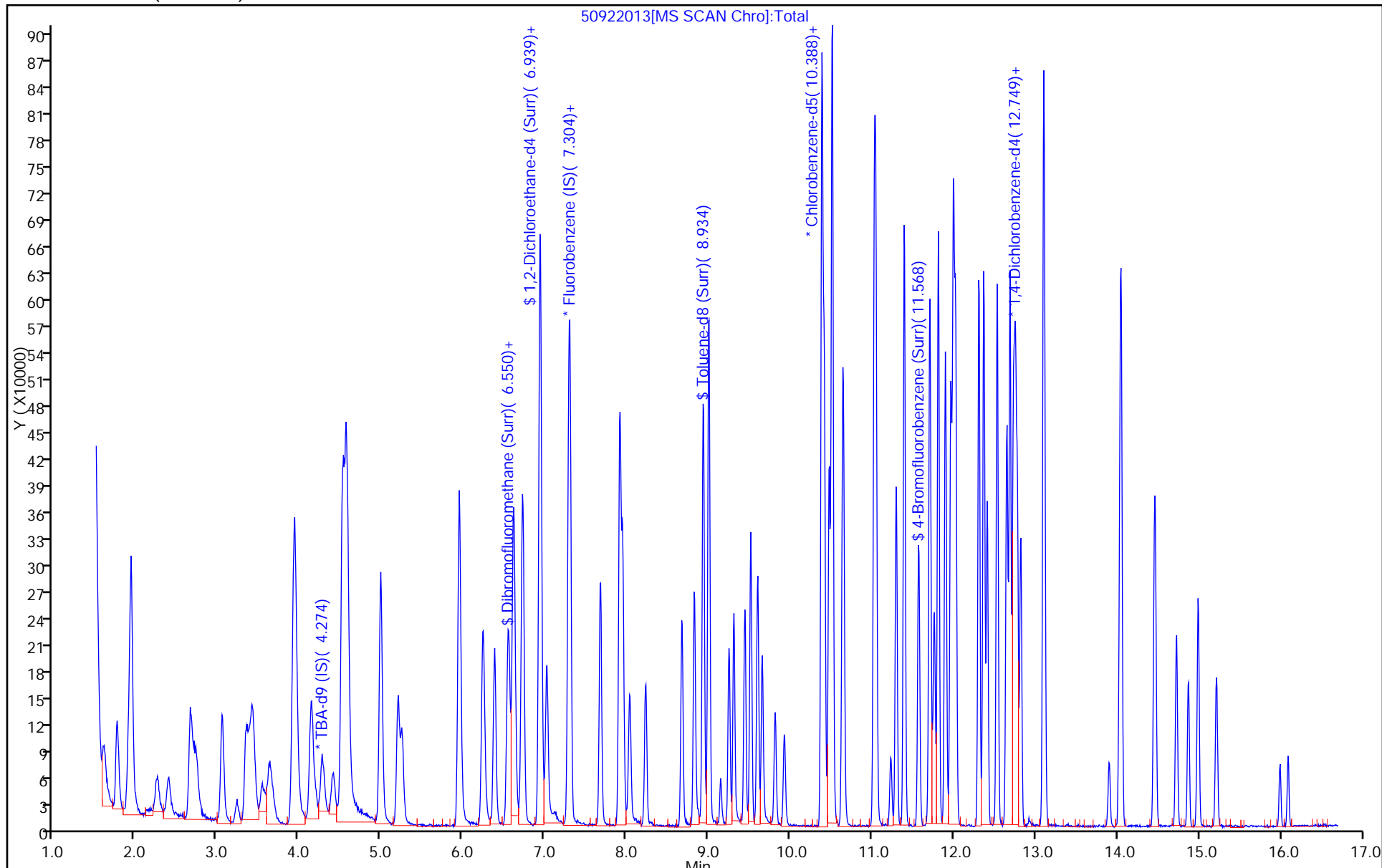
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-12-0/1-0 MS Lab Sample ID: 180-47781-5 MS  
 Matrix: Water Lab File ID: 60923008.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 12:55  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 14:06  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154553 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	9.73		1.0	0.23
74-83-9	Bromomethane	7.54		1.0	0.31
75-00-3	Chloroethane	9.24		1.0	0.21
75-35-4	1,1-Dichloroethene	8.82		1.0	0.30
67-64-1	Acetone	21.7		5.0	2.5
75-15-0	Carbon disulfide	7.82		1.0	0.21
75-09-2	Methylene Chloride	8.44		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.12		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.69		1.0	0.18
75-34-3	1,1-Dichloroethane	9.78		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	8.81		1.0	0.24
74-97-5	Bromochloromethane	10.4		1.0	0.18
78-93-3	2-Butanone (MEK)	23.4		5.0	0.55
67-66-3	Chloroform	9.65		1.0	0.17
71-55-6	1,1,1-Trichloroethane	8.95		1.0	0.29
56-23-5	Carbon tetrachloride	9.62		1.0	0.14
71-43-2	Benzene	9.73		1.0	0.11
107-06-2	1,2-Dichloroethane	9.93		1.0	0.21
79-01-6	Trichloroethene	10.9		1.0	0.14
78-87-5	1,2-Dichloropropane	10.3		1.0	0.095
75-27-4	Bromodichloromethane	8.82		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	8.85		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	20.8		5.0	0.53
108-88-3	Toluene	9.70		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	8.63		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.54		1.0	0.20
127-18-4	Tetrachloroethene	10.7		1.0	0.15
591-78-6	2-Hexanone	22.9		5.0	0.16
124-48-1	Dibromochloromethane	9.22		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.2		1.0	0.18
108-90-7	Chlorobenzene	10.1		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.88		1.0	0.28
100-41-4	Ethylbenzene	9.98		1.0	0.23
1330-20-7	Xylenes, Total	19.5		3.0	0.49
100-42-5	Styrene	10.3		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-12-0/1-0 MS Lab Sample ID: 180-47781-5 MS  
 Matrix: Water Lab File ID: 60923008.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 12:55  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 14:06  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154553 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10.1		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.53		1.0	0.20
107-13-1	Acrylonitrile	112		20	0.55
123-91-1	1,4-Dioxane	238		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		64-135
2037-26-5	Toluene-d8 (Surr)	100		71-118
460-00-4	4-Bromofluorobenzene (Surr)	91		70-118
1868-53-7	Dibromofluoromethane (Surr)	99		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923008.D  
 Lims ID: 180-47781-B-5 MS  
 Client ID:  
 Sample Type: MS  
 Inject. Date: 23-Sep-2015 14:06:30 ALS Bottle#: 8 Worklist Smp#: 8  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-47781-B-5 MS  
 Misc. Info.: 180-0008638-008  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 23-Sep-2015 14:33:34 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: XAWRK005

First Level Reviewer: fergusond

Date: 23-Sep-2015 14:33:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.244	4.236	0.008	91	202660	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.286	7.284	0.002	98	505393	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.395	10.398	-0.003	90	115285	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.749	12.747	0.002	95	203578	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.556	6.548	0.008	93	115089	50.0	49.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.927	6.925	0.002	72	182066	50.0	48.5	
\$ 7 Toluene-d8 (Surr)	98	8.941	8.938	0.003	95	452512	50.0	49.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.587	11.585	0.002	84	184536	50.0	45.7	
11 Dichlorodifluoromethane	85	1.604	1.602	0.002	99	153525	50.0	43.9	
12 Chloromethane	50	1.762	1.760	0.002	99	161004	50.0	53.4	
13 Vinyl chloride	62	1.902	1.900	0.002	97	157978	50.0	48.6	
14 Butadiene	39	1.939	1.930	0.009	94	163755	50.0	53.8	
15 Bromomethane	94	2.237	2.222	0.015	92	66122	50.0	37.7	
16 Chloroethane	64	2.377	2.374	0.003	99	102422	50.0	46.2	
17 Dichlorofluoromethane	67	2.657	2.654	0.003	98	220020	50.0	42.6	
18 Trichlorofluoromethane	101	2.687	2.672	0.015	95	188393	50.0	45.8	
20 Ethyl ether	59	3.040	3.044	-0.004	94	136091	50.0	46.6	
21 Acrolein	56	3.222	3.214	0.008	97	28653	150.0	90.0	
22 1,1-Dichloroethene	96	3.338	3.336	0.002	95	112213	50.0	44.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.405	3.396	0.009	92	130594	50.0	48.6	
24 Acetone	43	3.429	3.415	0.014	96	96853	100.0	108.3	
25 Iodomethane	142	3.526	3.536	-0.010	99	170429	50.0	49.9	
26 Carbon disulfide	76	3.630	3.634	-0.004	100	257819	50.0	39.1	
29 3-Chloro-1-propene	76	3.910	3.913	-0.003	86	60932	50.0	42.5	
30 Methyl acetate	43	3.922	3.926	-0.004	98	608501	250.0	290.2	
31 Methylene Chloride	84	4.129	4.126	0.003	96	151431	50.0	42.2	
32 2-Methyl-2-propanol	59	4.384	4.364	0.020	89	121268	500.0	531.7	
33 Acrylonitrile	53	4.500	4.497	0.003	97	590705	500.0	558.9	
34 trans-1,2-Dichloroethene	96	4.555	4.564	-0.009	92	133861	50.0	45.6	
35 Methyl tert-butyl ether	73	4.579	4.564	0.015	97	382039	50.0	43.4	
36 Hexane	57	4.987	4.990	-0.003	93	200978	50.0	50.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.193	5.197	-0.004	97	256898	50.0	48.9	
38 Vinyl acetate	43	5.236	5.240	-0.004	98	210824	50.0	49.7	
42 2,2-Dichloropropane	77	5.936	5.939	-0.003	57	111711	50.0	42.0	
43 cis-1,2-Dichloroethene	96	5.936	5.939	-0.003	86	140707	50.0	44.1	
44 2-Butanone (MEK)	43	5.942	5.945	-0.003	60	142545	100.0	116.8	
48 Chlorobromomethane	128	6.228	6.225	0.003	95	66938	50.0	52.2	
50 Chloroform	83	6.374	6.377	-0.003	97	251774	50.0	48.3	
51 1,1,1-Trichloroethane	97	6.538	6.535	0.003	96	172442	50.0	44.7	
52 Cyclohexane	56	6.617	6.615	0.002	93	240415	50.0	48.7	
49 Tetrahydrofuran	42	6.617	6.615	0.002	47	60319	100.0	73.4	
53 Carbon tetrachloride	117	6.714	6.712	0.002	94	130996	50.0	48.1	
54 1,1-Dichloropropene	75	6.726	6.724	0.002	93	193707	50.0	46.7	
55 Isobutyl alcohol	41	6.897	6.894	0.003	89	117461	1250.0	1606.5	
56 Benzene	78	6.939	6.937	0.002	98	573104	50.0	48.7	
57 1,2-Dichloroethane	62	7.012	7.010	0.002	98	235618	50.0	49.7	
59 n-Heptane	43	7.310	7.308	0.002	91	196774	50.0	61.4	
61 Trichloroethene	130	7.675	7.673	0.002	96	133559	50.0	54.4	
63 Methylcyclohexane	83	7.925	7.922	0.003	93	223560	50.0	44.8	
64 1,2-Dichloropropane	63	7.949	7.953	-0.004	91	144952	50.0	51.5	
65 1,4-Dioxane	88	8.034	8.032	0.002	53	33039	1000.0	1189.5	M
67 Dibromomethane	93	8.034	8.038	-0.004	95	84668	50.0	49.6	
68 Dichlorobromomethane	83	8.229	8.227	0.002	98	141608	50.0	44.1	
71 cis-1,3-Dichloropropene	75	8.673	8.677	-0.004	90	155989	50.0	44.2	
72 4-Methyl-2-pentanone (MIBK)	43	8.825	8.823	0.002	97	246511	100.0	104.0	
73 Toluene	91	9.008	9.011	-0.003	98	577121	50.0	48.5	
74 trans-1,3-Dichloropropene	75	9.257	9.255	0.002	98	130349	50.0	43.2	
75 Ethyl methacrylate	69	9.312	9.316	-0.004	91	153057	50.0	47.7	
76 1,1,2-Trichloroethane	97	9.452	9.443	0.009	96	117355	50.0	47.7	
77 Tetrachloroethene	164	9.525	9.529	-0.003	95	109036	50.0	53.7	
78 1,3-Dichloropropane	76	9.604	9.608	-0.004	96	226016	50.0	49.7	
79 2-Hexanone	43	9.659	9.662	-0.003	98	178072	100.0	114.4	
81 Chlorodibromomethane	129	9.823	9.827	-0.004	88	77407	50.0	46.1	
82 Ethylene Dibromide	107	9.938	9.942	-0.004	98	111090	50.0	51.0	
83 3-Chlorobenzotrifluoride	180	10.395	10.392	0.003	90	188144	50.0	49.4	
84 Chlorobenzene	112	10.425	10.429	-0.004	92	368484	50.0	50.4	
85 4-Chlorobenzotrifluoride	180	10.486	10.484	0.002	97	180689	50.0	51.2	
86 1,1,1,2-Tetrachloroethane	131	10.522	10.520	0.002	86	99033	50.0	49.4	
87 Ethylbenzene	106	10.529	10.526	0.003	99	205824	50.0	49.9	
88 m-Xylene & p-Xylene	106	10.656	10.660	-0.004	99	255076	50.0	49.8	
89 o-Xylene	106	11.040	11.037	0.003	98	243964	50.0	47.6	
90 Styrene	104	11.058	11.062	-0.004	94	403781	50.0	51.3	
91 Bromoform	173	11.246	11.244	0.002	95	45463	50.0	50.7	
92 2-Chlorobenzotrifluoride	180	11.301	11.299	0.002	95	190935	50.0	48.9	
93 Isopropylbenzene	105	11.411	11.408	0.003	97	623539	50.0	50.9	
96 1,1,2,2-Tetrachloroethane	83	11.709	11.712	-0.003	96	156885	50.0	47.7	
95 Bromobenzene	156	11.727	11.725	0.002	98	159741	50.0	48.8	
97 trans-1,4-Dichloro-2-buten	53	11.757	11.749	0.008	74	41356	50.0	39.8	
98 1,2,3-Trichloropropane	110	11.770	11.773	-0.003	87	57907	50.0	46.5	
99 N-Propylbenzene	120	11.824	11.828	-0.004	99	168489	50.0	44.7	
100 2-Chlorotoluene	126	11.916	11.913	0.003	94	148512	50.0	47.5	
101 3-Chlorotoluene	126	11.983	11.980	0.002	97	151259	50.0	46.0	
102 1,3,5-Trimethylbenzene	105	12.007	12.011	-0.004	93	563119	50.0	46.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
103 4-Chlorotoluene	126	12.037	12.035	0.002	99	163886	50.0	49.6	
104 tert-Butylbenzene	119	12.323	12.327	-0.004	93	424810	50.0	43.9	
106 1,2,4-Trimethylbenzene	105	12.384	12.382	0.002	99	564403	50.0	45.0	
107 1,2-dichloro-4-(trifluorom	214	12.421	12.418	0.003	96	159863	50.0	45.0	
108 sec-Butylbenzene	105	12.548	12.546	0.002	96	663660	50.0	45.9	
109 1,3-Dichlorobenzene	146	12.664	12.668	-0.004	95	302620	50.0	47.3	
110 4-Isopropyltoluene	119	12.706	12.704	0.002	96	551235	50.0	45.5	
111 1,4-Dichlorobenzene	146	12.773	12.771	0.002	93	309239	50.0	47.3	
113 2,4-Dichloro-1-(trifluorom	214	12.792	12.789	0.003	95	165346	50.0	46.8	
114 2,5-Dichlorobenzotrifluori	214	12.828	12.832	-0.004	97	184986	50.0	46.9	
116 n-Butylbenzene	91	13.114	13.112	0.002	98	519774	50.0	42.9	
117 1,2-Dichlorobenzene	146	13.126	13.124	0.002	92	298049	50.0	46.2	
118 1,2-Dibromo-3-Chloropropan	75	13.911	13.915	-0.004	67	20274	50.0	34.3	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.057	14.061	-0.004	99	733218	150.0	130.5	
121 2,3- & 3,4- Dichlorotoluen	125	14.477	14.474	0.003	99	527433	100.0	85.1	
122 1,2,4-Trichlorobenzene	180	14.738	14.742	-0.004	93	222677	50.0	44.5	
123 Hexachlorobutadiene	225	14.890	14.888	0.002	95	98035	50.0	49.8	
124 Naphthalene	128	15.006	15.010	-0.004	99	465892	50.0	46.1	
125 1,2,3-Trichlorobenzene	180	15.231	15.229	0.002	91	206362	50.0	44.1	
126 2,4,5-Trichlorotoluene	159	16.010	16.007	0.003	0	119531	50.0	38.0	
127 2,3,6-Trichlorotoluene	159	16.107	16.111	-0.004	94	123204	50.0	41.3	
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	89.7	
S 131 Xylenes, Total	106				0		100.0	97.5	
S 132 1,3-Dichloropropene, Total	1				0		100.0	87.4	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

voaEE2Restek_00001	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00143	Amount Added: 2.00	Units: uL	
voaWVA2nd Res_00010	Amount Added: 2.00	Units: uL	
voaWKetmix2nd_00002	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923008.D

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

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-47781-B-5 MS

Worklist Smp#: 8

Client ID:

Purge Vol: 5.000 mL

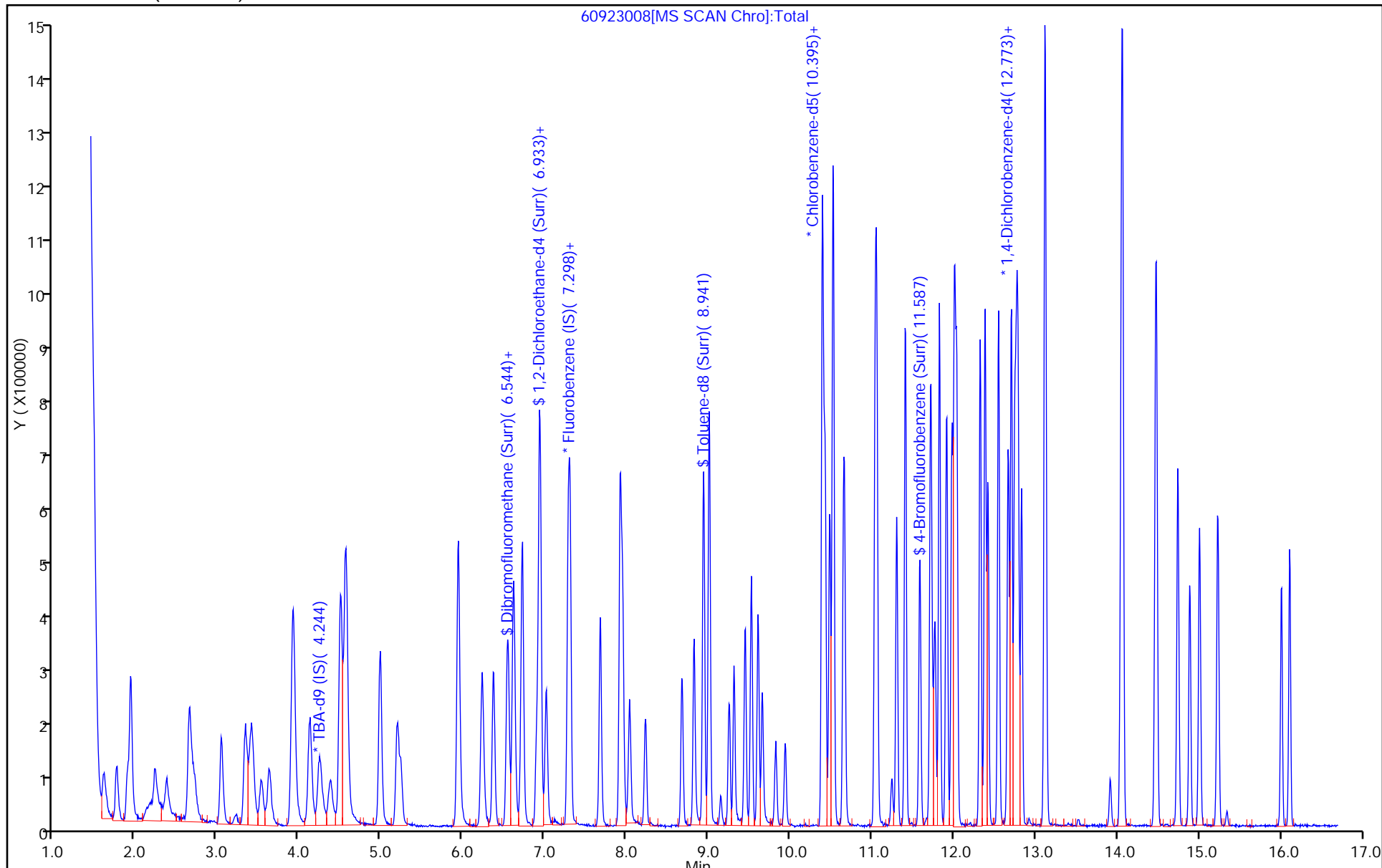
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



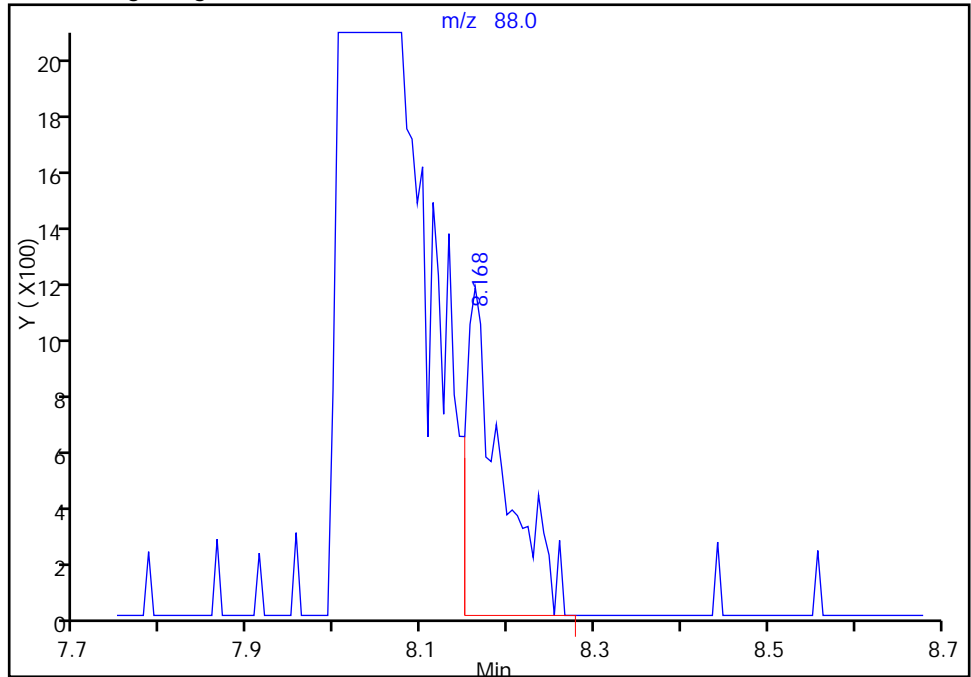
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923008.D  
Injection Date: 23-Sep-2015 14:06:30 Instrument ID: CHHP6  
Lims ID: 180-47781-B-5 MS  
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

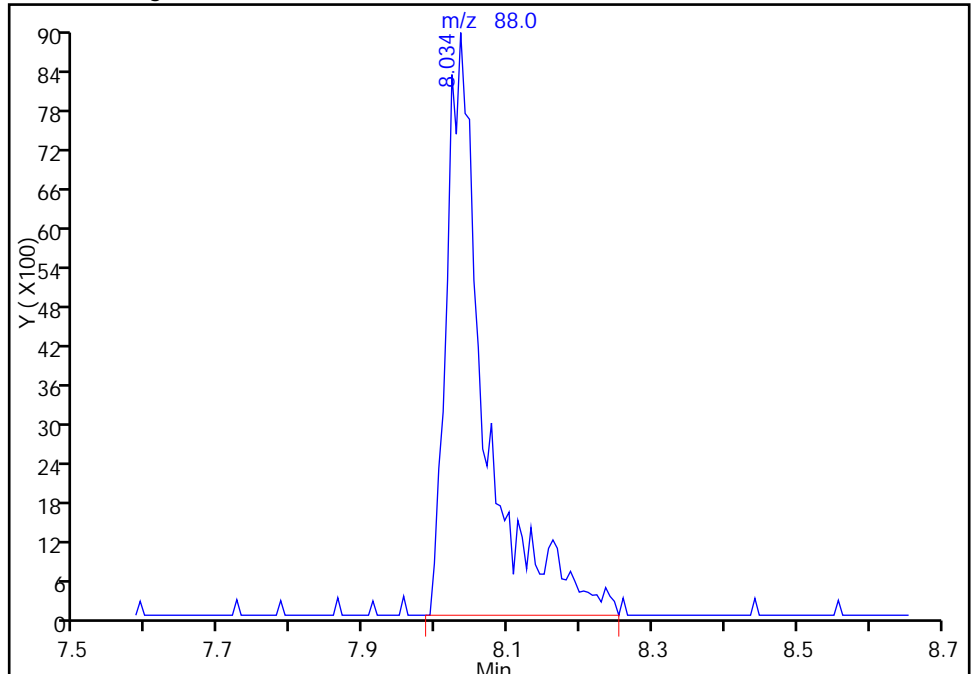
RT: 8.17  
Area: 3373  
Amount: 121.4411  
Amount Units: ng

Processing Integration Results



RT: 8.03  
Area: 33039  
Amount: 1189.5323  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 23-Sep-2015 14:33:34  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-17-0/1-0 MS Lab Sample ID: 180-47781-9 MS  
 Matrix: Water Lab File ID: 50918010.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 10:20  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/18/2015 15:31  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154121 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	8.37		1.0	0.28
75-01-4	Vinyl chloride	7.53		1.0	0.23
74-83-9	Bromomethane	6.98		1.0	0.31
75-00-3	Chloroethane	6.73		1.0	0.21
75-35-4	1,1-Dichloroethene	8.70		1.0	0.30
67-64-1	Acetone	21.4		5.0	2.5
75-15-0	Carbon disulfide	6.91		1.0	0.21
75-09-2	Methylene Chloride	8.69		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	8.36		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.79		1.0	0.18
75-34-3	1,1-Dichloroethane	8.78		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	20.2		1.0	0.24
74-97-5	Bromochloromethane	8.43		1.0	0.18
78-93-3	2-Butanone (MEK)	21.1		5.0	0.55
67-66-3	Chloroform	8.83		1.0	0.17
71-55-6	1,1,1-Trichloroethane	10.7		1.0	0.29
56-23-5	Carbon tetrachloride	9.04		1.0	0.14
71-43-2	Benzene	8.89		1.0	0.11
107-06-2	1,2-Dichloroethane	9.10		1.0	0.21
79-01-6	Trichloroethene	21.3		1.0	0.14
78-87-5	1,2-Dichloropropane	8.74		1.0	0.095
75-27-4	Bromodichloromethane	8.77		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	8.25		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	20.5		5.0	0.53
108-88-3	Toluene	10.3		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.35		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.82		1.0	0.20
127-18-4	Tetrachloroethene	42.8		1.0	0.15
591-78-6	2-Hexanone	19.8		5.0	0.16
124-48-1	Dibromochloromethane	9.42		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.5		1.0	0.18
108-90-7	Chlorobenzene	9.76		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	8.28		1.0	0.28
100-41-4	Ethylbenzene	8.88		1.0	0.23
1330-20-7	Xylenes, Total	17.5		3.0	0.49
100-42-5	Styrene	9.10		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-17-0/1-0 MS Lab Sample ID: 180-47781-9 MS  
 Matrix: Water Lab File ID: 50918010.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 10:20  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/18/2015 15:31  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154121 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.42		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.05		1.0	0.20
107-13-1	Acrylonitrile	91.9		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)	86		64-135
2037-26-5	Toluene-d8 (Surr)	105		71-118
460-00-4	4-Bromofluorobenzene (Surr)	90		70-118
1868-53-7	Dibromofluoromethane (Surr)	84		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918010.D  
 Lims ID: 180-47781-C-9 MS  
 Client ID: HD-COD-SW-17-0/1-0  
 Sample Type: MS  
 Inject. Date: 18-Sep-2015 15:31:30 ALS Bottle#: 9 Worklist Smp#: 10  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-47781-C-9 MS  
 Misc. Info.: 180-0008580-010  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Sep-2015 15:48:10 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: XAWRK010

First Level Reviewer: fergusond

Date: 18-Sep-2015 15:48:10

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	4.271	0.013	0	130979	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.294	-0.004	97	375880	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.385	0.001	90	81875	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.727	0.001	96	125506	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.566	6.564	0.002	92	77184	50.0	41.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.929	0.008	0	108807	50.0	42.9	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.937	0.001	95	331604	50.0	52.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.571	0.001	86	106998	50.0	44.9	
11 Dichlorodifluoromethane	85	1.608	1.612	-0.004	98	87405	50.0	41.2	
12 Chloromethane	50	1.766	1.764	0.002	99	130532	50.0	41.9	
13 Vinyl chloride	62	1.906	1.904	0.002	97	104149	50.0	37.7	
14 Butadiene	39	1.942	1.941	0.001	100	131541	50.0	40.3	
15 Bromomethane	94	2.240	2.239	0.001	92	39275	50.0	34.9	
16 Chloroethane	64	2.398	2.385	0.013	98	56146	50.0	33.6	
17 Dichlorofluoromethane	67	2.678	2.671	0.007	97	127048	50.0	35.9	
18 Trichlorofluoromethane	101	2.727	2.695	0.032	95	106497	50.0	40.2	M
20 Ethyl ether	59	3.049	3.054	-0.005	95	96280	50.0	39.2	
21 Acrolein	56	3.238	3.231	0.007	96	21307	150.0	58.3	M
22 1,1-Dichloroethene	96	3.347	3.346	0.001	95	91078	50.0	43.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.433	3.425	0.008	95	95796	50.0	43.2	
24 Acetone	43	3.445	3.437	0.008	98	81186	100.0	107.0	
25 Iodomethane	142	3.542	3.541	0.001	98	125198	50.0	40.1	M
26 Carbon disulfide	76	3.639	3.638	0.001	100	167961	50.0	34.6	
28 3-Chloro-1-propene	76	3.919	3.924	-0.005	88	49732	50.0	41.9	
30 Methyl acetate	43	3.944	3.936	0.008	99	533083	250.0	235.2	
31 Methylene Chloride	84	4.138	4.131	0.007	97	108694	50.0	43.5	
32 2-Methyl-2-propanol	59	4.406	4.405	0.001	88	81794	500.0	554.8	
33 Acrylonitrile	53	4.528	4.526	0.002	98	505251	500.0	459.5	
34 trans-1,2-Dichloroethene	96	4.564	4.563	0.001	94	95041	50.0	41.8	
35 Methyl tert-butyl ether	73	4.588	4.581	0.007	96	231326	50.0	44.0	
36 Hexane	57	4.996	4.995	0.001	95	152471	50.0	40.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.203	5.202	0.001	96	196603	50.0	43.9	
38 Vinyl acetate	43	5.245	5.250	-0.005	97	176021	50.0	52.4	
45 cis-1,2-Dichloroethene	96	5.951	5.950	0.001	86	245165	50.0	101.0	
44 2,2-Dichloropropane	77	5.951	5.950	0.001	41	71430	50.0	39.8	
46 2-Butanone (MEK)	43	5.957	5.956	0.001	43	120332	100.0	105.6	
49 Chlorobromomethane	128	6.237	6.236	0.001	93	44967	50.0	42.2	
51 Tetrahydrofuran	42	6.249	6.248	0.001	87	79110	100.0	86.5	
52 Chloroform	83	6.383	6.382	0.001	96	170803	50.0	44.1	
53 1,1,1-Trichloroethane	97	6.541	6.540	0.001	95	153267	50.0	53.6	
54 Cyclohexane	56	6.620	6.619	0.001	97	193743	50.0	40.5	
56 Carbon tetrachloride	117	6.718	6.716	0.002	97	110087	50.0	45.2	
55 1,1-Dichloropropene	75	6.730	6.729	0.001	90	135946	50.0	43.0	
57 Isobutyl alcohol	41	6.925	6.929	-0.005	89	80816	1250.0	1129.0	
58 Benzene	78	6.943	6.948	-0.005	98	412032	50.0	44.5	
59 1,2-Dichloroethane	62	7.022	7.015	0.007	96	145896	50.0	45.5	
62 n-Heptane	43	7.308	7.313	-0.005	95	148358	50.0	42.8	
64 Trichloroethene	130	7.679	7.672	0.007	97	240969	50.0	106.3	
66 Methylcyclohexane	83	7.916	7.915	0.001	95	151796	50.0	42.5	
67 1,2-Dichloropropane	63	7.953	7.951	0.002	95	106297	50.0	43.7	
70 1,4-Dioxane	88	8.038	8.030	0.008	41	15597	1000.0	930.2	M
68 Dibromomethane	93	8.038	8.037	0.001	94	54950	50.0	44.5	
71 Dichlorobromomethane	83	8.232	8.231	0.001	97	107133	50.0	43.9	
74 cis-1,3-Dichloropropene	75	8.677	8.675	0.002	89	118109	50.0	41.3	
75 4-Methyl-2-pentanone (MIBK)	43	8.829	8.827	0.002	99	207002	100.0	102.6	
76 Toluene	91	9.005	9.004	0.001	97	416206	50.0	51.3	
77 trans-1,3-Dichloropropene	75	9.248	9.253	-0.005	97	98884	50.0	46.7	
78 Ethyl methacrylate	69	9.309	9.308	0.001	95	98392	50.0	48.1	
79 1,1,2-Trichloroethane	97	9.449	9.448	0.001	96	75680	50.0	49.1	
80 Tetrachloroethene	164	9.516	9.515	0.001	92	336505	50.0	213.9	
81 1,3-Dichloropropane	76	9.601	9.600	0.001	97	148121	50.0	51.7	
82 2-Hexanone	43	9.656	9.661	-0.005	98	144355	100.0	99.1	
84 Chlorodibromomethane	129	9.814	9.813	0.001	91	62851	50.0	47.1	
85 Ethylene Dibromide	107	9.930	9.929	0.002	98	78091	50.0	52.6	
86 3-Chlorobenzotrifluoride	180	10.386	10.391	-0.005	81	119904	50.0	46.0	
87 Chlorobenzene	112	10.416	10.415	0.001	93	254747	50.0	48.8	
88 4-Chlorobenzotrifluoride	180	10.471	10.476	-0.005	97	112547	50.0	45.7	
89 1,1,1,2-Tetrachloroethane	131	10.508	10.506	0.002	90	70454	50.0	41.4	
90 Ethylbenzene	106	10.514	10.513	0.001	99	122873	50.0	44.4	
91 m-Xylene & p-Xylene	106	10.648	10.652	-0.004	0	146926	50.0	43.3	
92 o-Xylene	106	11.025	11.030	-0.005	97	142165	50.0	44.1	
93 Styrene	104	11.049	11.048	0.001	96	242988	50.0	45.5	
94 Bromoform	173	11.232	11.230	0.002	95	32077	50.0	42.1	
96 2-Chlorobenzotrifluoride	180	11.299	11.297	0.002	97	108306	50.0	42.3	
97 Isopropylbenzene	105	11.396	11.395	0.001	97	370579	50.0	46.9	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.705	0.001	80	94085	50.0	45.2	
100 Bromobenzene	156	11.706	11.711	-0.005	95	89967	50.0	41.8	
102 trans-1,4-Dichloro-2-buten	53	11.743	11.741	0.002	77	25004	50.0	32.1	
101 1,2,3-Trichloropropane	110	11.761	11.766	-0.005	87	31829	50.0	44.8	
103 N-Propylbenzene	120	11.810	11.814	-0.004	99	103768	50.0	42.1	
104 2-Chlorotoluene	126	11.895	11.900	-0.005	95	89056	50.0	42.5	
105 3-Chlorotoluene	126	11.962	11.966	-0.004	95	91231	50.0	42.3	
106 1,3,5-Trimethylbenzene	105	11.992	11.997	-0.005	94	316606	50.0	45.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
107 4-Chlorotoluene	126	12.022	12.021	0.001	99	98825	50.0	42.8	
108 tert-Butylbenzene	119	12.308	12.307	0.001	94	282815	50.0	49.9	
110 1,2,4-Trimethylbenzene	105	12.369	12.368	0.001	98	362179	50.0	51.9	
111 1,2-dichloro-4-(trifluorom	214	12.406	12.411	-0.005	94	76973	50.0	39.5	
112 sec-Butylbenzene	105	12.533	12.532	0.001	95	410361	50.0	51.3	
113 1,3-Dichlorobenzene	146	12.649	12.648	0.001	96	186199	50.0	48.5	
114 4-Isopropyltoluene	119	12.686	12.690	-0.004	97	345498	50.0	51.1	
115 1,4-Dichlorobenzene	146	12.752	12.751	0.001	93	189290	50.0	47.4	
116 2,4-Dichloro-1-(trifluorom	214	12.783	12.782	0.001	95	78622	50.0	43.6	
118 2,5-Dichlorobenzotrifluori	214	12.825	12.824	0.001	0	80881	50.0	41.5	
120 n-Butylbenzene	91	13.099	13.098	0.001	98	285302	50.0	49.3	
121 1,2-Dichlorobenzene	146	13.111	13.110	0.001	94	172154	50.0	48.0	
122 1,2-Dibromo-3-Chloropropan	75	13.902	13.901	0.001	71	14841	50.0	50.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.042	14.047	-0.005	0	298859	150.0	146.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.462	14.461	0.001	0	185064	100.0	94.8	
126 1,2,4-Trichlorobenzene	180	14.724	14.728	-0.004	93	63985	50.0	45.9	
127 Hexachlorobutadiene	225	14.870	14.868	0.002	96	30474	50.0	45.4	
128 Naphthalene	128	14.985	14.990	-0.005	98	168626	50.0	47.0	
129 1,2,3-Trichlorobenzene	180	15.210	15.215	-0.005	94	49148	50.0	43.5	
131 2,4,5-Trichlorotoluene	159	15.995	15.994	0.001	0	15703	50.0	38.5	
130 2,3,6-Trichlorotoluene	159	16.092	16.091	0.001	94	14602	50.0	38.9	
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 134 1,2-Dichloroethene, Total	96				0		100.0	142.8	
S 133 Xylenes, Total	106				0		100.0	87.4	
S 135 1,3-Dichloropropene, Total	1				0		100.0	88.0	

## 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	
voaEE2Restek_00001	Amount Added: 2.00	Units: uL	
voaWVA2nd Res_00010	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00143	Amount Added: 2.00	Units: uL	
voaWKet1stRes_00001	Amount Added: 2.00	Units: uL	
VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918010.D

Injection Date: 18-Sep-2015 15:31:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-47781-C-9 MS

Worklist Smp#: 10

Client ID: HD-COD-SW-17-0/1-0

Purge Vol: 5.000 mL

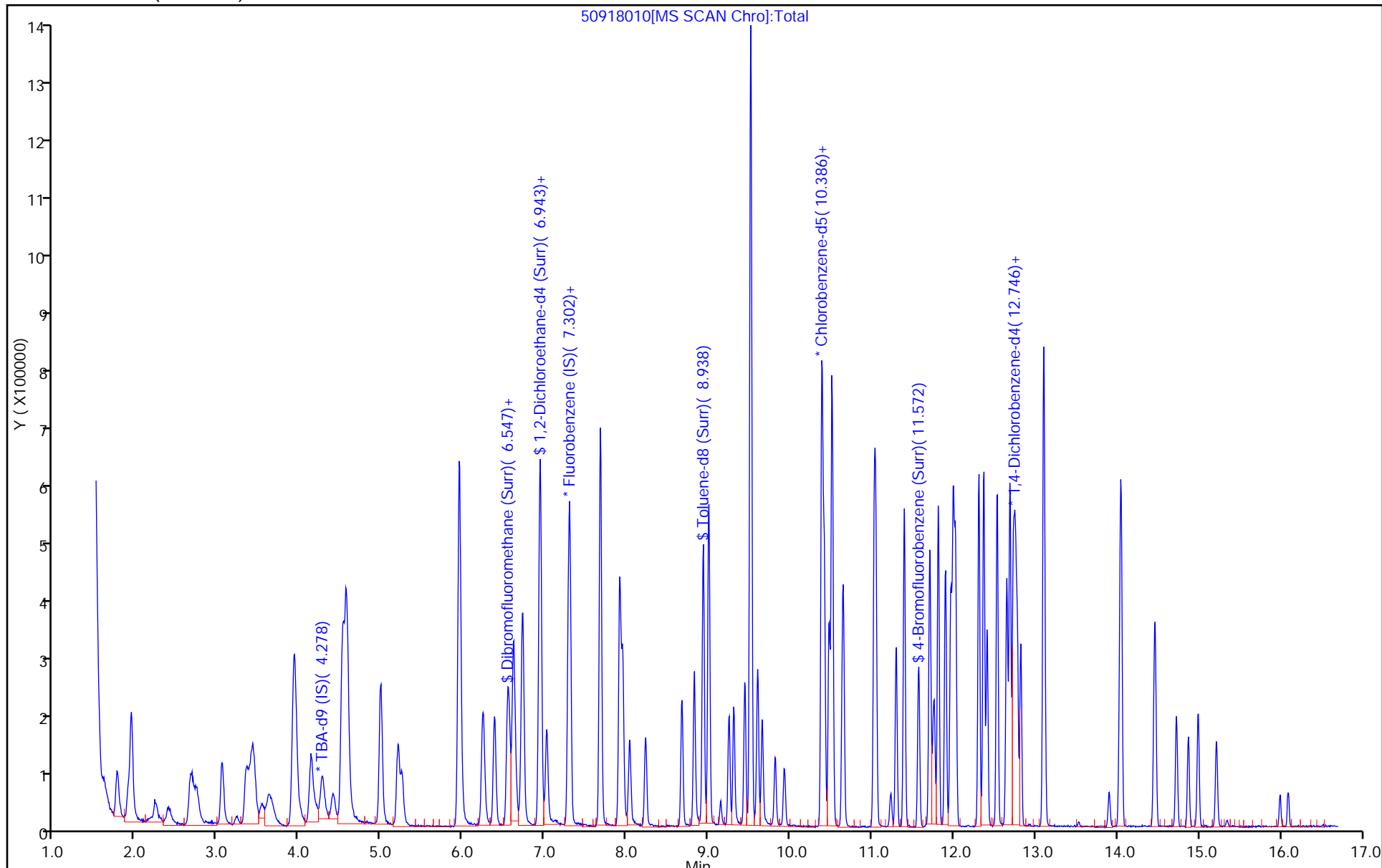
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



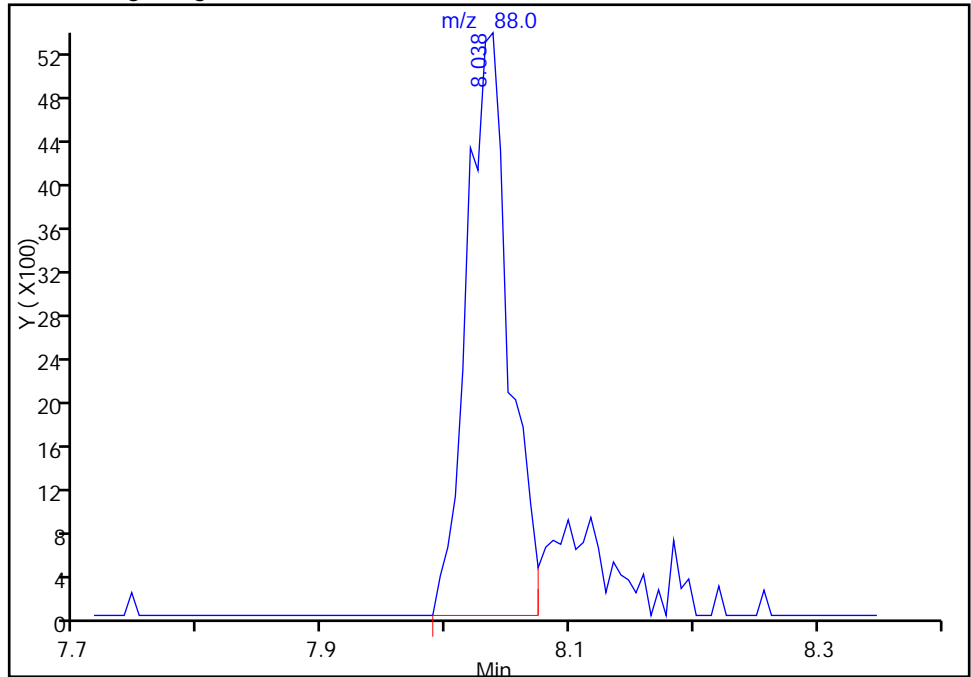
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918010.D  
Injection Date: 18-Sep-2015 15:31:30 Instrument ID: CHHP5  
Lims ID: 180-47781-C-9 MS  
Client ID: HD-COD-SW-17-0/1-0  
Operator ID: 001562 ALS Bottle#: 9 Worklist Smp#: 10  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

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

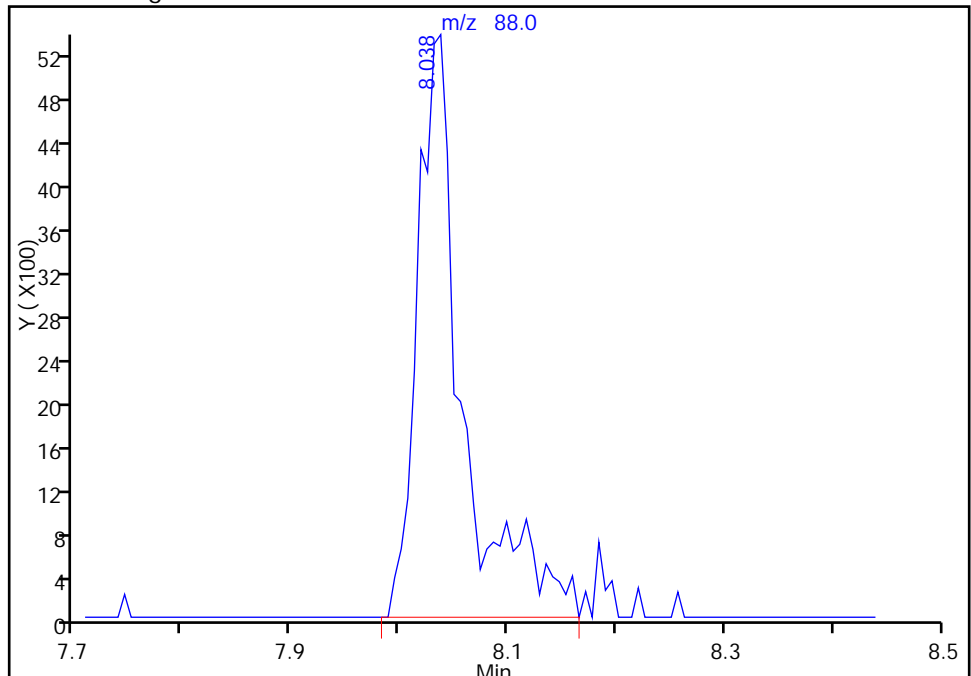
RT: 8.04  
Area: 12794  
Amount: 763.0604  
Amount Units: ng

Processing Integration Results



RT: 8.04  
Area: 15597  
Amount: 930.2371  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 18-Sep-2015 15:48:10  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-6-0/1-0 MSD Lab Sample ID: 180-47781-1 MSD  
 Matrix: Water Lab File ID: 50922014.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 10:40  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/22/2015 16:39  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154425 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	11.0		1.0	0.28
75-01-4	Vinyl chloride	9.52		1.0	0.23
74-83-9	Bromomethane	9.62		1.0	0.31
75-00-3	Chloroethane	9.02		1.0	0.21
75-35-4	1,1-Dichloroethene	8.01		1.0	0.30
67-64-1	Acetone	19.8		5.0	2.5
75-15-0	Carbon disulfide	8.18		1.0	0.21
75-09-2	Methylene Chloride	8.96		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	8.52		1.0	0.17
1634-04-4	Methyl tert-butyl ether	9.52		1.0	0.18
75-34-3	1,1-Dichloroethane	8.83		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	8.78		1.0	0.24
74-97-5	Bromochloromethane	9.02		1.0	0.18
78-93-3	2-Butanone (MEK)	21.1		5.0	0.55
67-66-3	Chloroform	8.70		1.0	0.17
71-55-6	1,1,1-Trichloroethane	8.19		1.0	0.29
56-23-5	Carbon tetrachloride	8.39		1.0	0.14
71-43-2	Benzene	9.01		1.0	0.11
107-06-2	1,2-Dichloroethane	9.37		1.0	0.21
79-01-6	Trichloroethene	8.76		1.0	0.14
78-87-5	1,2-Dichloropropane	9.47		1.0	0.095
75-27-4	Bromodichloromethane	9.04		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	8.31		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	20.9		5.0	0.53
108-88-3	Toluene	9.63		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	8.74		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.80		1.0	0.20
127-18-4	Tetrachloroethene	9.62		1.0	0.15
591-78-6	2-Hexanone	19.9		5.0	0.16
124-48-1	Dibromochloromethane	9.54		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.0		1.0	0.18
108-90-7	Chlorobenzene	9.81		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.68		1.0	0.28
100-41-4	Ethylbenzene	9.84		1.0	0.23
1330-20-7	Xylenes, Total	20.3		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.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-6-0/1-0 MSD Lab Sample ID: 180-47781-1 MSD  
 Matrix: Water Lab File ID: 50922014.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 10:40  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/22/2015 16:39  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154425 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10.2		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.6		1.0	0.20
107-13-1	Acrylonitrile	108		20	0.55
123-91-1	1,4-Dioxane	229		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		64-135
2037-26-5	Toluene-d8 (Surr)	95		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\CHHP5\20150922-8620.b\50922014.D  
 Lims ID: 180-47781-C-1 MSD  
 Client ID:  
 Sample Type: MSD  
 Inject. Date: 22-Sep-2015 16:39:30 ALS Bottle#: 9 Worklist Smp#: 14  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-47781-C-1 MSD  
 Misc. Info.: 180-0008620-014  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 23-Sep-2015 07:56:27 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: XAWRK005

First Level Reviewer: fergusond

Date: 23-Sep-2015 07:56:27

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.278	4.273	0.005	0	125947	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	96	384486	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.393	-0.007	89	87363	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.729	-0.001	96	134602	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.566	6.566	0.000	93	82356	50.0	43.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	116831	50.0	45.0	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.939	-0.001	95	319621	50.0	47.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.573	11.573	-0.001	87	122622	50.0	48.2	
11 Dichlorodifluoromethane	85	1.614	1.614	0.000	98	97715	50.0	45.0	
12 Chloromethane	50	1.772	1.766	0.006	99	174844	50.0	54.8	
13 Vinyl chloride	62	1.912	1.906	0.006	98	134707	50.0	47.6	
14 Butadiene	39	1.942	1.943	-0.001	97	204680	50.0	61.3	
15 Bromomethane	94	2.265	2.247	0.018	88	55386	50.0	48.1	
16 Chloroethane	64	2.399	2.405	-0.006	97	76987	50.0	45.1	
17 Dichlorofluoromethane	67	2.678	2.673	0.005	97	156889	50.0	43.3	
18 Trichlorofluoromethane	101	2.721	2.709	0.012	97	119701	50.0	44.2	
20 Ethyl ether	59	3.050	3.050	0.000	97	110596	50.0	44.0	
21 Acrolein	56	3.238	3.226	0.012	98	31172	150.0	83.3	
22 1,1-Dichloroethene	96	3.342	3.348	-0.006	94	85804	50.0	40.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.433	3.421	0.012	93	92538	50.0	40.8	
24 Acetone	43	3.445	3.439	0.006	96	76919	100.0	99.1	
25 Iodomethane	142	3.536	3.543	-0.007	96	137800	50.0	43.2	
26 Carbon disulfide	76	3.634	3.634	0.000	99	203439	50.0	40.9	
28 3-Chloro-1-propene	76	3.926	3.920	0.006	88	51422	50.0	42.4	
30 Methyl acetate	43	3.944	3.938	0.006	100	621470	250.0	268.1	
31 Methylene Chloride	84	4.145	4.133	0.012	94	114143	50.0	44.8	
32 2-Methyl-2-propanol	59	4.412	4.394	0.018	86	76188	500.0	537.5	
33 Acrylonitrile	53	4.528	4.516	0.012	97	605492	500.0	538.3	
34 trans-1,2-Dichloroethene	96	4.564	4.565	-0.001	94	99074	50.0	42.6	
35 Methyl tert-butyl ether	73	4.583	4.577	0.006	95	256126	50.0	47.6	
36 Hexane	57	4.996	4.991	0.005	97	178637	50.0	45.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.209	5.204	0.005	96	202328	50.0	44.2	
38 Vinyl acetate	43	5.258	5.252	0.006	97	207272	50.0	60.3	
44 2,2-Dichloropropane	77	5.951	5.946	0.005	55	64856	50.0	35.3	
45 cis-1,2-Dichloroethene	96	5.951	5.952	-0.001	86	109049	50.0	43.9	
46 2-Butanone (MEK)	43	5.964	5.964	0.000	98	122860	100.0	105.4	
49 Chlorobromomethane	128	6.237	6.238	-0.001	90	49195	50.0	45.1	
51 Tetrahydrofuran	42	6.249	6.250	-0.001	94	96156	100.0	102.8	
52 Chloroform	83	6.383	6.384	-0.001	96	172120	50.0	43.5	
53 1,1,1-Trichloroethane	97	6.548	6.542	0.006	95	119773	50.0	40.9	
54 Cyclohexane	56	6.614	6.615	-0.001	98	221160	50.0	45.2	
56 Carbon tetrachloride	117	6.718	6.712	0.006	94	104550	50.0	42.0	
55 1,1-Dichloropropene	75	6.730	6.730	0.000	89	141263	50.0	43.7	
57 Isobutyl alcohol	41	6.931	6.925	0.006	93	123251	1250.0	1683.3	
58 Benzene	78	6.949	6.943	0.006	98	427331	50.0	45.1	
59 1,2-Dichloroethane	62	7.022	7.022	0.000	96	153584	50.0	46.8	
62 n-Heptane	43	7.308	7.308	0.000	96	175929	50.0	49.6	
64 Trichloroethene	130	7.685	7.679	0.006	96	101550	50.0	43.8	
66 Methylcyclohexane	83	7.916	7.917	-0.001	98	158465	50.0	43.4	
67 1,2-Dichloropropane	63	7.953	7.947	0.006	95	117757	50.0	47.3	
68 Dibromomethane	93	8.038	8.032	0.006	95	55110	50.0	43.6	
70 1,4-Dioxane	88	8.032	8.032	0.000	38	19650	1000.0	1145.7	M
71 Dichlorobromomethane	83	8.233	8.233	0.000	97	112934	50.0	45.2	
74 cis-1,3-Dichloropropene	75	8.677	8.671	0.006	88	121700	50.0	41.6	
75 4-Methyl-2-pentanone (MIBK)	43	8.829	8.829	0.000	99	224624	100.0	104.3	
76 Toluene	91	9.005	9.006	-0.001	96	416265	50.0	48.1	
77 trans-1,3-Dichloropropene	75	9.249	9.249	0.000	95	98670	50.0	43.7	
78 Ethyl methacrylate	69	9.309	9.310	-0.001	94	112242	50.0	51.4	
79 1,1,2-Trichloroethane	97	9.449	9.444	0.005	94	80627	50.0	49.0	
80 Tetrachloroethene	164	9.516	9.517	-0.001	97	80770	50.0	48.1	
81 1,3-Dichloropropane	76	9.601	9.602	-0.001	96	149091	50.0	48.8	
82 2-Hexanone	43	9.656	9.657	-0.001	98	154905	100.0	99.7	
84 Chlorodibromomethane	129	9.814	9.815	-0.001	90	67909	50.0	47.7	
85 Ethylene Dibromide	107	9.924	9.930	-0.006	100	79276	50.0	50.0	
86 3-Chlorobenzotrifluoride	180	10.386	10.387	-0.001	82	138684	50.0	49.9	
87 Chlorobenzene	112	10.417	10.417	0.000	93	273292	50.0	49.1	
88 4-Chlorobenzotrifluoride	180	10.477	10.478	-0.001	95	133004	50.0	50.6	
89 1,1,1,2-Tetrachloroethane	131	10.508	10.508	0.000	91	87836	50.0	48.4	
90 Ethylbenzene	106	10.520	10.514	0.006	99	145205	50.0	49.2	
91 m-Xylene & p-Xylene	106	10.648	10.648	0.000	0	182952	50.0	50.5	
92 o-Xylene	106	11.025	11.025	0.000	98	175222	50.0	50.9	
93 Styrene	104	11.049	11.050	-0.001	95	307042	50.0	53.9	
94 Bromoform	173	11.232	11.232	0.000	95	41478	50.0	51.0	
96 2-Chlorobenzotrifluoride	180	11.293	11.299	-0.006	97	141058	50.0	51.6	
97 Isopropylbenzene	105	11.396	11.396	0.000	97	452827	50.0	53.7	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.707	-0.001	93	117837	50.0	53.1	
100 Bromobenzene	156	11.706	11.713	-0.007	96	112707	50.0	48.8	
102 trans-1,4-Dichloro-2-buten	53	11.737	11.743	-0.006	61	7283	50.0	8.72	
101 1,2,3-Trichloropropane	110	11.761	11.761	0.000	89	39220	50.0	51.5	
103 N-Propylbenzene	120	11.810	11.810	0.000	99	126380	50.0	47.8	
104 2-Chlorotoluene	126	11.895	11.901	-0.006	95	108508	50.0	48.3	
105 3-Chlorotoluene	126	11.968	11.962	0.006	96	107591	50.0	46.6	
106 1,3,5-Trimethylbenzene	105	11.992	11.993	-0.001	96	380940	50.0	51.0	

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	12.023	0.000	98	116958	50.0	47.3	
108 tert-Butylbenzene	119	12.309	12.309	0.000	96	303756	50.0	50.0	
110 1,2,4-Trimethylbenzene	105	12.369	12.370	-0.001	98	381200	50.0	50.9	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.406	0.006	98	99609	50.0	47.7	
112 sec-Butylbenzene	105	12.528	12.534	-0.006	95	441957	50.0	51.5	
113 1,3-Dichlorobenzene	146	12.649	12.650	-0.001	98	212882	50.0	51.7	
114 4-Isopropyltoluene	119	12.686	12.686	0.000	97	369304	50.0	50.9	
115 1,4-Dichlorobenzene	146	12.753	12.753	0.000	94	220748	50.0	51.6	
116 2,4-Dichloro-1-(trifluorom	214	12.777	12.777	0.000	96	97022	50.0	50.2	
118 2,5-Dichlorobenzotrifluori	214	12.820	12.820	0.000	0	101701	50.0	48.7	
120 n-Butylbenzene	91	13.099	13.100	-0.001	97	303244	50.0	48.8	
121 1,2-Dichlorobenzene	146	13.112	13.106	0.006	96	199603	50.0	51.9	
122 1,2-Dibromo-3-Chloropropan	75	13.896	13.897	-0.001	74	18914	50.0	59.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.042	14.043	-0.001	0	334311	150.0	152.2	
125 2,3- & 3,4- Dichlorotoluen	125	14.456	14.456	0.000	0	207358	100.0	99.0	
126 1,2,4-Trichlorobenzene	180	14.724	14.724	0.000	93	80772	50.0	54.0	
127 Hexachlorobutadiene	225	14.870	14.876	-0.006	94	39424	50.0	54.7	
128 Naphthalene	128	14.991	14.992	-0.001	97	229762	50.0	59.8	
129 1,2,3-Trichlorobenzene	180	15.210	15.217	-0.007	96	71262	50.0	58.8	
131 2,4,5-Trichlorotoluene	159	15.995	15.990	0.005	0	19747	50.0	45.2	
130 2,3,6-Trichlorotoluene	159	16.093	16.087	0.006	95	19507	50.0	48.4	
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 134 1,2-Dichloroethene, Total	96				0		100.0	86.5	
S 133 Xylenes, Total	106				0		100.0	101.5	
S 135 1,3-Dichloropropene, Total	1				0		100.0	85.3	

## 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	
voaEE2Restek_00001	Amount Added: 2.00	Units: uL	
voaWKet1stRes_00001	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00143	Amount Added: 2.00	Units: uL	
voaWVA2nd Res_00010	Amount Added: 2.00	Units: uL	
VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922014.D

Injection Date: 22-Sep-2015 16:39:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-47781-C-1 MSD

Worklist Smp#: 14

Client ID:

Purge Vol: 5.000 mL

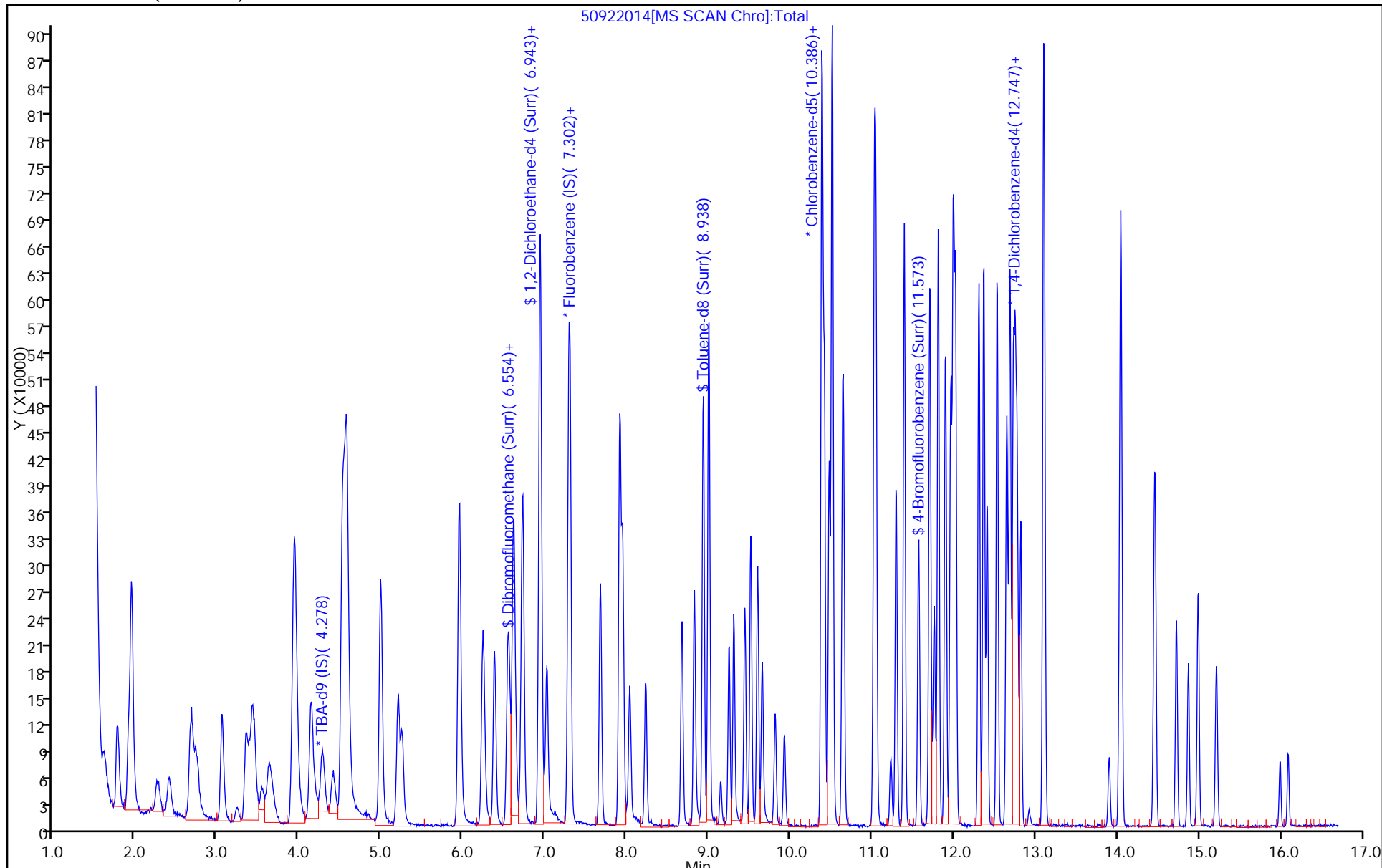
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



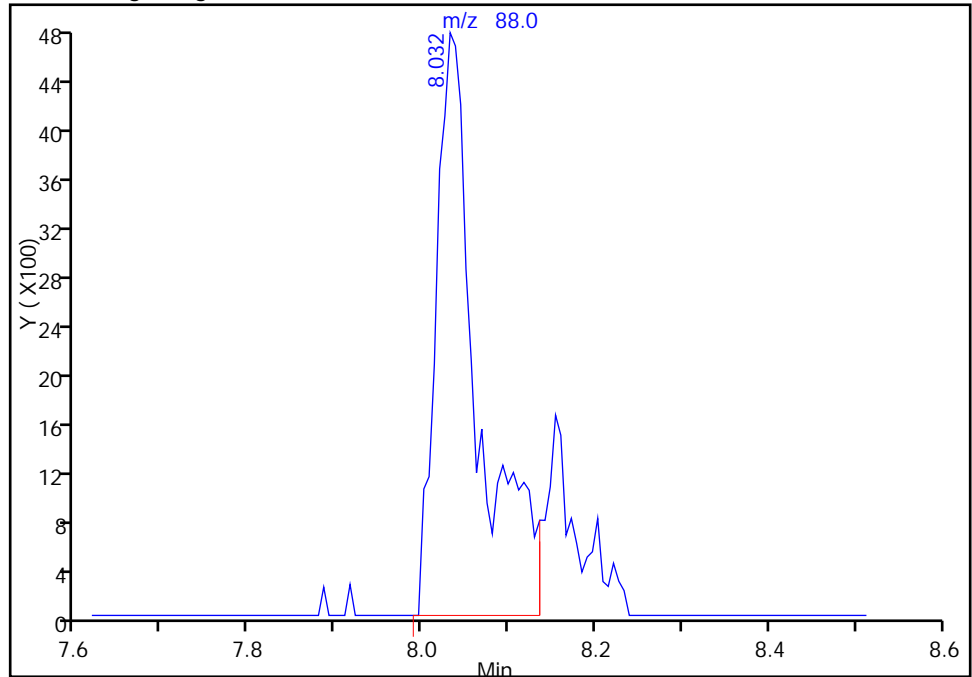
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150922-8620.b\50922014.D  
Injection Date: 22-Sep-2015 16:39:30 Instrument ID: CHHP5  
Lims ID: 180-47781-C-1 MSD  
Client ID:  
Operator ID: 001562 ALS Bottle#: 9 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

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

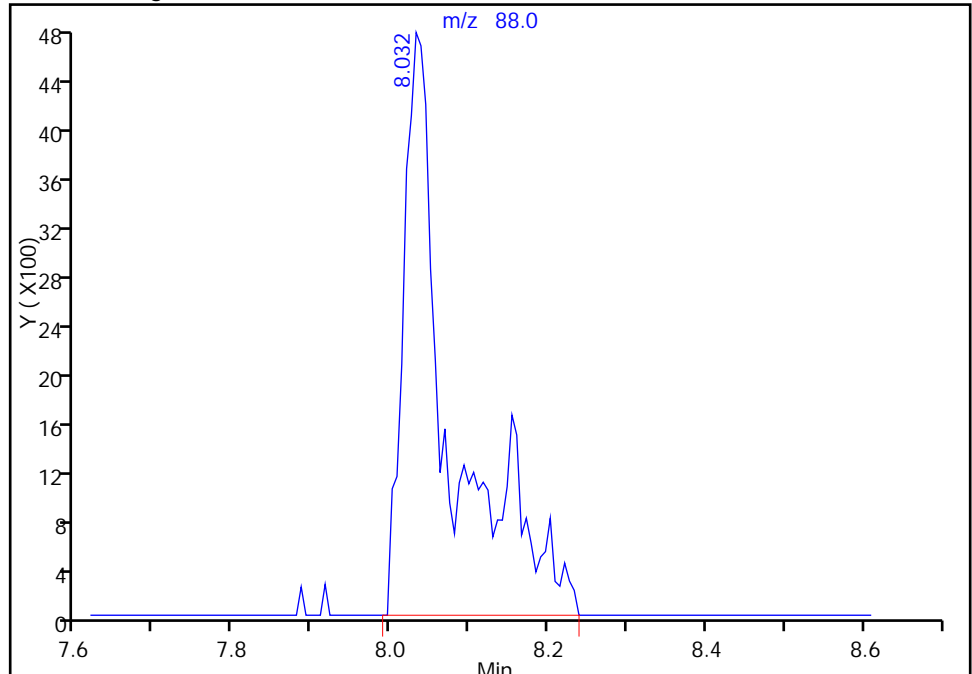
RT: 8.03  
Area: 15841  
Amount: 923.6424  
Amount Units: ng

Processing Integration Results



RT: 8.03  
Area: 19650  
Amount: 1145.7341  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 23-Sep-2015 07:56:27  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-12-0/1-0 MSD Lab Sample ID: 180-47781-5 MSD  
 Matrix: Water Lab File ID: 60923009.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 12:55  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 14:30  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154553 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	11.0		1.0	0.28
75-01-4	Vinyl chloride	9.76		1.0	0.23
74-83-9	Bromomethane	7.61		1.0	0.31
75-00-3	Chloroethane	8.25		1.0	0.21
75-35-4	1,1-Dichloroethene	9.13		1.0	0.30
67-64-1	Acetone	22.9		5.0	2.5
75-15-0	Carbon disulfide	7.87		1.0	0.21
75-09-2	Methylene Chloride	9.31		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.44		1.0	0.17
1634-04-4	Methyl tert-butyl ether	9.33		1.0	0.18
75-34-3	1,1-Dichloroethane	10.3		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	9.31		1.0	0.24
74-97-5	Bromochloromethane	10.6		1.0	0.18
78-93-3	2-Butanone (MEK)	23.9		5.0	0.55
67-66-3	Chloroform	9.78		1.0	0.17
71-55-6	1,1,1-Trichloroethane	9.17		1.0	0.29
56-23-5	Carbon tetrachloride	9.55		1.0	0.14
71-43-2	Benzene	10.0		1.0	0.11
107-06-2	1,2-Dichloroethane	10.5		1.0	0.21
79-01-6	Trichloroethene	11.1		1.0	0.14
78-87-5	1,2-Dichloropropane	11.1		1.0	0.095
75-27-4	Bromodichloromethane	9.39		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.40		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	24.1		5.0	0.53
108-88-3	Toluene	9.87		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	8.98		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.2		1.0	0.20
127-18-4	Tetrachloroethene	10.5		1.0	0.15
591-78-6	2-Hexanone	26.3		5.0	0.16
124-48-1	Dibromochloromethane	10.0		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.9		1.0	0.18
108-90-7	Chlorobenzene	10.5		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.2		1.0	0.28
100-41-4	Ethylbenzene	10.4		1.0	0.23
1330-20-7	Xylenes, Total	20.1		3.0	0.49
100-42-5	Styrene	10.6		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-12-0/1-0 MSD Lab Sample ID: 180-47781-5 MSD  
 Matrix: Water Lab File ID: 60923009.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 12:55  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/23/2015 14:30  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154553 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	9.84		1.0	0.20
107-13-1	Acrylonitrile	122		20	0.55
123-91-1	1,4-Dioxane	235		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)	103		71-118
460-00-4	4-Bromofluorobenzene (Surr)	95		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923009.D  
 Lims ID: 180-47781-A-5 MSD  
 Client ID:  
 Sample Type: MSD  
 Inject. Date: 23-Sep-2015 14:30:30 ALS Bottle#: 9 Worklist Smp#: 9  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-47781-A-5 MSD  
 Misc. Info.: 180-0008638-009  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 23-Sep-2015 15:13:46 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: XAWRK005

First Level Reviewer: fergusond

Date: 23-Sep-2015 15:13:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.249	4.236	0.013	87	218153	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.284	0.006	97	483144	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.399	10.398	0.001	90	110671	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.747	0.000	97	196321	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.554	6.548	0.006	92	116289	50.0	52.3	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.925	0.006	71	186584	50.0	52.0	
\$ 7 Toluene-d8 (Surr)	98	8.939	8.938	0.001	94	447452	50.0	51.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.585	0.000	85	183735	50.0	47.4	
11 Dichlorodifluoromethane	85	1.608	1.602	0.006	100	136518	50.0	40.8	
12 Chloromethane	50	1.766	1.760	0.006	99	158910	50.0	55.1	
13 Vinyl chloride	62	1.900	1.900	0.000	98	151585	50.0	48.8	
14 Butadiene	39	1.937	1.930	0.007	97	166349	50.0	57.1	
15 Bromomethane	94	2.241	2.222	0.019	92	63806	50.0	38.1	
16 Chloroethane	64	2.387	2.374	0.013	99	87465	50.0	41.3	
17 Dichlorofluoromethane	67	2.661	2.654	0.007	97	224028	50.0	45.4	
18 Trichlorofluoromethane	101	2.685	2.672	0.013	93	190986	50.0	48.5	
20 Ethyl ether	59	3.044	3.044	0.000	93	142981	50.0	51.3	
21 Acrolein	56	3.220	3.214	0.006	98	33886	150.0	111.4	
22 1,1-Dichloroethene	96	3.336	3.336	0.000	94	111060	50.0	45.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.415	3.396	0.019	92	122835	50.0	47.8	
24 Acetone	43	3.421	3.415	0.006	91	98059	100.0	114.7	
25 Iodomethane	142	3.537	3.536	0.001	98	167622	50.0	51.3	
26 Carbon disulfide	76	3.634	3.634	0.000	100	248114	50.0	39.4	
29 3-Chloro-1-propene	76	3.914	3.913	0.001	62	59139	50.0	43.1	
30 Methyl acetate	43	3.926	3.926	0.000	97	628586	250.0	313.6	
31 Methylene Chloride	84	4.127	4.126	0.001	98	158012	50.0	46.6	
32 2-Methyl-2-propanol	59	4.370	4.364	0.006	87	130745	500.0	532.6	
33 Acrylonitrile	53	4.504	4.497	0.007	98	615296	500.0	609.0	
34 trans-1,2-Dichloroethene	96	4.565	4.564	0.001	95	132520	50.0	47.2	
35 Methyl tert-butyl ether	73	4.571	4.564	0.007	97	392399	50.0	46.7	
36 Hexane	57	4.985	4.990	-0.005	94	198535	50.0	52.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.198	5.197	0.001	98	259480	50.0	51.6	
38 Vinyl acetate	43	5.240	5.240	0.000	98	210915	50.0	52.0	
42 2,2-Dichloropropane	77	5.940	5.939	0.001	59	109796	50.0	43.2	
43 cis-1,2-Dichloroethene	96	5.940	5.939	0.001	86	142109	50.0	46.6	
44 2-Butanone (MEK)	43	5.946	5.945	0.001	65	139353	100.0	119.5	
48 Chlorobromomethane	128	6.232	6.225	0.007	94	64900	50.0	52.9	
50 Chloroform	83	6.372	6.377	-0.005	96	243984	50.0	48.9	
51 1,1,1-Trichloroethane	97	6.542	6.535	0.007	97	169007	50.0	45.9	
52 Cyclohexane	56	6.615	6.615	0.000	94	244071	50.0	51.7	
49 Tetrahydrofuran	42	6.615	6.615	0.000	47	55568	100.0	70.7	
53 Carbon tetrachloride	117	6.718	6.712	0.006	96	124331	50.0	47.8	
54 1,1-Dichloropropene	75	6.731	6.724	0.007	92	192667	50.0	48.6	
55 Isobutyl alcohol	41	6.901	6.894	0.007	90	126217	1250.0	1805.7	
56 Benzene	78	6.944	6.937	0.007	99	563986	50.0	50.1	
57 1,2-Dichloroethane	62	7.017	7.010	0.006	98	238970	50.0	52.7	
59 n-Heptane	43	7.309	7.308	0.001	93	189644	50.0	61.9	
61 Trichloroethene	130	7.680	7.673	0.007	95	130292	50.0	55.5	
63 Methylcyclohexane	83	7.923	7.922	0.001	94	217401	50.0	45.6	
64 1,2-Dichloropropane	63	7.953	7.953	0.000	92	148753	50.0	55.3	
65 1,4-Dioxane	88	8.026	8.032	-0.006	44	31160	1000.0	1173.5	M
67 Dibromomethane	93	8.032	8.038	-0.006	96	85014	50.0	52.0	
68 Dichlorobromomethane	83	8.227	8.227	0.000	98	144162	50.0	47.0	
71 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	90	158461	50.0	47.0	
72 4-Methyl-2-pentanone (MIBK)	43	8.823	8.823	0.000	98	274700	100.0	120.7	
73 Toluene	91	9.006	9.011	-0.005	98	563429	50.0	49.3	
74 trans-1,3-Dichloropropene	75	9.255	9.255	0.000	99	130162	50.0	44.9	
75 Ethyl methacrylate	69	9.310	9.316	-0.006	90	154740	50.0	50.3	
76 1,1,2-Trichloroethane	97	9.450	9.443	0.007	95	119964	50.0	50.8	
77 Tetrachloroethene	164	9.523	9.529	-0.005	94	102302	50.0	52.5	
78 1,3-Dichloropropane	76	9.608	9.608	0.000	96	226303	50.0	51.9	
79 2-Hexanone	43	9.657	9.662	-0.005	99	196660	100.0	131.6	
81 Chlorodibromomethane	129	9.827	9.827	0.000	90	80961	50.0	50.2	
82 Ethylene Dibromide	107	9.937	9.942	-0.005	99	114014	50.0	54.6	
83 3-Chlorobenzotrifluoride	180	10.393	10.392	0.001	92	190697	50.0	52.2	
84 Chlorobenzene	112	10.423	10.429	-0.006	92	367731	50.0	52.4	
85 4-Chlorobenzotrifluoride	180	10.484	10.484	0.000	97	180059	50.0	53.1	
86 1,1,1,2-Tetrachloroethane	131	10.521	10.520	0.001	87	98292	50.0	51.1	
87 Ethylbenzene	106	10.527	10.526	0.001	99	205434	50.0	51.9	
88 m-Xylene & p-Xylene	106	10.661	10.660	0.000	99	249983	50.0	50.9	
89 o-Xylene	106	11.038	11.037	0.001	97	243366	50.0	49.5	
90 Styrene	104	11.062	11.062	0.000	95	399808	50.0	53.0	
91 Bromoform	173	11.245	11.244	0.001	94	46014	50.0	53.5	
92 2-Chlorobenzotrifluoride	180	11.305	11.299	0.006	97	195266	50.0	52.1	
93 Isopropylbenzene	105	11.409	11.408	0.001	98	605691	50.0	51.5	
96 1,1,2,2-Tetrachloroethane	83	11.713	11.712	0.001	96	155422	50.0	49.2	
95 Bromobenzene	156	11.725	11.725	0.000	98	157994	50.0	50.1	
97 trans-1,4-Dichloro-2-buten	53	11.749	11.749	0.000	65	39695	50.0	39.7	
98 1,2,3-Trichloropropane	110	11.774	11.773	0.001	87	58972	50.0	49.1	
99 N-Propylbenzene	120	11.829	11.828	0.001	99	168124	50.0	46.3	
100 2-Chlorotoluene	126	11.914	11.913	0.001	94	145411	50.0	48.2	
101 3-Chlorotoluene	126	11.981	11.980	0.001	97	155932	50.0	49.2	
102 1,3,5-Trimethylbenzene	105	12.011	12.011	0.000	94	552067	50.0	46.7	

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	99	165402	50.0	51.9	
104 tert-Butylbenzene	119	12.321	12.327	-0.006	93	412887	50.0	44.2	
106 1,2,4-Trimethylbenzene	105	12.382	12.382	0.000	99	556155	50.0	46.0	
107 1,2-dichloro-4-(trifluorom	214	12.419	12.418	0.001	97	160353	50.0	46.8	
108 sec-Butylbenzene	105	12.546	12.546	0.000	96	638603	50.0	45.8	
109 1,3-Dichlorobenzene	146	12.668	12.668	0.000	95	298272	50.0	48.4	
110 4-Isopropyltoluene	119	12.705	12.704	0.001	95	524508	50.0	44.8	
111 1,4-Dichlorobenzene	146	12.771	12.771	0.000	91	312760	50.0	49.6	
113 2,4-Dichloro-1-(trifluorom	214	12.790	12.789	0.001	96	160500	50.0	47.1	
114 2,5-Dichlorobenzotrifluori	214	12.832	12.832	0.000	96	184688	50.0	48.6	
116 n-Butylbenzene	91	13.112	13.112	0.000	98	492550	50.0	42.2	
117 1,2-Dichlorobenzene	146	13.124	13.124	0.000	96	299234	50.0	48.1	
118 1,2-Dibromo-3-Chloropropan	75	13.915	13.915	0.000	71	21049	50.0	36.9	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.061	14.061	0.000	99	733780	150.0	135.5	
121 2,3- & 3,4- Dichlorotoluen	125	14.475	14.474	0.001	99	543926	100.0	91.0	
122 1,2,4-Trichlorobenzene	180	14.743	14.742	0.001	94	216684	50.0	44.9	
123 Hexachlorobutadiene	225	14.889	14.888	0.000	97	92481	50.0	48.7	
124 Naphthalene	128	15.010	15.010	0.000	98	462396	50.0	47.5	
125 1,2,3-Trichlorobenzene	180	15.229	15.229	0.000	94	197018	50.0	43.7	
126 2,4,5-Trichlorotoluene	159	16.008	16.007	0.001	0	113616	50.0	37.5	
127 2,3,6-Trichlorotoluene	159	16.105	16.111	-0.006	94	120719	50.0	42.0	
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		100.0	93.8	
S 131 Xylenes, Total	106				0		100.0	100.4	
S 132 1,3-Dichloropropene, Total	1				0		100.0	91.9	

## 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	
voaEE2Restek_00001	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00143	Amount Added: 2.00	Units: uL	
voaWVA2nd Res_00010	Amount Added: 2.00	Units: uL	
voaWKetmix2nd_00002	Amount Added: 2.00	Units: uL	
VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923009.D

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

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-47781-A-5 MSD

Worklist Smp#: 9

Client ID:

Purge Vol: 5.000 mL

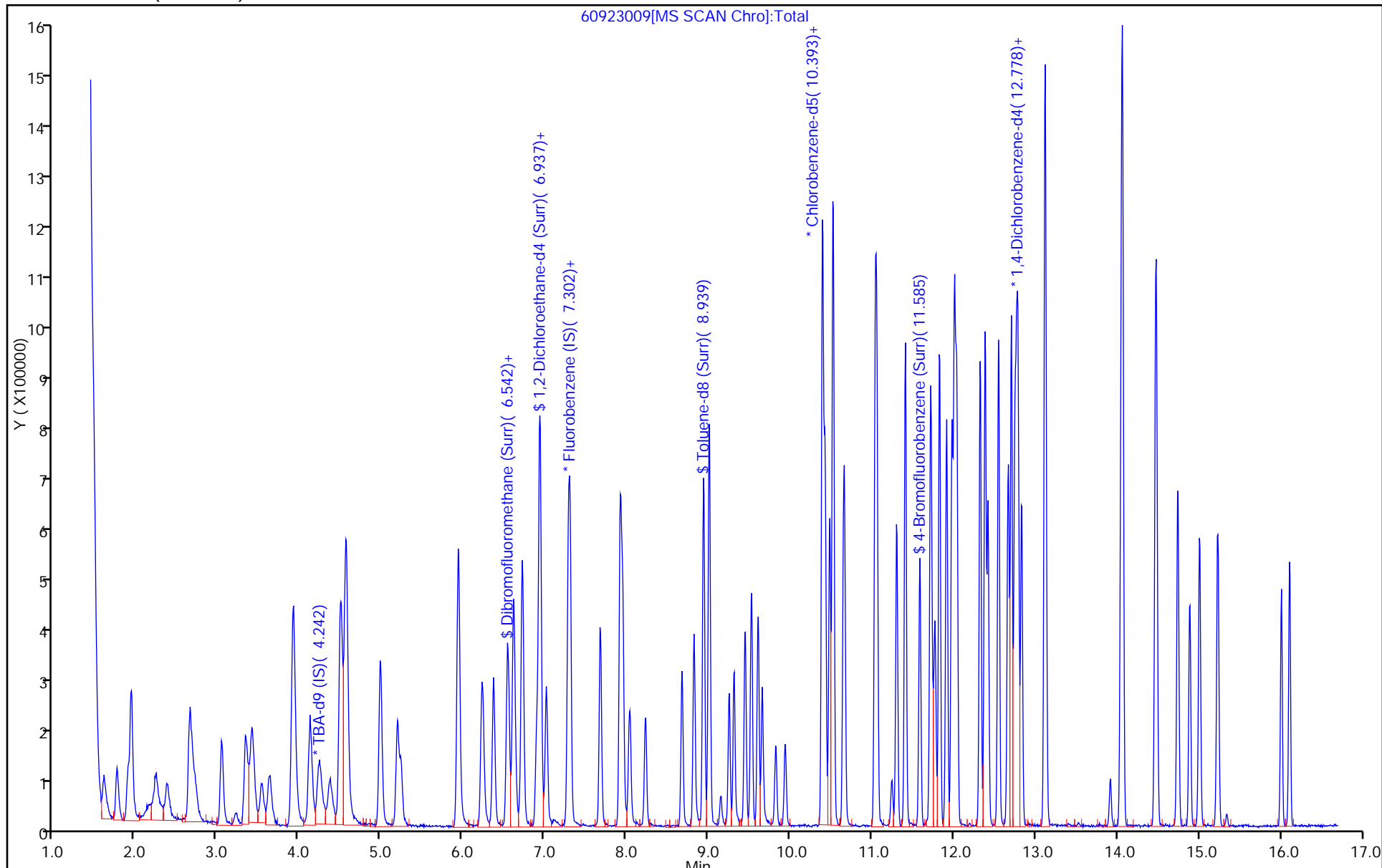
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



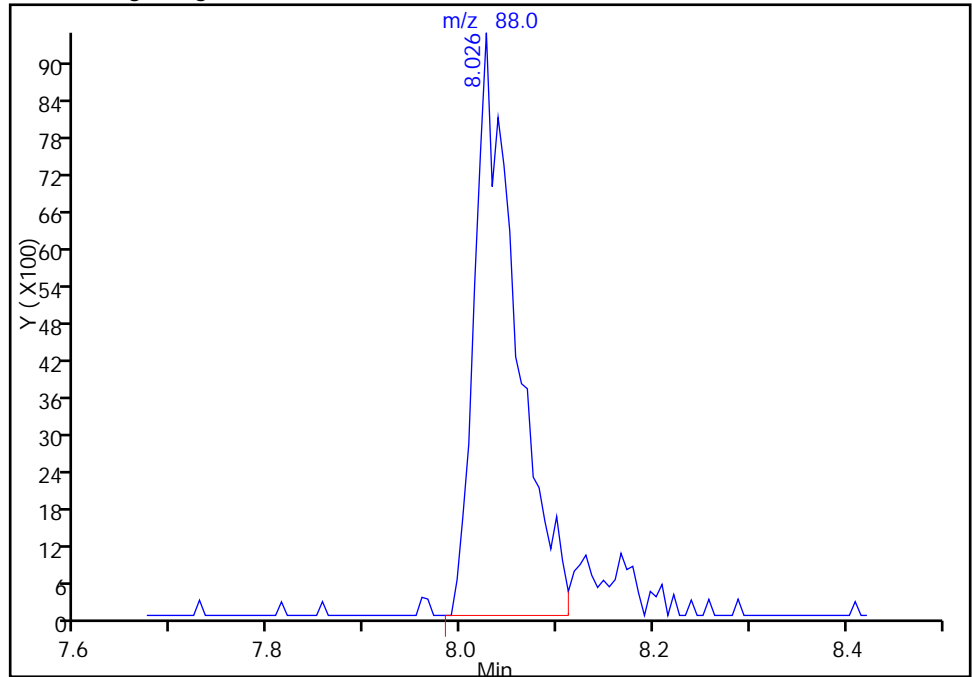
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150923-8638.b\60923009.D  
Injection Date: 23-Sep-2015 14:30:30 Instrument ID: CHHP6  
Lims ID: 180-47781-A-5 MSD  
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

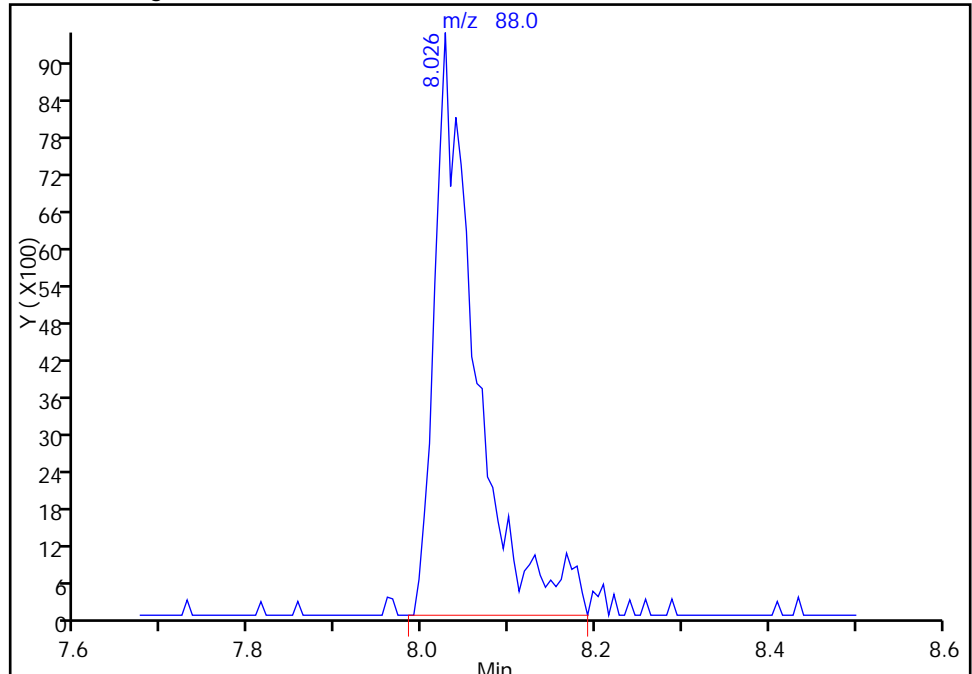
RT: 8.03  
Area: 28191  
Amount: 1061.7260  
Amount Units: ng

Processing Integration Results



RT: 8.03  
Area: 31160  
Amount: 1173.5441  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 23-Sep-2015 15:13:46  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-17-0/1-0 MSD Lab Sample ID: 180-47781-9 MSD  
 Matrix: Water Lab File ID: 50918011.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 10:20  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/18/2015 15:56  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154121 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	8.17		1.0	0.28
75-01-4	Vinyl chloride	7.53		1.0	0.23
74-83-9	Bromomethane	6.93		1.0	0.31
75-00-3	Chloroethane	5.92		1.0	0.21
75-35-4	1,1-Dichloroethene	7.48		1.0	0.30
67-64-1	Acetone	17.6		5.0	2.5
75-15-0	Carbon disulfide	5.92		1.0	0.21
75-09-2	Methylene Chloride	7.21		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	7.76		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.14		1.0	0.18
75-34-3	1,1-Dichloroethane	9.04		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	20.7		1.0	0.24
74-97-5	Bromochloromethane	8.66		1.0	0.18
78-93-3	2-Butanone (MEK)	21.2		5.0	0.55
67-66-3	Chloroform	9.23		1.0	0.17
71-55-6	1,1,1-Trichloroethane	11.2		1.0	0.29
56-23-5	Carbon tetrachloride	9.44		1.0	0.14
71-43-2	Benzene	9.00		1.0	0.11
107-06-2	1,2-Dichloroethane	9.56		1.0	0.21
79-01-6	Trichloroethene	21.9		1.0	0.14
78-87-5	1,2-Dichloropropane	8.92		1.0	0.095
75-27-4	Bromodichloromethane	8.64		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	8.69		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	19.9		5.0	0.53
108-88-3	Toluene	10.4		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.47		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.3		1.0	0.20
127-18-4	Tetrachloroethene	42.4		1.0	0.15
591-78-6	2-Hexanone	19.4		5.0	0.16
124-48-1	Dibromochloromethane	9.44		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.4		1.0	0.18
108-90-7	Chlorobenzene	10.4		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.88		1.0	0.28
100-41-4	Ethylbenzene	10.1		1.0	0.23
1330-20-7	Xylenes, Total	20.3		3.0	0.49
100-42-5	Styrene	10.4		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-17-0/1-0 MSD Lab Sample ID: 180-47781-9 MSD  
 Matrix: Water Lab File ID: 50918011.D  
 Analysis Method: 8260C Date Collected: 09/15/2015 10:20  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/18/2015 15:56  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 154121 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.17		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.7		1.0	0.20
107-13-1	Acrylonitrile	85.7		20	0.55
123-91-1	1,4-Dioxane	202		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		64-135
2037-26-5	Toluene-d8 (Surr)	101		71-118
460-00-4	4-Bromofluorobenzene (Surr)	103		70-118
1868-53-7	Dibromofluoromethane (Surr)	88		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918011.D  
 Lims ID: 180-47781-C-9 MSD  
 Client ID: HD-COD-SW-17-0/1-0  
 Sample Type: MSD  
 Inject. Date: 18-Sep-2015 15:56:30 ALS Bottle#: 10 Worklist Smp#: 11  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-47781-C-9 MSD  
 Misc. Info.: 180-0008580-011  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 21-Sep-2015 07:42:22 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: XAWRK017

First Level Reviewer: fergusond

Date: 21-Sep-2015 07:42:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.281	4.271	0.010	0	115437	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.286	7.294	-0.008	97	382479	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.385	0.003	89	82803	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.731	12.727	0.004	97	121303	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.562	6.564	-0.002	92	83069	50.0	44.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.929	0.004	0	115135	50.0	44.6	
\$ 7 Toluene-d8 (Surr)	98	8.935	8.937	-0.003	94	323144	50.0	50.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.569	11.571	-0.002	85	124292	50.0	51.6	
11 Dichlorodifluoromethane	85	1.610	1.612	-0.002	98	90473	50.0	41.9	
12 Chloromethane	50	1.768	1.764	0.004	100	129603	50.0	40.8	
13 Vinyl chloride	62	1.908	1.904	0.004	98	105963	50.0	37.6	
14 Butadiene	39	1.939	1.941	-0.002	99	131169	50.0	39.5	
15 Bromomethane	94	2.249	2.239	0.010	89	39700	50.0	34.7	M
16 Chloroethane	64	2.395	2.385	0.010	98	50242	50.0	29.6	
17 Dichlorofluoromethane	67	2.675	2.671	0.004	98	122404	50.0	34.0	
18 Trichlorofluoromethane	101	2.717	2.695	0.022	96	102991	50.0	38.2	M
20 Ethyl ether	59	3.052	3.054	-0.002	95	90399	50.0	36.2	
21 Acrolein	56	3.228	3.231	-0.003	97	16513	150.0	44.4	
22 1,1-Dichloroethene	96	3.344	3.346	-0.002	93	79722	50.0	37.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.429	3.425	0.004	92	78672	50.0	34.9	
24 Acetone	43	3.447	3.437	0.010	99	67804	100.0	87.9	
25 Iodomethane	142	3.551	3.541	0.010	97	115135	50.0	36.3	
26 Carbon disulfide	76	3.630	3.638	-0.008	100	146522	50.0	29.6	
28 3-Chloro-1-propene	76	3.916	3.924	-0.008	88	45039	50.0	37.3	
30 Methyl acetate	43	3.940	3.936	0.004	100	473274	250.0	205.2	
31 Methylene Chloride	84	4.141	4.131	0.010	95	94030	50.0	36.0	
32 2-Methyl-2-propanol	59	4.408	4.405	0.003	87	75420	500.0	580.5	
33 Acrylonitrile	53	4.530	4.526	0.004	99	479225	500.0	428.3	
34 trans-1,2-Dichloroethene	96	4.567	4.563	0.004	94	89775	50.0	38.8	
35 Methyl tert-butyl ether	73	4.579	4.581	-0.002	95	217928	50.0	40.7	
36 Hexane	57	4.992	4.995	-0.003	96	160393	50.0	41.3	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.205	5.202	0.003	96	205870	50.0	45.2	
38 Vinyl acetate	43	5.254	5.250	0.004	97	182493	50.0	53.4	
45 cis-1,2-Dichloroethene	96	5.948	5.950	-0.002	84	255922	50.0	103.6	
44 2,2-Dichloropropane	77	5.948	5.950	-0.002	78	80131	50.0	43.9	
46 2-Butanone (MEK)	43	5.966	5.956	0.010	60	123180	100.0	106.2	
49 Chlorobromomethane	128	6.240	6.236	0.004	92	46965	50.0	43.3	
51 Tetrahydrofuran	42	6.252	6.248	0.004	92	84965	100.0	91.3	
52 Chloroform	83	6.379	6.382	-0.003	96	181628	50.0	46.1	
53 1,1,1-Trichloroethane	97	6.544	6.540	0.004	95	163139	50.0	56.0	
54 Cyclohexane	56	6.617	6.619	-0.002	96	198959	50.0	40.9	
56 Carbon tetrachloride	117	6.714	6.716	-0.002	95	117007	50.0	47.2	
55 1,1-Dichloropropene	75	6.732	6.729	0.003	90	145387	50.0	45.2	
57 Isobutyl alcohol	41	6.933	6.929	0.004	93	92862	1250.0	1274.9	
58 Benzene	78	6.945	6.948	-0.003	99	424536	50.0	45.0	
59 1,2-Dichloroethane	62	7.018	7.015	0.003	97	155905	50.0	47.8	
62 n-Heptane	43	7.310	7.313	-0.003	96	146702	50.0	41.6	
64 Trichloroethene	130	7.681	7.672	0.009	95	252405	50.0	109.4	
66 Methylcyclohexane	83	7.919	7.915	0.004	96	158895	50.0	43.7	
67 1,2-Dichloropropane	63	7.949	7.951	-0.002	95	110366	50.0	44.6	
70 1,4-Dioxane	88	8.022	8.030	-0.008	38	17200	1000.0	1008.1	M
68 Dibromomethane	93	8.034	8.037	-0.003	94	56295	50.0	44.8	
71 Dichlorobromomethane	83	8.229	8.231	-0.002	97	107341	50.0	43.2	
74 cis-1,3-Dichloropropene	75	8.673	8.675	-0.002	90	126555	50.0	43.5	
75 4-Methyl-2-pentanone (MIBK)	43	8.825	8.827	-0.002	99	202951	100.0	99.5	
76 Toluene	91	9.001	9.004	-0.003	97	428207	50.0	52.2	
77 trans-1,3-Dichloropropene	75	9.251	9.253	-0.002	99	101260	50.0	47.3	
78 Ethyl methacrylate	69	9.312	9.308	0.004	94	102330	50.0	49.5	
79 1,1,2-Trichloroethane	97	9.446	9.448	-0.002	94	79925	50.0	51.3	
80 Tetrachloroethene	164	9.519	9.515	0.004	92	336967	50.0	211.8	
81 1,3-Dichloropropane	76	9.598	9.600	-0.002	99	146071	50.0	50.5	
82 2-Hexanone	43	9.658	9.661	-0.003	99	142561	100.0	96.8	
84 Chlorodibromomethane	129	9.817	9.813	0.004	90	63741	50.0	47.2	
85 Ethylene Dibromide	107	9.926	9.929	-0.002	98	78199	50.0	52.0	
86 3-Chlorobenzotrifluoride	180	10.388	10.391	-0.003	84	131474	50.0	49.9	
87 Chlorobenzene	112	10.413	10.415	-0.002	93	273949	50.0	51.9	
88 4-Chlorobenzotrifluoride	180	10.474	10.476	-0.002	97	123213	50.0	49.5	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.506	0.004	90	85007	50.0	49.4	
90 Ethylbenzene	106	10.516	10.513	0.003	99	141064	50.0	50.4	
91 m-Xylene & p-Xylene	106	10.650	10.652	-0.002	0	176058	50.0	51.3	
92 o-Xylene	106	11.027	11.030	-0.003	98	162437	50.0	49.8	
93 Styrene	104	11.045	11.048	-0.003	95	281295	50.0	52.1	
94 Bromoform	173	11.234	11.230	0.004	94	35341	50.0	45.9	
96 2-Chlorobenzotrifluoride	180	11.295	11.297	-0.002	94	128178	50.0	49.4	
97 Isopropylbenzene	105	11.392	11.395	-0.003	97	426097	50.0	53.4	
99 1,1,2,2-Tetrachloroethane	83	11.702	11.705	-0.003	78	112838	50.0	53.6	
100 Bromobenzene	156	11.709	11.711	-0.002	97	100128	50.0	48.1	
102 trans-1,4-Dichloro-2-buten	53	11.745	11.741	0.004	76	29095	50.0	38.7	
101 1,2,3-Trichloropropane	110	11.757	11.766	-0.009	88	37126	50.0	54.1	
103 N-Propylbenzene	120	11.812	11.814	-0.002	100	115938	50.0	48.6	
104 2-Chlorotoluene	126	11.897	11.900	-0.003	95	103331	50.0	51.0	
105 3-Chlorotoluene	126	11.964	11.966	-0.002	96	109436	50.0	52.6	
106 1,3,5-Trimethylbenzene	105	11.994	11.997	-0.003	95	351402	50.0	52.2	

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	12.021	0.004	98	112270	50.0	50.4	
108 tert-Butylbenzene	119	12.311	12.307	0.004	95	279890	50.0	51.1	
110 1,2,4-Trimethylbenzene	105	12.366	12.368	-0.002	99	349166	50.0	51.7	
111 1,2-dichloro-4-(trifluorom	214	12.408	12.411	-0.003	95	85789	50.0	45.6	
112 sec-Butylbenzene	105	12.530	12.532	-0.002	95	406257	50.0	52.6	
113 1,3-Dichlorobenzene	146	12.652	12.648	0.004	96	182184	50.0	49.1	
114 4-Isopropyltoluene	119	12.688	12.690	-0.002	96	338281	50.0	51.7	
115 1,4-Dichlorobenzene	146	12.755	12.751	0.004	94	190189	50.0	49.3	
116 2,4-Dichloro-1-(trifluorom	214	12.779	12.782	-0.003	94	77345	50.0	44.4	
118 2,5-Dichlorobenzotrifluori	214	12.822	12.824	-0.002	0	87416	50.0	46.4	
120 n-Butylbenzene	91	13.096	13.098	-0.002	98	283488	50.0	50.7	
121 1,2-Dichlorobenzene	146	13.108	13.110	-0.002	94	168665	50.0	48.7	
122 1,2-Dibromo-3-Chloropropan	75	13.905	13.901	0.004	72	15646	50.0	55.0	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.039	14.047	-0.008	0	302394	150.0	152.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.458	14.461	-0.003	0	181164	100.0	96.0	
126 1,2,4-Trichlorobenzene	180	14.726	14.728	-0.002	94	58867	50.0	43.7	
127 Hexachlorobutadiene	225	14.872	14.868	0.004	93	26443	50.0	40.7	
128 Naphthalene	128	14.988	14.990	-0.002	98	163518	50.0	47.2	
129 1,2,3-Trichlorobenzene	180	15.213	15.215	-0.002	93	44815	50.0	41.1	
131 2,4,5-Trichlorotoluene	159	15.991	15.994	-0.003	0	13141	50.0	33.4	
130 2,3,6-Trichlorotoluene	159	16.089	16.091	-0.002	94	12944	50.0	35.7	
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		100.0	101.1	
S 134 1,2-Dichloroethene, Total	96				0		100.0	142.4	
S 135 1,3-Dichloropropene, Total	1				0		100.0	90.8	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

voaWKet1stRes_00001	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00143	Amount Added: 2.00	Units: uL	
voaWVA2nd Res_00010	Amount Added: 2.00	Units: uL	
voaEE2Restek_00001	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918011.D

Injection Date: 18-Sep-2015 15:56:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-47781-C-9 MSD

Worklist Smp#: 11

Client ID: HD-COD-SW-17-0/1-0

Purge Vol: 5.000 mL

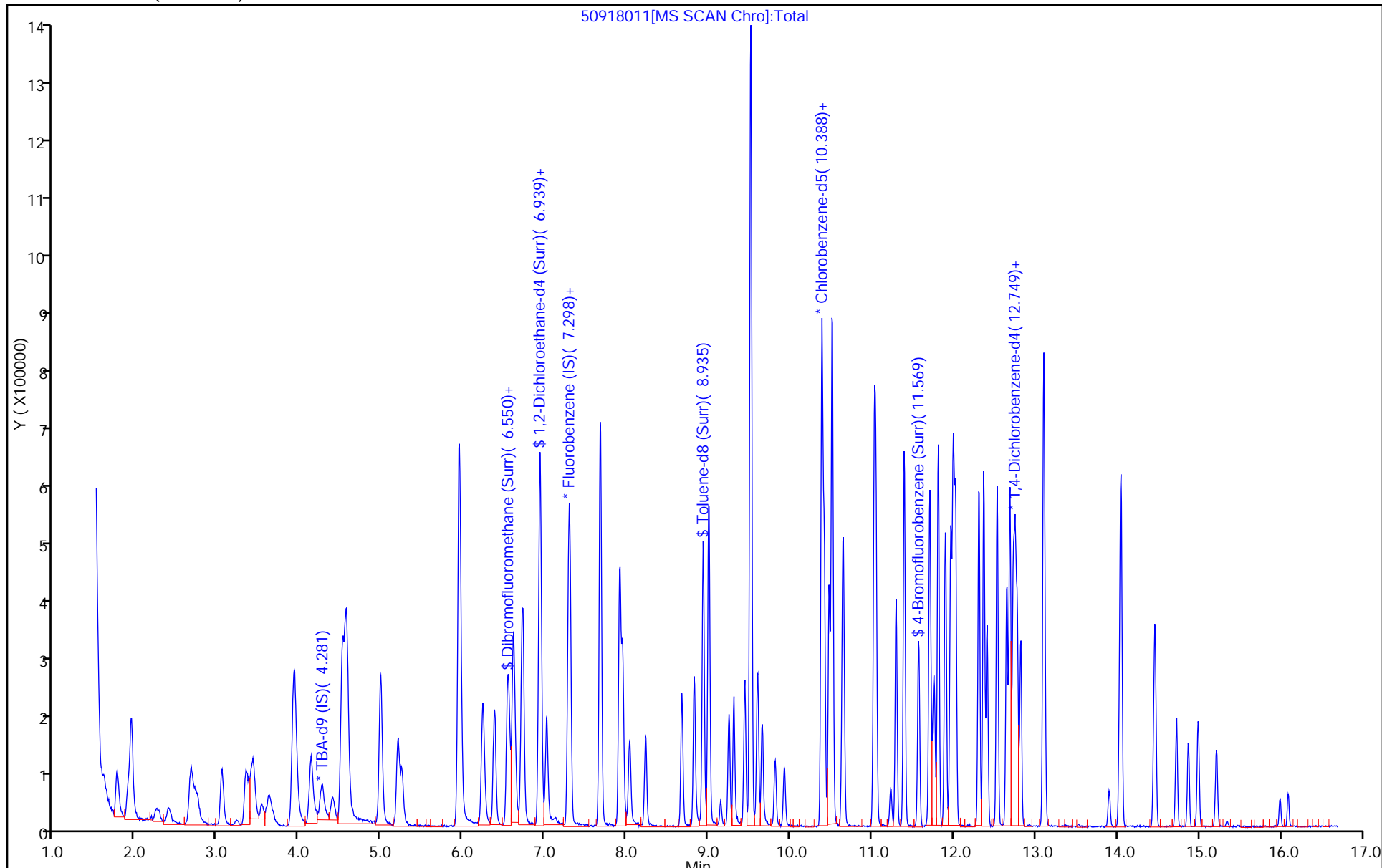
Dil. Factor: 1.0000

ALS Bottle#: 10

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



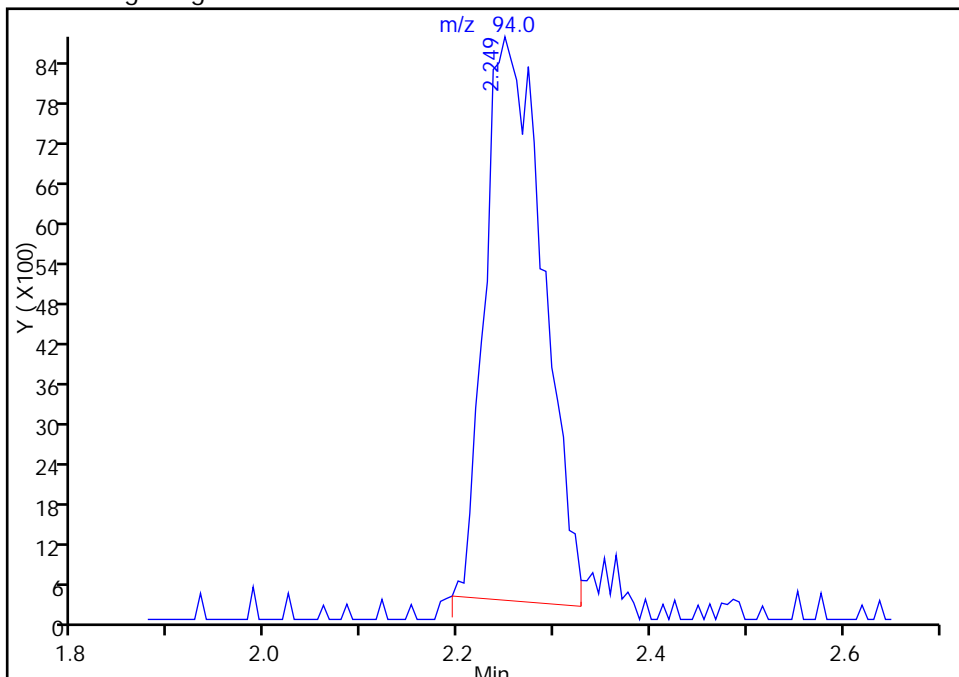
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918011.D  
Injection Date: 18-Sep-2015 15:56:30 Instrument ID: CHHP5  
Lims ID: 180-47781-C-9 MSD  
Client ID: HD-COD-SW-17-0/1-0  
Operator ID: 001562 ALS Bottle#: 10 Worklist Smp#: 11  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

15 Bromomethane, CAS: 74-83-9

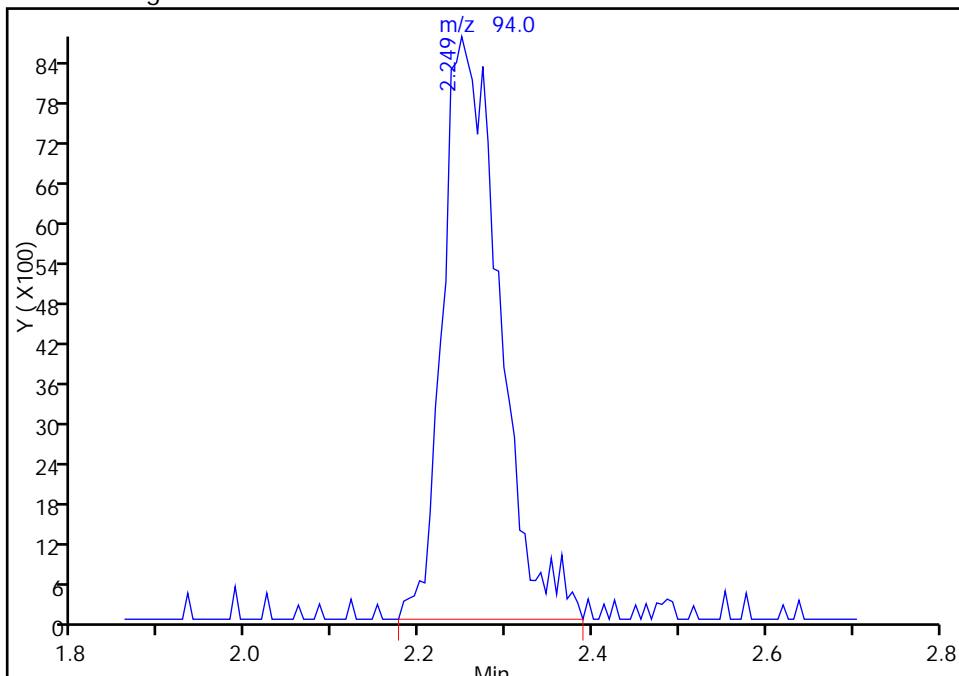
RT: 2.25  
Area: 35417  
Amount: 30.924696  
Amount Units: ng

Processing Integration Results



RT: 2.25  
Area: 39700  
Amount: 34.664438  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 21-Sep-2015 07:42:22  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

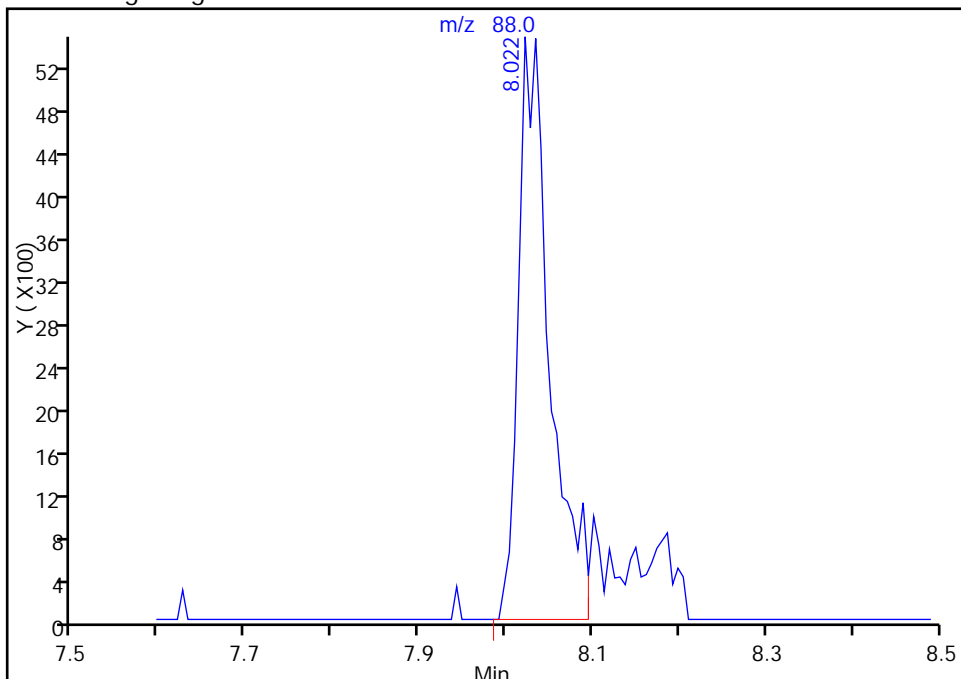
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150918-8580.b\50918011.D  
Injection Date: 18-Sep-2015 15:56:30 Instrument ID: CHHP5  
Lims ID: 180-47781-C-9 MSD  
Client ID: HD-COD-SW-17-0/1-0  
Operator ID: 001562 ALS Bottle#: 10 Worklist Smp#: 11  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

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

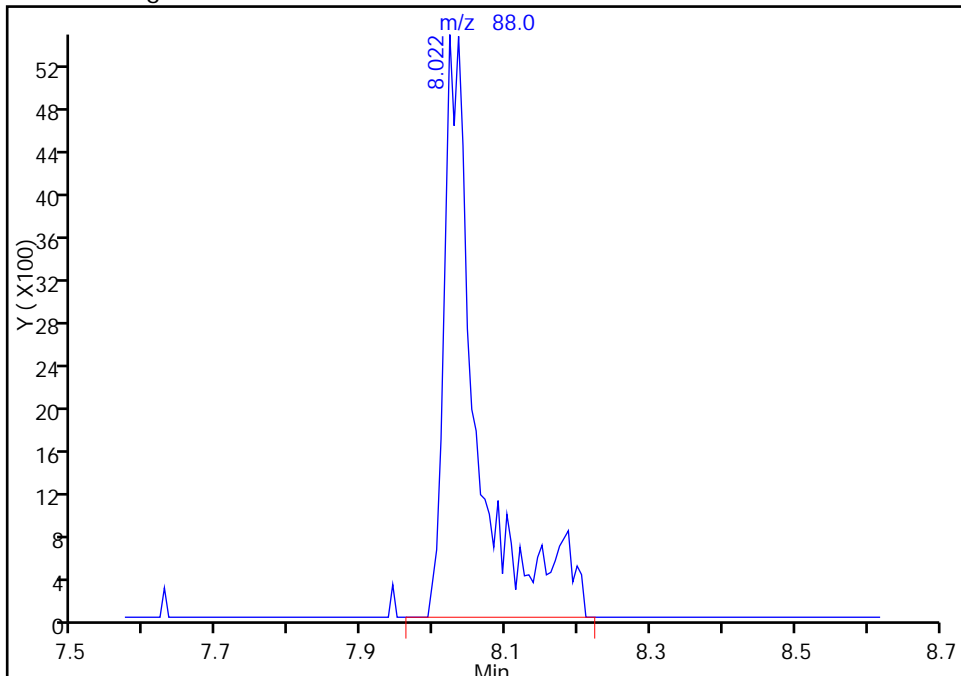
RT: 8.02  
Area: 13692  
Amount: 802.5297  
Amount Units: ng

Processing Integration Results



RT: 8.02  
Area: 17200  
Amount: 1008.1442  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 21-Sep-2015 07:42:22  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

## GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1

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.: 180-47781-1

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 PittsburghJob No.: 180-47781-1

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

Instrument ID: CHHP5Start Date: 09/18/2015 11:38Analysis Batch Number: 154121End Date: 09/18/2015 23:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-154121/5		09/18/2015 11:38	1	50918005.D	DB-624 0.18 (mm)
CCVIS 180-154121/2		09/18/2015 12:26	1	50918002.D	DB-624 0.18 (mm)
ZZZZZ		09/18/2015 13:16	1		DB-624 0.18 (mm)
MB 180-154121/6		09/18/2015 13:41	1	50918006.D	DB-624 0.18 (mm)
180-47781-9	HD-COD-SW-17-0/1-0	09/18/2015 14:16	1	50918007.D	DB-624 0.18 (mm)
180-47781-15	HD-QC1-0/1-2	09/18/2015 14:40	1	50918008.D	DB-624 0.18 (mm)
LCS 180-154121/9		09/18/2015 15:07	1	50918009.D	DB-624 0.18 (mm)
180-47781-9 MS	HD-COD-SW-17-0/1-0 MS	09/18/2015 15:31	1	50918010.D	DB-624 0.18 (mm)
180-47781-9 MSD	HD-COD-SW-17-0/1-0 MSD	09/18/2015 15:56	1	50918011.D	DB-624 0.18 (mm)
ZZZZZ		09/18/2015 16:44	10		DB-624 0.18 (mm)
ZZZZZ		09/18/2015 17:08	10		DB-624 0.18 (mm)
ZZZZZ		09/18/2015 17:32	40		DB-624 0.18 (mm)
ZZZZZ		09/18/2015 17:56	1		DB-624 0.18 (mm)
ZZZZZ		09/18/2015 18:20	1		DB-624 0.18 (mm)
ZZZZZ		09/18/2015 18:44	1		DB-624 0.18 (mm)
ZZZZZ		09/18/2015 19:57	1		DB-624 0.18 (mm)
ZZZZZ		09/18/2015 20:21	1		DB-624 0.18 (mm)
ZZZZZ		09/18/2015 20:45	1		DB-624 0.18 (mm)
ZZZZZ		09/18/2015 22:21	1		DB-624 0.18 (mm)
ZZZZZ		09/18/2015 22:46	1		DB-624 0.18 (mm)
ZZZZZ		09/18/2015 23:10	1		DB-624 0.18 (mm)
ZZZZZ		09/18/2015 23:34	1		DB-624 0.18 (mm)



## GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1

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

Instrument ID: CHHP5 Start Date: 09/22/2015 12:41Analysis Batch Number: 154425 End Date: 09/22/2015 18:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-154425/8		09/22/2015 12:41	1	50922008.D	DB-624 0.18 (mm)
CCVIS 180-154425/2		09/22/2015 13:22	1	50922002.D	DB-624 0.18 (mm)
ZZZZZ		09/22/2015 14:02	1		DB-624 0.18 (mm)
MB 180-154425/9		09/22/2015 14:26	1	50922009.D	DB-624 0.18 (mm)
180-47781-1	HD-COD-SW-6-0/1-0	09/22/2015 15:03	1	50922010.D	DB-624 0.18 (mm)
LCS 180-154425/12		09/22/2015 15:51	1	50922012.D	DB-624 0.18 (mm)
180-47781-1 MS	HD-COD-SW-6-0/1-0 MS	09/22/2015 16:15	1	50922013.D	DB-624 0.18 (mm)
180-47781-1 MSD	HD-COD-SW-6-0/1-0 MSD	09/22/2015 16:39	1	50922014.D	DB-624 0.18 (mm)
180-47781-2	HD-COD-SW-7-0/1-0	09/22/2015 17:28	1	50922016.D	DB-624 0.18 (mm)
180-47781-3	HD-COD-SW-8-0/1-0	09/22/2015 17:52	1	50922017.D	DB-624 0.18 (mm)
180-47781-4	HD-COD-SW-9-0/1-0	09/22/2015 18:16	1	50922018.D	DB-624 0.18 (mm)

## GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica PittsburghJob No.: 180-47781-1

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

Instrument ID: CHHP6Start Date: 09/23/2015 10:18Analysis Batch Number: 154553End Date: 09/23/2015 22:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-154553/1		09/23/2015 10:18	1	60923001.D	DB-624 0.18 (mm)
CCVIS 180-154553/2		09/23/2015 11:04	1	60923002.D	DB-624 0.18 (mm)
ZZZZZ		09/23/2015 11:45	1		DB-624 0.18 (mm)
MB 180-154553/4		09/23/2015 12:14	1	60923004.D	DB-624 0.18 (mm)
180-47781-5	HD-COD-SW-12-0/1-0	09/23/2015 12:53	1	60923005.D	DB-624 0.18 (mm)
ZZZZZ		09/23/2015 13:18	1		DB-624 0.18 (mm)
ZZZZZ		09/23/2015 13:42	1		DB-624 0.18 (mm)
180-47781-5 MS	HD-COD-SW-12-0/1-0 MS	09/23/2015 14:06	1	60923008.D	DB-624 0.18 (mm)
180-47781-5 MSD	HD-COD-SW-12-0/1-0 MSD	09/23/2015 14:30	1	60923009.D	DB-624 0.18 (mm)
LCS 180-154553/10		09/23/2015 14:54	1	60923010.D	DB-624 0.18 (mm)
ZZZZZ		09/23/2015 15:43	1		DB-624 0.18 (mm)
ZZZZZ		09/23/2015 16:07	1		DB-624 0.18 (mm)
180-47781-6	HD-COD-SW-13-0/1-0	09/23/2015 16:31	1	60923014.D	DB-624 0.18 (mm)
180-47781-7	HD-COD-SW-15-0/1-0	09/23/2015 16:56	1	60923015.D	DB-624 0.18 (mm)
180-47781-8	HD-COD-SW-16-0/1-0	09/23/2015 17:20	1	60923016.D	DB-624 0.18 (mm)
180-47781-10	HD-COD-SW-26-0/1-0	09/23/2015 17:45	1	60923017.D	DB-624 0.18 (mm)
180-47781-11	HD-COD-SW-27-0/1-0	09/23/2015 18:09	1	60923018.D	DB-624 0.18 (mm)
180-47781-12	HD-COD-SW-28-0/1-0	09/23/2015 18:33	1	60923019.D	DB-624 0.18 (mm)
180-47781-13	HD-COD-SW-29-0/1-0	09/23/2015 18:57	1	60923020.D	DB-624 0.18 (mm)
180-47781-14	HD-QC1-0/1-1	09/23/2015 19:21	1	60923021.D	DB-624 0.18 (mm)
180-47781-16 DL	HD-MW-136A-459.5/460-0 DL	09/23/2015 19:46	100	60923022.D	DB-624 0.18 (mm)
ZZZZZ		09/23/2015 20:11	1		DB-624 0.18 (mm)
ZZZZZ		09/23/2015 20:35	1		DB-624 0.18 (mm)
ZZZZZ		09/23/2015 20:59	1		DB-624 0.18 (mm)
ZZZZZ		09/23/2015 21:23	1		DB-624 0.18 (mm)
ZZZZZ		09/23/2015 21:48	1		DB-624 0.18 (mm)
ZZZZZ		09/23/2015 22:13	1		DB-624 0.18 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-47781-1

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

Instrument ID: CHHP5 Start Date: 09/24/2015 10:23

Analysis Batch Number: 154736 End Date: 09/24/2015 22:04

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-154736/1		09/24/2015 10:23	1	50924001.D	DB-624 0.18 (mm)
CCVIS 180-154736/2		09/24/2015 11:05	1	50924002.D	DB-624 0.18 (mm)
ZZZZZ		09/24/2015 11:05	1		DB-624 0.18 (mm)
ZZZZZ		09/24/2015 11:46	1		DB-624 0.18 (mm)
MB 180-154736/4		09/24/2015 12:10	1	50924004.D	DB-624 0.18 (mm)
ZZZZZ		09/24/2015 12:49	1		DB-624 0.18 (mm)
ZZZZZ		09/24/2015 13:13	1		DB-624 0.18 (mm)
LCS 180-154736/7		09/24/2015 13:37	1	50924007.D	DB-624 0.18 (mm)
ZZZZZ		09/24/2015 14:01	1		DB-624 0.18 (mm)
ZZZZZ		09/24/2015 14:25	1		DB-624 0.18 (mm)
ZZZZZ		09/24/2015 15:14	1		DB-624 0.18 (mm)
ZZZZZ		09/24/2015 15:38	1		DB-624 0.18 (mm)
ZZZZZ		09/24/2015 16:02	1		DB-624 0.18 (mm)
ZZZZZ		09/24/2015 16:26	25		DB-624 0.18 (mm)
ZZZZZ		09/24/2015 17:38	1		DB-624 0.18 (mm)
ZZZZZ		09/24/2015 18:02	5		DB-624 0.18 (mm)
ZZZZZ		09/24/2015 19:39	1000		DB-624 0.18 (mm)
ZZZZZ		09/24/2015 20:03	1		DB-624 0.18 (mm)
ZZZZZ		09/24/2015 20:51	1		DB-624 0.18 (mm)
ZZZZZ		09/24/2015 21:15	1		DB-624 0.18 (mm)
180-47781-16	HD-MW-136A-459.5/460-0	09/24/2015 22:04	10	50924028.D	DB-624 0.18 (mm)

# Shipping and Receiving Documents

**TestAmerica Pittsburgh**  
301 Alpha Drive

Pittsburgh, PA 15238  
Phone 412.963.7058 fax 412.963.2470

**Client Contact**  
Groundwater Sciences Corporation  
2601 Market Place St. Suite 310  
Harrisburg, PA 17110

(717) 901-8180 Phone  
(717) 657-1611 FAX

**Project Name:** 2015 Comprehensive Event  
**Site:** Hanley-Davidson, York PA  
**Quote #:** 18000557

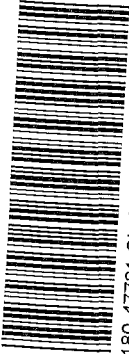
**Chain of Custody Record**

**TestAmerica**  
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.  
Job No. 1001227

Date Submitted: 9/15/2015  
Carrier: FEDEX  
COC No.: TAP2015091501  
of 1 COCs

Lab Contact: Jennifer S. Reese  
Lab Contact: Carrie Gamber



180-47781 Chain of Custody

**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

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Sample Specific Notes:
HD-COD-SW-6-0/1-0	9/15/15	10:40	Surface Water	Water	3	
HD-COD-SW-7-0/1-0	9/15/15	11:20	Surface Water	Water	3	
HD-COD-SW-8-0/1-0	9/15/15	9:23	Surface Water	Water	3	
HD-COD-SW-9-0/1-0	9/15/15	12:15	Surface Water	Water	3	
HD-COD-SW-12-0/1-0	9/15/15	12:55	Surface Water	Water	3	
HD-COD-SW-13-0/1-0	9/15/15	9:45	Surface Water	Water	3	
HD-COD-SW-15-0/1-0	9/15/15	13:10	Surface Water	Water	3	
HD-COD-SW-16-0/1-0	9/15/15	10:05	Surface Water	Water	3	
HD-COD-SW-17-0/1-0	9/15/15	10:20	Surface Water	Water	3	
HD-COD-SW-17-0/1-0 MS	9/15/15	10:20	Surface Water	Water	3	
HD-COD-SW-17-0/1-0 MSD	9/15/15	10:20	Surface Water	Water	3	
HD-COD-SW-26-0/1-0	9/15/15	11:00	Surface Water	Water	3	
HD-COD-SW-27-0/1-0	9/15/15	13:20	Surface Water	Water	3	
HD-COD-SW-28-0/1-0	9/15/15	12:40	Surface Water	Water	3	
HD-COD-SW-29-0/1-0	9/15/15	9:08	Surface Water	Water	3	
HD-QC1-0/1-1	9/15/15	8:00	Surface Water	Water	3	
HD-QC1-0/1-2	9/15/15	12:00	Trip Blank	Water	2	
HD-MW-136A-459.5/460-0	9/15/15	13:00	Groundwater	Water	3	
<b>Number of Containers</b> VOCs (8260C) 3 1 1 2 Total CR 6+ (SW846 7196A) 2 1 1 1 Dissolved Cr 6+ (SW846 7196A) N N Y N 1,4-Dioxane (SW846 8270D FL) N N Y N						

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

Return To Client  Disposal By Lab  Months

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

Special Instructions/QC Requirements & Comments: CLP Like Deliverables

Relinquished by: <i>[Signature]</i>	Company: GSC	Date/Time: 9/15/15 1420	Received by: <i>[Signature]</i>	Company: <i>[Signature]</i>	Date/Time: 9/15/15 1420
Relinquished by: <i>[Signature]</i>	Company: TA	Date/Time: 9/15/15 1622	Received by: <i>[Signature]</i>	Company: <i>[Signature]</i>	Date/Time: 9-16-15 9:15
Relinquished by: <i>[Signature]</i>	Company:	Date/Time:	Received by:	Company:	Date/Time:

Do Not Lift Using This Tag

ORIGIN ID: KPDA (610) 30  
SAMPLE RECEIPT  
TEST AMERICA  
1008 WEST 9TH AVE



KING OF PRUSSIA, PA 194 180-47781 Waybill  
UNITED STATES US

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

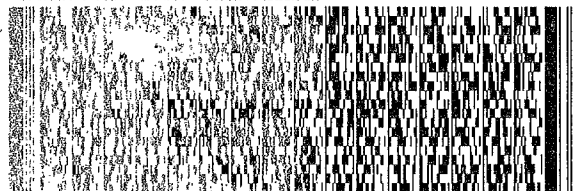
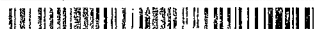
**PITTSBURGH PA 15238**

(412) 963-7058

REF:

INV:

DEPT:



FedEx  
Express



539JZ/CBB9/311  
J15-2015062601uv

TRKH 7745 1656 5678  
3229

WED - 16 SEP AA  
STANDARD OVERNIGHT

**EV AGCA**

**15238**  
PA-US PIT

Uncorrected temp  
Thermometer ID

4.3 °C  
7

CF O Initials all

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

Part # 157 3 43. 11



# Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-47781-1

**Login Number: 47781**

**List Source: TestAmerica Pittsburgh**

**List Number: 1**

**Creator: Watson, Debbie**

<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	