TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

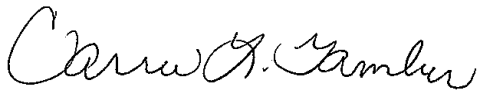
ANALYTICAL REPORT

Job Number: 180-71131-1

Job Description: Harley Davidson

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

Attention: Christopher O'Neil



Approved for release.
Carrie L Gamber
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10/19/2017 3:59 PM

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10/19/2017

Table of Contents

Table of Contents

Definitions/Glossary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71131-1

Qualifiers

GC/MS VOA

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

Glossary

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

CASE NARRATIVE

Client: Groundwater Sciences Corporation

Project: Harley Davidson

Report Number: 180-71131-1

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

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

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

RECEIPT

The samples were received on 10/10/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.8 C.

The following Trip Blank sample was received with headspace in 2 of 2 vials: HD-QC6-0/1-2 (180-71131-3). The client was emailed. If the analyst determines the headspace is greater than 6 millimeters and a headspace vial is required to be used. An NCM will be written.

The Chain-of-Custody (COC) was incomplete as received: it was not relinquished by the client. The client emailed a picture of the pink copy that was signed. This copy has been added to the log in and reported as part of the final report.

VOLATILES

The continuing calibration verification (CCV) analyzed in batch 180-226148 was outside the method criteria for the following analytes: 4-Methyl-2-pentanone (MIBK), Acetone, Acrylonitrile and Carbon tetrachloride. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes is considered estimated.

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71131-1

Client Sample ID: HD-SPBA-CW-23-0/1-0 — Lab Sample ID: 180-71131-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	4.1		1.0	0.69	ug/L	1		8260C	Total/NA
Tetrachloroethene	42		1.0	0.47	ug/L	1		8260C	Total/NA

Client Sample ID: HD-CW-23-0/1-0 — Lab Sample ID: 180-71131-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	4.4		1.0	0.69	ug/L	1		8260C	Total/NA
Tetrachloroethene	43		1.0	0.47	ug/L	1		8260C	Total/NA

Client Sample ID: HD-QC6-0/1-2 — Lab Sample ID: 180-71131-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	1.0		1.0	0.36	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

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

Client Sample ID: HD-SPBA-CW-23-0/1-0
Date Collected: 10/05/17 09:50
Date Received: 10/10/17 09:00

Lab Sample ID: 180-71131-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.90	ug/L			10/18/17 06:33	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			10/18/17 06:33	1
Bromomethane	1.0	U	1.0	0.89	ug/L			10/18/17 06:33	1
Chloroethane	1.0	U	1.0	0.90	ug/L			10/18/17 06:33	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			10/18/17 06:33	1
Acetone	5.0	U ^c	5.0	3.4	ug/L			10/18/17 06:33	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			10/18/17 06:33	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			10/18/17 06:33	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			10/18/17 06:33	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			10/18/17 06:33	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			10/18/17 06:33	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			10/18/17 06:33	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			10/18/17 06:33	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			10/18/17 06:33	1
Chloroform	1.0	U	1.0	0.60	ug/L			10/18/17 06:33	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			10/18/17 06:33	1
Carbon tetrachloride	1.0	U ^c	1.0	0.88	ug/L			10/18/17 06:33	1
Benzene	1.0	U	1.0	0.60	ug/L			10/18/17 06:33	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			10/18/17 06:33	1
Trichloroethene	**4.1**		1.0	0.69	ug/L			10/18/17 06:33	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			10/18/17 06:33	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			10/18/17 06:33	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			10/18/17 06:33	1
4-Methyl-2-pentanone (MIBK)	5.0	U ^c	5.0	3.1	ug/L			10/18/17 06:33	1
Toluene	1.0	U	1.0	0.46	ug/L			10/18/17 06:33	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			10/18/17 06:33	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			10/18/17 06:33	1
Tetrachloroethene	**42**		1.0	0.47	ug/L			10/18/17 06:33	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			10/18/17 06:33	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			10/18/17 06:33	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			10/18/17 06:33	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			10/18/17 06:33	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			10/18/17 06:33	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			10/18/17 06:33	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			10/18/17 06:33	1
Styrene	1.0	U	1.0	0.47	ug/L			10/18/17 06:33	1
Bromoform	1.0	U	1.0	0.98	ug/L			10/18/17 06:33	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			10/18/17 06:33	1
Acrylonitrile	20	U ^c	20	7.8	ug/L			10/18/17 06:33	1
1,4-Dioxane	200	U	200	14	ug/L			10/18/17 06:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*65 - 121*		*10/18/17 06:33*	*1*
Toluene-d8 (Surr)	*86*		*73 - 120*		*10/18/17 06:33*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*10/18/17 06:33*	*1*
Dibromofluoromethane (Surr)	*93*		*73 - 120*		*10/18/17 06:33*	*1*

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

Client Sample ID: HD-CW-23-0/1-0
Date Collected: 10/06/17 09:50
Date Received: 10/10/17 09:00

Lab Sample ID: 180-71131-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.90	ug/L			10/18/17 06:57	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			10/18/17 06:57	1
Bromomethane	1.0	U	1.0	0.89	ug/L			10/18/17 06:57	1
Chloroethane	1.0	U	1.0	0.90	ug/L			10/18/17 06:57	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			10/18/17 06:57	1
Acetone	5.0	U ^c	5.0	3.4	ug/L			10/18/17 06:57	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			10/18/17 06:57	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			10/18/17 06:57	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			10/18/17 06:57	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			10/18/17 06:57	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			10/18/17 06:57	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			10/18/17 06:57	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			10/18/17 06:57	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			10/18/17 06:57	1
Chloroform	1.0	U	1.0	0.60	ug/L			10/18/17 06:57	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			10/18/17 06:57	1
Carbon tetrachloride	1.0	U ^c	1.0	0.88	ug/L			10/18/17 06:57	1
Benzene	1.0	U	1.0	0.60	ug/L			10/18/17 06:57	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			10/18/17 06:57	1
Trichloroethene	**4.4**		1.0	0.69	ug/L			10/18/17 06:57	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			10/18/17 06:57	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			10/18/17 06:57	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			10/18/17 06:57	1
4-Methyl-2-pentanone (MIBK)	5.0	U ^c	5.0	3.1	ug/L			10/18/17 06:57	1
Toluene	1.0	U	1.0	0.46	ug/L			10/18/17 06:57	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			10/18/17 06:57	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			10/18/17 06:57	1
Tetrachloroethene	**43**		1.0	0.47	ug/L			10/18/17 06:57	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			10/18/17 06:57	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			10/18/17 06:57	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			10/18/17 06:57	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			10/18/17 06:57	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			10/18/17 06:57	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			10/18/17 06:57	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			10/18/17 06:57	1
Styrene	1.0	U	1.0	0.47	ug/L			10/18/17 06:57	1
Bromoform	1.0	U	1.0	0.98	ug/L			10/18/17 06:57	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			10/18/17 06:57	1
Acrylonitrile	20	U ^c	20	7.8	ug/L			10/18/17 06:57	1
1,4-Dioxane	200	U	200	14	ug/L			10/18/17 06:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*65 - 121*		*10/18/17 06:57*	*1*
Toluene-d8 (Surr)	*89*		*73 - 120*		*10/18/17 06:57*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*10/18/17 06:57*	*1*
Dibromofluoromethane (Surr)	*93*		*73 - 120*		*10/18/17 06:57*	*1*

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

Client Sample ID: HD-QC6-0/1-2
Date Collected: 10/05/17 12:00
Date Received: 10/10/17 09:00

Lab Sample ID: 180-71131-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.90	ug/L			10/18/17 07:45	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			10/18/17 07:45	1
Bromomethane	1.0	U	1.0	0.89	ug/L			10/18/17 07:45	1
Chloroethane	1.0	U	1.0	0.90	ug/L			10/18/17 07:45	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			10/18/17 07:45	1
Acetone	5.0	U ^c	5.0	3.4	ug/L			10/18/17 07:45	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			10/18/17 07:45	1
Methylene Chloride	**1.0**		1.0	0.36	ug/L			10/18/17 07:45	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			10/18/17 07:45	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			10/18/17 07:45	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			10/18/17 07:45	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			10/18/17 07:45	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			10/18/17 07:45	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			10/18/17 07:45	1
Chloroform	1.0	U	1.0	0.60	ug/L			10/18/17 07:45	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			10/18/17 07:45	1
Carbon tetrachloride	1.0	U ^c	1.0	0.88	ug/L			10/18/17 07:45	1
Benzene	1.0	U	1.0	0.60	ug/L			10/18/17 07:45	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			10/18/17 07:45	1
Trichloroethene	1.0	U	1.0	0.69	ug/L			10/18/17 07:45	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			10/18/17 07:45	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			10/18/17 07:45	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			10/18/17 07:45	1
4-Methyl-2-pentanone (MIBK)	5.0	U ^c	5.0	3.1	ug/L			10/18/17 07:45	1
Toluene	1.0	U	1.0	0.46	ug/L			10/18/17 07:45	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			10/18/17 07:45	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			10/18/17 07:45	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			10/18/17 07:45	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			10/18/17 07:45	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			10/18/17 07:45	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			10/18/17 07:45	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			10/18/17 07:45	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			10/18/17 07:45	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			10/18/17 07:45	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			10/18/17 07:45	1
Styrene	1.0	U	1.0	0.47	ug/L			10/18/17 07:45	1
Bromoform	1.0	U	1.0	0.98	ug/L			10/18/17 07:45	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			10/18/17 07:45	1
Acrylonitrile	20	U ^c	20	7.8	ug/L			10/18/17 07:45	1
1,4-Dioxane	200	U	200	14	ug/L			10/18/17 07:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*65 - 121*		*10/18/17 07:45*	*1*
Toluene-d8 (Surr)	*87*		*73 - 120*		*10/18/17 07:45*	*1*
4-Bromofluorobenzene (Surr)	*89*		*80 - 120*		*10/18/17 07:45*	*1*
Dibromofluoromethane (Surr)	*95*		*73 - 120*		*10/18/17 07:45*	*1*

Default Detection Limits

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71131-1

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

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

Surrogate Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71131-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	12DCE (65-121)	TOL (73-120)	BFB (80-120)	DBFM (73-120)
180-71131-1	HD-SPBA-CW-23-0/1-0	94	86	91	93
180-71131-2	HD-CW-23-0/1-0	94	89	91	93
180-71131-3	HD-QC6-0/1-2	95	87	89	95
LCS 180-226148/4	Lab Control Sample	92	93	94	92
MB 180-226148/6	Method Blank	93	89	90	91

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

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

Lab Sample ID: MB 180-226148/6
Matrix: Water
Analysis Batch: 226148

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.90	ug/L			10/18/17 02:09	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			10/18/17 02:09	1
Bromomethane	1.0	U	1.0	0.89	ug/L			10/18/17 02:09	1
Chloroethane	1.0	U	1.0	0.90	ug/L			10/18/17 02:09	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			10/18/17 02:09	1
Acetone	5.0	U	5.0	3.4	ug/L			10/18/17 02:09	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			10/18/17 02:09	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			10/18/17 02:09	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			10/18/17 02:09	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			10/18/17 02:09	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			10/18/17 02:09	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			10/18/17 02:09	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			10/18/17 02:09	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			10/18/17 02:09	1
Chloroform	1.0	U	1.0	0.60	ug/L			10/18/17 02:09	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			10/18/17 02:09	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			10/18/17 02:09	1
Benzene	1.0	U	1.0	0.60	ug/L			10/18/17 02:09	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			10/18/17 02:09	1
Trichloroethene	1.0	U	1.0	0.69	ug/L			10/18/17 02:09	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			10/18/17 02:09	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			10/18/17 02:09	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			10/18/17 02:09	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			10/18/17 02:09	1
Toluene	1.0	U	1.0	0.46	ug/L			10/18/17 02:09	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			10/18/17 02:09	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			10/18/17 02:09	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			10/18/17 02:09	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			10/18/17 02:09	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			10/18/17 02:09	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			10/18/17 02:09	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			10/18/17 02:09	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			10/18/17 02:09	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			10/18/17 02:09	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			10/18/17 02:09	1
Styrene	1.0	U	1.0	0.47	ug/L			10/18/17 02:09	1
Bromoform	1.0	U	1.0	0.98	ug/L			10/18/17 02:09	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			10/18/17 02:09	1
Acrylonitrile	20	U	20	7.8	ug/L			10/18/17 02:09	1
1,4-Dioxane	200	U	200	14	ug/L			10/18/17 02:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*65 - 121*		*10/18/17 02:09*	*1*
Toluene-d8 (Surr)	*89*		*73 - 120*		*10/18/17 02:09*	*1*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*		*10/18/17 02:09*	*1*
Dibromofluoromethane (Surr)	*91*		*73 - 120*		*10/18/17 02:09*	*1*

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

Lab Sample ID: LCS 180-226148/4
Matrix: Water
Analysis Batch: 226148

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	7.89		ug/L		79	49 - 135
Vinyl chloride	10.0	8.87		ug/L		89	52 - 136
Bromomethane	10.0	7.90		ug/L		79	37 - 150
Chloroethane	10.0	9.09		ug/L		91	44 - 139
1,1-Dichloroethene	10.0	9.66		ug/L		97	64 - 131
Acetone	20.0	22.4		ug/L		112	24 - 150
Carbon disulfide	10.0	8.89		ug/L		89	20 - 150
Methylene Chloride	10.0	8.98		ug/L		90	66 - 123
trans-1,2-Dichloroethene	10.0	9.35		ug/L		94	70 - 123
Methyl tert-butyl ether	10.0	8.28		ug/L		83	66 - 130
1,1-Dichloroethane	10.0	9.00		ug/L		90	66 - 122
cis-1,2-Dichloroethene	10.0	9.03		ug/L		90	73 - 120
Bromochloromethane	10.0	9.10		ug/L		91	73 - 122
2-Butanone (MEK)	20.0	18.3		ug/L		91	37 - 150
Chloroform	10.0	9.63		ug/L		96	72 - 123
1,1,1-Trichloroethane	10.0	10.4		ug/L		104	66 - 129
Carbon tetrachloride	10.0	12.2		ug/L		122	58 - 145
Benzene	10.0	9.47		ug/L		95	75 - 123
1,2-Dichloroethane	10.0	9.07		ug/L		91	63 - 130
Trichloroethene	10.0	9.21		ug/L		92	74 - 121
1,2-Dichloropropane	10.0	8.45		ug/L		84	67 - 119
Bromodichloromethane	10.0	9.26		ug/L		93	62 - 127
cis-1,3-Dichloropropene	10.0	9.17		ug/L		92	61 - 127
4-Methyl-2-pentanone (MIBK)	20.0	13.2		ug/L		66	41 - 135
Toluene	10.0	9.31		ug/L		93	76 - 129
trans-1,3-Dichloropropene	10.0	9.36		ug/L		94	61 - 136
1,1,2-Trichloroethane	10.0	8.74		ug/L		87	74 - 126
Tetrachloroethene	10.0	9.13		ug/L		91	76 - 128
2-Hexanone	20.0	18.9		ug/L		94	37 - 150
Dibromochloromethane	10.0	9.51		ug/L		95	63 - 131
1,2-Dibromoethane (EDB)	10.0	8.97		ug/L		90	76 - 128
Chlorobenzene	10.0	9.44		ug/L		94	79 - 124
1,1,1,2-Tetrachloroethane	10.0	10.1		ug/L		101	70 - 130
Ethylbenzene	10.0	9.18		ug/L		92	77 - 124
Xylenes, Total	20.0	18.2		ug/L		91	76 - 124
Styrene	10.0	9.53		ug/L		95	80 - 125
Bromoform	10.0	8.29		ug/L		83	54 - 136
1,1,2,2-Tetrachloroethane	10.0	8.83		ug/L		88	72 - 128
Acrylonitrile	100	65.5		ug/L		65	60 - 130
1,4-Dioxane	200	144	J	ug/L		72	26 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*65 - 121*
Toluene-d8 (Surr)	*93*		*73 - 120*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*
Dibromofluoromethane (Surr)	*92*		*73 - 120*

GC/MS VOA

Analysis Batch: 226148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-71131-1	HD-SPBA-CW-23-0/1-0	Total/NA	Water	8260C	
180-71131-2	HD-CW-23-0/1-0	Total/NA	Water	8260C	
180-71131-3	HD-QC6-0/1-2	Total/NA	Water	8260C	
MB 180-226148/6	Method Blank	Total/NA	Water	8260C	
LCS 180-226148/4	Lab Control Sample	Total/NA	Water	8260C	

Client Sample ID: HD-SPBA-CW-23-0/1-0

Lab Sample ID: 180-71131-1

Date Collected: 10/05/17 09:50

Matrix: Water

Date Received: 10/10/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	226148	10/18/17 06:33	FBB	TAL PIT
	Instrument ID: CHHP6									

Client Sample ID: HD-CW-23-0/1-0

Lab Sample ID: 180-71131-2

Date Collected: 10/06/17 09:50

Matrix: Water

Date Received: 10/10/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	226148	10/18/17 06:57	FBB	TAL PIT
	Instrument ID: CHHP6									

Client Sample ID: HD-QC6-0/1-2

Lab Sample ID: 180-71131-3

Date Collected: 10/05/17 12:00

Matrix: Water

Date Received: 10/10/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	226148	10/18/17 07:45	FBB	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

FBB = Frank Bungard

Accreditation/Certification Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71131-1

Laboratory: TestAmerica Pittsburgh

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

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

Method Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71131-1

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

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-71131-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-71131-1	HD-SPBA-CW-23-0/1-0	Water	10/05/17 09:50	10/10/17 09:00
180-71131-2	HD-CW-23-0/1-0	Water	10/06/17 09:50	10/10/17 09:00
180-71131-3	HD-QC6-0/1-2	Water	10/05/17 12:00	10/10/17 09:00

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Instrument ID: CHHP6 Analysis Batch Number: 217861

Lab Sample ID: IC 180-217861/3 Client Sample ID:

Date Analyzed: 07/24/17 06:39 Lab File ID: 60724D03.D GC Column: DB-624 ID: 0.18(mm)

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

Lab Sample ID: IC 180-217861/4 Client Sample ID:

Date Analyzed: 07/24/17 07:03 Lab File ID: 60724D04.D GC Column: DB-624 ID: 0.18(mm)

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

Lab Sample ID: ICIS 180-217861/5 Client Sample ID:

Date Analyzed: 07/24/17 07:27 Lab File ID: 60724D05.D GC Column: DB-624 ID: 0.18(mm)

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

Lab Sample ID: IC 180-217861/6 Client Sample ID:

Date Analyzed: 07/24/17 07:52 Lab File ID: 60724D06.D GC Column: DB-624 ID: 0.18(mm)

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

Lab Sample ID: IC 180-217861/7 Client Sample ID:

Date Analyzed: 07/24/17 08:16 Lab File ID: 60724D07.D GC Column: DB-624 ID: 0.18(mm)

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

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Instrument ID: CHHP6 Analysis Batch Number: 217861

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

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

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

Lab Sample ID: ICV 180-217861/13 Client Sample ID:

Date Analyzed: 07/24/17 10:40 Lab File ID: 60724D13.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	7.80	Poor chromatography	bungardf	07/25/17 01:35

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Instrument ID: CHHP6 Analysis Batch Number: 226148

Lab Sample ID: CCVIS 180-226148/2 Client Sample ID:

Date Analyzed: 10/17/17 23:55 Lab File ID: 6101802D.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	7.79	Poor chromatography	bungardf	10/18/17 00:15

Lab Sample ID: 180-71131-1 Client Sample ID: HD-SPBA-CW-23-0/1-0

Date Analyzed: 10/18/17 06:33 Lab File ID: 6101816D.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.19	Poor chromatography	bungardf	10/18/17 20:22

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
VOA8260INT_00072	08/21/17	07/21/17	Methanol, Lot 2019055	10 mL	VOA8260INTRES_00123	1 mL	1,4-Dichlorobenzene-d4	25 ug/mL
							Chlorobenzene-d5	25 ug/mL
							Fluorobenzene (IS)	25 ug/mL
							TBA-d9 (IS)	500 ug/mL
.VOA8260INTRES_00123	08/31/20		Restek, Lot A0113246		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene (IS)	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
VOA8260INT_00074	10/20/17	09/20/17	Methanol, Lot 2469125	10 mL	VOA8260INTRES_00135	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_00135	01/31/22		Restek, Lot A0124343		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene (IS)	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
VOA8260SURR_00071	08/21/17	07/21/17	Methanol, Lot 2019055	100 mL	VOA8260SURRES_00118	1 mL	1,2-Dichloroethane-d4 (Surr)	25 ug/mL
							4-Bromofluorobenzene (Surr)	25 ug/mL
							Dibromofluoromethane (Surr)	25 ug/mL
							Toluene-d8 (Surr)	25 ug/mL
.VOA8260SURRES_00118	10/31/20		Restek, Lot A0114901		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VOA8260SURR_00073	10/20/17	09/20/17	Methanol, Lot 2469125	100 mL	VOA8260SURRES_00122	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_00122	10/31/20		Restek, Lot A0114901		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VOA8260VOA2ND_00253	08/10/17	07/10/17	Methanol, Lot 2019054	10 mL	VOA8260GAS2ND_00200	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOA2ND_00252	1 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260GAS2ND_00200	01/31/20		Restek, Lot A0124116		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOA2ND_00252	08/10/17	07/10/17	Methanol, Lot 2019055	10 mL	VOA8260MEGA2_00061	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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ethylbenzene	250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylene Chloride	250 ug/mL
							Styrene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							Trichloroethene	250 ug/mL
							Xylenes, Total	500 ug/mL
..VOA8260MEGA2_00061	12/31/18		Restek, Lot A0123775		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VOA8260VOAPRI_00263	07/29/17	07/22/17	Methanol, Lot 2019055	10 mL	VOA8260GAS1ST_00203	0.1 mL	Bromomethane	25 ug/mL
							Butadiene	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Dichlorodifluoromethane	25 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
VOA8260VOAPRI_00266	10/21/17	10/14/17	Methanol, Lot 2469120	10 mL	VOA8260GAS1ST_00205	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00264	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
.VOA8260GAS1ST_00205	01/31/20		Restek, Lot A0124278		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00264	11/06/17	10/06/17	Methanol, Lot 2469120	10 mL	VOA8260MEGA1_00066	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,4-Dioxane	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VOABFB25_00088							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
							Total BTEX	
							Xylenes, Total	
					VOABFB50_00091	5 mL	BFB	25 ug/mL
.VOABFB50_00091	06/09/17	05/09/17	Methanol, Lot 136118	50 mL	VOABFBRES_00052	1 mL	BFB	50 ug/mL
..VOABFBRES_00052	05/31/21		Restek, Lot A0119122		(Purchased Reagent)		BFB	2500 ug/mL
VOABFB25_00090							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
							Total BTEX	
							Xylenes, Total	
					VOABFB50_00093	5 mL	BFB	25 ug/mL
.VOABFB50_00093	08/10/17	07/10/17	Methanol, Lot 2019056	50 mL	VOABFBRES_00058	1 mL	BFB	50 ug/mL
..VOABFBRES_00058	11/30/21		Restek, Lot A0122647		(Purchased Reagent)		BFB	2500 ug/mL
VOABFB25_00094							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
							Total BTEX	
							Xylenes, Total	
					VOABFB50_00096	5 mL	BFB	25 ug/mL
.VOABFB50_00096	11/09/17	10/09/17	Methanol, Lot 2469125	50 mL	VOABFBRES_00055	1 mL	BFB	50 ug/mL
..VOABFBRES_00055	11/30/21		Restek, Lot A0122647		(Purchased Reagent)		BFB	2500 ug/mL
voaW2clev1stR_00013	07/31/17	07/24/17	Methanol, Lot 2019056	10 mL	VOACEVERES_00127	200 uL	2-Chloroethyl vinyl ether	50 ug/mL
.VOACEVERES_00127	01/31/20		Restek, Lot A0123891		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
voaWAcro1stRe_00016	08/17/17	07/17/17	Methanol, Lot 2019056	100 mL	VOAACRORES_00115	0.125 mL	Acrolein	25 ug/mL
.VOAACRORES_00115	09/30/17		Restek, Lot A0125560		(Purchased Reagent)		Acrolein	20000 ug/mL
voaWEEmix1stR_00009	08/03/17	07/03/17	Methanol, Lot 127999	25 mL	VOARESEE1ST_00045	0.125 mL	1,2-dichloro-4-(trifluoromethyl)benzene	25 ug/mL
							2,3,6-Trichlorotoluene	25 ug/mL
							2,3- & 3,4- Dichlorotoluene	50 ug/mL
							2,4,5-Trichlorotoluene	25 ug/mL
							2,4- & 2,5- & 2,6-Dichlorotoluene	75 ug/mL
							2,4-Dichloro-1-(triflouromethyl)-benzene	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,5-Dichlorobenzotrifluoride	25 ug/mL
							2-Chlorobenzotrifluoride	25 ug/mL
							3-Chlorobenzotrifluoride	25 ug/mL
							3-Chlorotoluene	25 ug/mL
							4-Chlorobenzotrifluoride	25 ug/mL
.VOARESEE1ST_00045	01/31/18		Restek, Lot A0120234		(Purchased Reagent)		1,2-dichloro-4-(trifluoromethyl)benzene	5000 ug/mL
							2,3,6-Trichlorotoluene	5000 ug/mL
							2,3- & 3,4- Dichlorotoluene	10000 ug/mL
							2,4,5-Trichlorotoluene	5000 ug/mL
							2,4- & 2,5- & 2,6-Dichlorotoluene	15000 ug/mL
							2,4-Dichloro-1-(triflouromethyl)-benzene	5000 ug/mL
							2,5-Dichlorobenzotrifluoride	5000 ug/mL
							2-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorotoluene	5000 ug/mL
							4-Chlorobenzotrifluoride	5000 ug/mL
voaWKet2ndRes_00021	08/24/17	07/24/17	Methanol, Lot 2019056	50 mL	VOA8260KET2ND_00098	100 uL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET2ND_00098	03/31/19		Restek, Lot A0123880		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
voaWKetmix1st_00004	07/29/17	06/29/17	Methanol, Lot 2019054	50 mL	VOA8260KET1ST_00099	0.1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET1ST_00099	01/31/20		Restek, Lot A0123890		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
voaWKetmix1st_00006	10/25/17	09/25/17	Methanol, Lot 2469119	50 mL	VOA8260KET1ST_00102	100 uL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET1ST_00102	01/31/20		Restek, Lot A0123890		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
voaWVA1stRest_00016	07/31/17	07/17/17	Methanol, Lot 2019056	25 mL	VOA8260VARES_00082	0.125 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00082	07/31/17		Restek, Lot A0124520		(Purchased Reagent)		Vinyl acetate	5000 ug/mL

Reagent

VOA8260GAS1ST_00203

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569722 **Lot No.:** A0124278

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

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

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

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

CERTIFIED VALUES

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

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

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

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

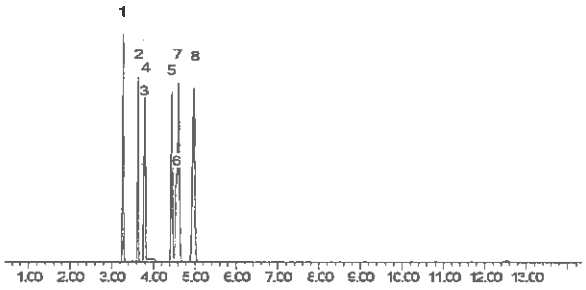
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Joseph Jaglowski - Mix Technician **Date Mixed:** 17-Jan-2017 **Balance:** 1125113331

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 24-Jan-2017

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

Reagent

VOA8260GAS1ST_00205

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

Catalog No. : 569722 **Lot No.:** A0124278

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

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

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

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

CERTIFIED VALUES

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

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

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

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

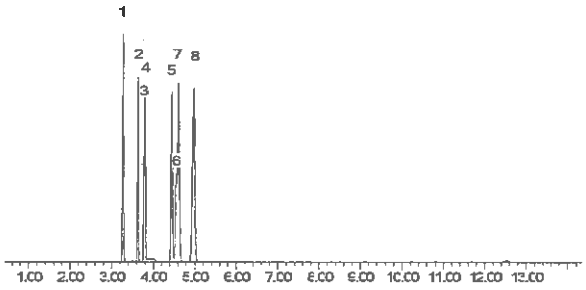
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Joseph Jaglowski - Mix Technician **Date Mixed:** 17-Jan-2017 **Balance:** 1125113331

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 24-Jan-2017

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Reagent

VOA8260GAS2ND_00200

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

Catalog No. : 569722.SEC **Lot No.:** A0124116

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

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

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8.SEC (Lot 23586) **Purity** 99%	2,503.4 µg/mL	+/- 19.5506 µg/mL +/- 140.9699 µg/mL +/- 144.2404 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3.SEC (Lot 18343) **Purity** 99%	2,508.1 µg/mL	+/- 21.1963 µg/mL +/- 141.4639 µg/mL +/- 144.7353 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4.SEC (Lot MKBK6872V) **Purity** 99%	2,518.6 µg/mL	+/- 19.4186 µg/mL +/- 141.7924 µg/mL +/- 145.0836 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0.SEC (Lot 22331) **Purity** 99%	2,504.0 µg/mL	+/- 20.5722 µg/mL +/- 141.1450 µg/mL +/- 144.4130 µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9.SEC (Lot Q119-46) **Purity** 99%	2,498.5 µg/mL	+/- 19.9806 µg/mL +/- 140.7602 µg/mL +/- 144.0229 µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3.SEC (Lot 00004202) **Purity** 99%	2,494.9 µg/mL	+/- 17.8868 µg/mL +/- 140.2786 µg/mL +/- 143.5429 µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4.SEC (Lot SHBC0858V) **Purity** 99%	2,503.4 µg/mL	+/- 20.0421 µg/mL +/- 141.0350 µg/mL +/- 144.3039 µg/mL	Gravimetric Unstressed Stressed

8	Trichlorofluoromethane (CFC-11)		2,503.2 µg/mL	+/-	18.7037	µg/mL	Gravimetric
	CAS # 75-69-4.SEC	(Lot Q12B-59)		+/-	140.8450	µg/mL	Unstressed
	Purity 99%			+/-	144.1179	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)

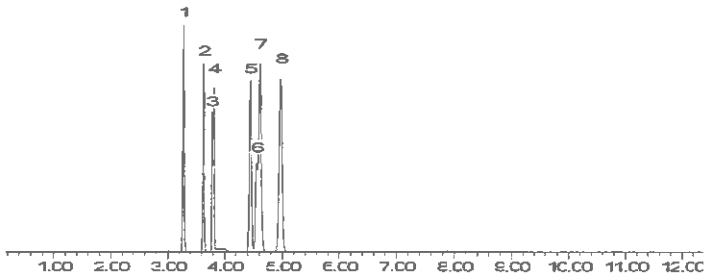
Carrier Gas:
helium-constant flow 2.0 mL/min.

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.

Brandon Reish - Mix Technician

Date Mixed: 12-Jan-2017 **Balance:** 1127510105

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 17-Jan-2017

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

Reagent

VOA8260INTRES_00123

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568718 **Lot No.:** A0113246

Description : 8260 Internal Standard 2014

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

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

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

CERTIFIED VALUES

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

Reagent

VOA8260INTRES_00135

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Catalog No. : 568718 **Lot No.:** A0124343

Description : 8260 Internal Standard 2014

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

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

Expiration Date : January 31, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

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

Reagent

VOA8260KET1ST_00099

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

Description : 8260 List 1/ Std #2 Ketones (2015)

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260KET1ST_00100

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ISO/IEC 17025 Accredited Testing Laboratory
Certificate 0322.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : 8260 List 1/ Std #2 Ketones (2015)

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260KET1ST_00102

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Description : 8260 List 1/ Std #2 Ketones (2015)

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260KET2ND_00098

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

Description : 8260 List 1/ Std #2 Ketones (2015)

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260MEGA1_00065

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Catalog No. : 571992 **Lot No.:** A0123711

Description : 8260 List 1 / Std #1 MegaMix (2017)

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

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

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

CERTIFIED VALUES

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

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

24	carbon tetrachloride **CAS #** 56-23-5 **Purity** 99%	(Lot SHBG1763V)	2,503.3	µg/mL	+/- 14.5541 +/- 151.0322 +/- 151.3907	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	n-Heptane (C7) **CAS #** 142-82-5 **Purity** 99%	(Lot SHBG6171V)	2.505.5	µg/mL	+/- 14.5672 +/- 151.1679 +/- 151.5268	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	1,2-Dichloroethane **CAS #** 107-06-2 **Purity** 99%	(Lot SHBF9313V)	2,504.8	µg/mL	+/- 14.5628 +/- 151.1227 +/- 151.4815	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Benzene **CAS #** 71-43-2 **Purity** 99%	(Lot SHBH2056V)	2,506.9	µg/mL	+/- 14.5752 +/- 151.2509 +/- 151.6100	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Trichloroethene **CAS #** 79-01-6 **Purity** 99%	(Lot SHBH1955V)	2.502.4	µg/mL	+/- 14.5490 +/- 150.9794 +/- 151.3378	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	Methylcyclohexane **CAS #** 108-87-2 **Purity** 98%	(Lot SHBG0634V)	2.500.3	µg/mL	+/- 14.5372 +/- 150.8570 +/- 151.2152	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	1,2-Dichloropropane **CAS #** 78-87-5 **Purity** 99%	(Lot 01113D0V)	2,503.0	µg/mL	+/- 14.5527 +/- 151.0171 +/- 151.3756	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane **CAS #** 123-91-1 **Purity** 99%	(Lot SHBH2584V)	50,011.4	µg/mL	+/- 290.7552 +/- 3,017.4064 +/- 3,024.5702	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane **CAS #** 74-95-3 **Purity** 98%	(Lot 10183283)	2.501.9	µg/mL	+/- 14.5465 +/- 150.9531 +/- 151.3115	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene **CAS #** 10061-01-5 **Purity** 99%	(Lot 22622)	2,501.0	µg/mL	+/- 14.5410 +/- 150.8964 +/- 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene **CAS #** 108-88-3 **Purity** 99%	(Lot SHBH1932V)	2,504.3	µg/mL	+/- 14.5599 +/- 151.0925 +/- 151.4512	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate **CAS #** 97-63-2 **Purity** 99%	(Lot SHBD9190V)	2,506.9	µg/mL	+/- 14.5752 +/- 151.2509 +/- 151.6100	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene **CAS #** 10061-02-6 **Purity** 99%	(Lot C584177)	2.503.6	µg/mL	+/- 14.5563 +/- 151.0548 +/- 151.4134	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane **CAS #** 79-00-5 **Purity** 99%	(Lot FGB01)	2,501.0	µg/mL	+/- 14.5410 +/- 150.8964 +/- 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane **CAS #** 142-28-9 **Purity** 99%	(Lot BCBG2162V)	2.503.5	µg/mL	+/- 14.5556 +/- 151.0472 +/- 151.4059	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene **CAS #** 127-18-4 **Purity** 99%	(Lot SHBD9374V)	2.500.9	µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

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

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

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

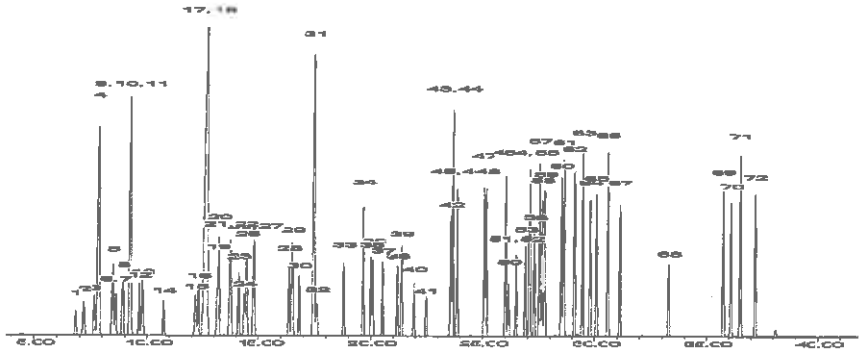
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

F. Joseph Tallon - Mix Technician

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

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 04-Jan-2017

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

Reagent

VOA8260MEGA1_00066

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

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Certificate of Analysis

ACCREDITED
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Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 571992 **Lot No.:** A0123711

Description : 8260 List 1 / Std #1 MegaMix (2017)

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

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

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

CERTIFIED VALUES

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

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

24	carbon tetrachloride **CAS #** 56-23-5 **Purity** 99%	(Lot SHBG1763V)	2,503.3	µg/mL	+/- 14.5541 +/- 151.0322 +/- 151.3907	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	n-Heptane (C7) **CAS #** 142-82-5 **Purity** 99%	(Lot SHBG6171V)	2.505.5	µg/mL	+/- 14.5672 +/- 151.1679 +/- 151.5268	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	1,2-Dichloroethane **CAS #** 107-06-2 **Purity** 99%	(Lot SHBF9313V)	2,504.8	µg/mL	+/- 14.5628 +/- 151.1227 +/- 151.4815	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Benzene **CAS #** 71-43-2 **Purity** 99%	(Lot SHBH2056V)	2,506.9	µg/mL	+/- 14.5752 +/- 151.2509 +/- 151.6100	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Trichloroethene **CAS #** 79-01-6 **Purity** 99%	(Lot SHBH1955V)	2.502.4	µg/mL	+/- 14.5490 +/- 150.9794 +/- 151.3378	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	Methylcyclohexane **CAS #** 108-87-2 **Purity** 98%	(Lot SHBG0634V)	2.500.3	µg/mL	+/- 14.5372 +/- 150.8570 +/- 151.2152	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	1,2-Dichloropropane **CAS #** 78-87-5 **Purity** 99%	(Lot 01113D0V)	2,503.0	µg/mL	+/- 14.5527 +/- 151.0171 +/- 151.3756	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane **CAS #** 123-91-1 **Purity** 99%	(Lot SHBH2584V)	50,011.4	µg/mL	+/- 290.7552 +/- 3,017.4064 +/- 3,024.5702	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane **CAS #** 74-95-3 **Purity** 98%	(Lot 10183283)	2.501.9	µg/mL	+/- 14.5465 +/- 150.9531 +/- 151.3115	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene **CAS #** 10061-01-5 **Purity** 99%	(Lot 22622)	2,501.0	µg/mL	+/- 14.5410 +/- 150.8964 +/- 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene **CAS #** 108-88-3 **Purity** 99%	(Lot SHBH1932V)	2,504.3	µg/mL	+/- 14.5599 +/- 151.0925 +/- 151.4512	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate **CAS #** 97-63-2 **Purity** 99%	(Lot SHBD9190V)	2,506.9	µg/mL	+/- 14.5752 +/- 151.2509 +/- 151.6100	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene **CAS #** 10061-02-6 **Purity** 99%	(Lot C584177)	2.503.6	µg/mL	+/- 14.5563 +/- 151.0548 +/- 151.4134	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane **CAS #** 79-00-5 **Purity** 99%	(Lot FGB01)	2,501.0	µg/mL	+/- 14.5410 +/- 150.8964 +/- 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane **CAS #** 142-28-9 **Purity** 99%	(Lot BCBG2162V)	2.503.5	µg/mL	+/- 14.5556 +/- 151.0472 +/- 151.4059	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene **CAS #** 127-18-4 **Purity** 99%	(Lot SHBD9374V)	2.500.9	µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

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

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

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

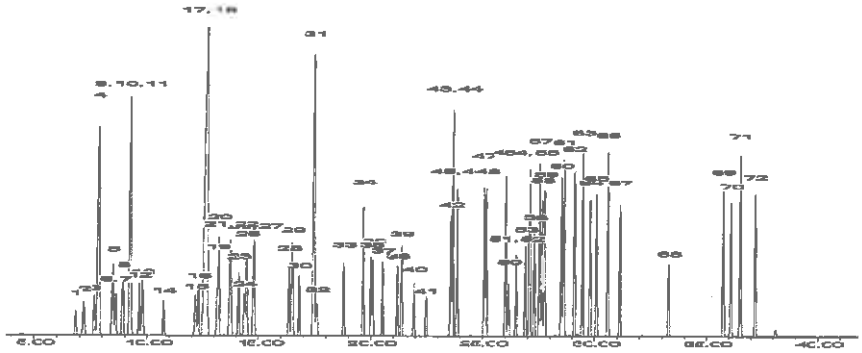
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

F. Joseph Tallon - Mix Technician **Date Mixed:** 22-Dec-2016 **Balance:** B251644995

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 04-Jan-2017

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

Reagent

VOA8260MEGA2_00061

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 571992.sec **Lot No.:** A0123775

Description : 8260 List 1 / Std #1 MegaMix (2017)

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

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

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

CERTIFIED VALUES

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

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

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

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

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

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

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

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

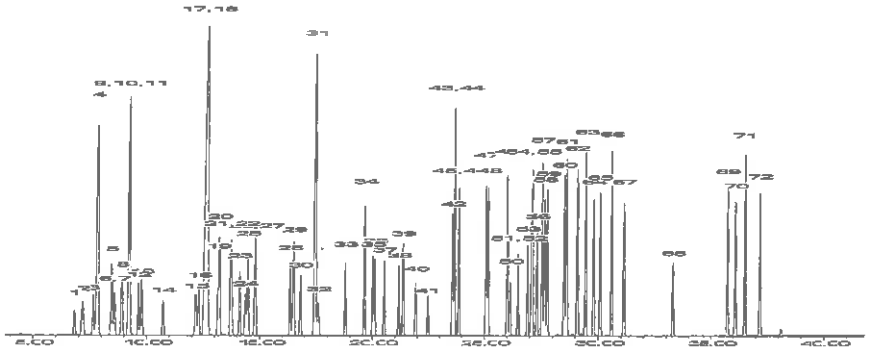
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Michael J Maye

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

Jennifer J Pollino

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 04-Jan-2017

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

Reagent

VOA8260SURRES_00118

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ILAC-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567650 **Lot No.:** A0114901

Description : 8260 Surrogate Standard

8260 Surrogate Standard 2,500 ug/ml, P&T Methanol, 5 ml/ampul

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260SURRES_00122

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
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Fax: (814)353-1309

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CERTIFIED REFERENCE MATERIAL

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

Catalog No. : 567650 **Lot No.:** A0114901

Description : 8260 Surrogate Standard

8260 Surrogate Standard 2,500 ug/ml, P&T Methanol, 5 ml/ampul

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260VARES_00082

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

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Reference Material Producer
Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : 8260 List 1 / Std #6 Vinyl Acetate (2015)

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

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

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

Handling: This product is photosensitive.

CERTIFIED VALUES

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

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

Tech Tips:

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

Reagent

VOAACRORES_00115

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : 8260 List 1/Std #5 Acrolein High

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

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

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

Handling: This product is photosensitive.

CERTIFIED VALUES

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

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

Reagent

VOABFBRES_00052

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

www.restek.com

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Certificate of Analysis

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ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 30067 **Lot No.:** A0119122

Description : 4-Bromofluorobenzene Standard

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

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

Expiration Date : May 31, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1-Bromo-4-fluorobenzene (BFB)	2,501.0 µg/mL	+/- 14.6773	µg/mL	Gravimetric
	CAS # 460-00-4 (Lot 20401KOV)		+/- 140.2428	µg/mL	Unstressed
	Purity 99%		+/- 143.5236	µg/mL	Stressed

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

Reagent

VOABFBRES_00055

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

www.restek.com

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Reference Material Producer
Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : 4-Bromofluorobenzene Standard

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOABFBRES_00058

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

www.restek.com

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : 4-Bromofluorobenzene Standard

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOACEVERES_00127

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

www.restek.com

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

2406027
28
29
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Catalog No. : 569723 **Lot No.:** A0123891

Description : 8260 List 1 / Std #4 2-CEVE (2015)

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

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

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

CERTIFIED VALUES

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

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

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

Reagent

VOARESEE1ST_00045

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

www.restek.com

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Reference Material Producer
Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

2396751

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

Description : Custom EE Standard

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

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

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

CERTIFIED VALUES

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

Method 8260C Low Level

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

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

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-SPBA-CW-23-0/1-0	180-71131-1	93	94	86	91
HD-CW-23-0/1-0	180-71131-2	93	94	89	91
HD-QC6-0/1-2	180-71131-3	95	95	87	89
	MB 180-226148/6	91	93	89	90
	LCS 180-226148/4	92	92	93	94

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

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 6101804D.D

Lab ID: LCS 180-226148/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	7.89	79	49-135	
Vinyl chloride	10.0	8.87	89	52-136	
Bromomethane	10.0	7.90	79	37-150	
Chloroethane	10.0	9.09	91	44-139	
1,1-Dichloroethene	10.0	9.66	97	64-131	
Acetone	20.0	22.4	112	24-150	
Carbon disulfide	10.0	8.89	89	20-150	
Methylene Chloride	10.0	8.98	90	66-123	
trans-1,2-Dichloroethene	10.0	9.35	94	70-123	
Methyl tert-butyl ether	10.0	8.28	83	66-130	
1,1-Dichloroethane	10.0	9.00	90	66-122	
cis-1,2-Dichloroethene	10.0	9.03	90	73-120	
Bromochloromethane	10.0	9.10	91	73-122	
2-Butanone (MEK)	20.0	18.3	91	37-150	
Chloroform	10.0	9.63	96	72-123	
1,1,1-Trichloroethane	10.0	10.4	104	66-129	
Carbon tetrachloride	10.0	12.2	122	58-145	
Benzene	10.0	9.47	95	75-123	
1,2-Dichloroethane	10.0	9.07	91	63-130	
Trichloroethene	10.0	9.21	92	74-121	
1,2-Dichloropropane	10.0	8.45	84	67-119	
Bromodichloromethane	10.0	9.26	93	62-127	
cis-1,3-Dichloropropene	10.0	9.17	92	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	13.2	66	41-135	
Toluene	10.0	9.31	93	76-129	
trans-1,3-Dichloropropene	10.0	9.36	94	61-136	
1,1,2-Trichloroethane	10.0	8.74	87	74-126	
Tetrachloroethene	10.0	9.13	91	76-128	
2-Hexanone	20.0	18.9	94	37-150	
Dibromochloromethane	10.0	9.51	95	63-131	
1,2-Dibromoethane (EDB)	10.0	8.97	90	76-128	
Chlorobenzene	10.0	9.44	94	79-124	
1,1,1,2-Tetrachloroethane	10.0	10.1	101	70-130	
Ethylbenzene	10.0	9.18	92	77-124	
Xylenes, Total	20.0	18.2	91	76-124	
Styrene	10.0	9.53	95	80-125	
Bromoform	10.0	8.29	83	54-136	
1,1,2,2-Tetrachloroethane	10.0	8.83	88	72-128	
Acrylonitrile	100	65.5	65	60-130	
1,4-Dioxane	200	144 J	72	26-150	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Lab File ID: 6101806D.D Lab Sample ID: MB 180-226148/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: CHHP6 Date Analyzed: 10/18/2017 02:09

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 180-226148/4	6101804D.D	10/18/2017 01:04
HD-SPBA-CW-23-0/1-0	180-71131-1	6101816D.D	10/18/2017 06:33
HD-CW-23-0/1-0	180-71131-2	6101817D.D	10/18/2017 06:57
HD-QC6-0/1-2	180-71131-3	6101819D.D	10/18/2017 07:45

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Lab File ID: 60602003.D BFB Injection Date: 06/02/2017

Instrument ID: CHHP6 BFB Injection Time: 06:02

Analysis Batch No.: 213005

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.8	
75	30.0 - 60.0 % of mass 95	48.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.0	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	65.4	
175	5.0 - 9.0 % of mass 174	5.1	(7.9) 1
176	95.0 - 101.0 % of mass 174	65.5	(100.3) 1
177	5.0 - 9.0 % of mass 176	5.0	(7.7) 2

1-Value is % mass 174 2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICV 180-213005/23	60602023.D	06/02/2017	15:14

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Lab File ID: 60724D01.D BFB Injection Date: 07/24/2017

Instrument ID: CHHP6 BFB Injection Time: 04:58

Analysis Batch No.: 217861

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

1-Value is % mass 174 2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-217861/3	60724D03.D	07/24/2017	06:39
	IC 180-217861/4	60724D04.D	07/24/2017	07:03
	ICIS 180-217861/5	60724D05.D	07/24/2017	07:27
	IC 180-217861/6	60724D06.D	07/24/2017	07:52
	IC 180-217861/7	60724D07.D	07/24/2017	08:16
	IC 180-217861/8	60724D08.D	07/24/2017	08:40
	IC 180-217861/9	60724D09.D	07/24/2017	09:04
	IC 180-217861/10	60724D10.D	07/24/2017	09:28
	ICV 180-217861/13	60724D13.D	07/24/2017	10:40

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Lab File ID: 6101801D.D BFB Injection Date: 10/17/2017

Instrument ID: CHHP6 BFB Injection Time: 21:58

Analysis Batch No.: 226148

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.4	
75	30.0 - 60.0 % of mass 95	52.8	
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	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	62.8	
175	5.0 - 9.0 % of mass 174	4.8	(7.7) 1
176	95.0 - 101.0 % of mass 174	60.6	(96.6) 1
177	5.0 - 9.0 % of mass 176	3.4	(5.5) 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 180-226148/2	6101802D.D	10/17/2017	23:55
	LCS 180-226148/4	6101804D.D	10/18/2017	01:04
	MB 180-226148/6	6101806D.D	10/18/2017	02:09
HD-SPBA-CW-23-0/1-0	180-71131-1	6101816D.D	10/18/2017	06:33
HD-CW-23-0/1-0	180-71131-2	6101817D.D	10/18/2017	06:57
HD-QC6-0/1-2	180-71131-3	6101819D.D	10/18/2017	07:45

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Sample No.: ICIS 180-217861/5 Date Analyzed: 07/24/2017 07:27

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 60724D05.D Heated Purge: (Y/N) N

Calibration ID: 35029

		TBAd9		FB		CBNZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		281180	3.98	854988	7.05	187443	10.17
UPPER LIMIT		562360	4.48	1709976	7.55	374886	10.67
LOWER LIMIT		140590	3.48	427494	6.55	93722	9.67
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 180-217861/13		317387	3.96	870770	7.05	217522	10.17

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBNZd5 = 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 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Sample No.: ICIS 180-217861/5 Date Analyzed: 07/24/2017 07:27

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 60724D05.D Heated Purge: (Y/N) N

Calibration ID: 35029

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		265638	12.51				
UPPER LIMIT		531276	13.01				
LOWER LIMIT		132819	12.01				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 180-217861/13		360072	12.51				

DCBd4 = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Sample No.: CCVIS 180-226148/2 Date Analyzed: 10/17/2017 23:55

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 6101802D.D Heated Purge: (Y/N) N

Calibration ID: 35029

		TBAd9		FB		CBNZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		360770	3.95	1145374	7.04	290716	10.17
UPPER LIMIT		721540	4.45	2290748	7.54	581432	10.67
LOWER LIMIT		180385	3.45	572687	6.54	145358	9.67
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-226148/4		373208	3.96	1246060	7.05	301504	10.17
MB 180-226148/6		312973	3.96	1062992	7.05	286612	10.17
180-71131-1	HD-SPBA-CW-23-0/1-0	317182	3.95	1010234	7.05	279053	10.17
180-71131-2	HD-CW-23-0/1-0	286138	3.95	994351	7.05	272894	10.17
180-71131-3	HD-QC6-0/1-2	274765	3.96	988524	7.05	275892	10.17

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBNZd5 = 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 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Sample No.: CCVIS 180-226148/2 Date Analyzed: 10/17/2017 23:55

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 6101802D.D Heated Purge: (Y/N) N

Calibration ID: 35029

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		448308	12.51				
UPPER LIMIT		896616	13.01				
LOWER LIMIT		224154	12.01				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-226148/4		469268	12.51				
MB 180-226148/6		425493	12.51				
180-71131-1	HD-SPBA-CW-23-0/1-0	406630	12.51				
180-71131-2	HD-CW-23-0/1-0	392535	12.51				
180-71131-3	HD-QC6-0/1-2	388863	12.51				

DCBd4 = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits

FORM VIII 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71131-1

SDG No.:

Client Sample ID: HD-SPBA-CW-23-0/1-0 | Lab Sample ID: 180-71131-1

Matrix: Water | Lab File ID: 6101816D.D

Analysis Method: 8260C | Date Collected: 10/05/2017 09:50

Sample wt/vol: 5(mL) | Date Analyzed: 10/18/2017 06:33

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.: 226148 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.90
75-01-4	Vinyl chloride	1.0	U	1.0	0.88
74-83-9	Bromomethane	1.0	U	1.0	0.89
75-00-3	Chloroethane	1.0	U	1.0	0.90
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.55
67-64-1	Acetone	5.0	U ^c	5.0	3.4
75-15-0	Carbon disulfide	1.0	U	1.0	0.88
75-09-2	Methylene Chloride	1.0	U	1.0	0.36
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.67
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.59
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.63
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.71
74-97-5	Bromochloromethane	1.0	U	1.0	0.63
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.60
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.60
56-23-5	Carbon tetrachloride	1.0	U ^c	1.0	0.88
71-43-2	Benzene	1.0	U	1.0	0.60
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.57
79-01-6	Trichloroethene	4.1		1.0	0.69
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.66
75-27-4	Bromodichloromethane	1.0	U	1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U ^c	5.0	3.1
108-88-3	Toluene	1.0	U	1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.58
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.45
127-18-4	Tetrachloroethene	42		1.0	0.47
591-78-6	2-Hexanone	5.0	U	5.0	3.3
124-48-1	Dibromochloromethane	1.0	U	1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50
108-90-7	Chlorobenzene	1.0	U	1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57
100-41-4	Ethylbenzene	1.0	U	1.0	0.51
1330-20-7	Xylenes, Total	2.0	U	2.0	0.89
100-42-5	Styrene	1.0	U	1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71131-1

SDG No.:

Client Sample ID: HD-SPBA-CW-23-0/1-0 | Lab Sample ID: 180-71131-1

Matrix: Water | Lab File ID: 6101816D.D

Analysis Method: 8260C | Date Collected: 10/05/2017 09:50

Sample wt/vol: 5(mL) | Date Analyzed: 10/18/2017 06:33

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.: 226148 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		65-121
2037-26-5	Toluene-d8 (Surr)	86		73-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120
1868-53-7	Dibromofluoromethane (Surr)	93		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101816D.D
Lims ID: 180-71131-B-1
Client ID: HD-SPBA-CW-23-0/1-0
Sample Type: Client
Inject. Date: 18-Oct-2017 06:33:30 ALS Bottle#: 25 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018914-016
Misc. Info.: 180-71131-B-1
Operator ID: 034635 Instrument ID: CHHP6

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 18-Oct-2017 20:30:42 Calib Date: 28-Sep-2017 15:13:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: bungardf Date: 18-Oct-2017 20:23:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	3.954	3.949	0.005	91	317182	1000.0	
* 2 Fluorobenzene (IS)	96	7.045	7.045	0.000	98	1010234	50.0	
* 3 Chlorobenzene-d5	119	10.165	10.166	-0.001	88	279053	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.508	12.508	0.000	96	406630	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.315	6.314	0.001	92	244987	46.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.692	6.685	0.007	70	353516	47.1	
$ 7 Toluene-d8 (Surr)	98	8.712	8.711	0.001	93	974331	43.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.352	11.351	0.001	82	436416	45.3	
12 Chloromethane	50		1.624				ND	
13 Vinyl chloride	62		1.740				ND	
15 Bromomethane	94		2.068				ND	
16 Chloroethane	64		2.202				ND	
22 1,1-Dichloroethene	96		3.090				ND	
24 Acetone	43	3.188	3.181	0.007	78	9414	4.34	M
26 Carbon disulfide	76		3.364				ND	
31 Methylene Chloride	84		3.838				ND	
33 Acrylonitrile	53		4.222				ND	
34 trans-1,2-Dichloroethene	96		4.270				ND	
35 Methyl tert-butyl ether	73		4.276				ND	
37 1,1-Dichloroethane	63		4.921				ND	
43 cis-1,2-Dichloroethene	96		5.688				ND	
44 2-Butanone (MEK)	43		5.694				ND	
48 Chlorobromomethane	128		5.974				ND	
50 Chloroform	83	6.126	6.126	0.000	88	21828	2.09	
51 1,1,1-Trichloroethane	97		6.290				ND	
53 Carbon tetrachloride	117		6.454				ND	
56 Benzene	78		6.691				ND	
57 1,2-Dichloroethane	62		6.777				ND	
61 Trichloroethene	130	7.440	7.440	0.000	97	117362	20.7	
64 1,2-Dichloropropane	63		7.713				ND	
65 1,4-Dioxane	88		7.793				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		7.999				ND	
71 cis-1,3-Dichloropropene	75		8.450				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.608				ND	
73 Toluene	91	8.785	8.778	0.007	98	10505	0.3820	
74 trans-1,3-Dichloropropene	75		9.034				ND	
76 1,1,2-Trichloroethane	97		9.222				ND	
77 Tetrachloroethene	164	9.296	9.295	0.001	90	1033054	209.8	
79 2-Hexanone	43		9.447				ND	
81 Chlorodibromomethane	129		9.593				ND	
82 Ethylene Dibromide	107		9.709				ND	
84 Chlorobenzene	112		10.196				ND	
86 1,1,1,2-Tetrachloroethane	131		10.293				ND	
87 Ethylbenzene	106		10.299				ND	
88 m-Xylene & p-Xylene	106		10.433				ND	
89 o-Xylene	106		10.816				ND	
90 Styrene	104		10.834				ND	
91 Bromoform	173		11.011				ND	
96 1,1,2,2-Tetrachloroethane	83		11.497				ND	
S 131 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00074	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00073	Amount Added:	2.00	Units: uL	Run Reagent

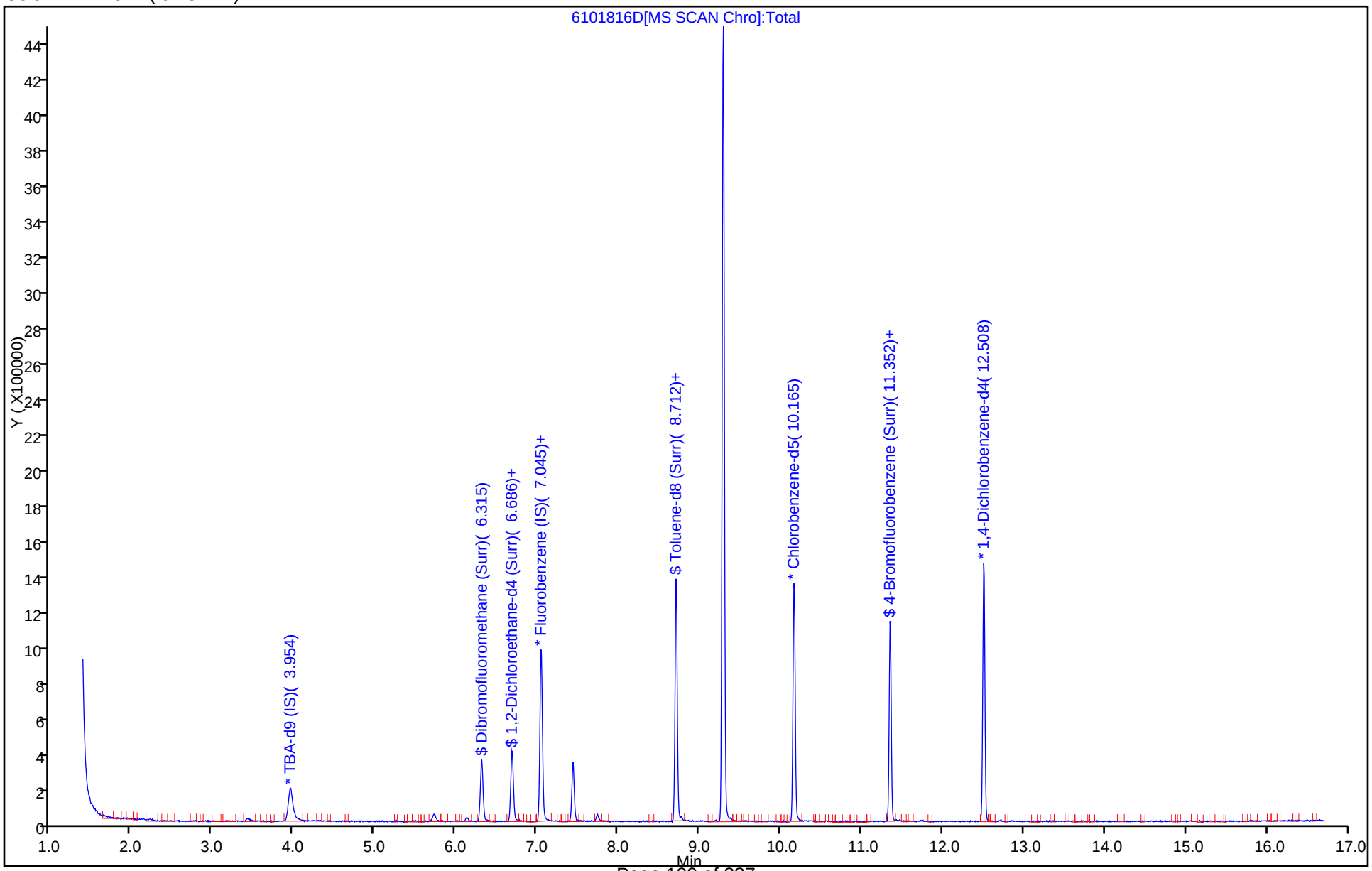
Report Date: 18-Oct-2017 20:31:27 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101816D.D

Injection Date:	18-Oct-2017 06:33:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	180-71131-B-1	Lab Sample ID:	180-71131-1	Worklist Smp#:	16
Client ID:	HD-SPBA-CW-23-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101816D.D
Lims ID: 180-71131-B-1
Client ID: HD-SPBA-CW-23-0/1-0
Sample Type: Client
Inject. Date: 18-Oct-2017 06:33:30 ALS Bottle#: 25 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018914-016
Misc. Info.: 180-71131-B-1
Operator ID: 034635 Instrument ID: CHHP6

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 18-Oct-2017 20:30:42 Calib Date: 28-Sep-2017 15:13:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: bungardf Date: 18-Oct-2017 20:23:32

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	46.7	93.33
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	47.1	94.23
$ 7 Toluene-d8 (Surr)	50.0	43.1	86.27
$ 8 4-Bromofluorobenzene (Surr)	50.0	45.3	90.59

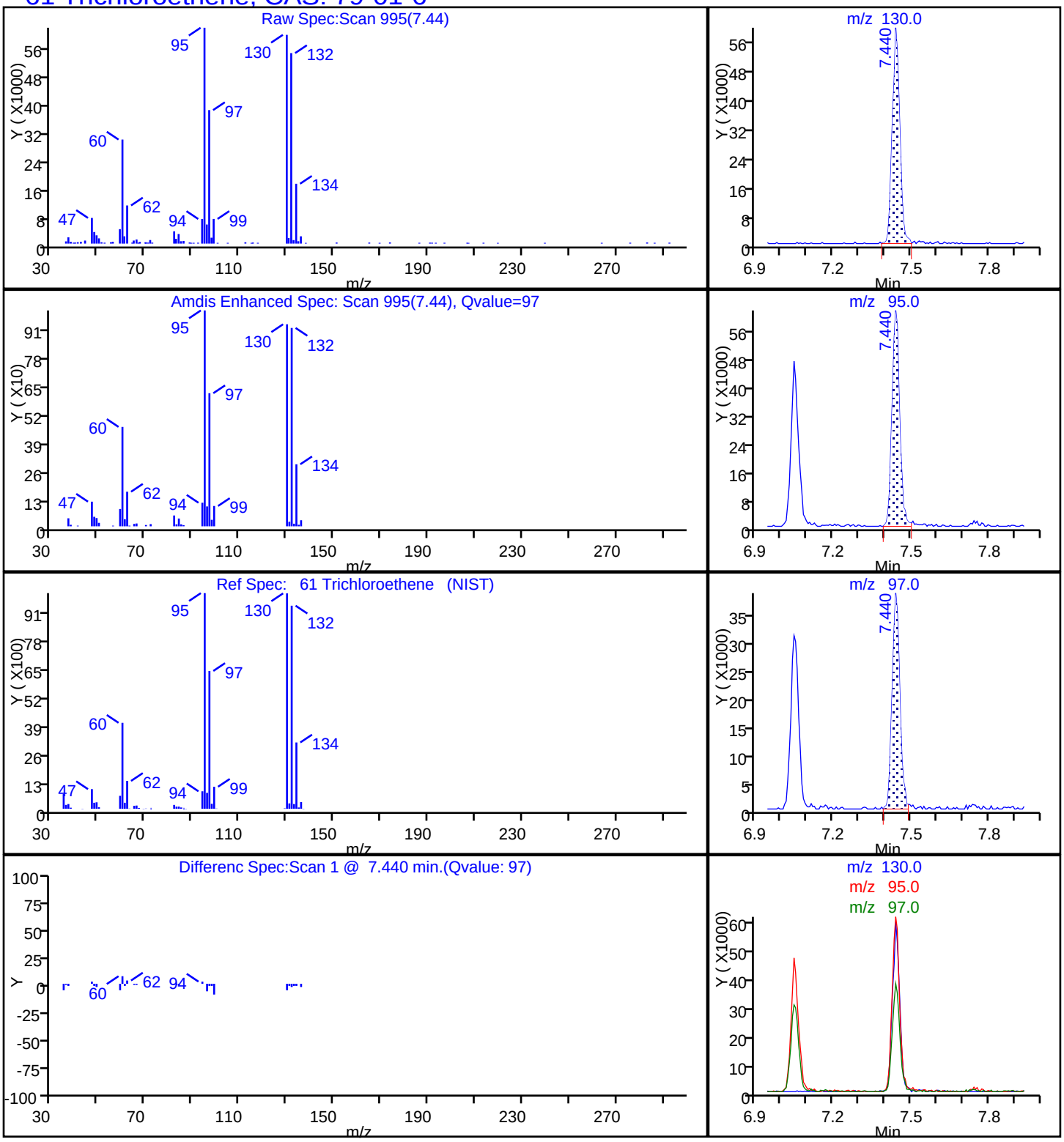
Report Date: 18-Oct-2017 20:31:28 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101816D.D

Injection Date:	18-Oct-2017 06:33:30	Instrument ID:	CHHP6		
Lims ID:	180-71131-B-1	Lab Sample ID:	180-71131-1		
Client ID:	HD-SPBA-CW-23-0/1-0				
Operator ID:	034635	ALS Bottle#:	25	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



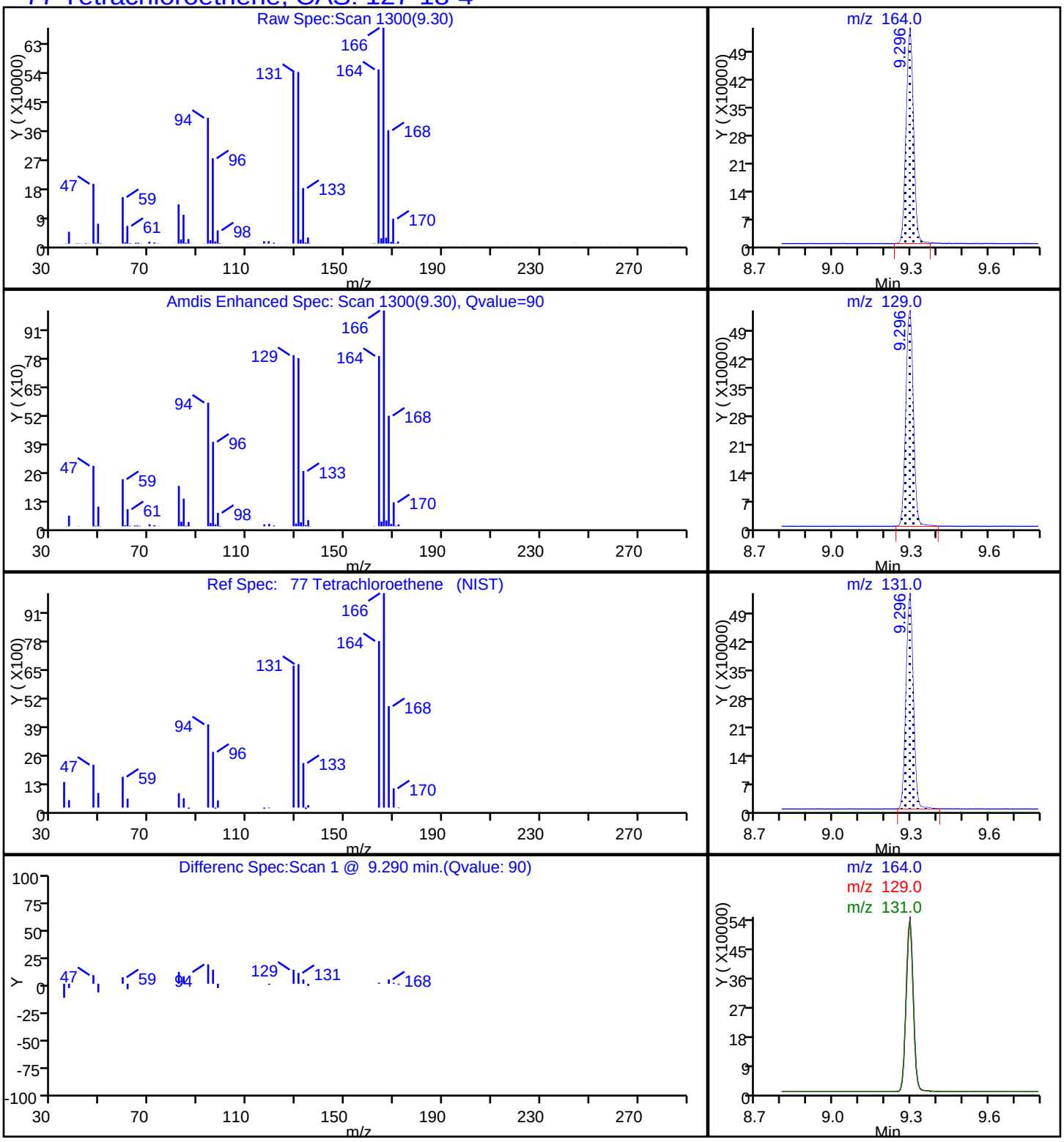
Report Date: 18-Oct-2017 20:31:28 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101816D.D

Injection Date:	18-Oct-2017 06:33:30	Instrument ID:	CHHP6		
Lims ID:	180-71131-B-1	Lab Sample ID:	180-71131-1		
Client ID:	HD-SPBA-CW-23-0/1-0				
Operator ID:	034635	ALS Bottle#:	25	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



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

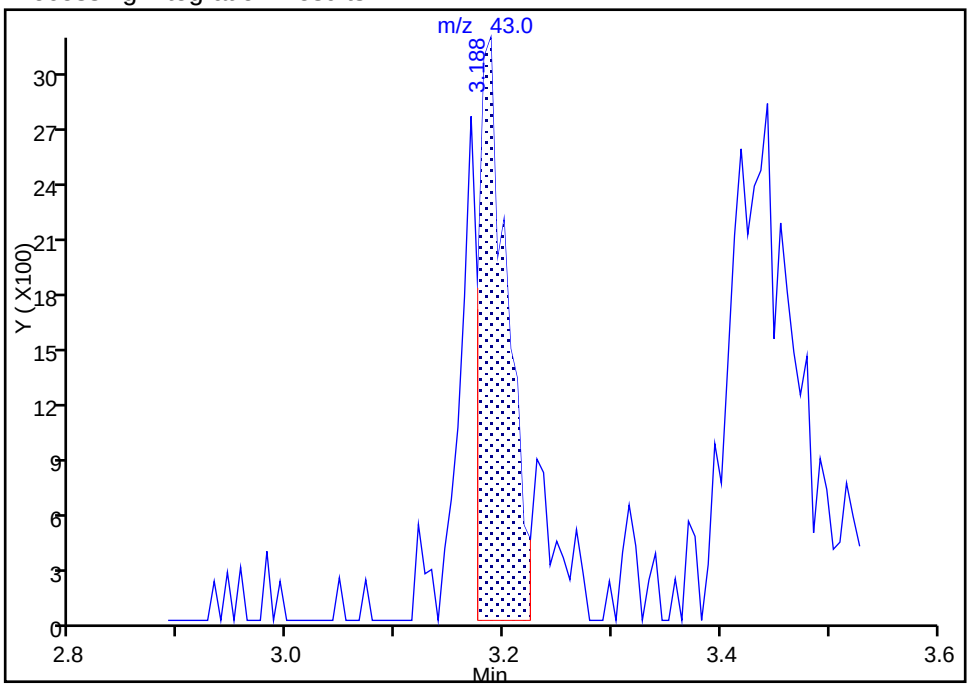
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101816D.D				
Injection Date:	18-Oct-2017 06:33:30	Instrument ID:	CHHP6		
Lims ID:	180-71131-B-1	Lab Sample ID:	180-71131-1		
Client ID:	HD-SPBA-CW-23-0/1-0				
Operator ID:	034635	ALS Bottle#:	25	Worklist Smp#:	16
Purge Vol:	5.000 mL	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

Signal: 1

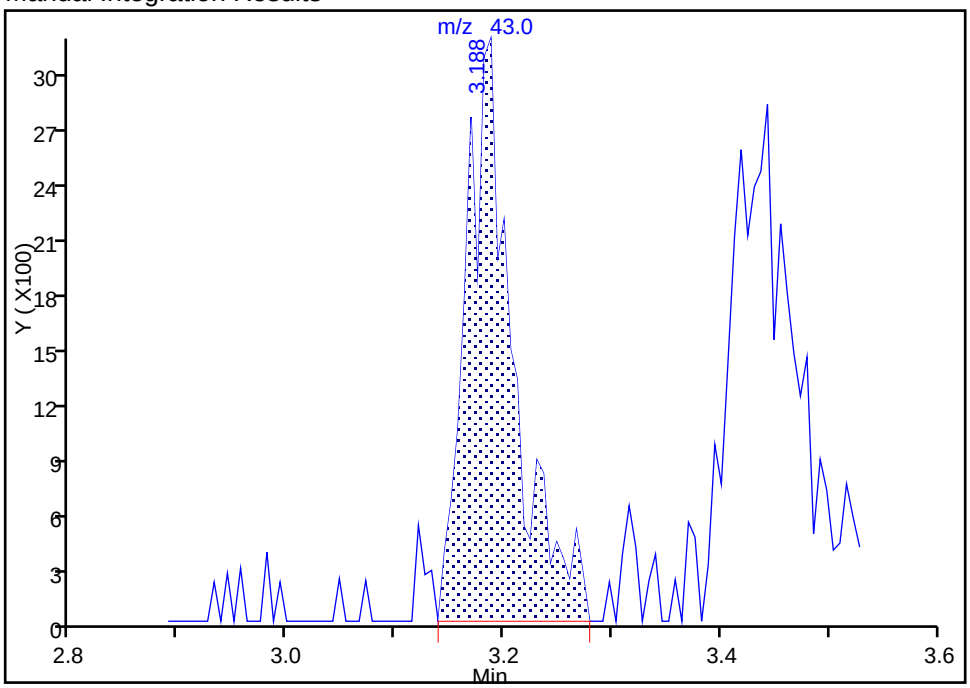
Processing Integration Results

RT: 3.19
Area: 5710
Amount: 2.634638
Amount Units: ng



Manual Integration Results

RT: 3.19
Area: 9414
Amount: 4.343692
Amount Units: ng



Reviewer: bungardf, 18-Oct-2017 20:22:53

Audit Action: Manually Integrated Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71131-1

SDG No.:

Client Sample ID: HD-CW-23-0/1-0 | Lab Sample ID: 180-71131-2

Matrix: Water | Lab File ID: 6101817D.D

Analysis Method: 8260C | Date Collected: 10/06/2017 09:50

Sample wt/vol: 5(mL) | Date Analyzed: 10/18/2017 06:57

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.: 226148 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.90
75-01-4	Vinyl chloride	1.0	U	1.0	0.88
74-83-9	Bromomethane	1.0	U	1.0	0.89
75-00-3	Chloroethane	1.0	U	1.0	0.90
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.55
67-64-1	Acetone	5.0	U ^c	5.0	3.4
75-15-0	Carbon disulfide	1.0	U	1.0	0.88
75-09-2	Methylene Chloride	1.0	U	1.0	0.36
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.67
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.59
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.63
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.71
74-97-5	Bromochloromethane	1.0	U	1.0	0.63
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.60
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.60
56-23-5	Carbon tetrachloride	1.0	U ^c	1.0	0.88
71-43-2	Benzene	1.0	U	1.0	0.60
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.57
79-01-6	Trichloroethene	4.4		1.0	0.69
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.66
75-27-4	Bromodichloromethane	1.0	U	1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U ^c	5.0	3.1
108-88-3	Toluene	1.0	U	1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.58
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.45
127-18-4	Tetrachloroethene	43		1.0	0.47
591-78-6	2-Hexanone	5.0	U	5.0	3.3
124-48-1	Dibromochloromethane	1.0	U	1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50
108-90-7	Chlorobenzene	1.0	U	1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57
100-41-4	Ethylbenzene	1.0	U	1.0	0.51
1330-20-7	Xylenes, Total	2.0	U	2.0	0.89
100-42-5	Styrene	1.0	U	1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71131-1

SDG No.:

Client Sample ID: HD-CW-23-0/1-0 | Lab Sample ID: 180-71131-2

Matrix: Water | Lab File ID: 6101817D.D

Analysis Method: 8260C | Date Collected: 10/06/2017 09:50

Sample wt/vol: 5(mL) | Date Analyzed: 10/18/2017 06:57

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.: 226148 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		65-121
2037-26-5	Toluene-d8 (Surr)	89		73-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120
1868-53-7	Dibromofluoromethane (Surr)	93		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101817D.D
Lims ID: 180-71131-A-2
Client ID: HD-CW-23-0/1-0
Sample Type: Client
Inject. Date: 18-Oct-2017 06:57:30 ALS Bottle#: 26 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018914-017
Misc. Info.: 180-71131-A-2
Operator ID: 034635 Instrument ID: CHHP6

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 18-Oct-2017 20:30:42 Calib Date: 28-Sep-2017 15:13:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: bungardf Date: 18-Oct-2017 20:24:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	3.951	3.949	0.002	91	286138	1000.0	
* 2 Fluorobenzene (IS)	96	7.048	7.045	0.003	98	994351	50.0	
* 3 Chlorobenzene-d5	119	10.169	10.166	0.003	88	272894	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.511	12.508	0.003	97	392535	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.318	6.314	0.004	91	241266	46.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.689	6.685	0.004	70	347514	47.1	
$ 7 Toluene-d8 (Surr)	98	8.715	8.711	0.004	93	982090	44.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.355	11.351	0.004	82	430032	45.6	
12 Chloromethane	50		1.624				ND	
13 Vinyl chloride	62		1.740				ND	
15 Bromomethane	94		2.068				ND	
16 Chloroethane	64		2.202				ND	
22 1,1-Dichloroethene	96		3.090				ND	
24 Acetone	43	3.179	3.181	-0.002	90	9919	4.65	
26 Carbon disulfide	76		3.364				ND	
31 Methylene Chloride	84		3.838				ND	
33 Acrylonitrile	53		4.222				ND	
34 trans-1,2-Dichloroethene	96		4.270				ND	
35 Methyl tert-butyl ether	73		4.276				ND	
37 1,1-Dichloroethane	63		4.921				ND	
43 cis-1,2-Dichloroethene	96	5.691	5.688	0.003	28	3038	0.4435	
44 2-Butanone (MEK)	43		5.694				ND	
48 Chlorobromomethane	128		5.974				ND	
50 Chloroform	83	6.135	6.126	0.009	92	20285	1.97	
51 1,1,1-Trichloroethane	97		6.290				ND	
53 Carbon tetrachloride	117		6.454				ND	
56 Benzene	78		6.691				ND	
57 1,2-Dichloroethane	62		6.777				ND	
61 Trichloroethene	130	7.437	7.440	-0.003	98	122690	22.0	
64 1,2-Dichloropropane	63		7.713				ND	
65 1,4-Dioxane	88		7.793				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		7.999				ND	
71 cis-1,3-Dichloropropene	75		8.450				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.608				ND	
73 Toluene	91	8.782	8.778	0.004	92	8805	0.3274	
74 trans-1,3-Dichloropropene	75		9.034				ND	
76 1,1,2-Trichloroethane	97		9.222				ND	
77 Tetrachloroethene	164	9.293	9.295	-0.002	90	1025103	212.9	
79 2-Hexanone	43		9.447				ND	
81 Chlorodibromomethane	129		9.593				ND	
82 Ethylene Dibromide	107		9.709				ND	
84 Chlorobenzene	112		10.196				ND	
86 1,1,1,2-Tetrachloroethane	131		10.293				ND	
87 Ethylbenzene	106		10.299				ND	
88 m-Xylene & p-Xylene	106		10.433				ND	
89 o-Xylene	106		10.816				ND	
90 Styrene	104		10.834				ND	
91 Bromoform	173		11.011				ND	
96 1,1,2,2-Tetrachloroethane	83		11.497				ND	
S 131 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00074	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00073	Amount Added:	2.00	Units: uL	Run Reagent

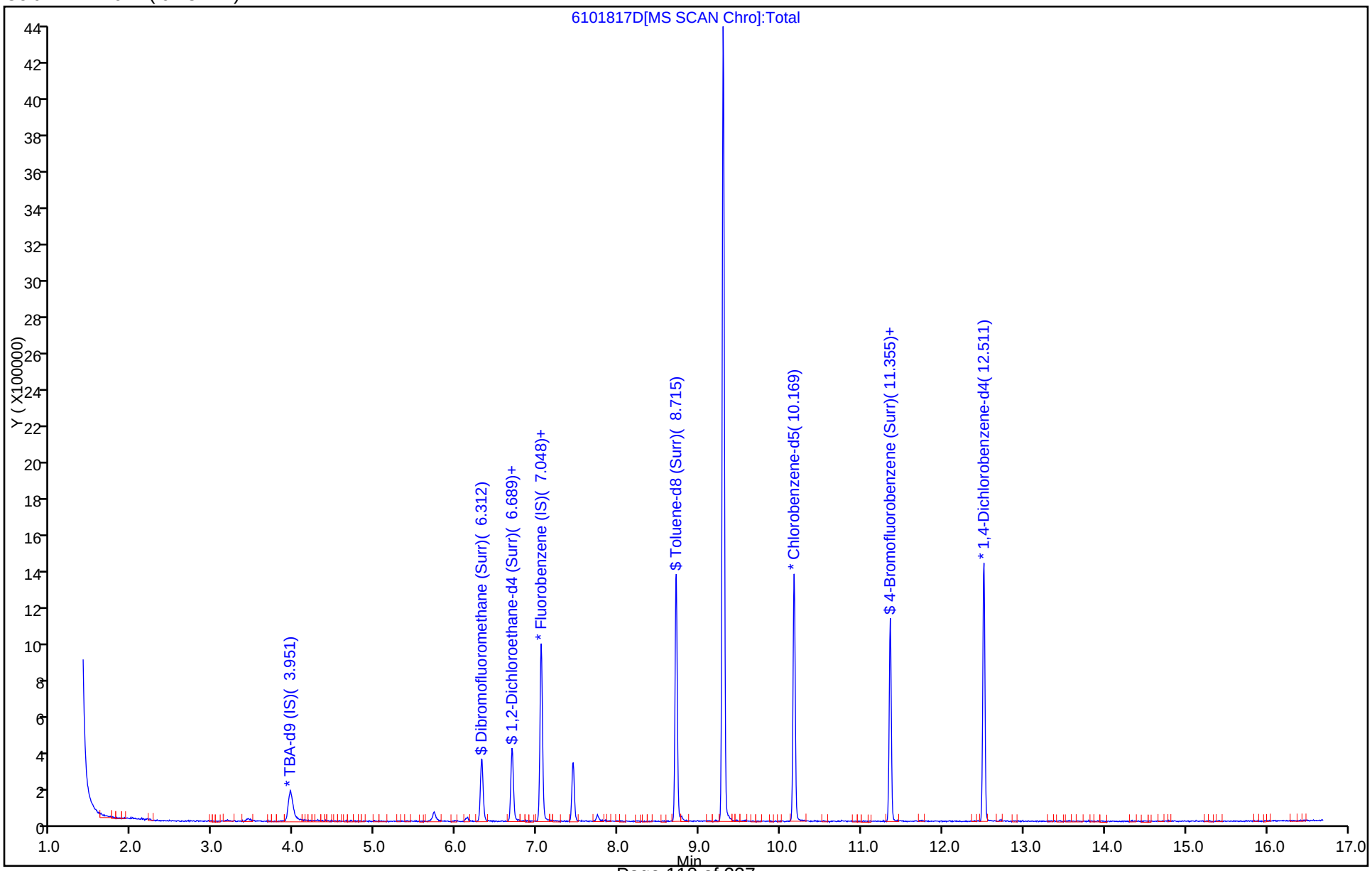
Report Date: 18-Oct-2017 20:31:29 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101817D.D

Injection Date:	18-Oct-2017 06:57:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	180-71131-A-2	Lab Sample ID:	180-71131-2	Worklist Smp#:	17
Client ID:	HD-CW-23-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101817D.D				
Lims ID:	180-71131-A-2				
Client ID:	HD-CW-23-0/1-0				
Sample Type:	Client				
Inject. Date:	18-Oct-2017 06:57:30	ALS Bottle#:	26	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Sample Info:	180-0018914-017				
Misc. Info.:	180-71131-A-2				
Operator ID:	034635	Instrument ID:	CHHP6		
Method:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\MSVOA_LL_CHHP6.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	18-Oct-2017 20:30:42	Calib Date:	28-Sep-2017 15:13:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK031				

First Level Reviewer: bungardf Date: 18-Oct-2017 20:24:26

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	46.7	93.38
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	47.1	94.11
$ 7 Toluene-d8 (Surr)	50.0	44.6	89.11
$ 8 4-Bromofluorobenzene (Surr)	50.0	45.6	91.28

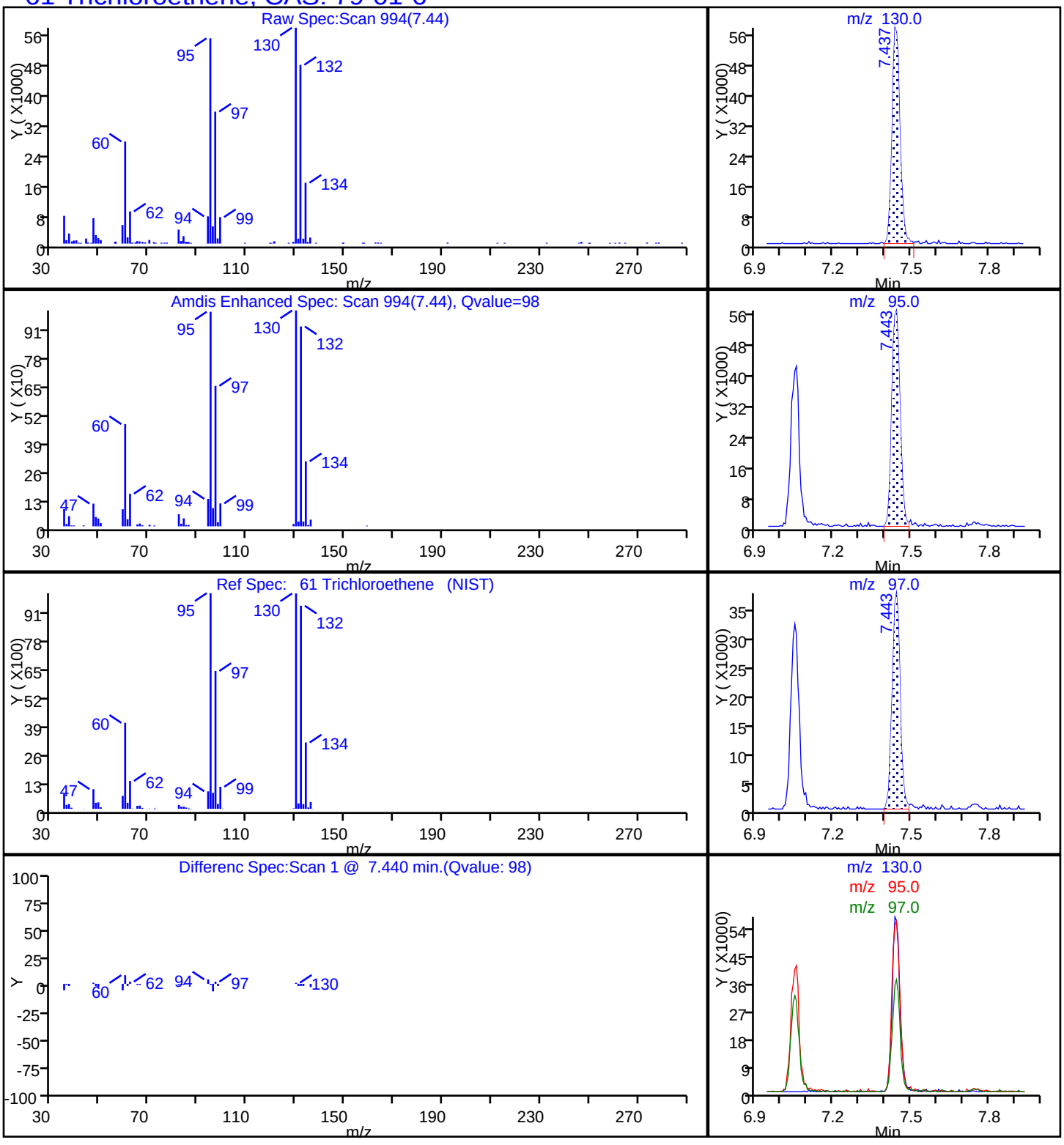
Report Date: 18-Oct-2017 20:31:29 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101817D.D

Injection Date:	18-Oct-2017 06:57:30	Instrument ID:	CHHP6		
Lims ID:	180-71131-A-2	Lab Sample ID:	180-71131-2		
Client ID:	HD-CW-23-0/1-0				
Operator ID:	034635	ALS Bottle#:	26	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



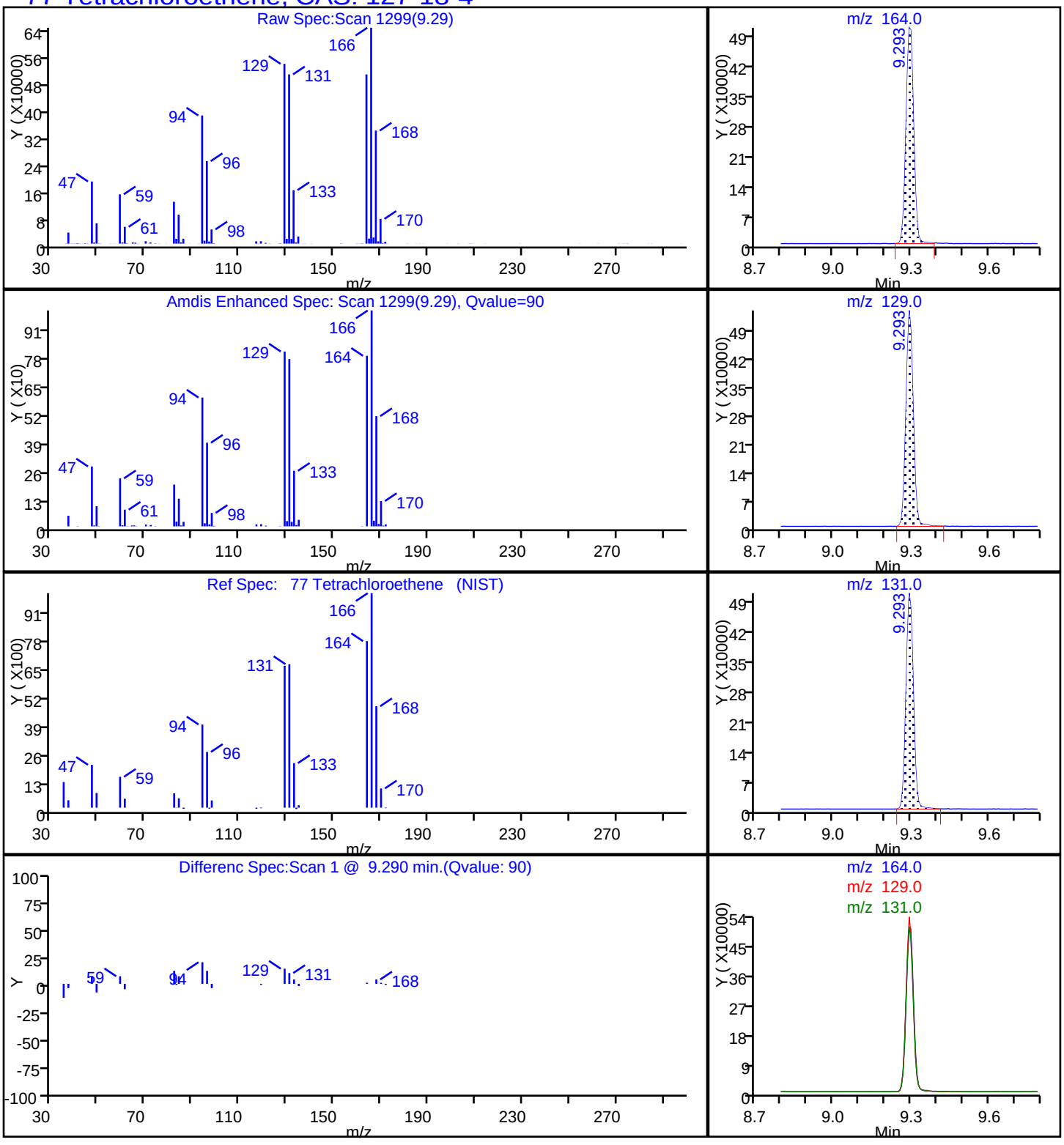
Report Date: 18-Oct-2017 20:31:30 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101817D.D

Injection Date:	18-Oct-2017 06:57:30	Instrument ID:	CHHP6		
Lims ID:	180-71131-A-2	Lab Sample ID:	180-71131-2		
Client ID:	HD-CW-23-0/1-0				
Operator ID:	034635	ALS Bottle#:	26	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



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71131-1

SDG No.:

Client Sample ID: HD-QC6-0/1-2 | Lab Sample ID: 180-71131-3

Matrix: Water | Lab File ID: 6101819D.D

Analysis Method: 8260C | Date Collected: 10/05/2017 12:00

Sample wt/vol: 5(mL) | Date Analyzed: 10/18/2017 07:45

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.: 226148 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71131-1

SDG No.:

Client Sample ID: HD-QC6-0/1-2 | Lab Sample ID: 180-71131-3

Matrix: Water | Lab File ID: 6101819D.D

Analysis Method: 8260C | Date Collected: 10/05/2017 12:00

Sample wt/vol: 5(mL) | Date Analyzed: 10/18/2017 07:45

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.: 226148 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		65-121
2037-26-5	Toluene-d8 (Surr)	87		73-120
460-00-4	4-Bromofluorobenzene (Surr)	89		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101819D.D
Lims ID: 180-71131-B-3
Client ID: HD-QC6-0/1-2
Sample Type: Client
Inject. Date: 18-Oct-2017 07:45:30 ALS Bottle#: 28 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018914-019
Misc. Info.: 180-71131-B-3
Operator ID: 034635 Instrument ID: CHHP6

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 18-Oct-2017 20:30:42 Calib Date: 28-Sep-2017 15:13:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: bungardf Date: 18-Oct-2017 20:25:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	3.955	3.949	0.006	89	274765	1000.0	
* 2 Fluorobenzene (IS)	96	7.045	7.045	0.000	98	988524	50.0	
* 3 Chlorobenzene-d5	119	10.166	10.166	0.000	88	275892	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.508	12.508	0.000	97	388863	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.315	6.314	0.001	92	244625	47.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.687	6.685	0.002	70	347543	47.3	
$ 7 Toluene-d8 (Surr)	98	8.712	8.711	0.001	93	966982	43.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.353	11.351	0.002	81	425709	44.7	
12 Chloromethane	50		1.624				ND	
13 Vinyl chloride	62		1.740				ND	
15 Bromomethane	94		2.068				ND	
16 Chloroethane	64		2.202				ND	
22 1,1-Dichloroethene	96		3.090				ND	
24 Acetone	43	3.176	3.181	-0.005	92	18530	8.74	
26 Carbon disulfide	76		3.364				ND	
31 Methylene Chloride	84	3.839	3.838	0.001	81	34183	5.02	
33 Acrylonitrile	53		4.222				ND	
34 trans-1,2-Dichloroethene	96		4.270				ND	
35 Methyl tert-butyl ether	73		4.276				ND	
37 1,1-Dichloroethane	63		4.921				ND	
43 cis-1,2-Dichloroethene	96		5.688				ND	
44 2-Butanone (MEK)	43		5.694				ND	
48 Chlorobromomethane	128		5.974				ND	
50 Chloroform	83		6.126				ND	
51 1,1,1-Trichloroethane	97		6.290				ND	
53 Carbon tetrachloride	117		6.454				ND	
56 Benzene	78		6.691				ND	
57 1,2-Dichloroethane	62		6.777				ND	
61 Trichloroethene	130		7.440				ND	
64 1,2-Dichloropropane	63		7.713				ND	
65 1,4-Dioxane	88		7.793				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		7.999				ND	
71 cis-1,3-Dichloropropene	75		8.450				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.608				ND	
73 Toluene	91		8.778				ND	
74 trans-1,3-Dichloropropene	75		9.034				ND	
76 1,1,2-Trichloroethane	97		9.222				ND	
77 Tetrachloroethene	164		9.295				ND	
79 2-Hexanone	43		9.447				ND	
81 Chlorodibromomethane	129		9.593				ND	
82 Ethylene Dibromide	107		9.709				ND	
84 Chlorobenzene	112		10.196				ND	
86 1,1,1,2-Tetrachloroethane	131		10.293				ND	
87 Ethylbenzene	106		10.299				ND	
88 m-Xylene & p-Xylene	106		10.433				ND	
89 o-Xylene	106		10.816				ND	
90 Styrene	104		10.834				ND	
91 Bromoform	173		11.011				ND	
96 1,1,2,2-Tetrachloroethane	83		11.497				ND	
S 131 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00074	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00073	Amount Added:	2.00	Units: uL	Run Reagent

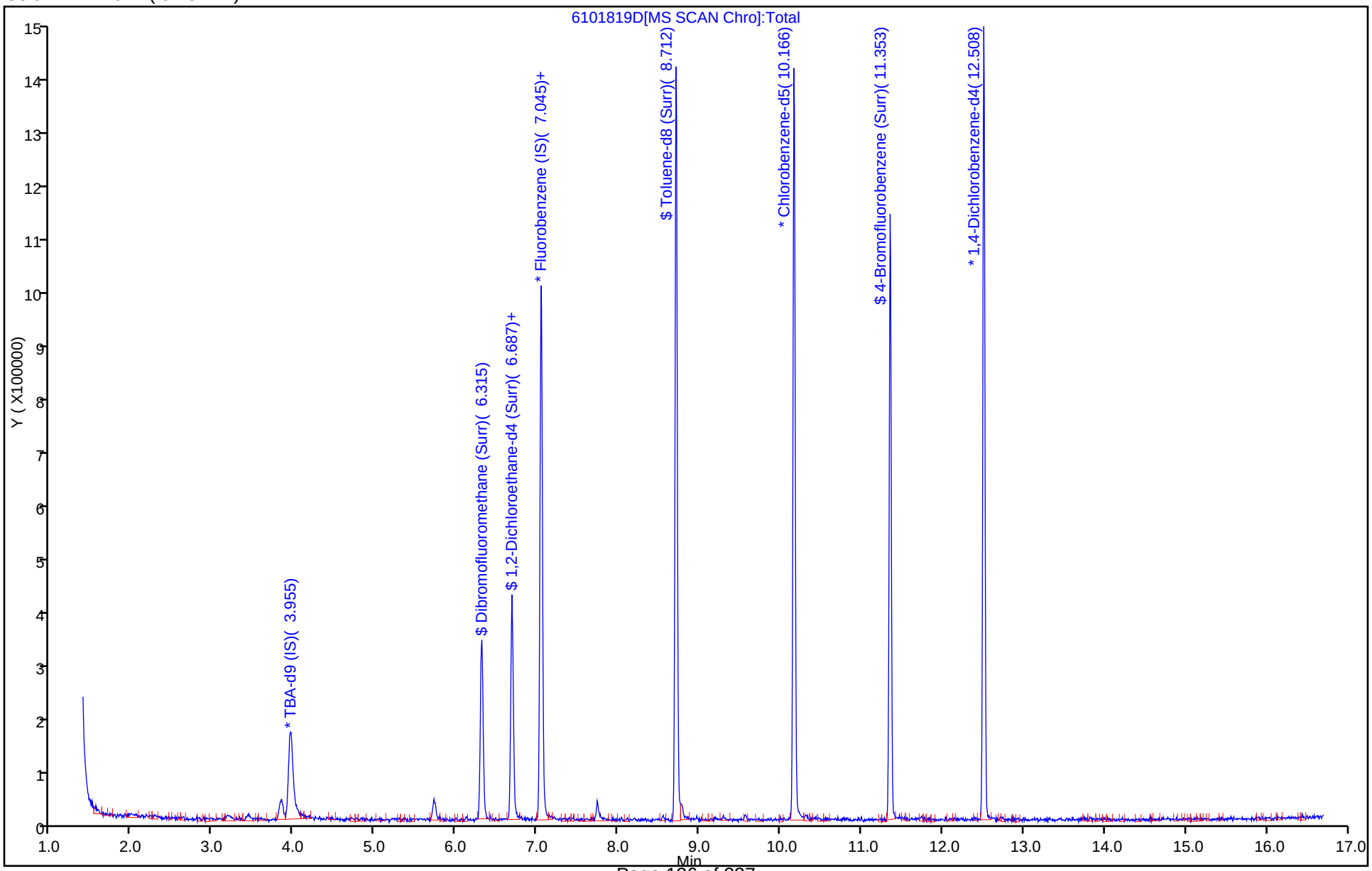
Report Date: 18-Oct-2017 20:31:31 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101819D.D

Injection Date:	18-Oct-2017 07:45:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	180-71131-B-3	Lab Sample ID:	180-71131-3	Worklist Smp#:	19
Client ID:	HD-QC6-0/1-2				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	28
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101819D.D
Lims ID: 180-71131-B-3
Client ID: HD-QC6-0/1-2
Sample Type: Client
Inject. Date: 18-Oct-2017 07:45:30 ALS Bottle#: 28 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018914-019
Misc. Info.: 180-71131-B-3
Operator ID: 034635 Instrument ID: CHHP6

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 18-Oct-2017 20:30:42 Calib Date: 28-Sep-2017 15:13:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: bungardf Date: 18-Oct-2017 20:25:23

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	47.6	95.24
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	47.3	94.68
$ 7 Toluene-d8 (Surr)	50.0	43.3	86.63
$ 8 4-Bromofluorobenzene (Surr)	50.0	44.7	89.38

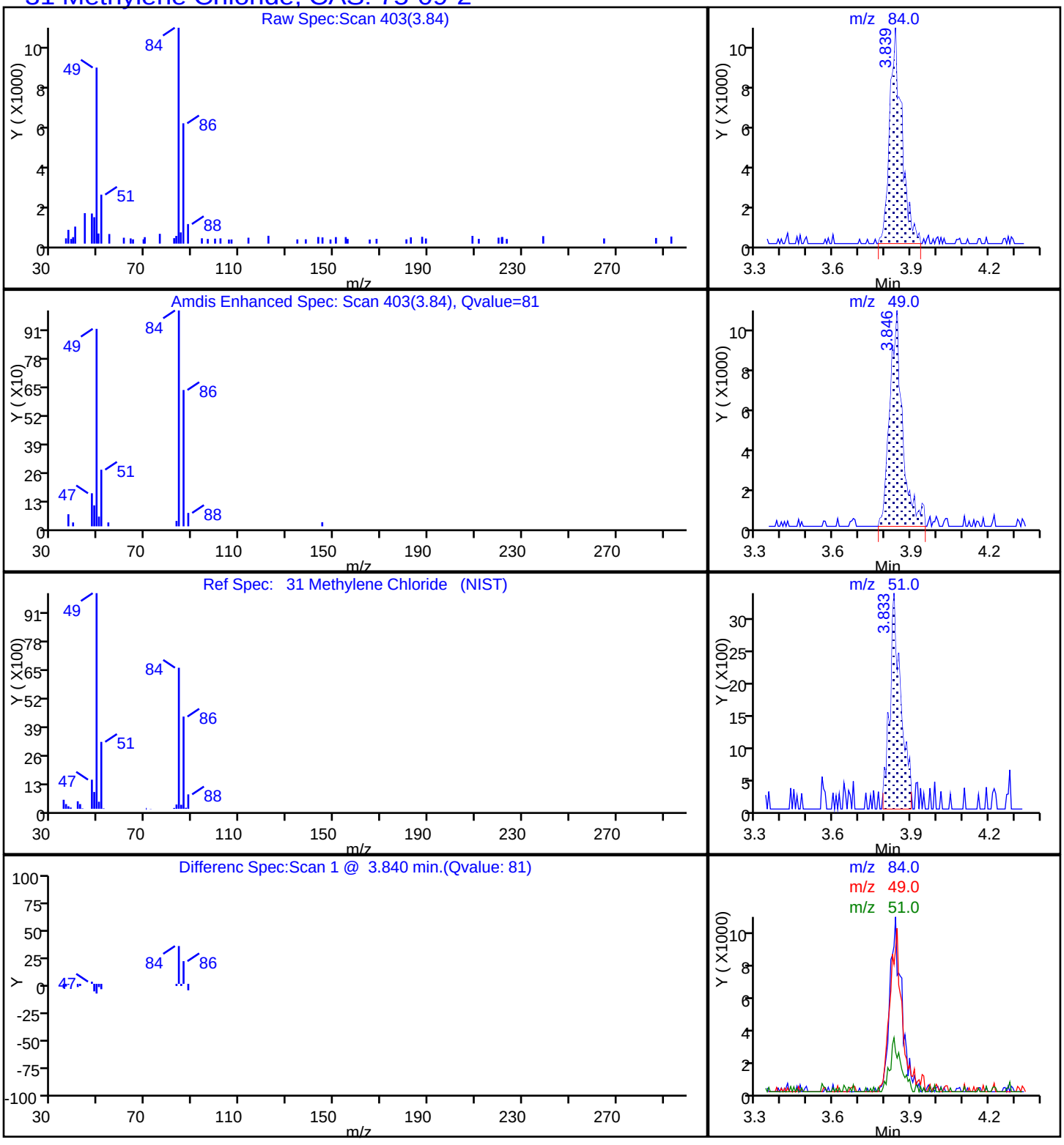
Report Date: 18-Oct-2017 20:31:31 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101819D.D

Injection Date:	18-Oct-2017 07:45:30	Instrument ID:	CHHP6		
Lims ID:	180-71131-B-3	Lab Sample ID:	180-71131-3		
Client ID:	HD-QC6-0/1-2				
Operator ID:	034635	ALS Bottle#:	28	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		

31 Methylene Chloride, CAS: 75-09-2



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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1 Analy Batch No.: 217861

SDG No.:

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

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

Calibration Files:

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

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

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1 Analy Batch No.: 217861

SDG No.:

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

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

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Allyl chloride	0.1400 0.1667	0.1427 0.1552	0.1408 0.1669	0.1545	0.1506	Ave		0.1522			0.0100	7.1		20.0			
Methyl acetate	0.2511 0.2511	0.2629 0.2169	0.2237 0.2238	0.2281	0.2235	Ave		0.2351			0.1000	7.3		20.0			
Methylene Chloride	0.4304 0.3426	0.3720 0.3106	0.3253 0.3196	0.3333	0.3214	Ave		0.3444			0.1000	11.5		20.0			
tert-Butyl alcohol	1.1832 1.1169	1.0643 1.1780	1.0783 1.0503	1.0936	1.0903	Ave		1.1069			0.0100	4.5		20.0			
Acrylonitrile	0.1433 0.1282	0.1504 0.1099	0.1193 0.1099	0.1260	0.1177	Ave		0.1256			0.0100	11.8		20.0			
trans-1,2-Dichloroethene	0.3079 0.2977	0.3084 0.2782	0.2862 0.2973	0.2967	0.2863	Ave		0.2948			0.1000	3.6		20.0			
Methyl tert-butyl ether	0.9852 0.9798	1.0649 0.8774	0.9152 0.8866	0.9403	0.8941	Ave		0.9429			0.1000	6.8		20.0			
Hexane	0.3830 0.3427	0.3628 0.3171	0.3558 0.3531	0.3486	0.3306	Ave		0.3492			0.0100	5.7		20.0			
1,1-Dichloroethane	0.3424 0.5206	0.5334 0.4688	0.4893 0.4858	0.5109	0.4862	Ave		0.4797			0.2000	12.4		20.0			
Vinyl acetate	0.5164 0.5873	0.6180 0.5638	0.5095 0.5801	0.5598	0.5341	Ave		0.5586			0.0100	6.6		20.0			
2,2-Dichloropropane	0.0453 0.0537	0.0486 0.0484	0.0465 0.0533	0.0511	0.0505	Ave		0.0497			0.0100	6.1		20.0			
cis-1,2-Dichloroethene	0.3357 0.3634	0.3627 0.3286	0.3396 0.3403	0.3473	0.3378	Ave		0.3444			0.1000	3.7		20.0			
2-Butanone (MEK)	0.1549 0.1656	0.1778 0.1399	0.1558 0.1417	0.1537	0.1408	Ave		0.1538			0.0500	8.6		20.0			
Bromochloromethane	0.1516 0.1607	0.1622 0.1458	0.1383 0.1496	0.1503	0.1438	Ave		0.1503			0.0100	5.4		20.0			
Tetrahydrofuran	0.1403 0.1029	0.1208 0.0905	0.0949 0.0946	0.0965	0.0924	Ave		0.1041			0.0100	16.8		20.0			
Chloroform	0.5046 0.5414	0.5408 0.4888	0.5225 0.5010	0.5258	0.5131	Ave		0.5173			0.2000	3.6		20.0			
1,1,1-Trichloroethane	0.3059 0.3476	0.3251 0.3197	0.3211 0.3440	0.3302	0.3364	Ave		0.3287			0.1000	4.2		20.0			
Cyclohexane	0.5176 0.4515	0.4846 0.4234	0.4744 0.4585	0.4759	0.4508	Ave		0.4671			0.1000	6.0		20.0			
Carbon tetrachloride	0.1966 0.2579	0.2202 0.2439	0.2226 0.2730	0.2389	0.2388	Ave		0.2365			0.1000	10.0		20.0			
1,1-Dichloropropene	0.3981 0.4024	0.4008 0.3732	0.3987 0.3992	0.4036	0.3921	Ave		0.3960			0.0100	2.5		20.0			

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1 Analy Batch No.: 217861

SDG No.:

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

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

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

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1 Analy Batch No.: 217861

SDG No.:

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

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

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

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1 Analy Batch No.: 217861

SDG No.:

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

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

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

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1 Analy Batch No.: 217861

SDG No.:

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

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

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

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1 Analy Batch No.: 217861

SDG No.:

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

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

Calibration Files:

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

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1 Analy Batch No.: 217861

SDG No.:

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

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

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Methyl acetate	FB	Ave	40003 1378375	185280 1509491	382502 1923255	572896	775230	10.0 350	50.0 400	100 500	150	200
Methylene Chloride	FB	Ave	34286 940505	131057 1081026	278118 1372983	418660	557470	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butyl alcohol	TBAd9	Ave	20227 572173	71644 544523	151604 673044	251071	297303	50.0 1750	250 2000	500 2500	750	1000
Acrylonitrile	FB	Ave	114140 3519987	530059 3825550	1020211 4723140	1582844	2040960	50.0 1750	250 2000	500 2500	750	1000
trans-1,2-Dichloroethene	FB	Ave	24529 817284	108647 968185	244707 1277192	372663	496677	5.00 175	25.0 200	50.0 250	75.0	100
Methyl tert-butyl ether	FB	Ave	78478 2689634	375187 3053893	782498 3809189	1181045	1550808	5.00 175	25.0 200	50.0 250	75.0	100
Hexane	FB	Ave	30509 940765	127818 1103506	304164 1517069	437873	573395	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethane	FB	Ave	27271 1429058	187923 1631648	418314 2087088	641771	843415	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl acetate	FB	Ave	41136 1612184	217747 1962237	435645 2492452	703120	926426	5.00 175	25.0 200	50.0 250	75.0	100
2,2-Dichloropropane	FB	Ave	3609 147487	17106 168555	39797 228817	64241	87515	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,2-Dichloroethene	FB	Ave	26745 997518	127777 1143732	290355 1462208	436220	585924	5.00 175	25.0 200	50.0 250	75.0	100
2-Butanone (MEK)	FB	Ave	61711 909301	125277 973759	266460 1217733	385993	488342	25.0 350	50.0 400	100 500	150	200
Bromochloromethane	FB	Ave	12079 441109	57129 507483	118276 642539	188762	249508	5.00 175	25.0 200	50.0 250	75.0	100
Tetrahydrofuran	FB	Ave	22350 565011	85090 629732	162324 812537	242295	320475	10.0 350	50.0 400	100 500	150	200
Chloroform	FB	Ave	40199 1486297	190538 1701079	446745 2152497	660420	889966	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1-Trichloroethane	FB	Ave	24367 954279	114539 1112586	274535 1477890	414781	583435	5.00 175	25.0 200	50.0 250	75.0	100
Cyclohexane	FB	Ave	41233 1239342	170750 1473582	405642 1969875	597815	781868	5.00 175	25.0 200	50.0 250	75.0	100
Carbon tetrachloride	FB	Ave	15662 707925	77574 848801	190304 1172757	300016	414150	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloropropene	FB	Ave	31712 1104618	141227 1298950	340889 1715254	506906	680030	5.00 175	25.0 200	50.0 250	75.0	100
Benzene	FB	Ave	100837 3132477	461882 3551507	992835 4371437	1504594	1915947	5.00 175	25.0 200	50.0 250	75.0	100
Isobutyl alcohol	FB	Ave	13528 537905	64845 631529	132080 789622	208868	262400	125 4375	625 5000	1250 6250	1875	2500

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1 Analy Batch No.: 217861

SDG No.:

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

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

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1 Analy Batch No.: 217861

SDG No.:

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

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

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1 Analy Batch No.: 217861

SDG No.:

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

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

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1 Analy Batch No.: 217861

SDG No.:

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

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

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

Curve Type Legend:

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1 Analy Batch No.: 217861

SDG No.:

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

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

Calibration Files:

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

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1 Analy Batch No.: 217861

SDG No.:

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

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

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1 Analy Batch No.: 217861

SDG No.:

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

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

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1 Analy Batch No.: 217861

SDG No.:

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

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

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1 Analy Batch No.: 217861

SDG No.:

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

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

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1 Analy Batch No.: 217861

SDG No.:

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

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

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

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D03.D
Lims ID: IC VSTD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 24-Jul-2017 06:39:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017705-003
Misc. Info.: IC VSTD1
Operator ID: 034635 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub10

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 25-Jul-2017 01:44:30 Calib Date: 24-Jul-2017 09:28:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK021

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

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

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

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

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

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

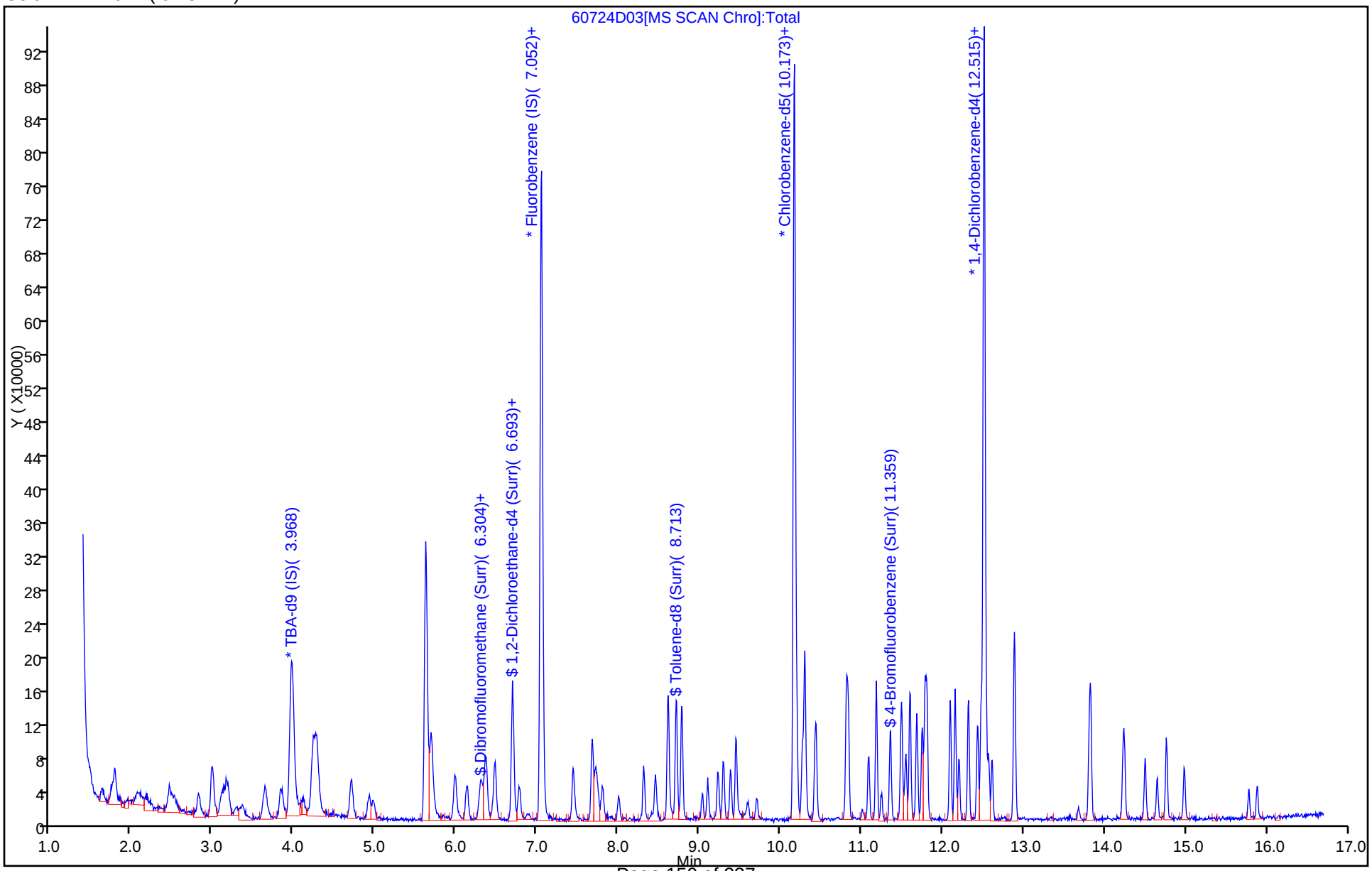
Report Date: 25-Jul-2017 01:44:31 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

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

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

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

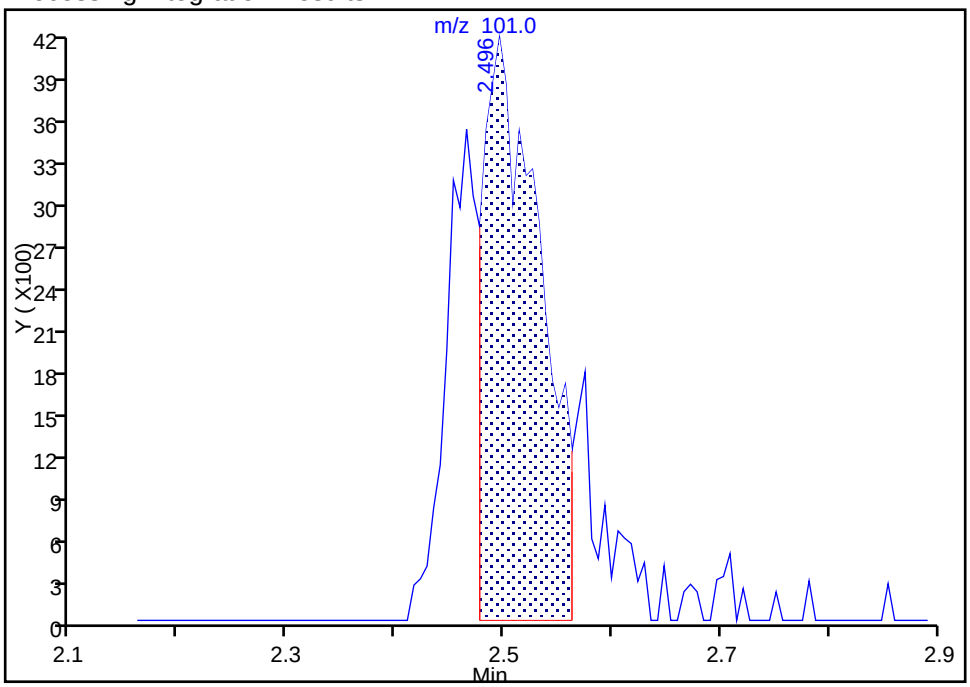
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D03.D
Injection Date: 24-Jul-2017 06:39:30 Instrument ID: CHHP6
Lims ID: IC VSTD1
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

18 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

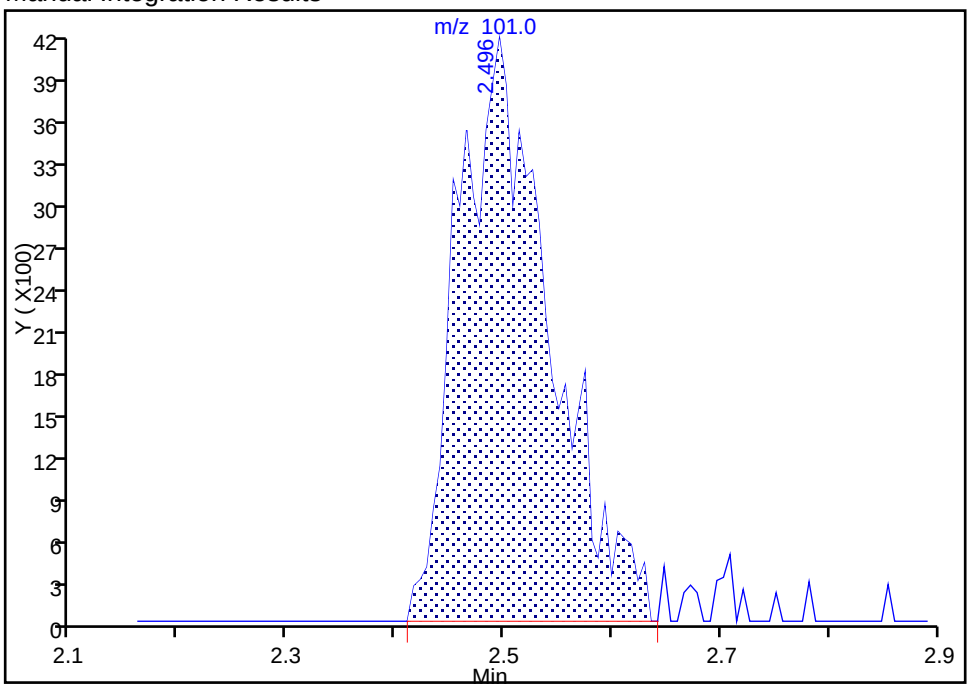
Processing Integration Results

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



Manual Integration Results

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



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

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D04.D
Lims ID: IC VSTD5
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 24-Jul-2017 07:03:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017705-004
Misc. Info.: IC VSTD5
Operator ID: 034635 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub10

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 25-Jul-2017 01:44:32 Calib Date: 24-Jul-2017 09:28:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK021

First Level Reviewer: bungardf Date: 24-Jul-2017 07:25:58

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

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

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

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

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

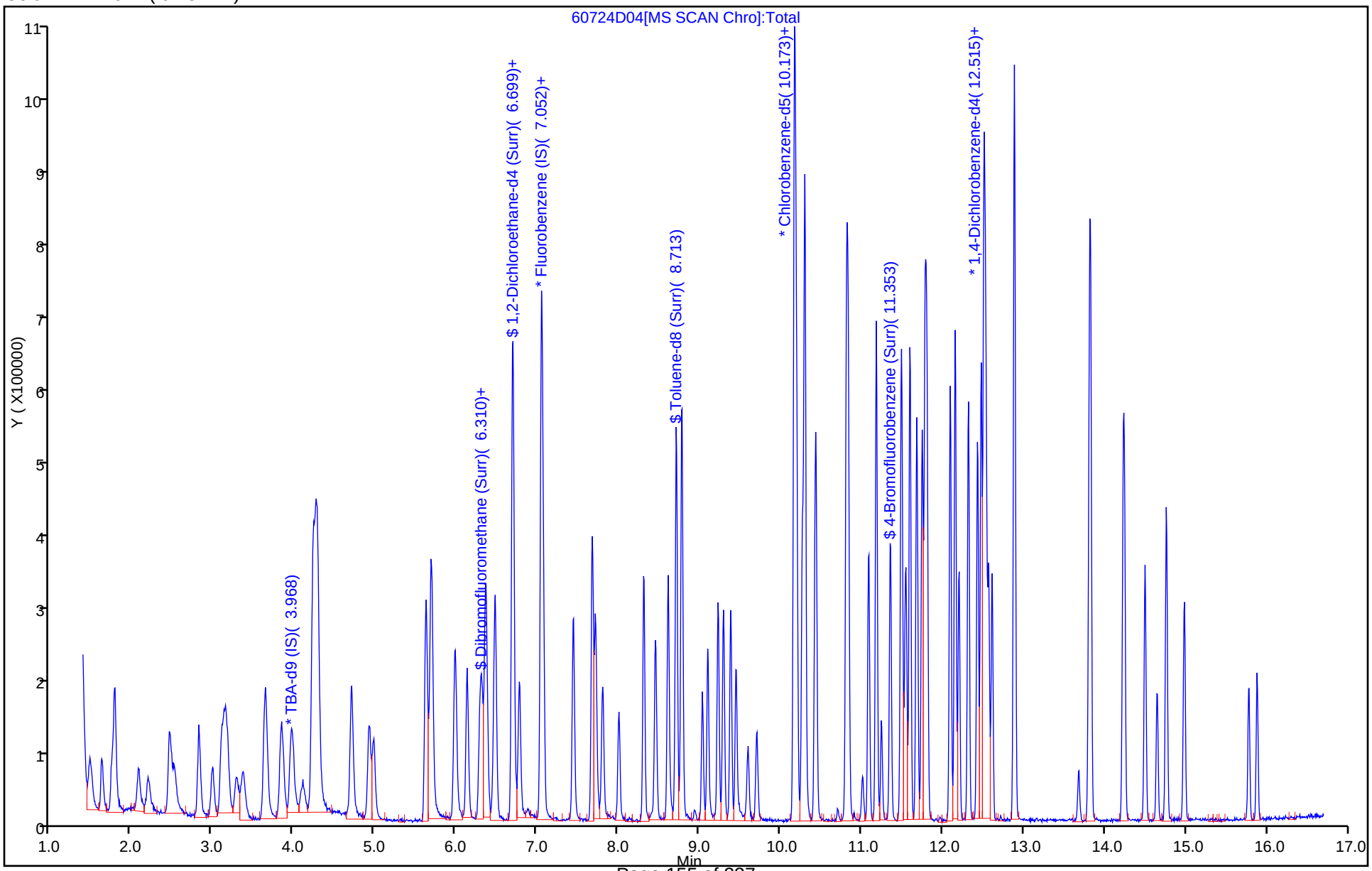
Report Date: 25-Jul-2017 01:44:33 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

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

Injection Date:	24-Jul-2017 07:03:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	IC VSTD5			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

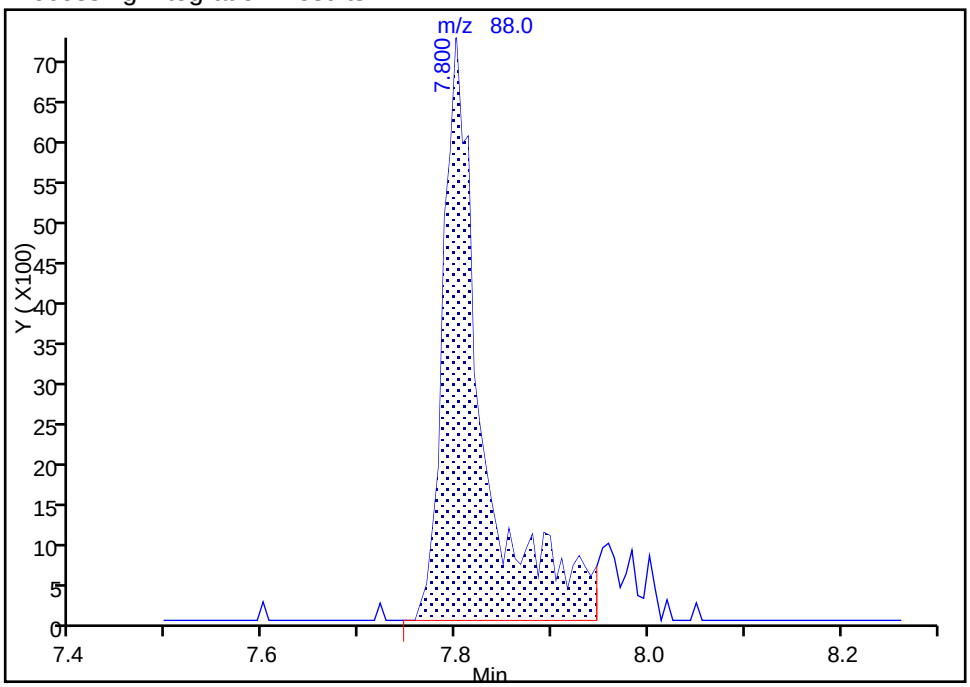
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D04.D				
Injection Date:	24-Jul-2017 07:03:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD5				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit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

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

Signal: 1

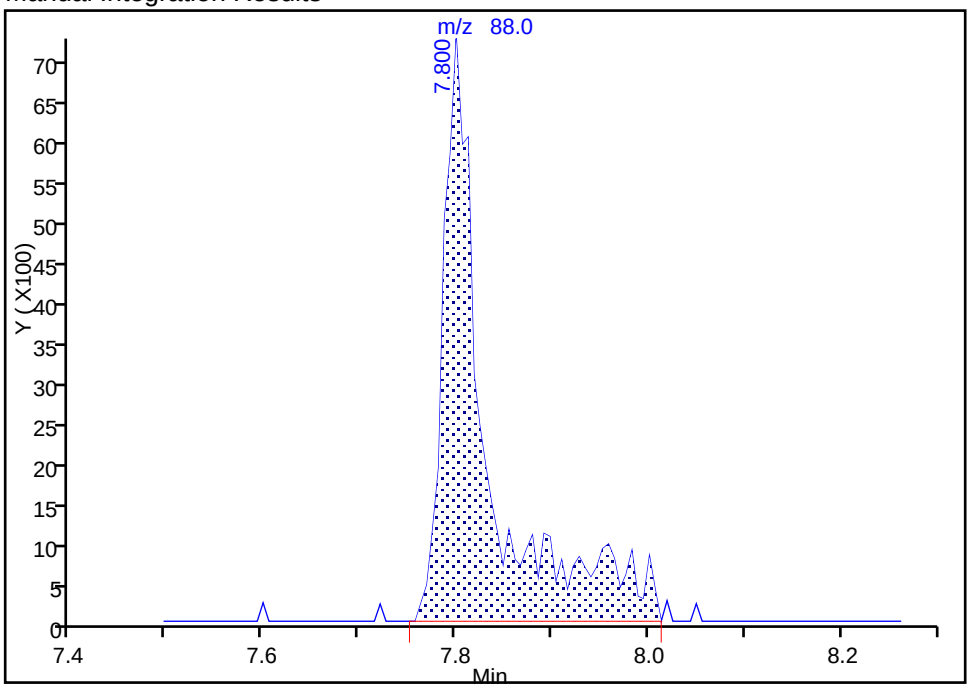
Processing Integration Results

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



Manual Integration Results

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



Reviewer: bungardf, 24-Jul-2017 07:27:10

Audit Action: Manually Integrated Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D05.D
Lims ID: ICIS VSTD10
Client ID:
Sample Type: ICIS Calib Level: 3
Inject. Date: 24-Jul-2017 07:27:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017705-005
Misc. Info.: ICIS VSTD10
Operator ID: 034635 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub10

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 25-Jul-2017 02:13:16 Calib Date: 24-Jul-2017 09:28:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK021

First Level Reviewer: bungardf Date: 25-Jul-2017 01:51:12

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

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

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

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

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

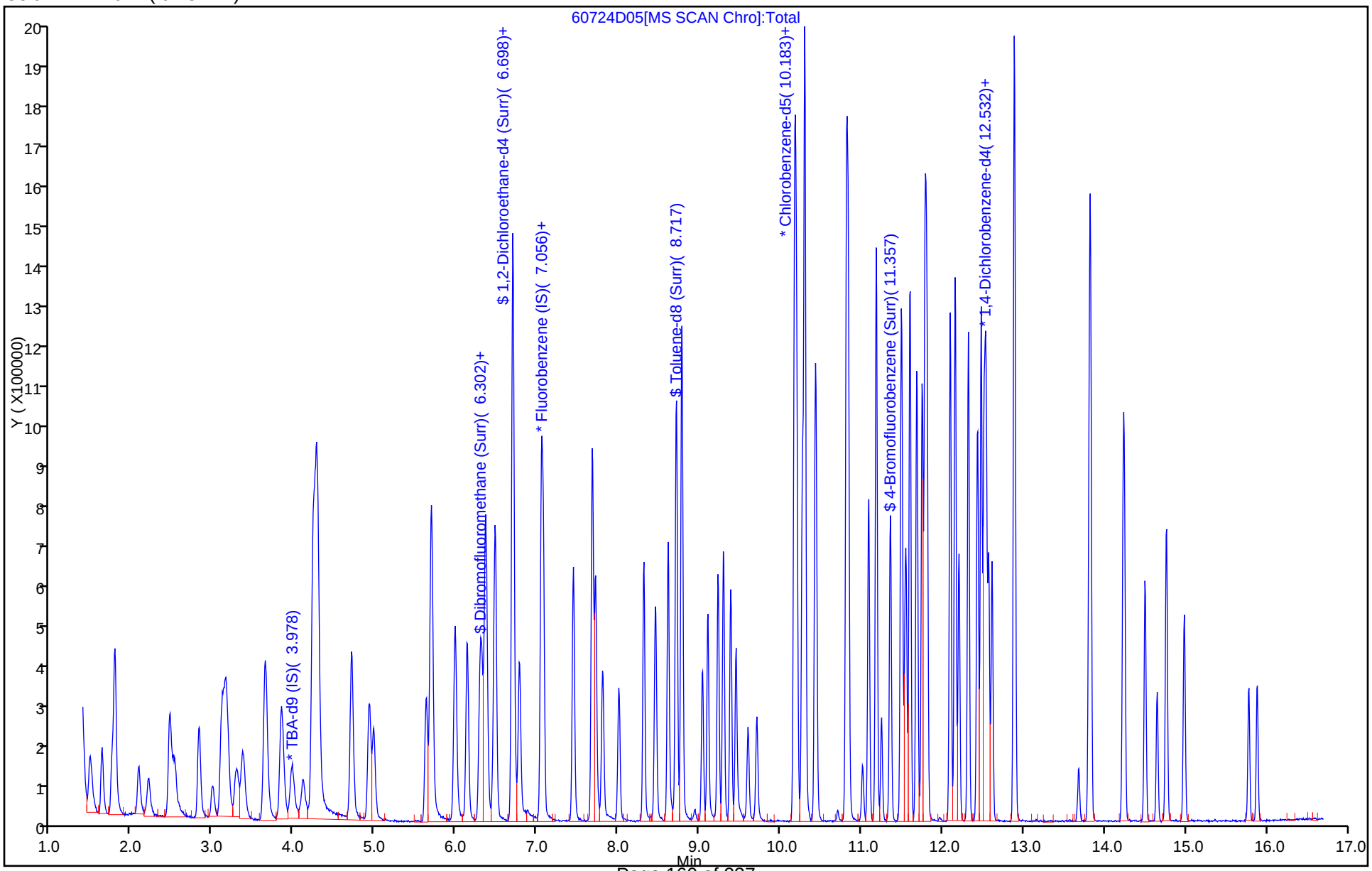
Report Date: 25-Jul-2017 02:13:18 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

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

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

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

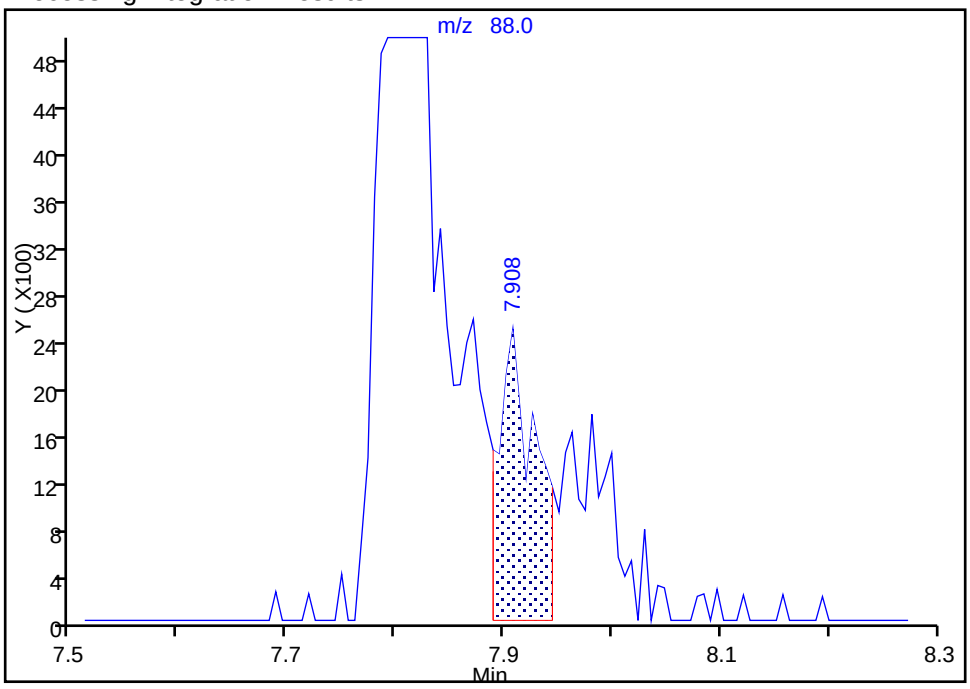
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D05.D
Injection Date: 24-Jul-2017 07:27:30 Instrument ID: CHHP6
Lims ID: ICIS VSTD10
Client ID:
Operator ID: 034635 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

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

Signal: 1

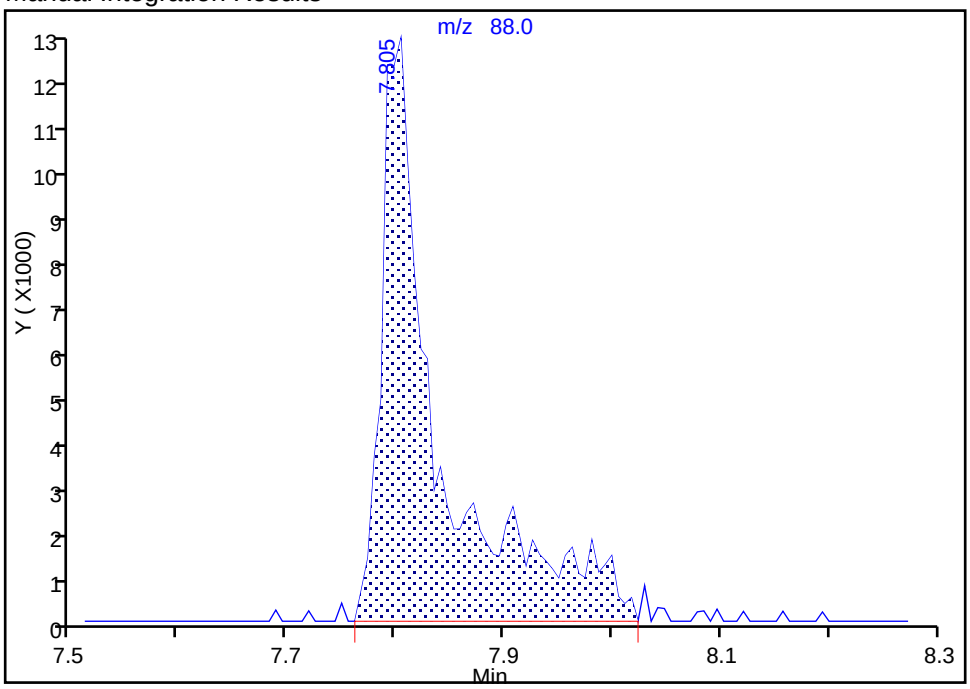
Processing Integration Results

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



Manual Integration Results

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



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

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D06.D
Lims ID: IC VSTD15
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 24-Jul-2017 07:52:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017705-006
Misc. Info.: IC VSTD15
Operator ID: 034635 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub10

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 25-Jul-2017 01:44:34 Calib Date: 24-Jul-2017 09:28:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK021

First Level Reviewer: bungardf Date: 24-Jul-2017 08:44:01

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

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

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

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

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

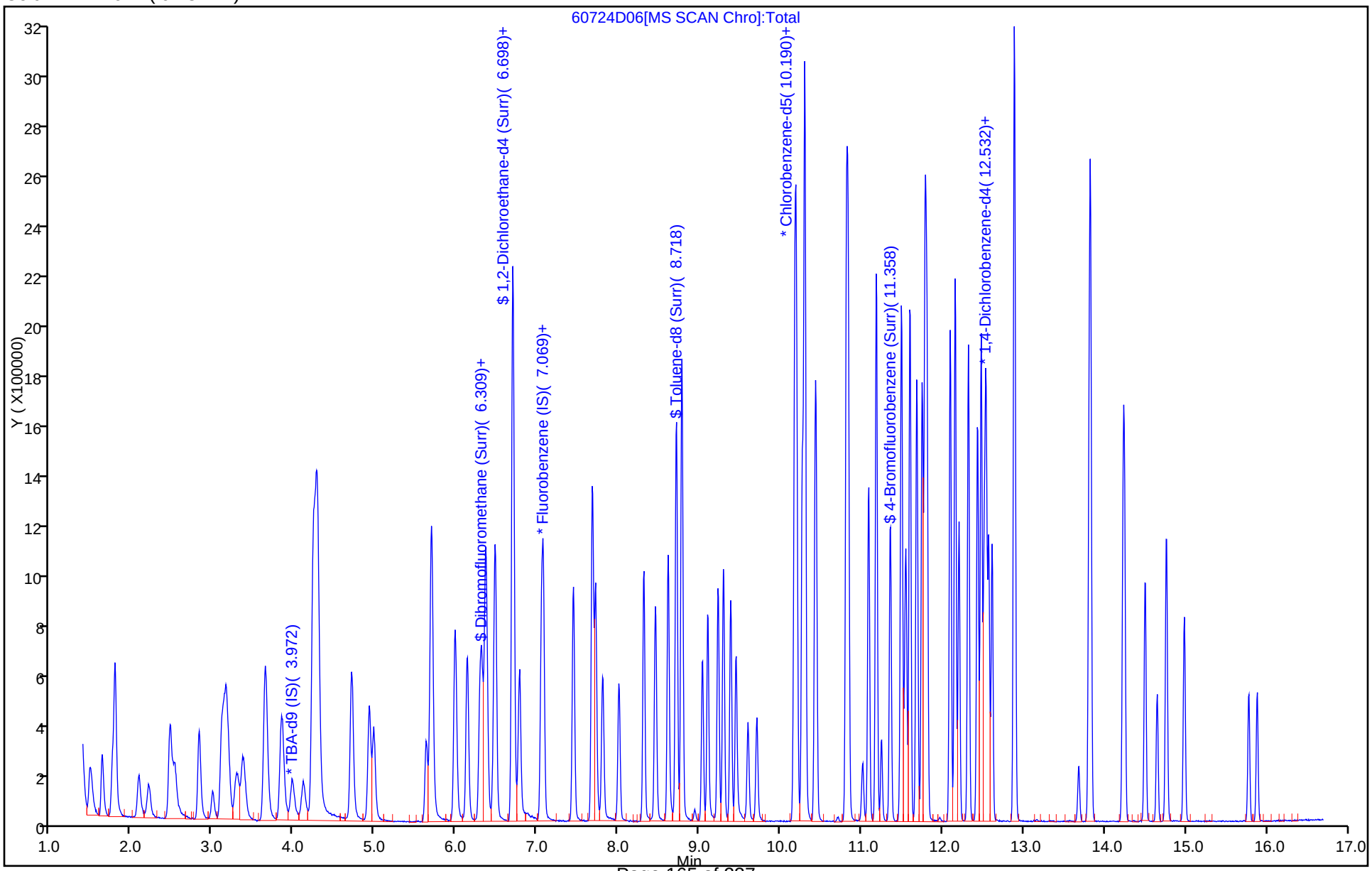
Report Date: 25-Jul-2017 01:44:35 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

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

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

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

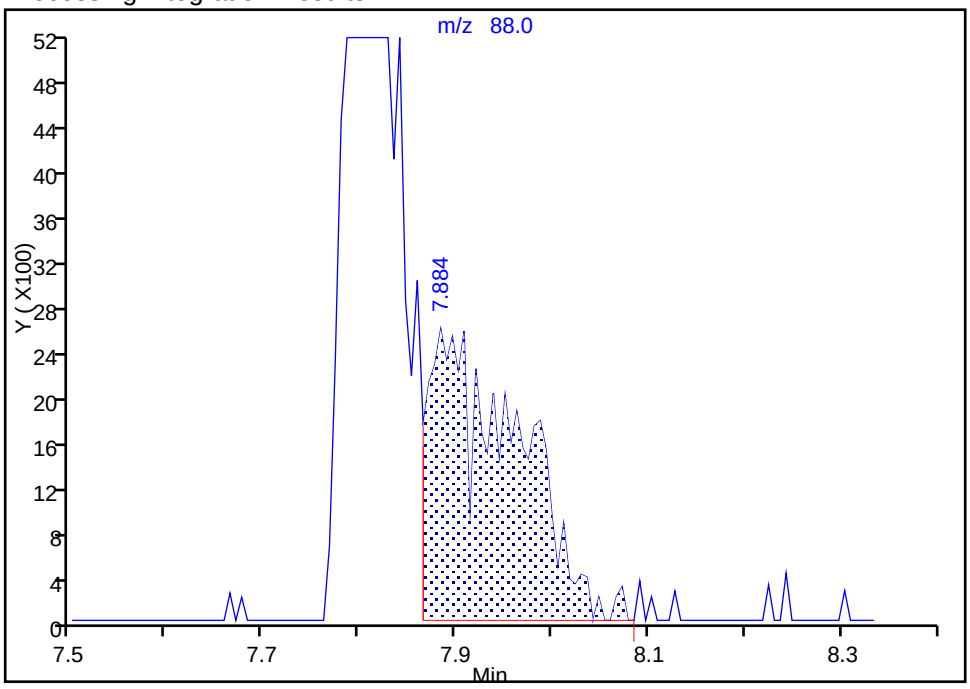
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D06.D				
Injection Date:	24-Jul-2017 07:52:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD15				
Client ID:					
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

Signal: 1

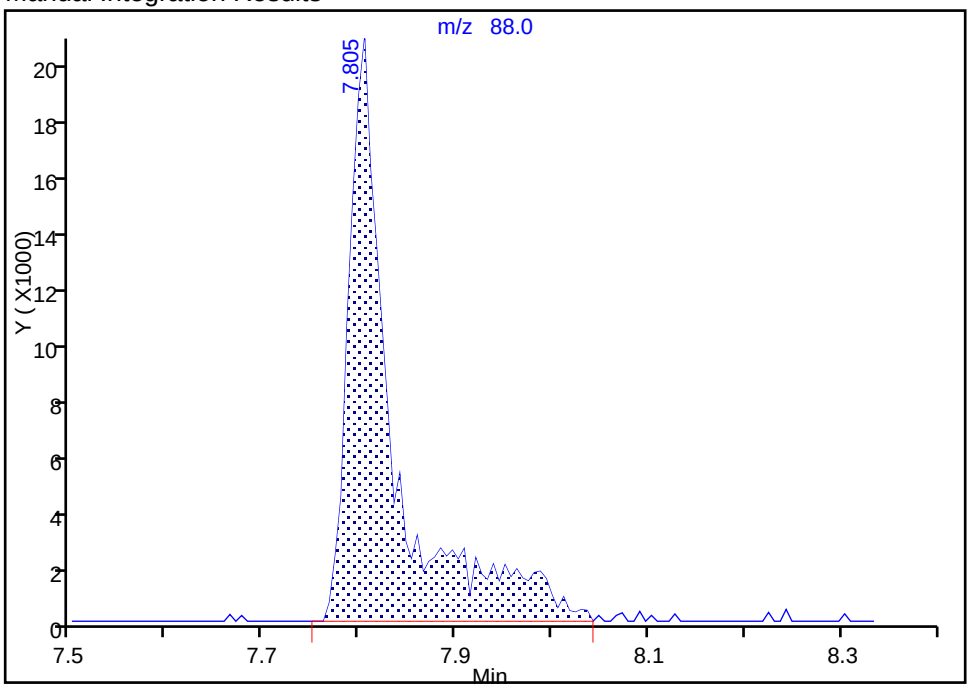
Processing Integration Results

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



Manual Integration Results

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



Reviewer: bungardf, 24-Jul-2017 08:11:32

Audit Action: Manually Integrated Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D07.D
Lims ID: IC VSTD20
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 24-Jul-2017 08:16:30 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017705-007
Misc. Info.: IC VSTD20
Operator ID: 034635 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub10

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 25-Jul-2017 01:44:36 Calib Date: 24-Jul-2017 09:28:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK021

First Level Reviewer: bungardf Date: 24-Jul-2017 08:52:45

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

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

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

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

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

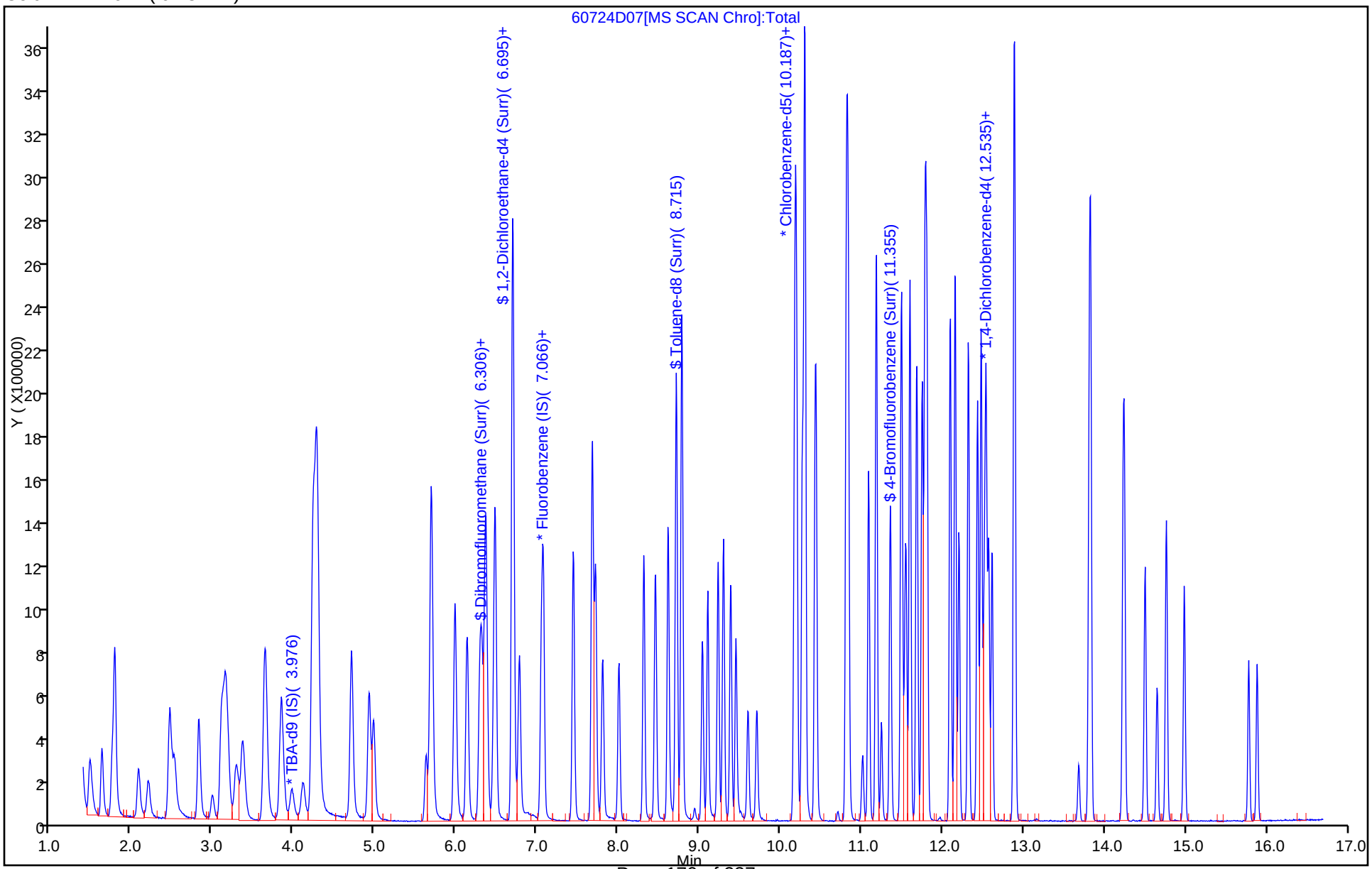
Report Date: 25-Jul-2017 01:44:38 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

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

Injection Date:	24-Jul-2017 08:16:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	IC VSTD20			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

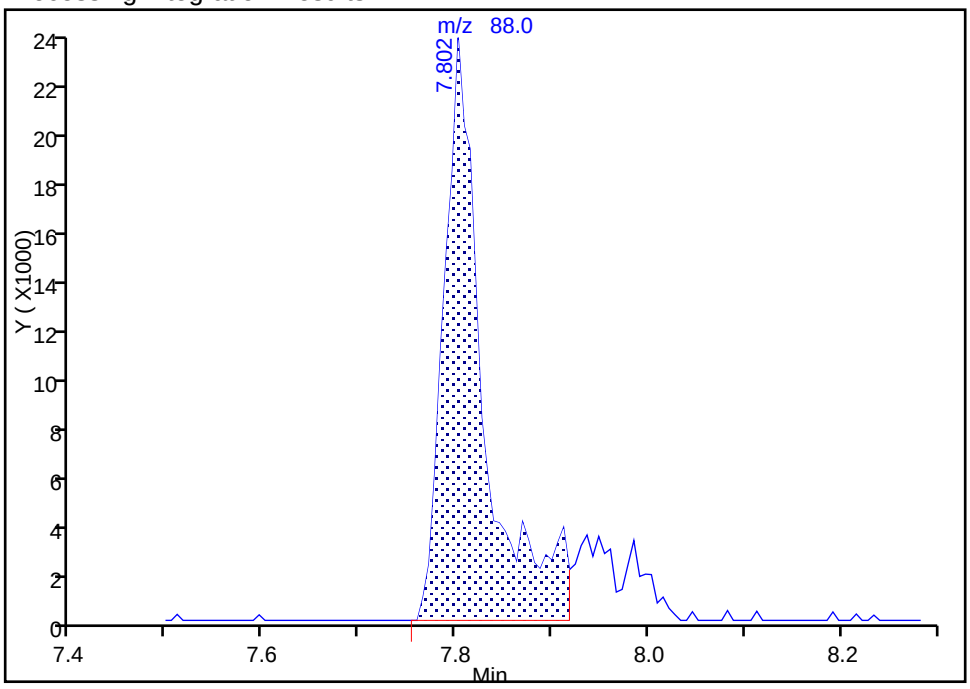
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D07.D				
Injection Date:	24-Jul-2017 08:16:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD20				
Client ID:					
Operator ID:	034635	ALS Bottle#:	7	Worklist Smp#:	7
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit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

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

Signal: 1

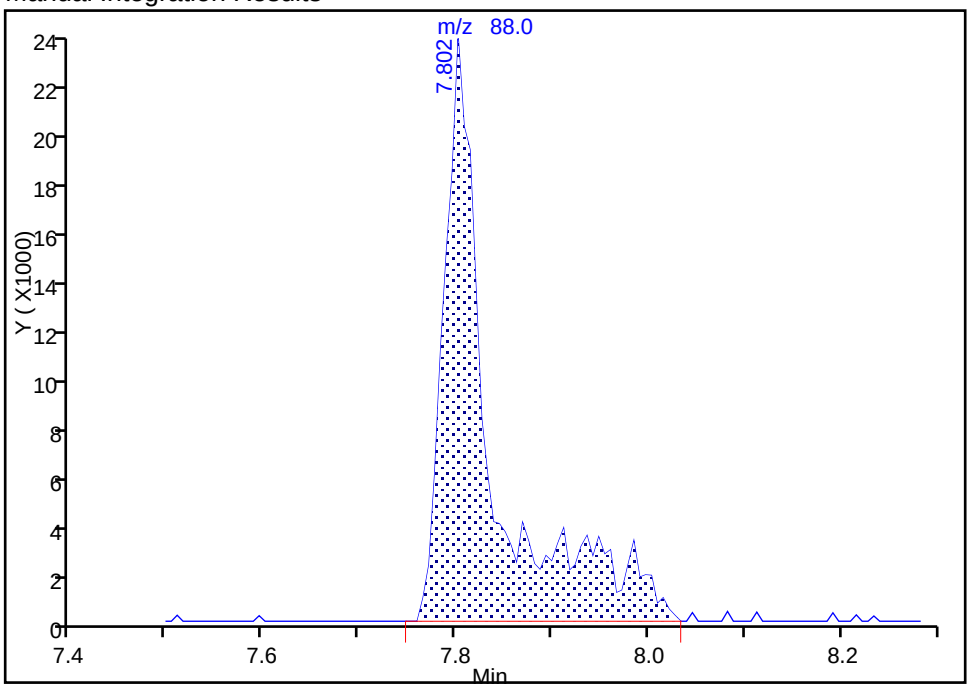
Processing Integration Results

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



Manual Integration Results

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



Reviewer: bungardf, 24-Jul-2017 08:44:40

Audit Action: Manually Integrated Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D08.D
Lims ID: IC VSTD35
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 24-Jul-2017 08:40:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017705-008
Misc. Info.: IC VSTD35
Operator ID: 034635 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub10

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 25-Jul-2017 01:44:38 Calib Date: 24-Jul-2017 09:28:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK021

First Level Reviewer: bungardf Date: 24-Jul-2017 09:10:27

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

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

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

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

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

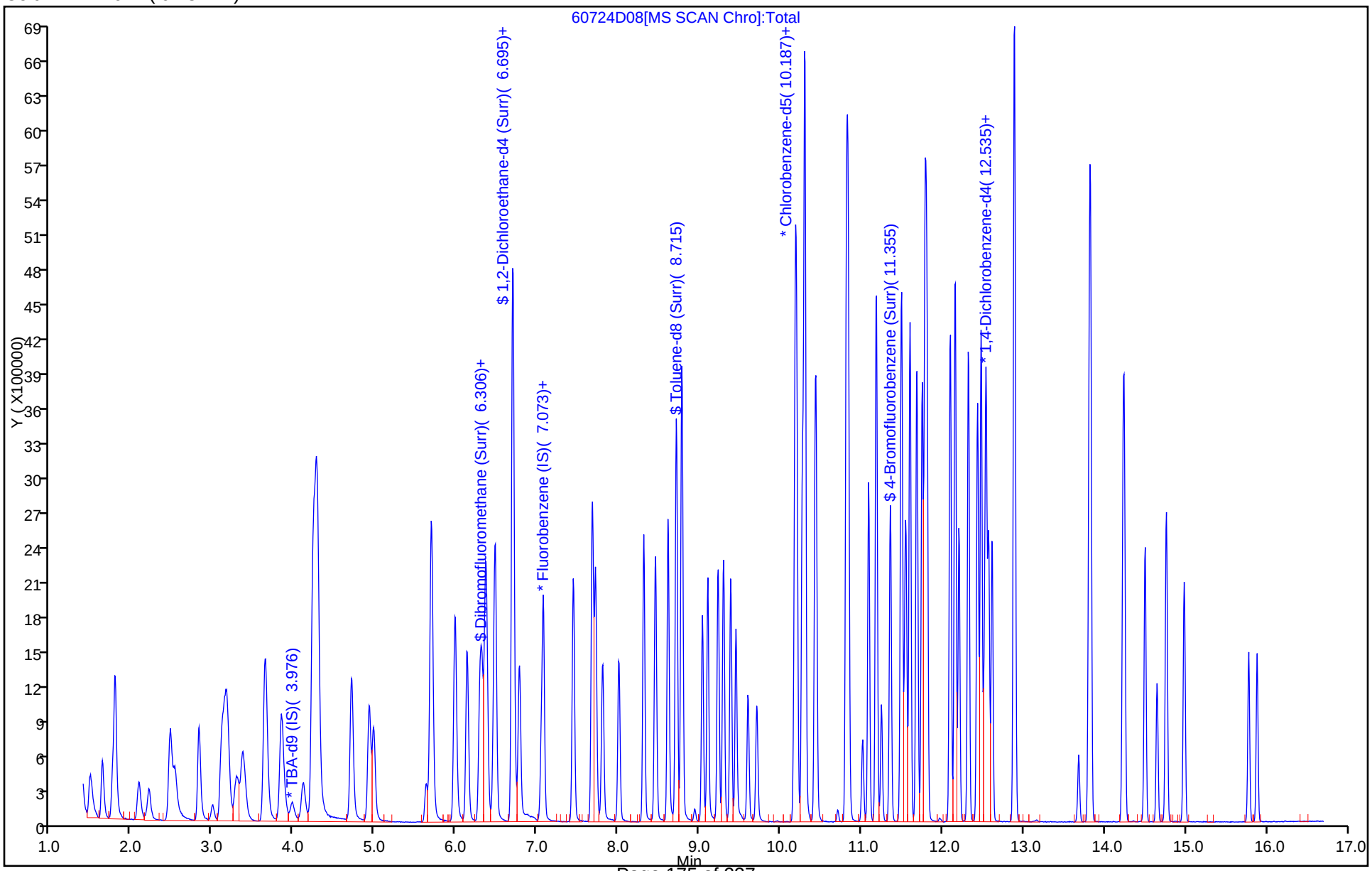
Report Date: 25-Jul-2017 01:44:40 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

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

Injection Date:	24-Jul-2017 08:40:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	IC VSTD35			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D09.D
Lims ID: IC VSTD40
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 24-Jul-2017 09:04:30 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017705-009
Misc. Info.: IC VSTD40
Operator ID: 034635 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub10

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 25-Jul-2017 01:44:40 Calib Date: 24-Jul-2017 09:28:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK021

First Level Reviewer: bungardf Date: 24-Jul-2017 09:37:55

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

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

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

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

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

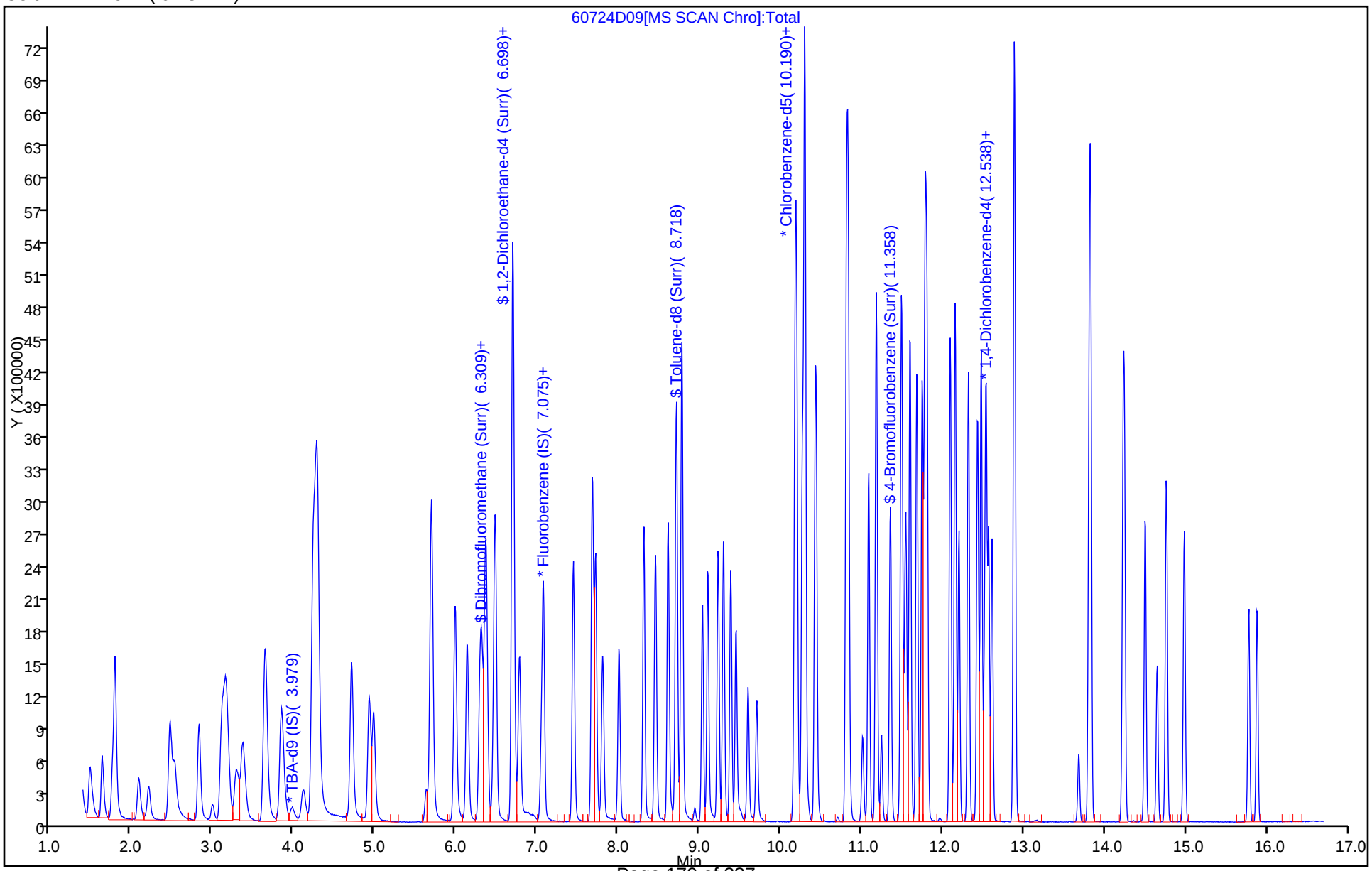
Report Date: 25-Jul-2017 01:44:42 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

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

Injection Date:	24-Jul-2017 09:04:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	IC VSTD40			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

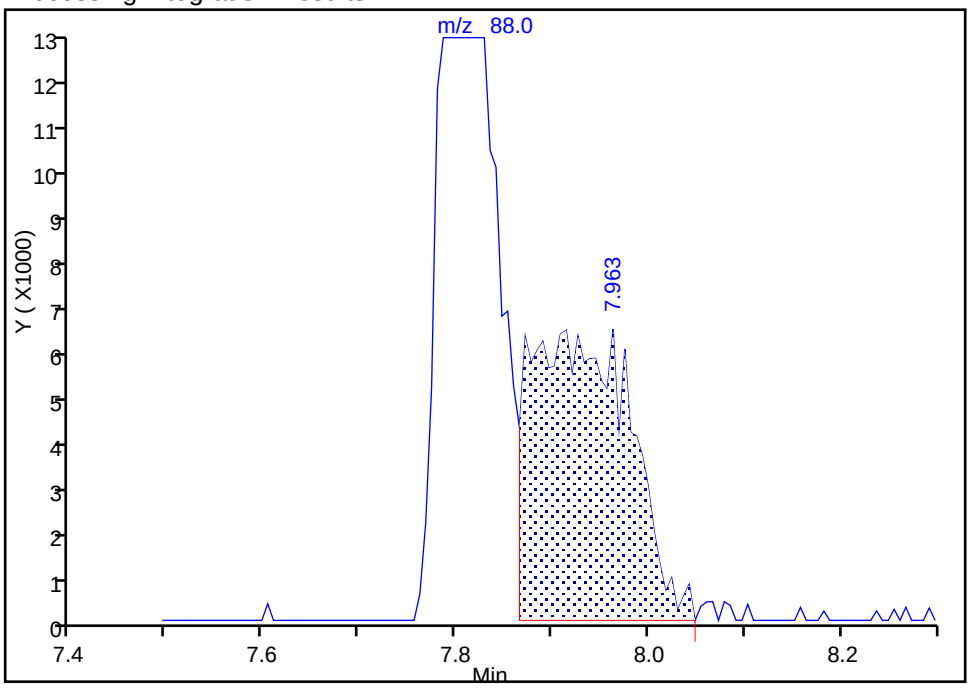
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D09.D
Injection Date: 24-Jul-2017 09:04:30 Instrument ID: CHHP6
Lims ID: IC VSTD40
Client ID:
Operator ID: 034635 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C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

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

Signal: 1

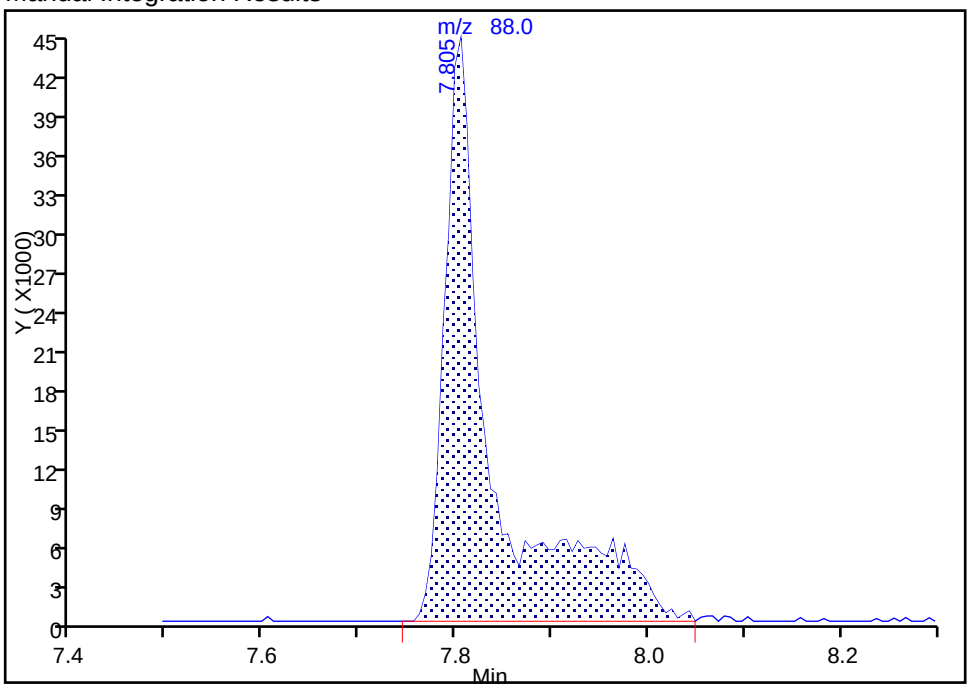
Processing Integration Results

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



Manual Integration Results

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



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

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D10.D
Lims ID: IC VSTD50
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 24-Jul-2017 09:28:30 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017705-010
Misc. Info.: IC VSTD50
Operator ID: 034635 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub10

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 25-Jul-2017 01:44:43 Calib Date: 24-Jul-2017 09:28:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK021

First Level Reviewer: bungardf Date: 24-Jul-2017 09:58:03

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

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

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

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

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

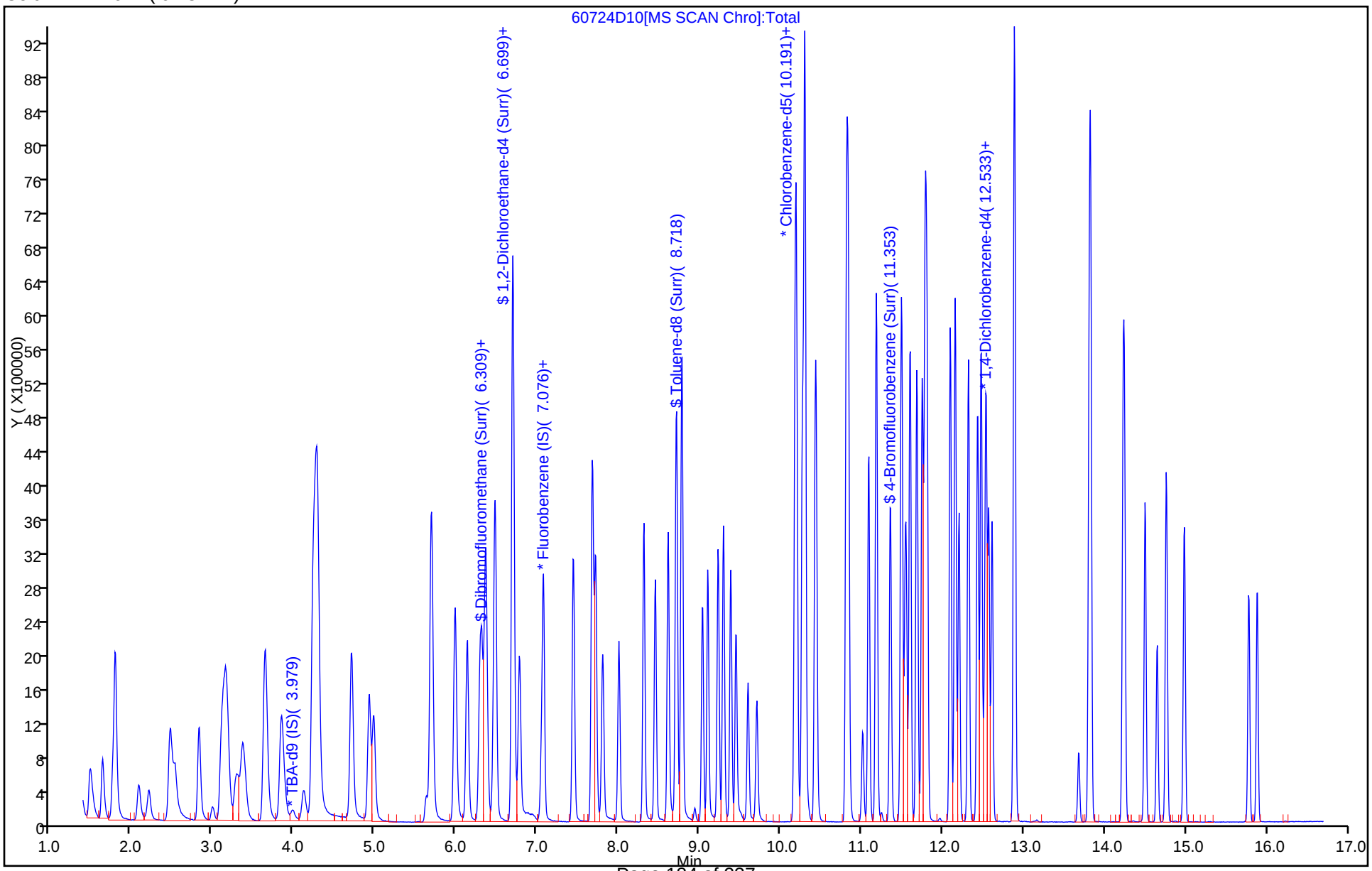
Report Date: 25-Jul-2017 01:44:44 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

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

Injection Date:	24-Jul-2017 09:28:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	IC VSTD50			Worklist Smp#:	10
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Lab Sample ID: ICV 180-217861/13 Calibration Date: 07/24/2017 10:40

Instrument ID: CHHP6 Calib Start Date: 07/24/2017 06:39

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/24/2017 09:28

Lab File ID: 60724D13.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3191	0.2879	0.1000	9.02	10.0	-9.8	30.0
Chloromethane	Ave	0.2869	0.2661	0.1000	9.28	10.0	-7.2	30.0
Vinyl chloride	Ave	0.3008	0.2776	0.1000	9.23	10.0	-7.7	30.0
1,3-Butadiene	Ave	0.2494	0.2286	0.0100	9.17	10.0	-8.3	30.0
Bromomethane	Ave	0.1402	0.1617	0.0500	11.5	10.0	15.4	30.0
Chloroethane	Ave	0.1625	0.1750	0.0500	10.8	10.0	7.7	30.0
Trichlorofluoromethane	Ave	0.2961	0.2915	0.1000	9.84	10.0	-1.6	30.0
Ethyl ether	Ave	0.2534	0.2447	0.0100	9.65	10.0	-3.5	30.0
Acrolein	Ave	0.0543	0.0504	0.0100	27.9	30.0	-7.1	30.0
1,1-Dichloroethene	Ave	0.2599	0.2344	0.1000	9.02	10.0	-9.8	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2490	0.2264	0.1000	9.09	10.0	-9.1	30.0
Acetone	Ave	0.1073	0.0986	0.0500	18.4	20.0	-8.1	30.0
Iodomethane	Ave	0.3654	0.3466	0.0100	9.49	10.0	-5.1	30.0
Carbon disulfide	Ave	0.5787	0.5422	0.1000	9.37	10.0	-6.3	30.0
Allyl chloride	Ave	0.1522	0.1372	0.0100	9.02	10.0	-9.8	30.0
Methyl acetate	Ave	0.2351	0.2215	0.1000	18.8	20.0	-5.8	30.0
Methylene Chloride	Ave	0.3444	0.3224	0.1000	9.36	10.0	-6.4	30.0
tert-Butyl alcohol	Ave	1.107	1.111	0.0100	100	100	0.4	30.0
Acrylonitrile	Ave	0.1256	0.1222	0.0100	97.3	100	-2.7	30.0
trans-1,2-Dichloroethene	Ave	0.2948	0.2794	0.1000	9.48	10.0	-5.2	30.0
Methyl tert-butyl ether	Ave	0.9429	0.9239	0.1000	9.80	10.0	-2.0	30.0
Hexane	Ave	0.3492	0.3102	0.0100	8.88	10.0	-11.2	30.0
1,1-Dichloroethane	Ave	0.4797	0.4818	0.2000	10.0	10.0	0.4	30.0
Vinyl acetate	Ave	0.5586	0.5200	0.0100	9.31	10.0	-6.9	30.0
2,2-Dichloropropane	Ave	0.0497	0.0477	0.0100	9.60	10.0	-4.0	30.0
cis-1,2-Dichloroethene	Ave	0.3444	0.3334	0.1000	9.68	10.0	-3.2	30.0
2-Butanone (MEK)	Ave	0.1538	0.1428	0.0500	18.6	20.0	-7.1	30.0
Bromochloromethane	Ave	0.1503	0.1414	0.0100	9.41	10.0	-5.9	30.0
Tetrahydrofuran	Ave	0.1041	0.0920	0.0100	17.7	20.0	-11.7	30.0
Chloroform	Ave	0.5173	0.5179	0.2000	10.0	10.0	0.1	30.0
1,1,1-Trichloroethane	Ave	0.3287	0.3060	0.1000	9.31	10.0	-6.9	30.0
Cyclohexane	Ave	0.4671	0.4280	0.1000	9.16	10.0	-8.4	30.0
Carbon tetrachloride	Ave	0.2365	0.2139	0.1000	9.04	10.0	-9.6	30.0
1,1-Dichloropropene	Ave	0.3960	0.3728	0.0100	9.41	10.0	-5.9	30.0
Isobutyl alcohol	Ave	0.0069	0.0066*	0.0100	237	250	-5.1	30.0
Benzene	Ave	1.152	1.142	0.5000	9.91	10.0	-0.9	30.0
1,2-Dichloroethane	Ave	0.4258	0.4091	0.1000	9.61	10.0	-3.9	30.0
n-Heptane	Ave	0.2658	0.2342	0.0100	8.81	10.0	-11.9	30.0
Trichloroethene	Ave	0.2800	0.2687	0.2000	9.60	10.0	-4.0	30.0
Methylcyclohexane	Ave	0.4889	0.4513	0.1000	9.23	10.0	-7.7	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Lab Sample ID: ICV 180-217861/13 Calibration Date: 07/24/2017 10:40

Instrument ID: CHHP6 Calib Start Date: 07/24/2017 06:39

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/24/2017 09:28

Lab File ID: 60724D13.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2881	0.2658	0.1000	9.22	10.0	-7.8	30.0
1,4-Dioxane	Ave	0.0026	0.0023*	0.0100	178	200	-11.1	30.0
Dibromomethane	Ave	0.1884	0.1798	0.0100	9.54	10.0	-4.6	30.0
Bromodichloromethane	Ave	0.3208	0.3081	0.2000	9.60	10.0	-4.0	30.0
2-Chloroethyl vinyl ether	Ave	0.1909	0.1830	0.0100	19.2	20.0	-4.1	30.0
cis-1,3-Dichloropropene	Ave	0.3639	0.3408	0.2000	9.36	10.0	-6.4	30.0
4-Methyl-2-pentanone (MIBK)	Ave	1.277	1.191	0.1000	18.7	20.0	-6.7	30.0
Toluene	Ave	4.927	4.579	0.4000	9.29	10.0	-7.1	30.0
trans-1,3-Dichloropropene	Ave	1.320	1.145	0.1000	8.68	10.0	-13.2	30.0
Ethyl methacrylate	Ave	1.663	1.503	0.0100	9.04	10.0	-9.6	30.0
1,1,2-Trichloroethane	Ave	1.140	1.029	0.1000	9.03	10.0	-9.7	30.0
Tetrachloroethene	Ave	0.8822	0.7407	0.2000	8.40	10.0	-16.0	30.0
1,3-Dichloropropane	Ave	2.067	1.876	0.0100	9.07	10.0	-9.3	30.0
2-Hexanone	Ave	0.8218	0.7214	0.1000	17.6	20.0	-12.2	30.0
Dibromochloromethane	Ave	0.7724	0.6533	0.1000	8.46	10.0	-15.4	30.0
1,2-Dibromoethane (EDB)	Ave	1.097	0.9910	0.1000	9.04	10.0	-9.6	30.0
3-Chlorobenzotrifluoride	Ave	1.432	1.244	0.0100	8.69	10.0	-13.1	30.0
Chlorobenzene	Ave	3.204	2.875	0.5000	8.97	10.0	-10.3	30.0
4-Chlorobenzotrifluoride	Ave	1.328	1.161	0.0100	8.75	10.0	-12.5	30.0
1,1,1,2-Tetrachloroethane	Ave	0.9111	0.7896	0.0100	8.67	10.0	-13.3	30.0
Ethylbenzene	Ave	1.833	1.676	0.1000	9.14	10.0	-8.6	30.0
m-Xylene & p-Xylene	Ave	2.246	2.011	0.1000	8.95	10.0	-10.5	30.0
o-Xylene	Ave	2.251	2.090	0.3000	9.28	10.0	-7.2	30.0
Styrene	Ave	3.641	3.382	0.3000	9.29	10.0	-7.1	30.0
Bromoform	Ave	0.4347	0.3595	0.1000	8.27	10.0	-17.3	30.0
2-Chlorobenzotrifluoride	Ave	1.452	1.320	0.0100	9.09	10.0	-9.1	30.0
Isopropylbenzene	Ave	5.039	4.803	0.1000	9.53	10.0	-4.7	30.0
Bromobenzene	Ave	0.9293	0.7503	0.0100	8.07	10.0	-19.3	30.0
1,1,2,2-Tetrachloroethane	Ave	1.604	1.508	0.3000	9.40	10.0	-6.0	30.0
trans-1,4-Dichloro-2-butene	Ave	0.2720	0.2040	0.0100	7.50	10.0	-25.0	30.0
1,2,3-Trichloropropane	Ave	0.3860	0.3026	0.0100	7.84	10.0	-21.6	30.0
N-Propylbenzene	Ave	1.011	0.7830	0.0100	7.74	10.0	-22.6	30.0
2-Chlorotoluene	Ave	0.8762	0.6856	0.0100	7.82	10.0	-21.8	30.0
3-Chlorotoluene	Ave	0.9194	0.7153	0.0100	7.78	10.0	-22.2	30.0
1,3,5-Trimethylbenzene	Ave	2.872	2.404	0.0100	8.37	10.0	-16.3	30.0
4-Chlorotoluene	Ave	0.9565	0.7290	0.0100	7.62	10.0	-23.8	30.0
tert-Butylbenzene	Ave	2.280	1.881	0.0100	8.25	10.0	-17.5	30.0
1,2,4-Trimethylbenzene	Ave	2.994	2.513	0.0100	8.39	10.0	-16.1	30.0
3,4-Dichlorobenzotrifluoride	Ave	0.6644	0.5039	0.0100	7.58	10.0	-24.2	30.0
sec-Butylbenzene	Ave	3.198	2.650	0.0100	8.29	10.0	-17.1	30.0
1,3-Dichlorobenzene	Ave	1.669	1.347	0.6000	8.07	10.0	-19.3	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Lab Sample ID: ICV 180-217861/13 Calibration Date: 07/24/2017 10:40

Instrument ID: CHHP6 Calib Start Date: 07/24/2017 06:39

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/24/2017 09:28

Lab File ID: 60724D13.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	2.641	2.215	0.0100	8.39	10.0	-16.1	30.0
1,4-Dichlorobenzene	Ave	1.726	1.396	0.5000	8.09	10.0	-19.1	30.0
2,4-Dichlorobenzotrifluoride	Ave	0.6261	0.4701	0.0100	7.51	10.0	-24.9	30.0
2,5-Dichlorobenzotrifluoride	Ave	0.6911	0.5511	0.0100	7.97	10.0	-20.3	30.0
n-Butylbenzene	Ave	2.409	1.985	0.0100	8.24	10.0	-17.6	30.0
1,2-Dichlorobenzene	Ave	1.587	1.343	0.4000	8.46	10.0	-15.4	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.1415	0.1049	0.0500	7.42	10.0	-25.8	30.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.011	0.8617	0.0100	25.6	30.0	-14.8	30.0
2,3- & 3,4- Dichlorotoluene	Ave	1.104	0.9140	0.0100	16.6	20.0	-17.2	30.0
1,2,4-Trichlorobenzene	Ave	0.8294	0.6700	0.2000	8.08	10.0	-19.2	30.0
Hexachlorobutadiene	Ave	0.2626	0.2044	0.0100	7.78	10.0	-22.2	30.0
Naphthalene	Ave	2.528	2.097	0.0100	8.30	10.0	-17.0	30.0
1,2,3-Trichlorobenzene	Ave	0.7447	0.5897	0.0100	7.92	10.0	-20.8	30.0
2,4,5-Trichlorotoluene	Ave	0.4283	0.3059	0.0100	7.14	10.0	-28.6	30.0
2,3,6-Trichlorotoluene	Ave	0.3839	0.2777	0.0100	7.23	10.0	-27.7	30.0
Dibromofluoromethane (Surr)	Ave	0.2598	0.2349		9.04	10.0	-9.6	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3713	0.3133		8.44	10.0	-15.6	30.0
Toluene-d8 (Surr)	Lin2		3.852		9.58	10.0	-4.2	30.0
4-Bromofluorobenzene (Surr)	Ave	1.726	1.745		10.1	10.0	1.1	30.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D13.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 24-Jul-2017 10:40:30 ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0017705-013
Misc. Info.: ICV
Operator ID: 034635 Instrument ID: CHHP6
Sublist:

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 25-Jul-2017 01:44:46 Calib Date: 24-Jul-2017 09:28:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D10.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK021

First Level Reviewer: bungardf Date: 25-Jul-2017 01:07:50

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	3.962	3.961	0.001	95	317387	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.053	7.051	0.002	98	870770	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.167	10.172	-0.005	88	217522	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.510	12.514	-0.004	94	360072	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.317	6.315	0.002	92	204537	50.0	45.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.694	6.692	0.002	88	272824	50.0	42.2	
$ 7 Toluene-d8 (Surr)	98	8.713	8.718	-0.005	93	837799	50.0	47.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.354	11.352	0.002	86	379643	50.0	50.5	
11 Dichlorodifluoromethane	85	1.480	1.484	-0.004	86	250657	50.0	45.1	
12 Chloromethane	50	1.632	1.630	0.002	99	231750	50.0	46.4	
13 Vinyl chloride	62	1.754	1.758	-0.004	98	241724	50.0	46.1	
14 Butadiene	39	1.790	1.788	0.002	88	199035	50.0	45.8	
15 Bromomethane	94	2.095	2.087	0.008	89	140806	50.0	57.7	
16 Chloroethane	64	2.210	2.202	0.008	99	152345	50.0	53.8	
17 Dichlorofluoromethane	67	2.466	2.470	-0.004	96	316935	50.0	52.0	
18 Trichlorofluoromethane	101	2.502	2.506	-0.004	98	253848	50.0	49.2	
20 Ethyl ether	59	2.825	2.823	0.002	88	213070	50.0	48.3	
21 Acrolein	56	2.995	2.999	-0.004	98	131728	150.0	139.3	
22 1,1-Dichloroethene	96	3.117	3.115	0.002	97	204120	50.0	45.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.159	3.157	0.002	94	197174	50.0	45.5	
24 Acetone	43	3.184	3.194	-0.010	96	171641	100.0	91.9	
25 Iodomethane	142	3.293	3.291	0.002	98	301806	50.0	47.4	
26 Carbon disulfide	76	3.372	3.364	0.008	99	472119	50.0	46.8	
29 3-Chloro-1-propene	76	3.634	3.638	-0.004	92	119495	50.0	45.1	
30 Methyl acetate	43	3.658	3.662	-0.004	97	385795	100.0	94.2	
31 Methylene Chloride	84	3.841	3.839	0.002	89	280759	50.0	46.8	
32 2-Methyl-2-propanol	59	4.096	4.112	-0.016	94	176303	500.0	501.8	
33 Acrylonitrile	53	4.236	4.240	-0.004	99	1064053	500.0	486.4	
34 trans-1,2-Dichloroethene	96	4.279	4.277	0.002	99	243284	50.0	47.4	
35 Methyl tert-butyl ether	73	4.285	4.295	-0.010	95	804468	50.0	49.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.717	4.709	0.008	92	270066	50.0	44.4	
37 1,1-Dichloroethane	63	4.930	4.928	0.002	96	419512	50.0	50.2	
38 Vinyl acetate	43	4.984	4.982	0.002	97	452761	50.0	46.5	
42 2,2-Dichloropropane	97	5.690	5.682	0.008	53	41509	50.0	48.0	
43 cis-1,2-Dichloroethene	96	5.690	5.694	-0.004	80	290340	50.0	48.4	
44 2-Butanone (MEK)	43	5.702	5.706	-0.004	97	248754	100.0	92.9	
48 Chlorobromomethane	128	5.982	5.986	-0.004	97	123123	50.0	47.0	
49 Tetrahydrofuran	42	5.994	5.992	0.002	90	160129	100.0	88.3	
50 Chloroform	83	6.134	6.138	-0.004	93	450991	50.0	50.1	
51 1,1,1-Trichloroethane	97	6.292	6.290	0.002	98	266443	50.0	46.5	
52 Cyclohexane	56	6.365	6.363	0.002	90	372721	50.0	45.8	
53 Carbon tetrachloride	117	6.463	6.467	-0.004	96	186212	50.0	45.2	
54 1,1-Dichloropropene	75	6.481	6.485	-0.004	98	324612	50.0	47.1	
55 Isobutyl alcohol	41	6.694	6.698	-0.004	71	143231	1250.0	1185.8	
56 Benzene	78	6.700	6.704	-0.004	97	994365	50.0	49.5	
57 1,2-Dichloroethane	62	6.779	6.783	-0.004	98	356187	50.0	48.0	
59 n-Heptane	43	7.077	7.075	0.002	91	203911	50.0	44.1	
61 Trichloroethene	130	7.448	7.446	0.002	98	234008	50.0	48.0	
63 Methylcyclohexane	83	7.679	7.677	0.002	86	392960	50.0	46.2	
64 1,2-Dichloropropane	63	7.716	7.720	-0.004	92	231431	50.0	46.1	
65 1,4-Dioxane	88	7.801	7.805	-0.004	64	40694	1000.0	889.4	M
67 Dibromomethane	93	7.807	7.811	-0.004	95	156565	50.0	47.7	
68 Dichlorobromomethane	83	8.008	8.006	0.002	99	268266	50.0	48.0	
70 2-Chloroethyl vinyl ether	63	8.312	8.316	-0.004	93	318759	100.0	95.9	
71 cis-1,3-Dichloropropene	75	8.452	8.456	-0.004	96	296743	50.0	46.8	
72 4-Methyl-2-pentanone (MIBK	43	8.616	8.614	0.002	94	518033	100.0	93.3	
73 Toluene	91	8.780	8.784	-0.004	99	996103	50.0	46.5	
74 trans-1,3-Dichloropropene	75	9.036	9.040	-0.004	92	249017	50.0	43.4	
75 Ethyl methacrylate	69	9.103	9.101	0.002	88	327011	50.0	45.2	
76 1,1,2-Trichloroethane	97	9.231	9.229	0.002	90	223842	50.0	45.1	
77 Tetrachloroethene	164	9.297	9.295	0.002	97	161123	50.0	42.0	
78 1,3-Dichloropropane	76	9.389	9.387	0.002	89	408048	50.0	45.4	
79 2-Hexanone	43	9.450	9.454	-0.004	93	313824	100.0	87.8	
81 Chlorodibromomethane	129	9.602	9.600	0.002	91	142099	50.0	42.3	
82 Ethylene Dibromide	107	9.711	9.709	0.002	95	215564	50.0	45.2	
83 3-Chlorobenzotrifluoride	180	10.186	10.184	0.002	91	270569	50.0	43.4	
84 Chlorobenzene	112	10.198	10.202	-0.004	92	625436	50.0	44.9	
85 4-Chlorobenzotrifluoride	180	10.271	10.269	0.002	96	252548	50.0	43.7	
86 1,1,1,2-Tetrachloroethane	131	10.295	10.293	0.002	89	171758	50.0	43.3	
87 Ethylbenzene	106	10.301	10.299	0.002	98	364512	50.0	45.7	
88 m-Xylene & p-Xylene	106	10.435	10.433	0.002	99	437513	50.0	44.8	
89 o-Xylene	106	10.812	10.816	-0.004	97	454567	50.0	46.4	
90 Styrene	104	10.837	10.835	0.002	94	735565	50.0	46.4	
91 Bromoform	173	11.013	11.017	-0.004	95	78192	50.0	41.3	
92 2-Chlorobenzotrifluoride	180	11.092	11.090	0.002	97	287032	50.0	45.4	
93 Isopropylbenzene	105	11.183	11.181	0.002	97	1044738	50.0	47.7	
95 Bromobenzene	156	11.494	11.492	0.002	95	270177	50.0	40.4	
96 1,1,2,2-Tetrachloroethane	83	11.500	11.498	0.002	95	328079	50.0	47.0	
97 trans-1,4-Dichloro-2-buten	53	11.530	11.534	-0.004	69	73439	50.0	37.5	
98 1,2,3-Trichloropropane	110	11.548	11.552	-0.004	85	108942	50.0	39.2	
99 N-Propylbenzene	120	11.597	11.601	-0.004	98	281925	50.0	38.7	
100 2-Chlorotoluene	126	11.682	11.680	0.002	95	246870	50.0	39.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
101 3-Chlorotoluene	126	11.749	11.747	0.002	96	257552	50.0	38.9	
102 1,3,5-Trimethylbenzene	105	11.786	11.784	0.002	93	865530	50.0	41.8	
103 4-Chlorotoluene	126	11.804	11.808	-0.004	99	262485	50.0	38.1	
104 tert-Butylbenzene	119	12.096	12.094	0.002	91	677153	50.0	41.2	
106 1,2,4-Trimethylbenzene	105	12.157	12.155	0.002	98	905005	50.0	42.0	
107 1,2-dichloro-4-(trifluorom	214	12.205	12.203	0.002	96	181425	50.0	37.9	
108 sec-Butylbenzene	105	12.321	12.319	0.002	95	954305	50.0	41.4	
109 1,3-Dichlorobenzene	146	12.430	12.435	-0.005	96	484901	50.0	40.3	
110 4-Isopropyltoluene	119	12.479	12.477	0.002	96	797606	50.0	41.9	
111 1,4-Dichlorobenzene	146	12.534	12.538	-0.004	94	502627	50.0	40.4	
113 2,4-Dichloro-1-(triflourom	214	12.570	12.568	0.002	96	169284	50.0	37.5	
114 2,5-Dichlorobenzotrifluori	214	12.613	12.611	0.002	98	198432	50.0	39.9	
116 n-Butylbenzene	91	12.881	12.885	-0.004	96	714807	50.0	41.2	
117 1,2-Dichlorobenzene	146	12.893	12.891	0.002	95	483712	50.0	42.3	
118 1,2-Dibromo-3-Chloropropan	75	13.678	13.682	-0.004	74	37785	50.0	37.1	
119 2,4- & 2,5- & 2,6- Dichlor	125	13.817	13.822	-0.005	99	930835	150.0	127.9	
121 2,3- & 3,4- Dichlorotoluen	125	14.237	14.235	0.002	99	658230	100.0	82.8	
122 1,2,4-Trichlorobenzene	180	14.499	14.503	-0.004	94	241256	50.0	40.4	
123 Hexachlorobutadiene	225	14.651	14.649	0.002	97	73584	50.0	38.9	
124 Naphthalene	128	14.760	14.765	-0.005	98	755128	50.0	41.5	
125 1,2,3-Trichlorobenzene	180	14.986	14.984	0.002	94	212348	50.0	39.6	
126 2,4,5-Trichlorotoluene	159	15.776	15.780	-0.004	0	110148	50.0	35.7	
127 2,3,6-Trichlorotoluene	159	15.880	15.884	-0.004	97	99997	50.0	36.2	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	95.8	
S 131 Xylenes, Total	106				0		100.0	91.2	
S 132 1,3-Dichloropropene, Total	1				0		100.0	90.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOA2ND_00253	Amount Added:	2.00	Units: uL	
voaW2cleve2nd_00012	Amount Added:	2.00	Units: uL	
voaWva2ndRete_00003	Amount Added:	2.00	Units: uL	
voaWAcro2ndRe_00012	Amount Added:	6.00	Units: uL	
voaWKet2ndRes_00021	Amount Added:	2.00	Units: uL	
voaWee2ndRest_00014	Amount Added:	2.00	Units: uL	
VOA8260INT_00072	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00071	Amount Added:	2.00	Units: uL	Run Reagent

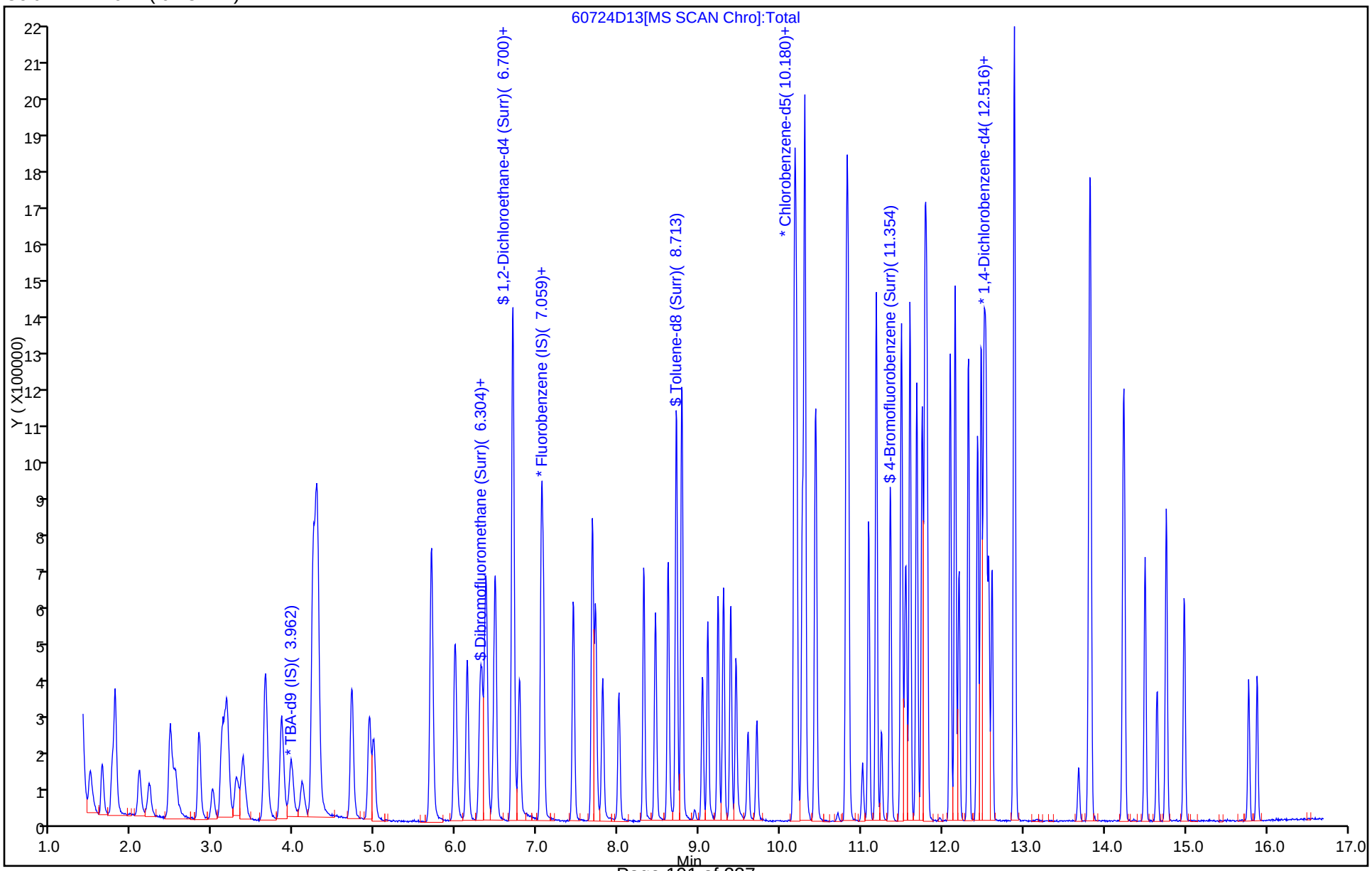
Report Date: 25-Jul-2017 01:44:50 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D13.D

Injection Date:	24-Jul-2017 10:40:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	ICV			Worklist Smp#:	13
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

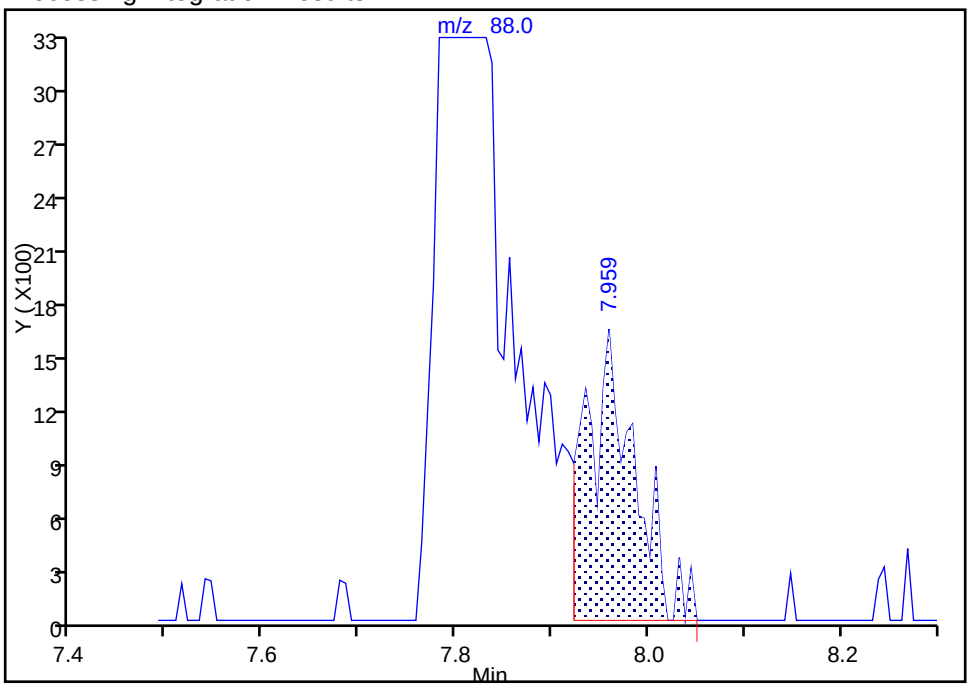
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D13.D
Injection Date: 24-Jul-2017 10:40:30 Instrument ID: CHHP6
Lims ID: ICV
Client ID:
Operator ID: 034635 ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

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

Signal: 1

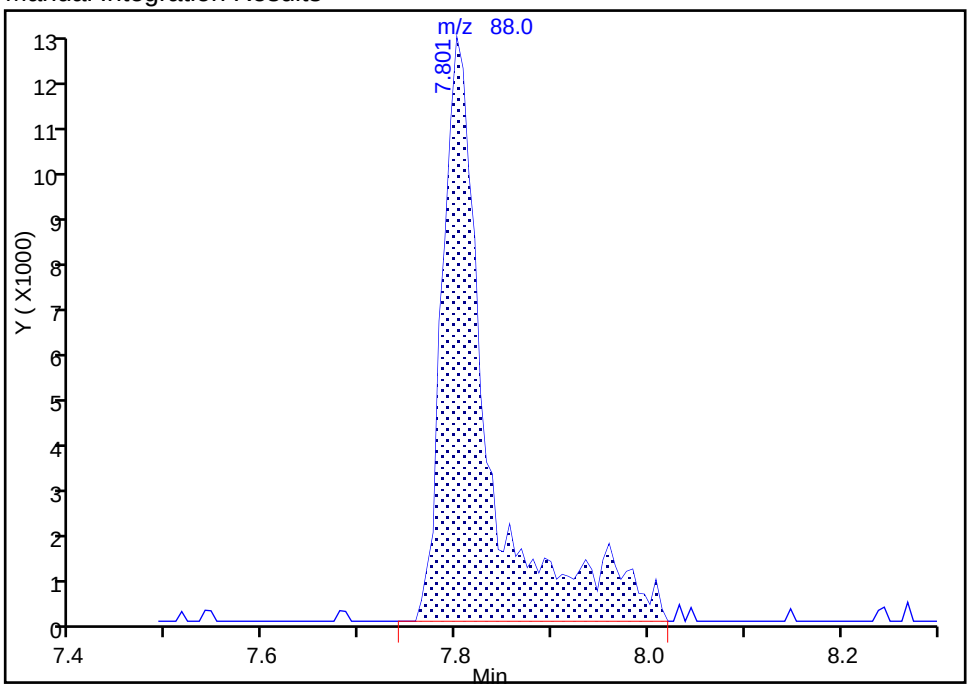
Processing Integration Results

RT: 7.96
Area: 5522
Amount: 120.6888
Amount Units: ng



Manual Integration Results

RT: 7.80
Area: 40694
Amount: 889.4077
Amount Units: ng



Reviewer: bungardf, 25-Jul-2017 01:35:35
Audit Action: Manually Integrated Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Lab Sample ID: CCVIS 180-226148/2 Calibration Date: 10/17/2017 23:55

Instrument ID: CHHP6 Calib Start Date: 07/24/2017 06:39

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/24/2017 09:28

Lab File ID: 6101802D.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3191	0.3616	0.1000	11.3	10.0	13.3	20.0
Chloromethane	Ave	0.2869	0.2441	0.1000	8.51	10.0	-14.9	20.0
Vinyl chloride	Ave	0.3008	0.3093	0.1000	10.3	10.0	2.8	20.0
1,3-Butadiene	Ave	0.2494	0.2428	0.0100	9.74	10.0	-2.6	20.0
Bromomethane	Ave	0.1402	0.1524	0.0500	10.9	10.0	8.7	20.0
Chloroethane	Ave	0.1625	0.1765	0.0500	10.9	10.0	8.6	20.0
Trichlorofluoromethane	Ave	0.2961	0.4104	0.1000	13.9	10.0	38.6*	20.0
Ethyl ether	Ave	0.2534	0.2535	0.0100	10.0	10.0	0.0	20.0
Acrolein	Ave	0.0543	0.0515	0.0100	28.5	30.0	-5.1	20.0
1,1-Dichloroethene	Ave	0.2599	0.2769	0.1000	10.7	10.0	6.6	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2490	0.3032	0.1000	12.2	10.0	21.8*	20.0
Acetone	Ave	0.1073	0.1452	0.0500	27.1	20.0	35.4*	20.0
Iodomethane	Ave	0.3654	0.3809	0.0100	10.4	10.0	4.3	20.0
Carbon disulfide	Ave	0.5787	0.5757	0.1000	9.95	10.0	-0.5	20.0
Allyl chloride	Ave	0.1522	0.1467	0.0100	9.64	10.0	-3.6	20.0
Methyl acetate	Ave	0.2351	0.1853	0.1000	15.8	20.0	-21.2*	20.0
Methylene Chloride	Ave	0.3444	0.3389	0.1000	9.84	10.0	-1.6	20.0
tert-Butyl alcohol	Ave	1.107	1.047	0.0100	94.6	100	-5.4	20.0
Acrylonitrile	Ave	0.1256	0.0947	0.0100	75.4	100	-24.6*	20.0
trans-1,2-Dichloroethene	Ave	0.2948	0.3058	0.1000	10.4	10.0	3.7	20.0
Methyl tert-butyl ether	Ave	0.9429	0.8659	0.1000	9.18	10.0	-8.2	20.0
Hexane	Ave	0.3492	0.3345	0.0100	9.58	10.0	-4.2	20.0
1,1-Dichloroethane	Ave	0.4797	0.4881	0.2000	10.2	10.0	1.7	20.0
Vinyl acetate	Ave	0.5586	0.4171	0.0100	7.47	10.0	-25.3*	20.0
2,2-Dichloropropane	Ave	0.0497	0.0585	0.0100	11.8	10.0	17.8	20.0
cis-1,2-Dichloroethene	Ave	0.3444	0.3462	0.1000	10.1	10.0	0.5	20.0
2-Butanone (MEK)	Ave	0.1538	0.1621	0.0500	21.1	20.0	5.4	20.0
Bromochloromethane	Ave	0.1503	0.1547	0.0100	10.3	10.0	2.9	20.0
Tetrahydrofuran	Ave	0.1041	0.0671	0.0100	12.9	20.0	-35.6*	20.0
Chloroform	Ave	0.5173	0.5451	0.2000	10.5	10.0	5.4	20.0
1,1,1-Trichloroethane	Ave	0.3287	0.3880	0.1000	11.8	10.0	18.0	20.0
Cyclohexane	Ave	0.4671	0.4191	0.1000	8.97	10.0	-10.3	20.0
Carbon tetrachloride	Ave	0.2365	0.3178	0.1000	13.4	10.0	34.4*	20.0
1,1-Dichloropropene	Ave	0.3960	0.4302	0.0100	10.9	10.0	8.6	20.0
Benzene	Ave	1.152	1.225	0.5000	10.6	10.0	6.3	20.0
Isobutyl alcohol	Ave	0.0069	0.0060*	0.0100	216	250	-13.6	20.0
1,2-Dichloroethane	Ave	0.4258	0.4382	0.1000	10.3	10.0	2.9	20.0
n-Heptane	Ave	0.2658	0.2318	0.0100	8.72	10.0	-12.8	20.0
Trichloroethene	Ave	0.2800	0.2896	0.2000	10.3	10.0	3.4	20.0
Methylcyclohexane	Ave	0.4889	0.5045	0.1000	10.3	10.0	3.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Lab Sample ID: CCVIS 180-226148/2 Calibration Date: 10/17/2017 23:55

Instrument ID: CHHP6 Calib Start Date: 07/24/2017 06:39

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/24/2017 09:28

Lab File ID: 6101802D.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2881	0.2638	0.1000	9.15	10.0	-8.5	20.0
1,4-Dioxane	Ave	0.0026	0.0022*	0.0100	168	200	-16.1	20.0
Dibromomethane	Ave	0.1884	0.1906	0.0100	10.1	10.0	1.1	20.0
Bromodichloromethane	Ave	0.3208	0.3221	0.2000	10.0	10.0	0.4	20.0
2-Chloroethyl vinyl ether	Ave	0.1909	0.1969	0.0100	20.6	20.0	3.1	20.0
cis-1,3-Dichloropropene	Ave	0.3639	0.3672	0.2000	10.1	10.0	0.9	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.277	0.9695	0.1000	15.2	20.0	-24.1*	20.0
Toluene	Ave	4.927	4.828	0.4000	9.80	10.0	-2.0	20.0
trans-1,3-Dichloropropene	Ave	1.320	1.292	0.1000	9.79	10.0	-2.1	20.0
Ethyl methacrylate	Ave	1.663	1.498	0.0100	9.01	10.0	-9.9	20.0
1,1,2-Trichloroethane	Ave	1.140	1.091	0.1000	9.57	10.0	-4.3	20.0
Tetrachloroethene	Ave	0.8822	0.8422	0.2000	9.55	10.0	-4.5	20.0
1,3-Dichloropropane	Ave	2.067	2.022	0.0100	9.78	10.0	-2.2	20.0
2-Hexanone	Ave	0.8218	0.8839	0.1000	21.5	20.0	7.6	20.0
Dibromochloromethane	Ave	0.7724	0.7623	0.1000	9.87	10.0	-1.3	20.0
1,2-Dibromoethane (EDB)	Ave	1.097	1.041	0.1000	9.49	10.0	-5.1	20.0
3-Chlorobenzotrifluoride	Ave	1.432	1.728	0.0100	12.1	10.0	20.7*	20.0
Chlorobenzene	Ave	3.204	3.213	0.5000	10.0	10.0	0.3	20.0
4-Chlorobenzotrifluoride	Ave	1.328	1.597	0.0100	12.0	10.0	20.3*	20.0
1,1,1,2-Tetrachloroethane	Ave	0.9111	0.9800	0.0100	10.8	10.0	7.6	20.0
Ethylbenzene	Ave	1.833	1.767	0.1000	9.64	10.0	-3.6	20.0
m-Xylene & p-Xylene	Ave	2.246	2.173	0.1000	9.67	10.0	-3.3	20.0
o-Xylene	Ave	2.251	2.118	0.3000	9.41	10.0	-5.9	20.0
Styrene	Ave	3.641	3.710	0.3000	10.2	10.0	1.9	20.0
Bromoform	Ave	0.4347	0.4102	0.1000	9.44	10.0	-5.6	20.0
2-Chlorobenzotrifluoride	Ave	1.452	1.755	0.0100	12.1	10.0	20.9*	20.0
Isopropylbenzene	Ave	5.039	5.164	0.1000	10.2	10.0	2.5	20.0
Bromobenzene	Ave	0.9293	0.8562	0.0100	9.21	10.0	-7.9	20.0
1,1,2,2-Tetrachloroethane	Ave	1.604	1.556	0.3000	9.70	10.0	-3.0	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2720	0.2124	0.0100	7.81	10.0	-21.9*	20.0
1,2,3-Trichloropropane	Ave	0.3860	0.3476	0.0100	9.01	10.0	-9.9	20.0
N-Propylbenzene	Ave	1.011	0.9478	0.0100	9.37	10.0	-6.3	20.0
2-Chlorotoluene	Ave	0.8762	0.8263	0.0100	9.43	10.0	-5.7	20.0
3-Chlorotoluene	Ave	0.9194	1.039	0.0100	11.3	10.0	13.0	20.0
1,3,5-Trimethylbenzene	Ave	2.872	2.902	0.0100	10.1	10.0	1.0	20.0
4-Chlorotoluene	Ave	0.9565	0.9026	0.0100	9.44	10.0	-5.6	20.0
tert-Butylbenzene	Ave	2.280	2.319	0.0100	10.2	10.0	1.7	20.0
1,2,4-Trimethylbenzene	Ave	2.994	3.011	0.0100	10.1	10.0	0.6	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.6644	0.7918	0.0100	11.9	10.0	19.2	20.0
sec-Butylbenzene	Ave	3.198	3.312	0.0100	10.4	10.0	3.6	20.0
1,3-Dichlorobenzene	Ave	1.669	1.619	0.6000	9.70	10.0	-3.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Lab Sample ID: CCVIS 180-226148/2 Calibration Date: 10/17/2017 23:55

Instrument ID: CHHP6 Calib Start Date: 07/24/2017 06:39

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/24/2017 09:28

Lab File ID: 6101802D.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	2.641	2.790	0.0100	10.6	10.0	5.6	20.0
1,4-Dichlorobenzene	Ave	1.726	1.694	0.5000	9.81	10.0	-1.9	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.6261	0.7390	0.0100	11.8	10.0	18.0	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.6911	0.8749	0.0100	12.7	10.0	26.6*	20.0
n-Butylbenzene	Ave	2.409	2.570	0.0100	10.7	10.0	6.7	20.0
1,2-Dichlorobenzene	Ave	1.587	1.593	0.4000	10.0	10.0	0.3	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1415	0.1284	0.0500	9.07	10.0	-9.3	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.011	1.374	0.0100	40.8	30.0	35.9*	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.104	1.514	0.0100	27.4	20.0	37.1*	20.0
1,2,4-Trichlorobenzene	Ave	0.8294	0.9420	0.2000	11.4	10.0	13.6	20.0
Hexachlorobutadiene	Ave	0.2626	0.3243	0.0100	12.3	10.0	23.5*	20.0
Naphthalene	Ave	2.528	2.478	0.0100	9.80	10.0	-2.0	20.0
1,2,3-Trichlorobenzene	Ave	0.7447	0.8532	0.0100	11.5	10.0	14.6	20.0
2,4,5-Trichlorotoluene	Ave	0.4283	0.5282	0.0100	12.3	10.0	23.3*	20.0
2,3,6-Trichlorotoluene	Ave	0.3839	0.5346	0.0100	13.9	10.0	39.2*	20.0
Dibromofluoromethane (Surr)	Ave	0.2598	0.2629		10.1	10.0	1.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3713	0.3771		10.2	10.0	1.6	20.0
Toluene-d8 (Surr)	Lin2		3.866		9.62	10.0	-3.8	20.0
4-Bromofluorobenzene (Surr)	Ave	1.726	1.701		9.85	10.0	-1.5	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101802D.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 17-Oct-2017 23:55:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018914-002
Misc. Info.: CCVIS
Operator ID: 034635 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub10

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 18-Oct-2017 20:30:36 Calib Date: 28-Sep-2017 15:13:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: bungardf Date: 18-Oct-2017 00:15:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	3.954	3.954	0.000	92	360770	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.044	7.044	0.000	98	1145374	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.171	10.171	0.000	88	290716	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.507	12.507	0.000	96	448308	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.314	6.314	0.000	92	301086	50.0	50.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.685	6.685	0.000	83	431946	50.0	50.8	
$ 7 Toluene-d8 (Surr)	98	8.711	8.711	0.000	93	1124001	50.0	48.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.351	11.351	0.000	82	494388	50.0	49.3	
11 Dichlorodifluoromethane	85	1.472	1.472	0.000	99	414133	50.0	56.7	
12 Chloromethane	50	1.624	1.624	0.000	97	279627	50.0	42.5	
13 Vinyl chloride	62	1.740	1.740	0.000	97	354290	50.0	51.4	
14 Butadiene	39	1.788	1.788	0.000	92	278145	50.0	48.7	
15 Bromomethane	94	2.068	2.068	0.000	92	174522	50.0	54.3	
16 Chloroethane	64	2.202	2.202	0.000	98	202206	50.0	54.3	
17 Dichlorofluoromethane	67	2.457	2.457	0.000	96	450565	50.0	56.2	
18 Trichlorofluoromethane	101	2.470	2.470	0.000	93	470086	50.0	69.3	
20 Ethyl ether	59	2.816	2.816	0.000	83	290326	50.0	50.0	
21 Acrolein	56	2.981	2.981	0.000	99	176944	150.0	142.3	
22 1,1-Dichloroethene	96	3.090	3.090	0.000	98	317197	50.0	53.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.151	3.151	0.000	95	347303	50.0	60.9	
24 Acetone	43	3.181	3.181	0.000	99	332642	100.0	135.4	
25 Iodomethane	142	3.273	3.273	0.000	99	436319	50.0	52.1	
26 Carbon disulfide	76	3.364	3.364	0.000	99	659410	50.0	49.7	
29 3-Chloro-1-propene	76	3.631	3.631	0.000	85	168033	50.0	48.2	
30 Methyl acetate	43	3.644	3.644	0.000	96	424505	100.0	78.8	
31 Methylene Chloride	84	3.838	3.838	0.000	82	388136	50.0	49.2	
32 2-Methyl-2-propanol	59	4.094	4.094	0.000	91	188867	500.0	473.0	
33 Acrylonitrile	53	4.222	4.222	0.000	98	1084711	500.0	377.0	
34 trans-1,2-Dichloroethene	96	4.270	4.270	0.000	97	350195	50.0	51.8	
35 Methyl tert-butyl ether	73	4.276	4.276	0.000	94	991746	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	4.696	4.696	0.000	89	383088	50.0	47.9	
37 1,1-Dichloroethane	63	4.921	4.921	0.000	96	559012	50.0	50.9	
38 Vinyl acetate	43	4.976	4.976	0.000	97	477750	50.0	37.3	
42 2,2-Dichloropropane	97	5.676	5.676	0.000	62	67006	50.0	58.9	
43 cis-1,2-Dichloroethene	96	5.688	5.688	0.000	78	396522	50.0	50.3	
44 2-Butanone (MEK)	43	5.694	5.694	0.000	88	371245	100.0	105.4	
48 Chlorobromomethane	128	5.974	5.974	0.000	87	177171	50.0	51.5	
49 Tetrahydrofuran	42	5.992	5.992	0.000	80	153635	100.0	64.4	
50 Chloroform	83	6.126	6.126	0.000	92	624295	50.0	52.7	
51 1,1,1-Trichloroethane	97	6.290	6.290	0.000	98	444403	50.0	59.0	
52 Cyclohexane	56	6.357	6.357	0.000	81	480001	50.0	44.9	
53 Carbon tetrachloride	117	6.454	6.454	0.000	95	364006	50.0	67.2	
54 1,1-Dichloropropene	75	6.479	6.479	0.000	98	492726	50.0	54.3	
56 Benzene	78	6.691	6.691	0.000	97	1403557	50.0	53.2	
55 Isobutyl alcohol	41	6.691	6.691	0.000	62	171526	1250.0	1079.6	
57 1,2-Dichloroethane	62	6.777	6.777	0.000	99	501890	50.0	51.5	
59 n-Heptane	43	7.069	7.069	0.000	81	265500	50.0	43.6	
61 Trichloroethene	130	7.440	7.440	0.000	97	331659	50.0	51.7	
63 Methylcyclohexane	83	7.671	7.671	0.000	84	577855	50.0	51.6	
64 1,2-Dichloropropane	63	7.713	7.713	0.000	91	302111	50.0	45.8	
65 1,4-Dioxane	88	7.793	7.793	0.000	38	50488	1000.0	838.9	M
67 Dibromomethane	93	7.799	7.799	0.000	93	218269	50.0	50.6	
68 Dichlorobromomethane	83	7.999	7.999	0.000	99	368884	50.0	50.2	
70 2-Chloroethyl vinyl ether	63	8.310	8.310	0.000	93	450947	100.0	103.1	
71 cis-1,3-Dichloropropene	75	8.450	8.450	0.000	96	420558	50.0	50.5	
72 4-Methyl-2-pentanone (MIBK	43	8.608	8.608	0.000	92	563691	100.0	75.9	
73 Toluene	91	8.778	8.778	0.000	99	1403520	50.0	49.0	
74 trans-1,3-Dichloropropene	75	9.034	9.034	0.000	91	375688	50.0	49.0	
75 Ethyl methacrylate	69	9.100	9.100	0.000	85	435415	50.0	45.0	
76 1,1,2-Trichloroethane	97	9.222	9.222	0.000	92	317088	50.0	47.8	
77 Tetrachloroethene	164	9.295	9.295	0.000	93	244830	50.0	47.7	
78 1,3-Dichloropropane	76	9.380	9.380	0.000	87	587805	50.0	48.9	
79 2-Hexanone	43	9.447	9.447	0.000	92	513905	100.0	107.6	
81 Chlorodibromomethane	129	9.593	9.593	0.000	89	221611	50.0	49.3	
82 Ethylene Dibromide	107	9.709	9.709	0.000	99	302607	50.0	47.5	
83 3-Chlorobenzotrifluoride	180	10.183	10.183	0.000	89	502373	50.0	60.3	
84 Chlorobenzene	112	10.196	10.196	0.000	93	934005	50.0	50.1	
85 4-Chlorobenzotrifluoride	180	10.269	10.269	0.000	96	464194	50.0	60.1	
86 1,1,1,2-Tetrachloroethane	131	10.293	10.293	0.000	89	284886	50.0	53.8	
87 Ethylbenzene	106	10.299	10.299	0.000	98	513832	50.0	48.2	
88 m-Xylene & p-Xylene	106	10.433	10.433	0.000	99	631786	50.0	48.4	
89 o-Xylene	106	10.816	10.816	0.000	96	615703	50.0	47.0	
90 Styrene	104	10.834	10.834	0.000	93	1078665	50.0	51.0	
91 Bromoform	173	11.011	11.011	0.000	92	119244	50.0	47.2	
92 2-Chlorobenzotrifluoride	180	11.084	11.084	0.000	93	510216	50.0	60.4	
93 Isopropylbenzene	105	11.181	11.181	0.000	97	1501372	50.0	51.2	
95 Bromobenzene	156	11.485	11.485	0.000	95	383822	50.0	46.1	
96 1,1,2,2-Tetrachloroethane	83	11.497	11.497	0.000	96	452431	50.0	48.5	
97 trans-1,4-Dichloro-2-buten	53	11.540	11.540	0.000	72	95229	50.0	39.1	
98 1,2,3-Trichloropropane	110	11.546	11.546	0.000	86	155841	50.0	45.0	
99 N-Propylbenzene	120	11.595	11.595	0.000	98	424892	50.0	46.9	
100 2-Chlorotoluene	126	11.680	11.680	0.000	95	370449	50.0	47.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
101 3-Chlorotoluene	126	11.747	11.747	0.000	96	465929	50.0	56.5	
102 1,3,5-Trimethylbenzene	105	11.783	11.783	0.000	93	1300833	50.0	50.5	
103 4-Chlorotoluene	126	11.802	11.802	0.000	99	404640	50.0	47.2	
104 tert-Butylbenzene	119	12.094	12.094	0.000	91	1039835	50.0	50.9	
106 1,2,4-Trimethylbenzene	105	12.154	12.154	0.000	98	1349978	50.0	50.3	
107 1,2-dichloro-4-(trifluorom	214	12.203	12.203	0.000	93	354962	50.0	59.6	
108 sec-Butylbenzene	105	12.319	12.319	0.000	96	1484959	50.0	51.8	
109 1,3-Dichlorobenzene	146	12.428	12.428	0.000	95	725865	50.0	48.5	
110 4-Isopropyltoluene	119	12.471	12.471	0.000	95	1250691	50.0	52.8	
111 1,4-Dichlorobenzene	146	12.532	12.532	0.000	93	759417	50.0	49.1	
113 2,4-Dichloro-1-(triflourom	214	12.568	12.568	0.000	94	331314	50.0	59.0	
114 2,5-Dichlorobenzotrifluori	214	12.611	12.611	0.000	97	392222	50.0	63.3	
116 n-Butylbenzene	91	12.878	12.878	0.000	96	1152283	50.0	53.4	
117 1,2-Dichlorobenzene	146	12.890	12.890	0.000	95	713947	50.0	50.2	
118 1,2-Dibromo-3-Chloropropan	75	13.681	13.675	0.006	79	57542	50.0	45.4	
119 2,4- & 2,5- & 2,6- Dichlor	125	13.815	13.815	0.000	98	1848132	150.0	203.9	
121 2,3- & 3,4- Dichlorotoluen	125	14.235	14.235	0.000	99	1357764	100.0	137.1	
122 1,2,4-Trichlorobenzene	180	14.497	14.497	0.000	93	422291	50.0	56.8	
123 Hexachlorobutadiene	225	14.643	14.643	0.000	94	145382	50.0	61.7	
124 Naphthalene	128	14.758	14.758	0.000	98	1110813	50.0	49.0	
125 1,2,3-Trichlorobenzene	180	14.977	14.977	0.000	97	382474	50.0	57.3	
126 2,4,5-Trichlorotoluene	159	15.774	15.774	0.000	0	236806	50.0	61.7	
127 2,3,6-Trichlorotoluene	159	15.877	15.877	0.000	95	239668	50.0	69.6	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 131 Xylenes, Total	106				0		100.0	95.4	
S 130 1,2-Dichloroethene, Total	96				0		100.0	102.1	
S 132 1,3-Dichloropropene, Total	1				0		100.0	99.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWKetmix1st_00006	Amount Added:	2.00	Units: uL		
voaWVA1stRest_00021	Amount Added:	2.00	Units: uL		
voaWAcro1stRe_00021	Amount Added:	6.00	Units: uL		
voaWEEmix1stR_00014	Amount Added:	2.00	Units: uL		
VOA2CEVE2ND_00010	Amount Added:	2.00	Units: uL		
VOA8260VOAPRI_00266	Amount Added:	2.00	Units: uL		
VOA8260INT_00074	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00073	Amount Added:	2.00	Units: uL	Run Reagent	

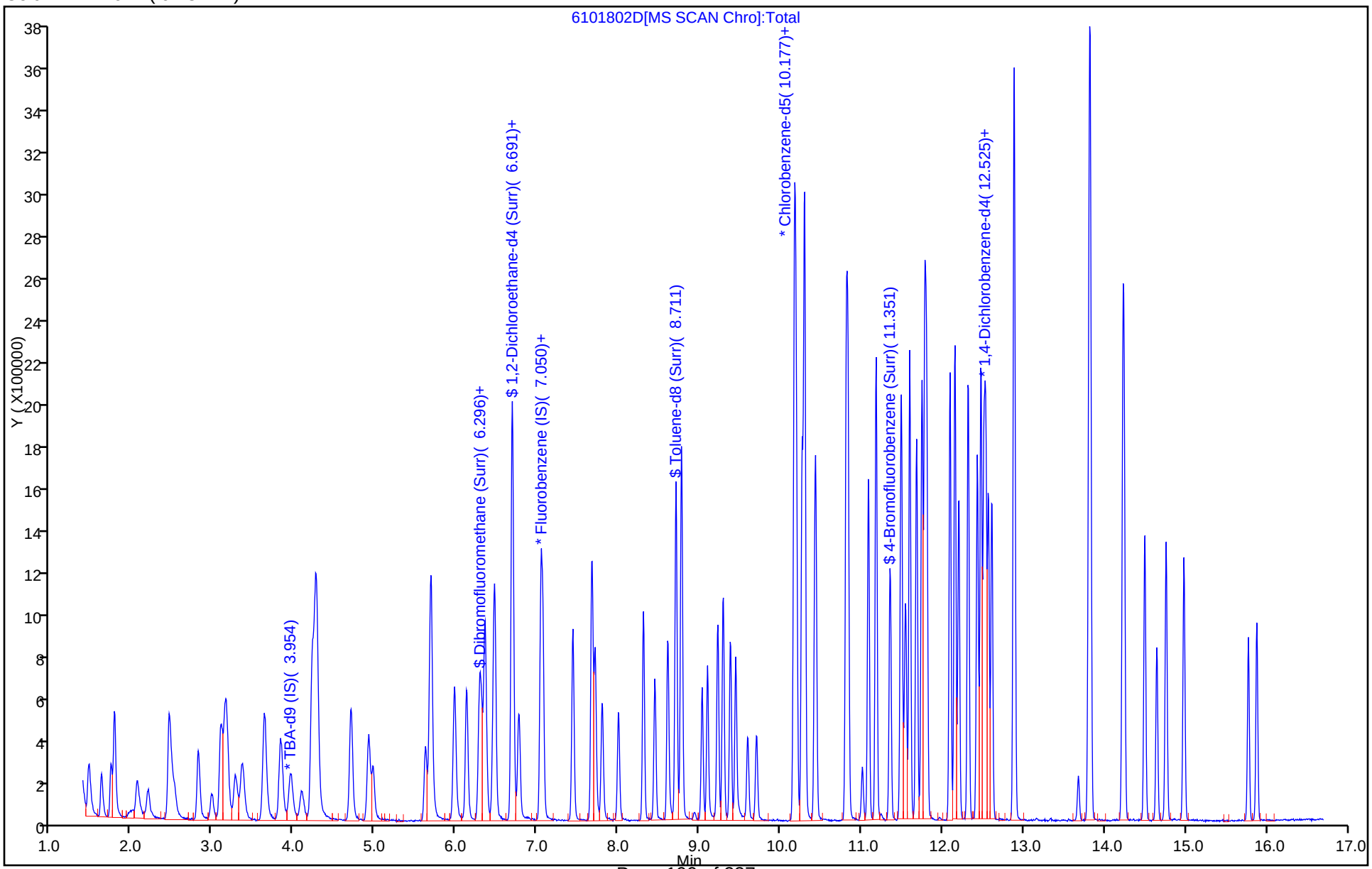
Report Date: 18-Oct-2017 20:30:37 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101802D.D

Injection Date:	17-Oct-2017 23:55:30	Instrument ID:	CHHP6	Operator ID:	034635
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)



Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

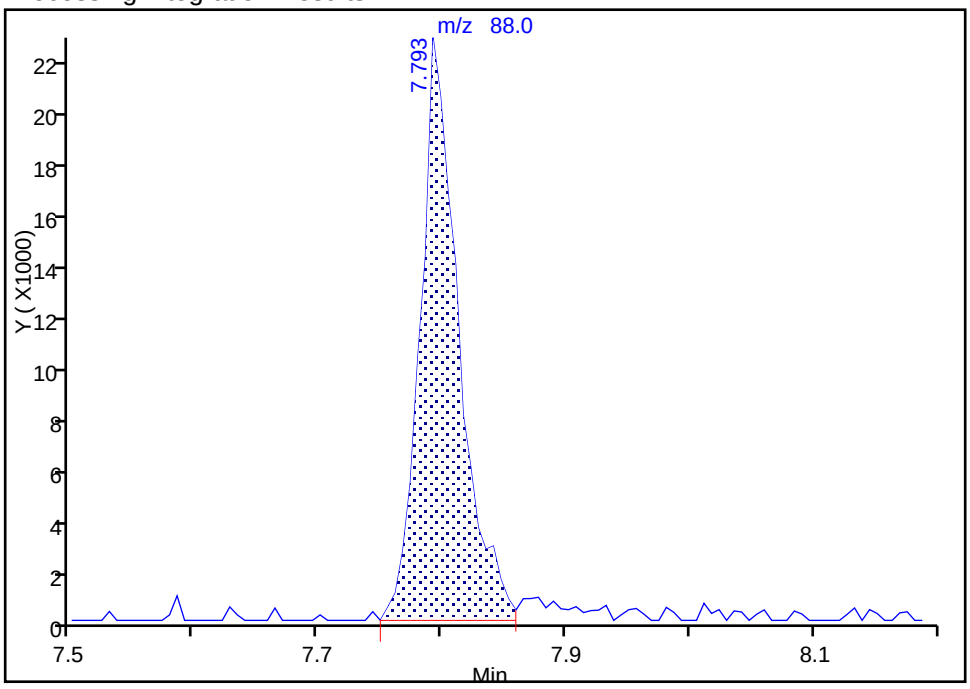
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101802D.D
Injection Date: 17-Oct-2017 23:55:30 Instrument ID: CHHP6
Lims ID: CCVIS
Client ID:
Operator ID: 034635 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

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

Signal: 1

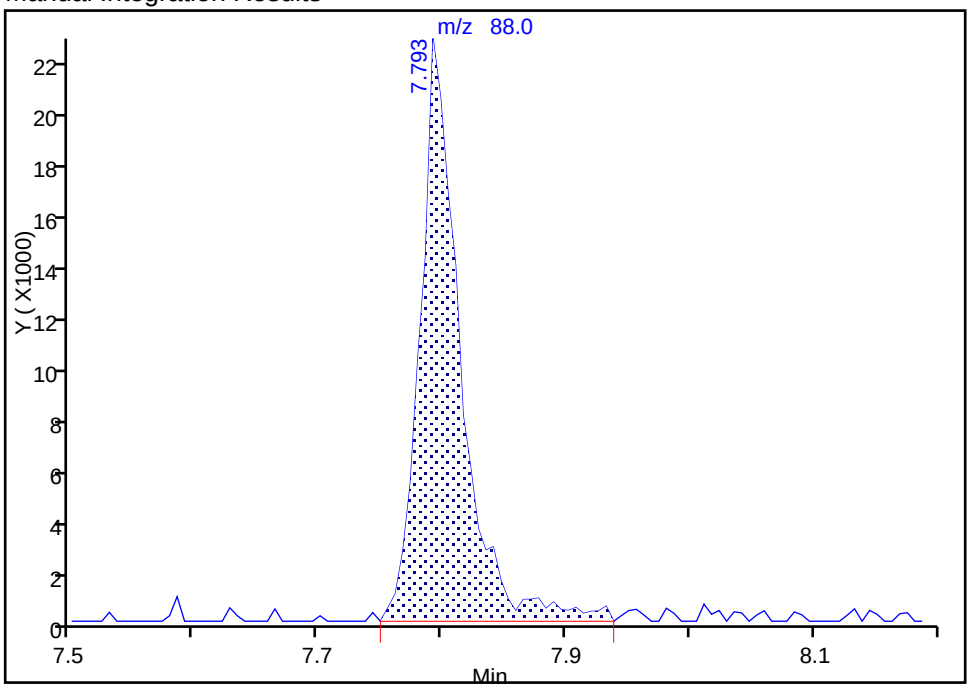
Processing Integration Results

RT: 7.79
Area: 48010
Amount: 797.7345
Amount Units: ng



Manual Integration Results

RT: 7.79
Area: 50488
Amount: 838.9089
Amount Units: ng



Reviewer: bungardf, 18-Oct-2017 00:15:52
Audit Action: Manually Integrated Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20170602-17015.b\60602003.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	02-Jun-2017 06:02:30	ALS Bottle#:	1	Worklist Smp#:	3
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	180-0017015-003				
Misc. Info.:	BFB				
Operator ID:	034635	Instrument ID:	CHHP6		
Method:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20170602-17015.b\MSVOA_LL_CHHP6.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	05-Jun-2017 02:18:35	Calib Date:	02-Jun-2017 14:26:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20170602-17015.b\60602021.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK004				
First Level Reviewer: bungardf		Date:	02-Jun-2017 06:25:15		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.213	8.213	0.000	0	92923	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

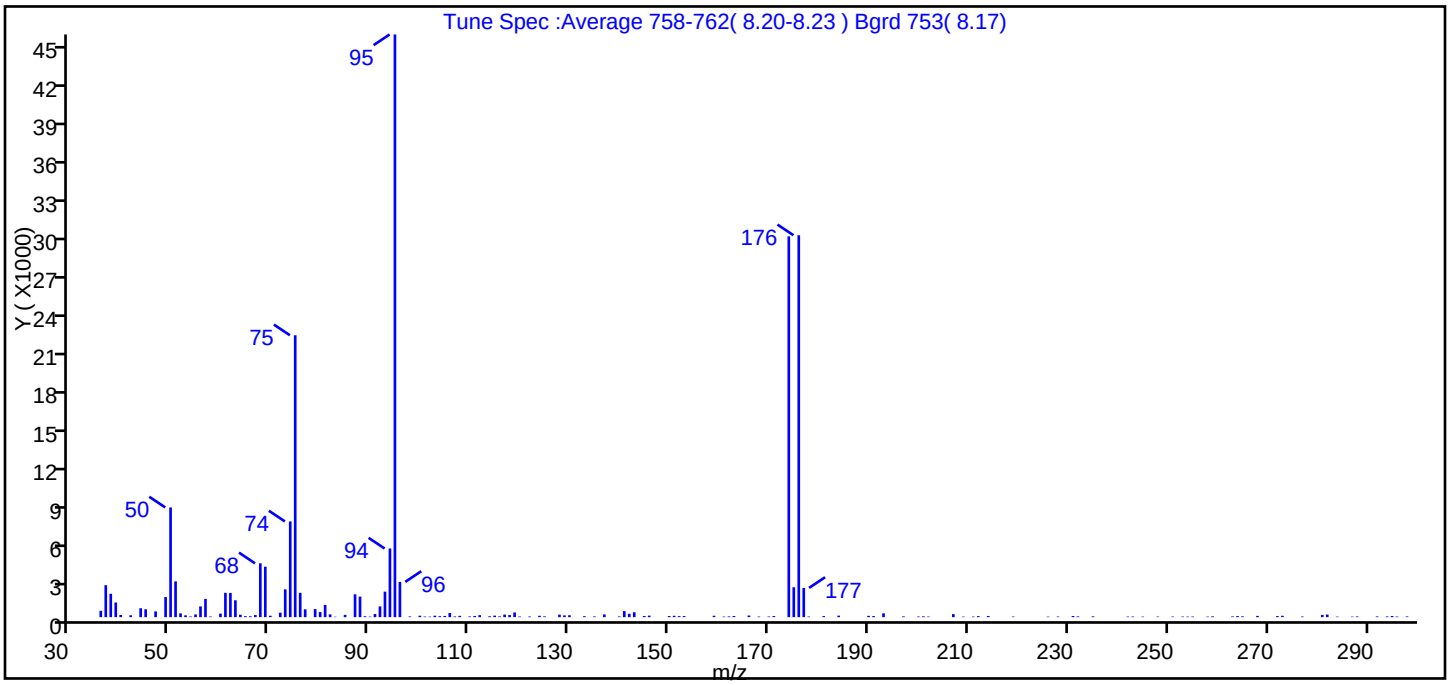
VOABFB25_00088 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170602-17015.b\60602003.D
Injection Date: 02-Jun-2017 06:02:30 Instrument ID: CHHP6
Lims ID: BFB
Client ID:
Operator ID: 034635 ALS Bottle#: 1 Worklist Smp#: 3
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.8
75	30 to 60% of m/z 95	48.4
96	5 to 9% of m/z 95	6.0
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	65.4
175	5 to 9% of m/z 174	5.1 (7.9)
176	Greater than 95% but less than 101% of m/z 174	65.5 (100.3)
177	5 to 9% of m/z 176	5.0 (7.7)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170602-17015.b\60602003.D\MSVOA_LL_CHHP6.rslt\spect
Injection Date: 02-Jun-2017 06:02:30
Spectrum: Tune Spec :Average 758-762(8.20-8.23) Bgrd 753(8.17)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 151

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	491	81.00	948	129.00	138	209.00	41
37.00	2479	82.00	215	130.00	148	211.00	44
38.00	1815	83.00	32	133.00	75	212.00	81
39.00	1138	85.00	175	135.00	55	214.00	91
40.00	168	87.00	1772	137.00	211	219.00	45
42.00	145	88.00	1592	140.00	55	226.00	40
44.00	690	89.00	69	141.00	469	228.00	46
45.00	609	90.00	40	142.00	261	231.00	88
47.00	446	91.00	242	143.00	380	232.00	56
49.00	1560	92.00	834	145.00	88	235.00	63
50.00	8513	93.00	1980	146.00	118	242.00	45
51.00	2775	94.00	5325	150.00	86	243.00	48
52.00	295	95.00	45208	151.00	105	245.00	40
53.00	139	96.00	2735	152.00	77	248.00	43
54.00	49	98.00	55	153.00	84	251.00	43
55.00	209	100.00	111	159.00	109	253.00	44
56.00	833	101.00	45	161.00	43	254.00	41
57.00	1414	102.00	40	162.00	57	255.00	47
58.00	48	103.00	112	163.00	88	258.00	42
60.00	273	104.00	73	166.00	126	259.00	63
61.00	1885	105.00	94	168.00	46	263.00	55
62.00	1879	106.00	320	170.00	47	264.00	81
63.00	1308	107.00	54	171.00	85	265.00	62
64.00	188	108.00	101	174.00	29544	268.00	97
65.00	77	110.00	52	175.00	2320	272.00	83
66.00	68	111.00	89	176.00	29632	273.00	106
67.00	162	112.00	154	177.00	2269	277.00	48
68.00	4177	114.00	68	178.00	48	281.00	177
69.00	3914	115.00	118	181.00	82	282.00	204
70.00	109	116.00	61	184.00	116	284.00	40
72.00	348	117.00	198	190.00	102	287.00	40
73.00	2157	118.00	161	191.00	84	288.00	52
74.00	7426	119.00	366	193.00	294	292.00	56

Report Date: 05-Jun-2017 02:18:37 Chrom Revision: 2.2 25-Apr-2017 13:27:22
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170602-17015.b\60602003.D\MSVOA_LL_CHHP6.rslt\spect
Injection Date: 02-Jun-2017 06:02:30
Spectrum: Tune Spec :Average 758-762(8.20-8.23) Bgrd 753(8.17)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 151

m/z	Y	m/z	Y	m/z	Y	m/z	Y
75.00	21872	120.00	51	197.00	60	294.00	57
76.00	1884	122.00	51	200.00	48	295.00	90
77.00	608	124.00	107	201.00	63	296.00	47
79.00	627	125.00	60	202.00	44	298.00	54
80.00	394	128.00	194	207.00	235		

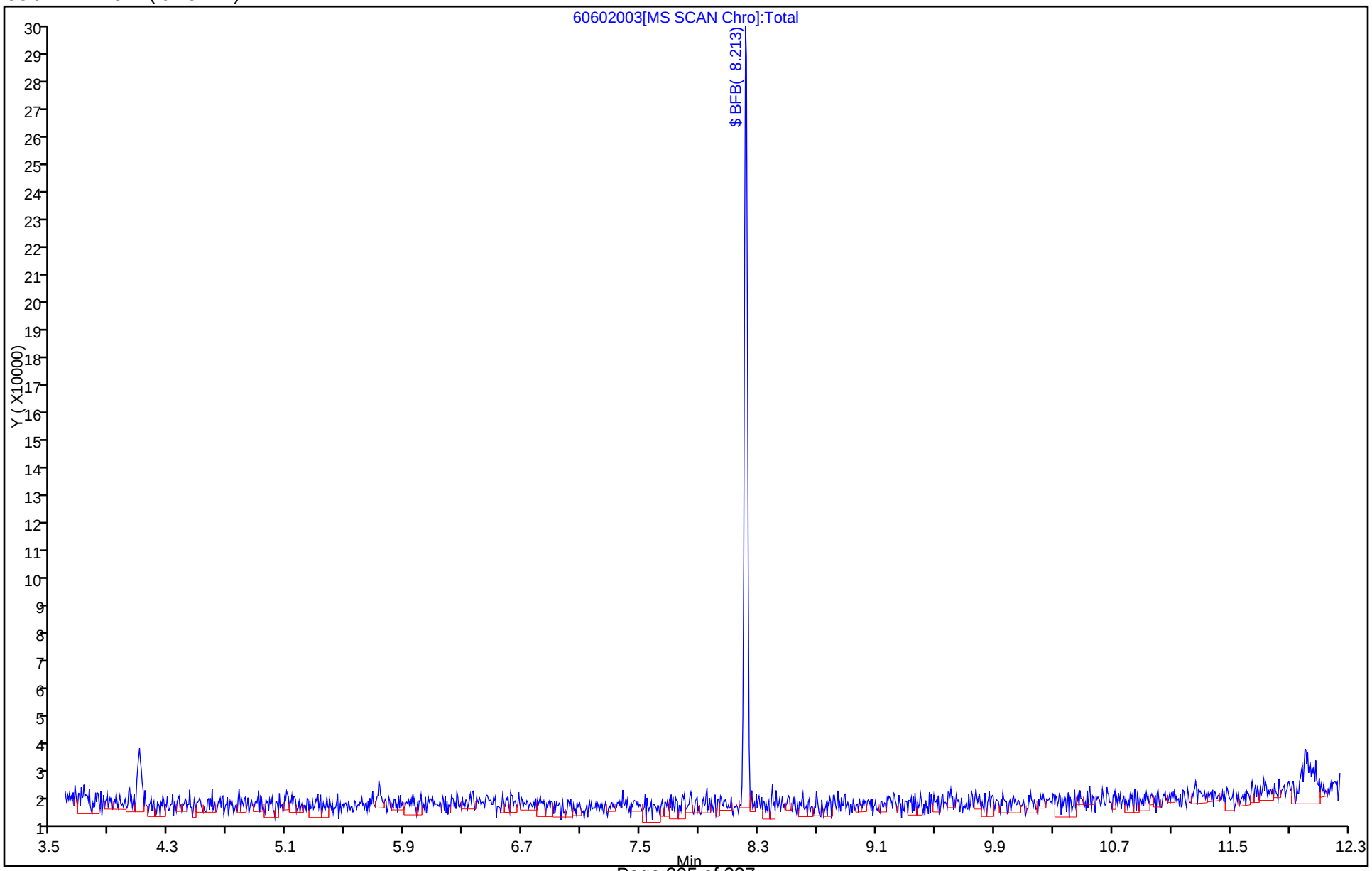
Report Date: 05-Jun-2017 02:18:37 Chrom Revision: 2.2 25-Apr-2017 13:27:22

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170602-17015.b\60602003.D

Injection Date:	02-Jun-2017 06:02:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	BFB			Worklist Smp#:	3
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\20170724-17705.b\60724D01.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	24-Jul-2017 04:58:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	180-0017705-001				
Misc. Info.:	BFB				
Operator ID:	034635	Instrument ID:	CHHP6		
Method:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\MSVOA_LL_CHHP6.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	25-Jul-2017 01:44:23	Calib Date:	24-Jul-2017 09:28:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20170724-17705.b\60724D10.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK021				

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

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

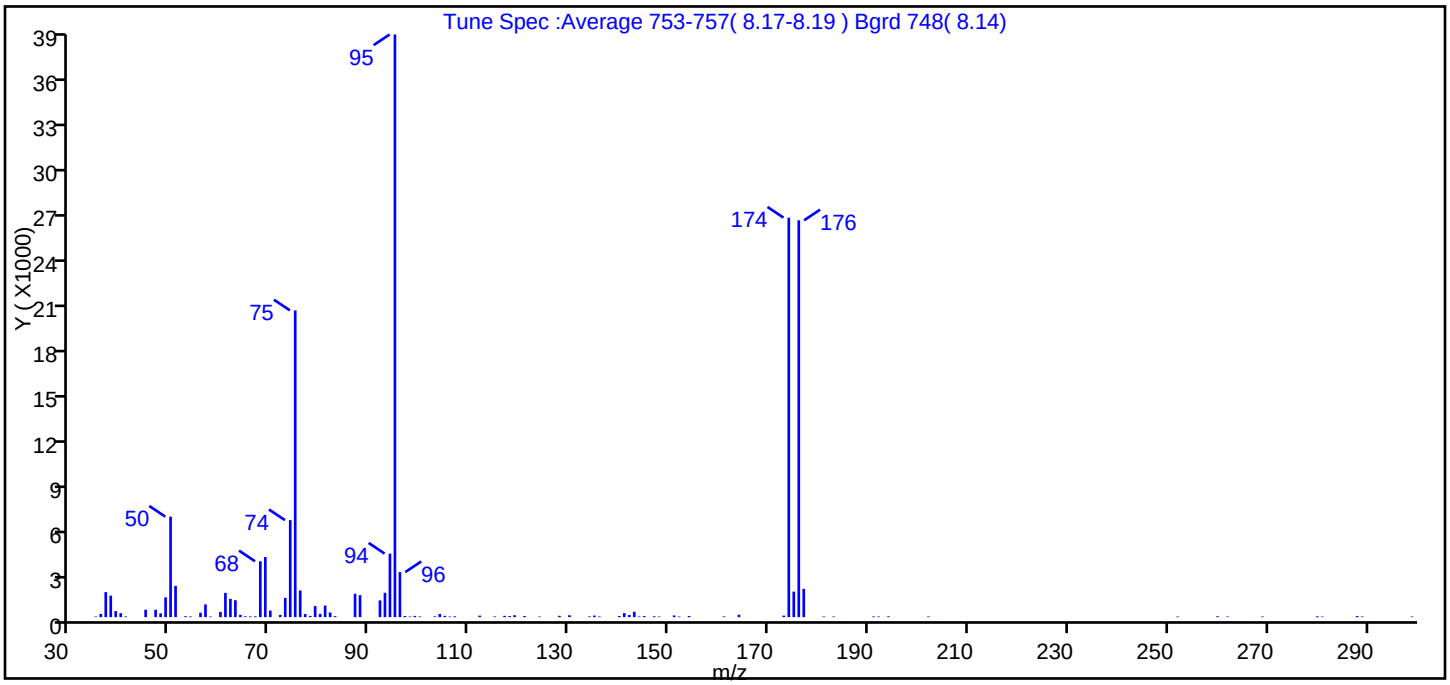
VOABFB25_00090 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

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

$ 10 BFB



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

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

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

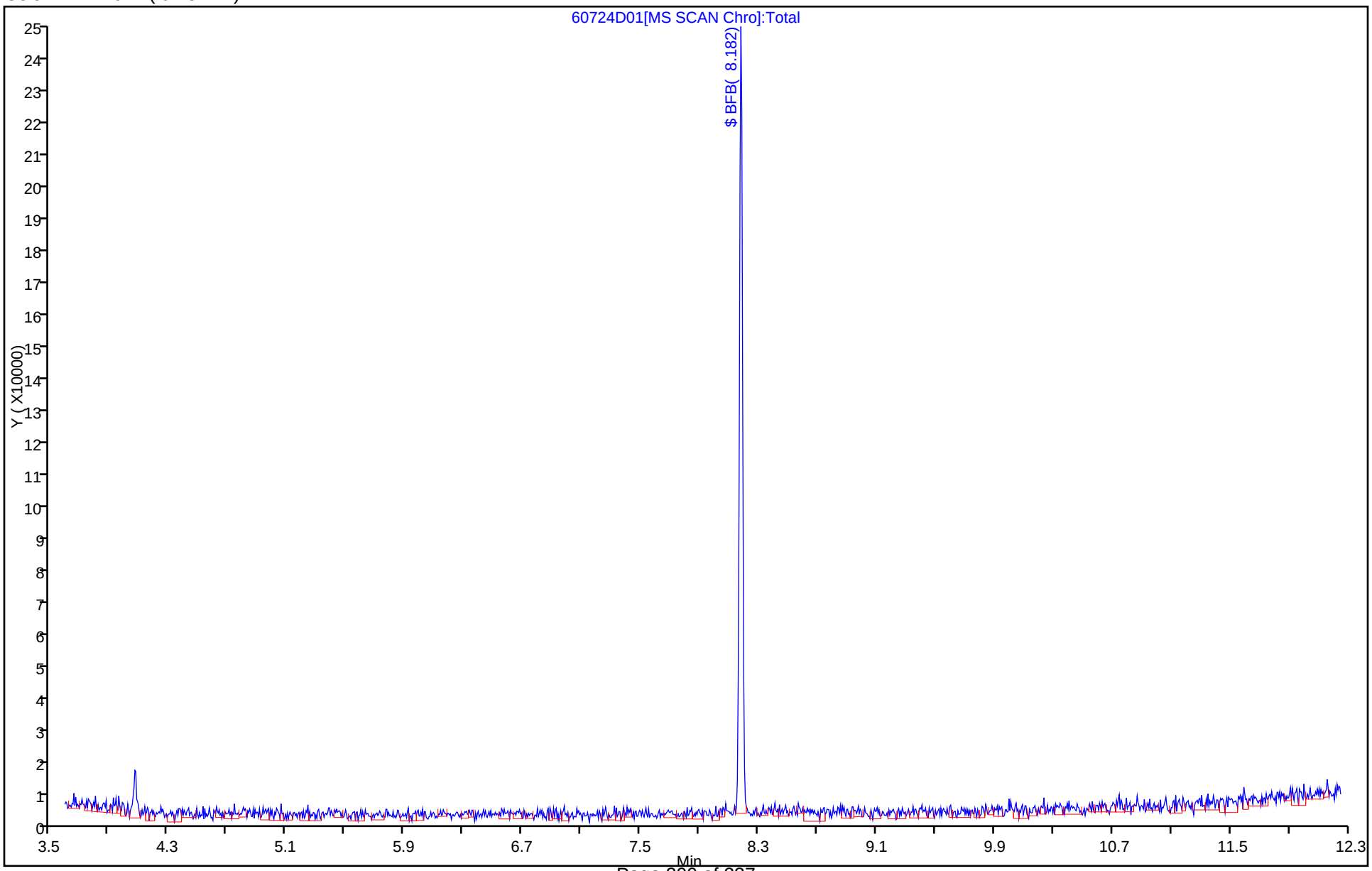
Report Date: 25-Jul-2017 01:44:25 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Pittsburgh

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

Injection Date:	24-Jul-2017 04:58:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101801D.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	17-Oct-2017 21:58:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	180-0018914-001				
Misc. Info.:	BFB				
Operator ID:	034635	Instrument ID:	CHHP6		
Method:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\MSVOA_LL_CHHP6.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	18-Oct-2017 20:30:34	Calib Date:	28-Sep-2017 15:13:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK031				
First Level Reviewer: bungardf		Date:	17-Oct-2017 22:50:15		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.183	8.183	0.000	0	63554	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

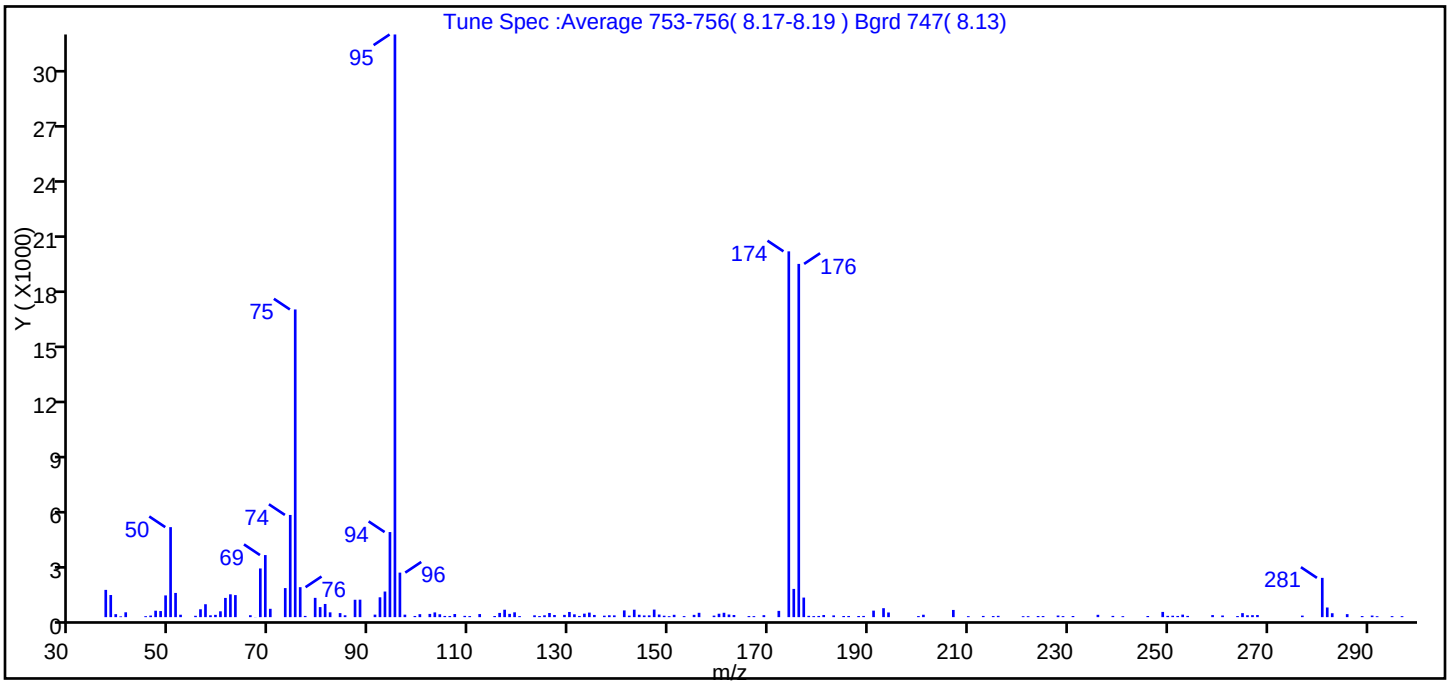
VOABFB25_00094 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101801D.D
Injection Date: 17-Oct-2017 21:58:30 Instrument ID: CHHP6
Lims ID: BFB
Client ID:
Operator ID: 034635 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	15.4
75	30 to 60% of m/z 95	52.8
96	5 to 9% of m/z 95	7.6
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	62.8
175	5 to 9% of m/z 174	4.8 (7.7)
176	Greater than 95% but less than 101% of m/z 174	60.6 (96.6)
177	5 to 9% of m/z 176	3.4 (5.5)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101801D.D\MSVOA_LL_CHHP6.rslt\spec
Injection Date: 17-Oct-2017 21:58:30
Spectrum: Tune Spec :Average 753-756(8.17-8.19) Bgrd 747(8.13)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 159

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	1460	91.00	135	142.00	81	207.00	386
38.00	1185	92.00	1063	143.00	399	210.00	52
39.00	160	93.00	1372	144.00	127	213.00	65
40.00	41	94.00	4557	145.00	90	215.00	58
41.00	260	95.00	31208	146.00	95	216.00	70
45.00	52	96.00	2385	147.00	405	221.00	50
46.00	84	97.00	133	148.00	139	222.00	53
47.00	345	99.00	63	149.00	76	224.00	60
48.00	326	100.00	159	150.00	52	225.00	58
49.00	1164	102.00	173	151.00	125	228.00	85
50.00	4821	103.00	254	153.00	56	229.00	55
51.00	1297	104.00	154	155.00	123	231.00	61
52.00	129	105.00	65	156.00	232	236.00	125
55.00	73	106.00	62	159.00	82	239.00	67
56.00	422	107.00	167	160.00	183	241.00	52
57.00	692	109.00	69	161.00	234	246.00	61
58.00	98	110.00	57	162.00	140	249.00	280
59.00	123	112.00	165	163.00	115	250.00	68
60.00	313	115.00	61	166.00	57	251.00	76
61.00	1029	116.00	226	167.00	55	252.00	64
62.00	1223	117.00	397	169.00	106	253.00	135
63.00	1181	118.00	175	172.00	336	254.00	66
66.00	103	119.00	259	174.00	19592	259.00	110
67.00	7	120.00	55	175.00	1512	261.00	88
68.00	2608	123.00	98	176.00	18920	264.00	58
69.00	3325	124.00	58	177.00	1048	265.00	215
70.00	447	125.00	99	178.00	70	266.00	101
73.00	1556	126.00	222	179.00	56	267.00	106
74.00	5474	127.00	115	180.00	64	268.00	112
75.00	16480	129.00	121	181.00	114	277.00	82
76.00	1605	130.00	277	183.00	94	281.00	2104
77.00	66	131.00	151	185.00	61	282.00	517
79.00	1033	132.00	64	186.00	62	283.00	210

Report Date: 18-Oct-2017 20:30:35 Chrom Revision: 2.2 16-Aug-2017 16:24:46
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101801D.D\MSVOA_LL_CHHP6.rslt\spec
Injection Date: 17-Oct-2017 21:58:30
Spectrum: Tune Spec :Average 753-756(8.17-8.19) Bgrd 747(8.13)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 159

m/z	Y	m/z	Y	m/z	Y	m/z	Y
80.00	538	133.00	187	188.00	60	286.00	161
81.00	706	134.00	243	189.00	65	289.00	58
82.00	257	135.00	117	191.00	349	291.00	85
84.00	217	137.00	79	193.00	480	292.00	50
85.00	100	138.00	101	194.00	250	295.00	55
87.00	931	139.00	95	200.00	57	297.00	54
88.00	936	141.00	361	201.00	129		

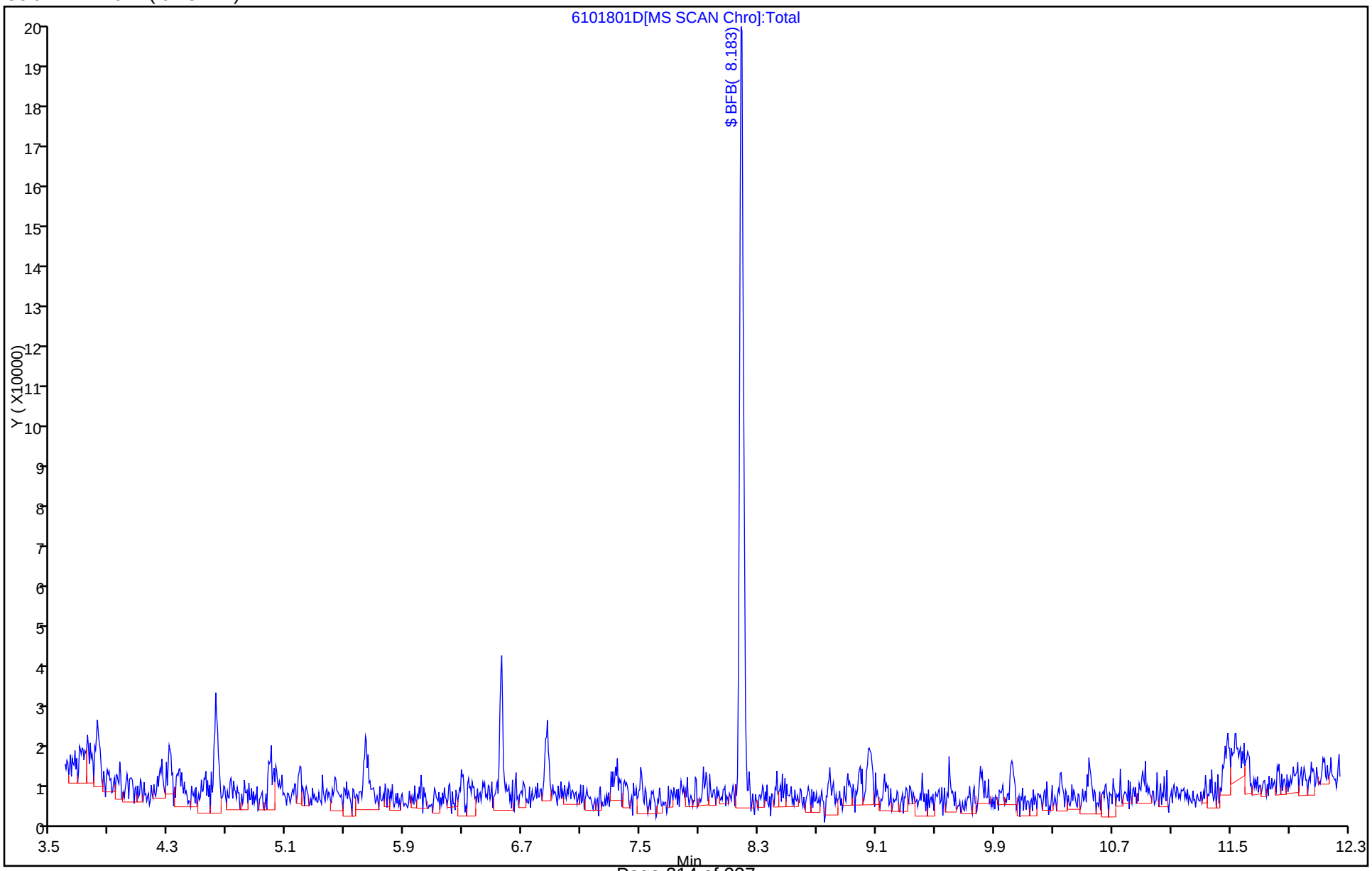
Report Date: 18-Oct-2017 20:30:35 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101801D.D

Injection Date:	17-Oct-2017 21:58:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71131-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-226148/6

Matrix: Water | Lab File ID: 6101806D.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 10/18/2017 02:09

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.: 226148 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71131-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-226148/6

Matrix: Water | Lab File ID: 6101806D.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 10/18/2017 02:09

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.: 226148 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		65-121
2037-26-5	Toluene-d8 (Surr)	89		73-120
460-00-4	4-Bromofluorobenzene (Surr)	90		80-120
1868-53-7	Dibromofluoromethane (Surr)	91		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101806D.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 18-Oct-2017 02:09:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018914-006
Misc. Info.: MB
Operator ID: 034635 Instrument ID: CHHP6

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 18-Oct-2017 20:30:42 Calib Date: 28-Sep-2017 15:13:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: bungardf Date: 18-Oct-2017 02:37:50

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	3.955	3.949	0.006	92	312973	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.045	7.045	0.000	98	1062992	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.172	10.166	0.006	88	286612	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.508	12.508	0.000	97	425493	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.315	6.314	0.001	91	251413	50.0	45.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.686	6.685	0.001	70	368853	50.0	46.7	
$ 7 Toluene-d8 (Surr)	98	8.712	8.711	0.001	93	1035065	50.0	44.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.352	11.351	0.001	83	443998	50.0	44.9	
11 Dichlorodifluoromethane	85		1.472					ND	
12 Chloromethane	50		1.624					ND	
13 Vinyl chloride	62		1.740					ND	
14 Butadiene	39		1.788					ND	
15 Bromomethane	94		2.068					ND	
16 Chloroethane	64		2.202					ND	
17 Dichlorofluoromethane	67		2.457					ND	
18 Trichlorofluoromethane	101		2.470					ND	
20 Ethyl ether	59		2.816					ND	
19 Ethanol	45		2.823					ND	
21 Acrolein	56		2.981					ND	
22 1,1-Dichloroethene	96		3.090					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.151					ND	
24 Acetone	43		3.181					ND	
25 Iodomethane	142		3.273					ND	
26 Carbon disulfide	76		3.364					ND	
27 Isopropyl alcohol	45		3.432					ND	
28 Acetonitrile	41		3.572					ND	
29 3-Chloro-1-propene	76		3.631					ND	
30 Methyl acetate	43		3.644					ND	
31 Methylene Chloride	84	3.833	3.838	-0.005	83	8391		1.15	
32 2-Methyl-2-propanol	59		4.094					ND	
33 Acrylonitrile	53		4.222					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		4.270					ND	
35 Methyl tert-butyl ether	73		4.276					ND	
36 Hexane	57		4.696					ND	
37 1,1-Dichloroethane	63		4.921					ND	
38 Vinyl acetate	43		4.976					ND	
40 Isopropyl ether	45		5.020					ND	
39 2-Chloro-1,3-butadiene	53		5.020					ND	
41 Tert-butyl ethyl ether	59		5.506					ND	
42 2,2-Dichloropropane	97		5.676					ND	
43 cis-1,2-Dichloroethene	96		5.688					ND	
44 2-Butanone (MEK)	43		5.694					ND	
45 Propionitrile	54		5.768					ND	
46 Ethyl acetate	43		5.774					ND	
47 Methacrylonitrile	41		5.950					ND	
48 Chlorobromomethane	128		5.974					ND	
49 Tetrahydrofuran	42		5.992					ND	
50 Chloroform	83	6.120	6.126	-0.006	53	5787		0.5262	
51 1,1,1-Trichloroethane	97		6.290					ND	
52 Cyclohexane	56		6.357					ND	
53 Carbon tetrachloride	117		6.454					ND	
54 1,1-Dichloropropene	75		6.479					ND	
56 Benzene	78		6.691					ND	
55 Isobutyl alcohol	41		6.691					ND	
57 1,2-Dichloroethane	62		6.777					ND	
148 Isooctane	57		6.857					ND	
58 Tert-amyl methyl ether	73		6.881					ND	
59 n-Heptane	43		7.069					ND	
60 n-Butanol	56		7.410					ND	
61 Trichloroethene	130		7.440					ND	
62 Ethyl acrylate	55		7.569					ND	
63 Methylcyclohexane	83		7.671					ND	
64 1,2-Dichloropropane	63		7.713					ND	
65 1,4-Dioxane	88		7.793					ND	
67 Dibromomethane	93		7.799					ND	
66 Methyl methacrylate	69		7.806					ND	
68 Dichlorobromomethane	83		7.999					ND	
70 2-Chloroethyl vinyl ether	63		8.310					ND	
71 cis-1,3-Dichloropropene	75		8.450					ND	
72 4-Methyl-2-pentanone (MIBK	43		8.608					ND	
73 Toluene	91		8.778					ND	
74 trans-1,3-Dichloropropene	75		9.034					ND	
75 Ethyl methacrylate	69		9.100					ND	
76 1,1,2-Trichloroethane	97		9.222					ND	
77 Tetrachloroethene	164		9.295					ND	
78 1,3-Dichloropropane	76		9.380					ND	
79 2-Hexanone	43		9.447					ND	
80 n-Butyl acetate	43		9.576					ND	
81 Chlorodibromomethane	129		9.593					ND	
82 Ethylene Dibromide	107		9.709					ND	
83 3-Chlorobenzotrifluoride	180		10.183					ND	
84 Chlorobenzene	112		10.196					ND	
85 4-Chlorobenzotrifluoride	180		10.269					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 1,1,1,2-Tetrachloroethane	131		10.293					ND	
87 Ethylbenzene	106		10.299					ND	
88 m-Xylene & p-Xylene	106		10.433					ND	
89 o-Xylene	106		10.816					ND	
90 Styrene	104		10.834					ND	
91 Bromoform	173		11.011					ND	
129 Cyclohexanol	57		11.037					ND	
92 2-Chlorobenzotrifluoride	180		11.084					ND	
93 Isopropylbenzene	105		11.181					ND	
94 Cyclohexanone	55		11.267					ND	
95 Bromobenzene	156		11.485					ND	
96 1,1,2,2-Tetrachloroethane	83		11.497					ND	
97 trans-1,4-Dichloro-2-buten	53		11.540					ND	
98 1,2,3-Trichloropropane	110		11.546					ND	
99 N-Propylbenzene	120		11.595					ND	
100 2-Chlorotoluene	126		11.680					ND	
101 3-Chlorotoluene	126		11.747					ND	
102 1,3,5-Trimethylbenzene	105		11.783					ND	
103 4-Chlorotoluene	126		11.802					ND	
104 tert-Butylbenzene	119		12.094					ND	
106 1,2,4-Trimethylbenzene	105		12.154					ND	
107 1,2-dichloro-4-(trifluorom	214		12.203					ND	
108 sec-Butylbenzene	105		12.319					ND	
109 1,3-Dichlorobenzene	146		12.428					ND	
110 4-Isopropyltoluene	119		12.471					ND	
111 1,4-Dichlorobenzene	146		12.532					ND	
112 1,2,3-Trimethylbenzene	105		12.563					ND	
113 2,4-Dichloro-1-(triflourom	214		12.568					ND	
114 2,5-Dichlorobenzotrifluori	214		12.611					ND	
115 Benzyl chloride	91		12.648					ND	
116 n-Butylbenzene	91		12.878					ND	
117 1,2-Dichlorobenzene	146		12.890					ND	
118 1,2-Dibromo-3-Chloropropan	75		13.675					ND	
119 2,4- & 2,5- & 2,6- Dichlor	125		13.815					ND	
120 1,3,5-Trichlorobenzene	180		13.865					ND	
121 2,3- & 3,4- Dichlorotoluen	125		14.235					ND	
122 1,2,4-Trichlorobenzene	180		14.497					ND	
123 Hexachlorobutadiene	225		14.643					ND	
124 Naphthalene	128		14.758					ND	
125 1,2,3-Trichlorobenzene	180		14.977					ND	
126 2,4,5-Trichlorotoluene	159		15.774					ND	
127 2,3,6-Trichlorotoluene	159		15.877					ND	
150 Tert-butyl ethyl ether (TI	1		0.000					ND	
153 1,2 Epoxybutane TIC	1		0.000					ND	
151 Tert-amyl methyl ether (TI	1		0.000					ND	
146 3,4-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
149 Isopropyl ether TIC	1		0.000					ND	
S 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	
S 154 Total BTEX	1		0.000					ND	

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

Reagents:

VOA8260INT_00074	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00073	Amount Added:	2.00	Units: uL	Run Reagent

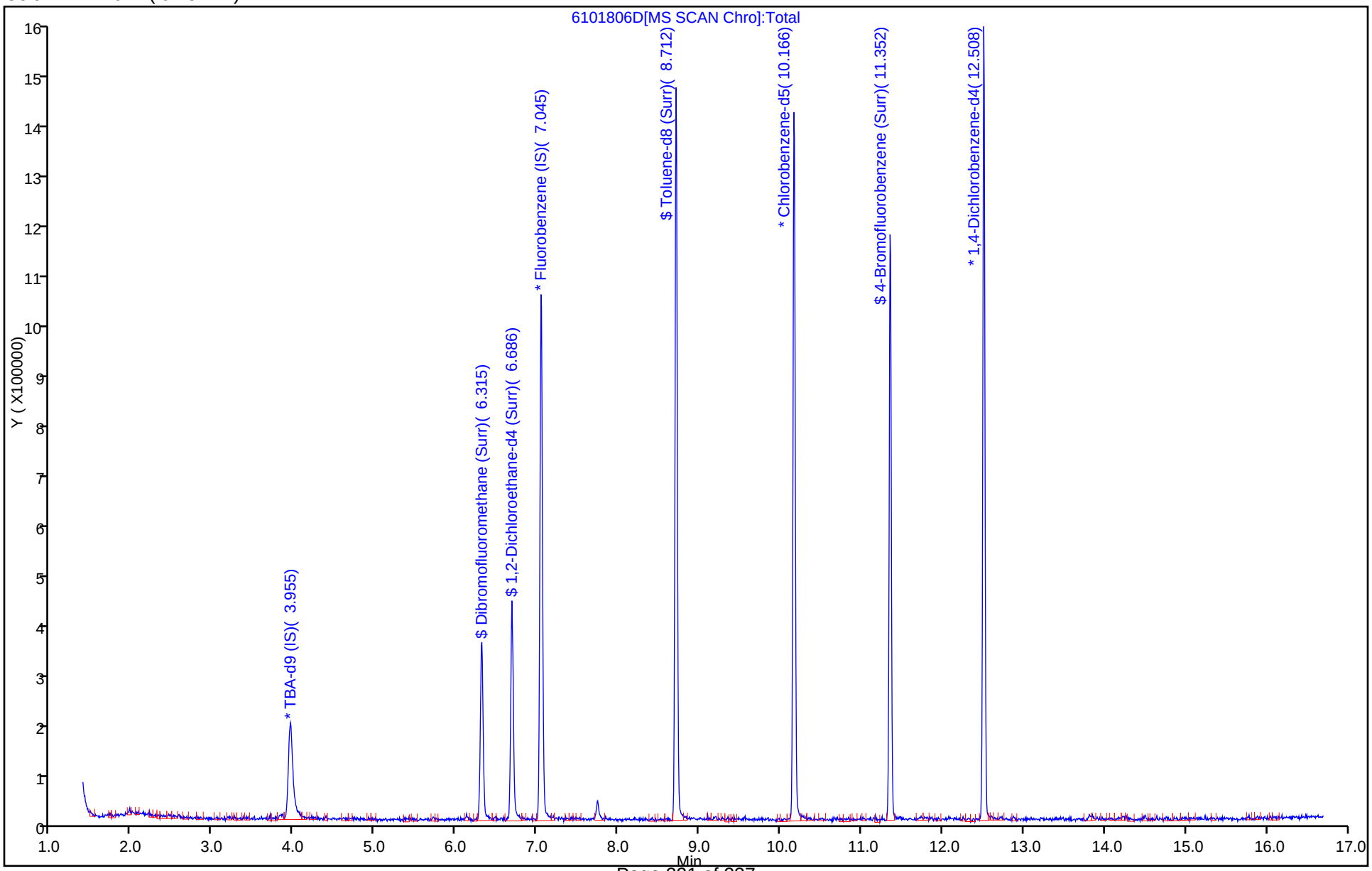
Report Date: 18-Oct-2017 20:30:55 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101806D.D

Injection Date:	18-Oct-2017 02:09:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101806D.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 18-Oct-2017 02:09:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018914-006
Misc. Info.: MB
Operator ID: 034635 Instrument ID: CHHP6

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 18-Oct-2017 20:30:42 Calib Date: 28-Sep-2017 15:13:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: bungardf Date: 18-Oct-2017 02:37:50

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	45.5	91.03
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	46.7	93.44
$ 7 Toluene-d8 (Surr)	50.0	44.7	89.44
$ 8 4-Bromofluorobenzene (Surr)	50.0	44.9	89.73

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71131-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-226148/4

Matrix: Water | Lab File ID: 6101804D.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 10/18/2017 01:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 226148 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	7.89		1.0	0.90
75-01-4	Vinyl chloride	8.87		1.0	0.88
74-83-9	Bromomethane	7.90		1.0	0.89
75-00-3	Chloroethane	9.09		1.0	0.90
75-35-4	1,1-Dichloroethene	9.66		1.0	0.55
67-64-1	Acetone	22.4		5.0	3.4
75-15-0	Carbon disulfide	8.89		1.0	0.88
75-09-2	Methylene Chloride	8.98		1.0	0.36
156-60-5	trans-1,2-Dichloroethene	9.35		1.0	0.67
1634-04-4	Methyl tert-butyl ether	8.28		1.0	0.59
75-34-3	1,1-Dichloroethane	9.00		1.0	0.63
156-59-2	cis-1,2-Dichloroethene	9.03		1.0	0.71
74-97-5	Bromochloromethane	9.10		1.0	0.63
78-93-3	2-Butanone (MEK)	18.3		5.0	2.6
67-66-3	Chloroform	9.63		1.0	0.60
71-55-6	1,1,1-Trichloroethane	10.4		1.0	0.60
56-23-5	Carbon tetrachloride	12.2		1.0	0.88
71-43-2	Benzene	9.47		1.0	0.60
107-06-2	1,2-Dichloroethane	9.07		1.0	0.57
79-01-6	Trichloroethene	9.21		1.0	0.69
78-87-5	1,2-Dichloropropane	8.45		1.0	0.66
75-27-4	Bromodichloromethane	9.26		1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	9.17		1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	13.2		5.0	3.1
108-88-3	Toluene	9.31		1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	9.36		1.0	0.58
79-00-5	1,1,2-Trichloroethane	8.74		1.0	0.45
127-18-4	Tetrachloroethene	9.13		1.0	0.47
591-78-6	2-Hexanone	18.9		5.0	3.3
124-48-1	Dibromochloromethane	9.51		1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	8.97		1.0	0.50
108-90-7	Chlorobenzene	9.44		1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	10.1		1.0	0.57
100-41-4	Ethylbenzene	9.18		1.0	0.51
1330-20-7	Xylenes, Total	18.2		2.0	0.89
100-42-5	Styrene	9.53		1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-71131-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-226148/4

Matrix: Water | Lab File ID: 6101804D.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 10/18/2017 01:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 226148 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.29		1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	8.83		1.0	0.60
107-13-1	Acrylonitrile	65.5		20	7.8
123-91-1	1,4-Dioxane	144	J	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		65-121
2037-26-5	Toluene-d8 (Surr)	93		73-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	92		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101804D.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 18-Oct-2017 01:04:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018914-004
Misc. Info.: LCS
Operator ID: 034635 Instrument ID: CHHP6

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 18-Oct-2017 20:30:42 Calib Date: 28-Sep-2017 15:13:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: bungardf Date: 18-Oct-2017 01:25:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	3.957	3.949	0.008	97	373208	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.047	7.045	0.002	98	1246060	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.168	10.166	0.002	87	301504	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.510	12.508	0.002	96	469268	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.311	6.314	-0.003	92	298392	50.0	46.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.682	6.685	-0.003	76	423400	50.0	45.8	
$ 7 Toluene-d8 (Surr)	98	8.714	8.711	0.003	93	1128430	50.0	46.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.355	11.351	0.003	82	487330	50.0	46.8	
11 Dichlorodifluoromethane	85	1.469	1.472	-0.003	99	389857	50.0	49.0	
12 Chloromethane	50	1.627	1.624	0.003	99	281976	50.0	39.4	
13 Vinyl chloride	62	1.743	1.740	0.003	97	332607	50.0	44.4	
14 Butadiene	39	1.785	1.788	-0.003	91	272714	50.0	43.9	
15 Bromomethane	94	2.077	2.068	0.009	92	138063	50.0	39.5	
16 Chloroethane	64	2.205	2.202	0.003	98	184081	50.0	45.5	
17 Dichlorofluoromethane	67	2.467	2.457	0.010	95	396925	50.0	45.5	
18 Trichlorofluoromethane	101	2.467	2.470	-0.003	77	408053	50.0	55.3	
20 Ethyl ether	59	2.819	2.816	0.003	84	284888	50.0	45.1	
21 Acrolein	56	2.984	2.981	0.003	97	168069	150.0	124.2	
22 1,1-Dichloroethene	96	3.099	3.090	0.009	98	312717	50.0	48.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.154	3.151	0.003	95	344025	50.0	55.4	
24 Acetone	43	3.184	3.181	0.003	100	300023	100.0	112.2	
25 Iodomethane	142	3.282	3.273	0.009	99	415431	50.0	45.6	
26 Carbon disulfide	76	3.361	3.364	-0.003	98	640921	50.0	44.4	
29 3-Chloro-1-propene	76	3.629	3.631	-0.003	82	167178	50.0	44.1	
30 Methyl acetate	43	3.641	3.644	-0.003	95	399082	100.0	68.1	
31 Methylene Chloride	84	3.835	3.838	-0.003	80	385298	50.0	44.9	
32 2-Methyl-2-propanol	59	4.097	4.094	0.003	91	197945	500.0	479.2	
33 Acrylonitrile	53	4.225	4.222	0.003	98	1024713	500.0	327.4	
34 trans-1,2-Dichloroethene	96	4.273	4.270	0.003	97	343681	50.0	46.8	
35 Methyl tert-butyl ether	73	4.286	4.276	0.010	94	972508	50.0	41.4	
36 Hexane	57	4.705	4.696	0.009	90	365510	50.0	42.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	4.924	4.921	0.003	95	537980	50.0	45.0	
38 Vinyl acetate	43	4.973	4.976	-0.003	97	439271	50.0	31.6	
42 2,2-Dichloropropane	97	5.685	5.676	0.009	69	67110	50.0	54.2	
43 cis-1,2-Dichloroethene	96	5.691	5.688	0.003	88	387487	50.0	45.1	
44 2-Butanone (MEK)	43	5.703	5.694	0.009	95	350577	100.0	91.5	
48 Chlorobromomethane	128	5.977	5.974	0.003	87	170416	50.0	45.5	
49 Tetrahydrofuran	42	5.983	5.992	-0.009	79	144858	100.0	55.8	
50 Chloroform	83	6.129	6.126	0.003	92	620509	50.0	48.1	
51 1,1,1-Trichloroethane	97	6.287	6.290	-0.003	98	424391	50.0	51.8	
52 Cyclohexane	56	6.354	6.357	-0.003	83	472230	50.0	40.6	
53 Carbon tetrachloride	117	6.457	6.454	0.003	96	358465	50.0	60.8	
54 1,1-Dichloropropene	75	6.476	6.479	-0.003	98	486185	50.0	49.3	
56 Benzene	78	6.695	6.691	0.004	97	1359299	50.0	47.3	
55 Isobutyl alcohol	41	6.695	6.691	0.004	42	173150	1250.0	1001.8	
57 1,2-Dichloroethane	62	6.774	6.777	-0.003	98	481251	50.0	45.4	
59 n-Heptane	43	7.072	7.069	0.003	83	255785	50.0	38.6	
61 Trichloroethene	130	7.437	7.440	-0.003	95	321208	50.0	46.0	
63 Methylcyclohexane	83	7.674	7.671	0.003	84	569359	50.0	46.7	
64 1,2-Dichloropropane	63	7.717	7.713	0.004	92	303214	50.0	42.2	
65 1,4-Dioxane	88	7.796	7.793	0.003	38	47150	1000.0	720.1	
67 Dibromomethane	93	7.802	7.799	0.003	91	220429	50.0	46.9	
68 Dichlorobromomethane	83	8.003	7.999	0.004	99	370300	50.0	46.3	
70 2-Chloroethyl vinyl ether	63	8.313	8.310	0.003	93	414717	100.0	87.2	
71 cis-1,3-Dichloropropene	75	8.453	8.450	0.003	96	415674	50.0	45.8	
72 4-Methyl-2-pentanone (MIBK	43	8.611	8.608	0.003	92	508907	100.0	66.1	
73 Toluene	91	8.781	8.778	0.003	99	1382578	50.0	46.5	
74 trans-1,3-Dichloropropene	75	9.037	9.034	0.003	92	372525	50.0	46.8	
75 Ethyl methacrylate	69	9.104	9.100	0.004	85	438507	50.0	43.7	
76 1,1,2-Trichloroethane	97	9.231	9.222	0.009	92	300412	50.0	43.7	
77 Tetrachloroethene	164	9.298	9.295	0.003	94	242848	50.0	45.7	
78 1,3-Dichloropropane	76	9.383	9.380	0.003	87	569886	50.0	45.7	
79 2-Hexanone	43	9.450	9.447	0.003	94	467979	100.0	94.4	
81 Chlorodibromomethane	129	9.602	9.593	0.009	89	221436	50.0	47.5	
82 Ethylene Dibromide	107	9.706	9.709	-0.003	100	296761	50.0	44.9	
83 3-Chlorobenzotrifluoride	180	10.180	10.183	-0.003	90	489724	50.0	56.7	
84 Chlorobenzene	112	10.199	10.196	0.003	93	911982	50.0	47.2	
85 4-Chlorobenzotrifluoride	180	10.266	10.269	-0.003	96	464828	50.0	58.1	
86 1,1,1,2-Tetrachloroethane	131	10.296	10.293	0.003	89	277135	50.0	50.4	
87 Ethylbenzene	106	10.302	10.299	0.003	98	507318	50.0	45.9	
88 m-Xylene & p-Xylene	106	10.430	10.433	-0.003	99	627395	50.0	46.3	
89 o-Xylene	106	10.813	10.816	-0.003	96	609176	50.0	44.9	
90 Styrene	104	10.831	10.834	-0.003	93	1046570	50.0	47.7	
91 Bromoform	173	11.014	11.011	0.003	90	108624	50.0	41.4	
92 2-Chlorobenzotrifluoride	180	11.087	11.084	0.003	91	492243	50.0	56.2	
93 Isopropylbenzene	105	11.184	11.181	0.003	97	1450706	50.0	47.7	
95 Bromobenzene	156	11.488	11.485	0.003	95	373442	50.0	42.8	
96 1,1,2,2-Tetrachloroethane	83	11.494	11.497	-0.003	95	427212	50.0	44.2	
97 trans-1,4-Dichloro-2-buten	53	11.531	11.540	-0.009	76	90871	50.0	35.6	
98 1,2,3-Trichloropropane	110	11.549	11.546	0.003	85	150605	50.0	41.6	
99 N-Propylbenzene	120	11.598	11.595	0.003	98	428743	50.0	45.2	
100 2-Chlorotoluene	126	11.683	11.680	0.003	95	362595	50.0	44.1	
101 3-Chlorotoluene	126	11.750	11.747	0.003	96	463181	50.0	53.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	11.780	11.783	-0.003	93	1273063	50.0	47.2	
103 4-Chlorotoluene	126	11.805	11.802	0.003	99	406783	50.0	45.3	
104 tert-Butylbenzene	119	12.097	12.094	0.003	91	1005579	50.0	47.0	
106 1,2,4-Trimethylbenzene	105	12.151	12.154	-0.003	98	1325719	50.0	47.2	
107 1,2-dichloro-4-(trifluorom	214	12.200	12.203	-0.003	94	347599	50.0	55.7	
108 sec-Butylbenzene	105	12.316	12.319	-0.003	96	1437631	50.0	47.9	
109 1,3-Dichlorobenzene	146	12.431	12.428	0.003	94	710798	50.0	45.4	
110 4-Isopropyltoluene	119	12.474	12.471	0.003	95	1224129	50.0	49.4	
111 1,4-Dichlorobenzene	146	12.535	12.532	0.003	92	733710	50.0	45.3	
113 2,4-Dichloro-1-(triflourom	214	12.565	12.568	-0.003	93	338043	50.0	57.5	
114 2,5-Dichlorobenzotrifluori	214	12.608	12.611	-0.003	95	371128	50.0	57.2	
116 n-Butylbenzene	91	12.881	12.878	0.003	97	1105430	50.0	48.9	
117 1,2-Dichlorobenzene	146	12.888	12.890	-0.002	93	683664	50.0	45.9	
118 1,2-Dibromo-3-Chloropropan	75	13.678	13.675	0.003	77	54373	50.0	40.9	
119 2,4- & 2,5- & 2,6- Dichlor	125	13.818	13.815	0.003	99	1803892	150.0	190.1	
121 2,3- & 3,4- Dichlorotoluen	125	14.232	14.235	-0.003	99	1317350	100.0	127.1	
122 1,2,4-Trichlorobenzene	180	14.494	14.497	-0.003	93	401249	50.0	51.5	
123 Hexachlorobutadiene	225	14.646	14.643	0.003	93	135785	50.0	55.1	
124 Naphthalene	128	14.761	14.758	0.003	98	1047608	50.0	44.2	
125 1,2,3-Trichlorobenzene	180	14.980	14.977	0.003	92	360452	50.0	51.6	
126 2,4,5-Trichlorotoluene	159	15.777	15.774	0.003	0	224866	50.0	55.9	
127 2,3,6-Trichlorotoluene	159	15.875	15.877	-0.002	95	223918	50.0	62.1	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 131 Xylenes, Total	106				0		100.0	91.2	
S 130 1,2-Dichloroethene, Total	96				0		100.0	91.9	
S 132 1,3-Dichloropropene, Total	1				0		100.0	92.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWKetmix1st_00006	Amount Added:	2.00	Units: uL		
voaWVA1stRest_00021	Amount Added:	2.00	Units: uL		
voaWAcro1stRe_00021	Amount Added:	6.00	Units: uL		
voaWEEmix1stR_00014	Amount Added:	2.00	Units: uL		
VOA2CEVE2ND_00010	Amount Added:	2.00	Units: uL		
VOA8260VOAPRI_00266	Amount Added:	2.00	Units: uL		
VOA8260INT_00074	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00073	Amount Added:	2.00	Units: uL	Run Reagent	

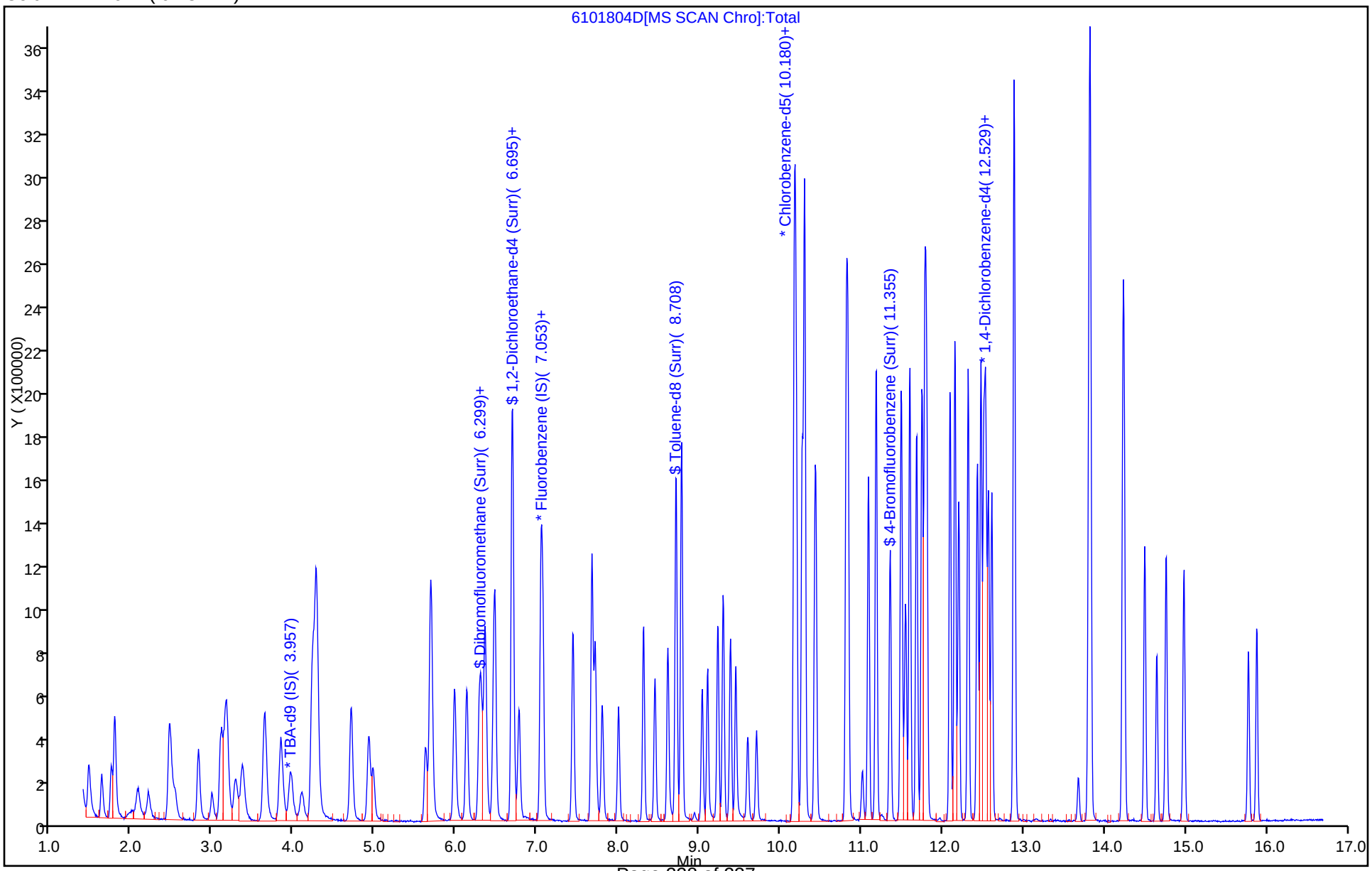
Report Date: 18-Oct-2017 20:30:47 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101804D.D

Injection Date:	18-Oct-2017 01:04:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\6101804D.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 18-Oct-2017 01:04:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-0018914-004
Misc. Info.: LCS
Operator ID: 034635 Instrument ID: CHHP6

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20171017-18914.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 18-Oct-2017 20:30:42 Calib Date: 28-Sep-2017 15:13:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20170928-18631.b\60928P06.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: bungardf Date: 18-Oct-2017 01:25:42

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	46.1	92.16
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	45.8	91.50
$ 7 Toluene-d8 (Surr)	50.0	46.5	92.91
$ 8 4-Bromofluorobenzene (Surr)	50.0	46.8	93.63

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Instrument ID: CHHP6 Start Date: 06/02/2017 06:02

Analysis Batch Number: 213005 End Date: 06/02/2017 15:14

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-213005/3		06/02/2017 06:02	1	60602003.D	DB-624 0.18(mm)
IC 180-213005/14		06/02/2017 11:37	1		DB-624 0.18(mm)
IC 180-213005/15		06/02/2017 12:01	1		DB-624 0.18(mm)
IC 180-213005/16		06/02/2017 12:25	1		DB-624 0.18(mm)
IC 180-213005/17		06/02/2017 12:49	1		DB-624 0.18(mm)
IC 180-213005/18		06/02/2017 13:13	1		DB-624 0.18(mm)
IC 180-213005/19		06/02/2017 13:37	1		DB-624 0.18(mm)
IC 180-213005/20		06/02/2017 14:02	1		DB-624 0.18(mm)
IC 180-213005/21		06/02/2017 14:26	1		DB-624 0.18(mm)
ICV 180-213005/23		06/02/2017 15:14	1	60602023.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

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

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

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-217861/1		07/24/2017 04:58	1	60724D01.D	DB-624 0.18(mm)
ZZZZZ		07/24/2017 05:31	1		DB-624 0.18(mm)
ZZZZZ		07/24/2017 05:31	1		DB-624 0.18(mm)
IC 180-217861/3		07/24/2017 06:39	1	60724D03.D	DB-624 0.18(mm)
IC 180-217861/4		07/24/2017 07:03	1	60724D04.D	DB-624 0.18(mm)
ICIS 180-217861/5		07/24/2017 07:27	1	60724D05.D	DB-624 0.18(mm)
IC 180-217861/6		07/24/2017 07:52	1	60724D06.D	DB-624 0.18(mm)
IC 180-217861/7		07/24/2017 08:16	1	60724D07.D	DB-624 0.18(mm)
IC 180-217861/8		07/24/2017 08:40	1	60724D08.D	DB-624 0.18(mm)
IC 180-217861/9		07/24/2017 09:04	1	60724D09.D	DB-624 0.18(mm)
IC 180-217861/10		07/24/2017 09:28	1	60724D10.D	DB-624 0.18(mm)
ZZZZZ		07/24/2017 09:52	1		DB-624 0.18(mm)
MDLV 180-217861/1011		07/24/2017 09:52	1		DB-624 0.18(mm)
CCV 180-217861/12		07/24/2017 10:16	1		DB-624 0.18(mm)
ICV 180-217861/13		07/24/2017 10:40	1	60724D13.D	DB-624 0.18(mm)
ZZZZZ		07/24/2017 11:04	1		DB-624 0.18(mm)
ZZZZZ		07/24/2017 11:53	1		DB-624 0.18(mm)
ZZZZZ		07/24/2017 12:17	1		DB-624 0.18(mm)
ZZZZZ		07/24/2017 12:42	1		DB-624 0.18(mm)
ZZZZZ		07/24/2017 13:37	1		DB-624 0.18(mm)
ZZZZZ		07/24/2017 14:14	1		DB-624 0.18(mm)
ZZZZZ		07/24/2017 14:45	1		DB-624 0.18(mm)
ZZZZZ		07/24/2017 15:09	1		DB-624 0.18(mm)
ZZZZZ		07/24/2017 15:33	1		DB-624 0.18(mm)
ZZZZZ		07/24/2017 16:22	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-71131-1

SDG No.:

Instrument ID: CHHP6 Start Date: 10/17/2017 21:58

Analysis Batch Number: 226148 End Date: 10/18/2017 09:49

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-226148/1		10/17/2017 21:58	1	6101801D.D	DB-624 0.18(mm)
CCVIS 180-226148/2		10/17/2017 23:55	1	6101802D.D	DB-624 0.18(mm)
ZZZZZ		10/17/2017 23:55	1		DB-624 0.18(mm)
CCV 180-226148/3		10/18/2017 00:36	1		DB-624 0.18(mm)
LCS 180-226148/4		10/18/2017 01:04	1	6101804D.D	DB-624 0.18(mm)
ZZZZZ		10/18/2017 01:43	1		DB-624 0.18(mm)
ZZZZZ		10/18/2017 01:43	1		DB-624 0.18(mm)
MB 180-226148/6		10/18/2017 02:09	1	6101806D.D	DB-624 0.18(mm)
ZZZZZ		10/18/2017 02:43	1		DB-624 0.18(mm)
ZZZZZ		10/18/2017 03:11	1		DB-624 0.18(mm)
ZZZZZ		10/18/2017 03:43	1		DB-624 0.18(mm)
ZZZZZ		10/18/2017 04:32	1		DB-624 0.18(mm)
ZZZZZ		10/18/2017 04:56	1		DB-624 0.18(mm)
ZZZZZ		10/18/2017 05:20	1		DB-624 0.18(mm)
ZZZZZ		10/18/2017 05:45	1		DB-624 0.18(mm)
ZZZZZ		10/18/2017 06:09	1		DB-624 0.18(mm)
180-71131-1		10/18/2017 06:33	1	6101816D.D	DB-624 0.18(mm)
180-71131-2		10/18/2017 06:57	1	6101817D.D	DB-624 0.18(mm)
180-71131-3		10/18/2017 07:45	1	6101819D.D	DB-624 0.18(mm)
ZZZZZ		10/18/2017 08:10	100		DB-624 0.18(mm)
ZZZZZ		10/18/2017 08:34	100		DB-624 0.18(mm)
ZZZZZ		10/18/2017 08:58	200		DB-624 0.18(mm)
ZZZZZ		10/18/2017 09:25	200		DB-624 0.18(mm)
ZZZZZ		10/18/2017 09:49	100		DB-624 0.18(mm)

Shipping and Receiving Documents

Chain of Custody Record

TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
Phone: 412.963.7058 Fax: 412.963.2470

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

170410

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager:	Site Contact:	Date: 10/4/17	COC No: 470-100401-1
Company Name: Groundwater Sciences Corp	Tel/Fax:	Lab Contact:	Carrier: FedEx	of 1 COCs
Address: 2601 Market Place Ste 310	Analysis Turnaround Time			Sampler:
City/State/Zip: Harrisburg, PA 17110	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 717.632.0532	TAT if different from Below			Walk-in Client:
Fax:	☒ 2 weeks			Lab Sampling:
Project Name: Hershey-PA DSW	☐ 1 week			Job / SDG No.:
Site:	☐ 2 days			
PO# 10032.36	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	8260 VOCs	Sample Specific Notes:
HD-SpBA-GW-2310/1-0	10/5/17	0930	G	GW	3	N	N	12	(48 hr sample)
HD-GW-23-0/1-0	10/6/17	0950	G	GW	3	N	N	13	(72 hr sample)
HD-QC6-0/1-2	10/5/17	1200		GW	2	N	N	2	Trip Blank

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company: GSC	Date/Time: 10/8/17 0900	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Pittsburgh
301 Alpha Drive

Pittsburgh, PA 15238
Phone: 412.963.7058 Fax: 412.963.2470

Chain of Custody Record

170410

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210 (0713)

Client Contact	Project Manager: Chris Cheil	Site Contact: Carne Gamber	Date: 10/9/17	COC No: 20171009O1
Company Name: Groundwater sciences Corp	Tel/Fax:	Lab Contact: Carne Gamber	Carrier: Fedex	1 of 1 COCs
Address: 2601 market place Ste 310	Analysis Turnaround Time			Sampler: Kaitlin Fahey
City/State/Zip: Harrisburg/PA/17110	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 717-652-0632	TAT if different from Below _____			Walk-in Client:
Fax:	☒ 2 weeks			Lab Sampling:
Project Name: Turkey-Phase 2	☐ 1 week			
Site: SpBA	☐ 2 days			Job / SDG No.:
P O # 10012.36	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	8260 VOCs LL	Sample Specific Notes:
HD-SpBA-CW-23-0/1-0	10/5/17	0950	G	Gw	3	N	Y	3	(48 hr sample)
HD-CW-23-0/1-0	10/6/17	0950	G	Gw	3	N	Y	3	(72 hr sample)
HD-QC6-0/1-2	10/5/17	1200		W	2			2	trip Blank

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

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

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
			[signature]	TAP	10/10/17 900
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

180-71131 Chain of Custody

ORIGIN ID:THVA (631) 766-2976
KAITLIN FLEMING
GOUNDWATER SCIENCES CORPORATION
2601 MARKET PL STE 310

HARRISBURG, PA 17110
UNITED STATES US

SHIP DATE: 090CT17
ACTWGT: 10.90 LB
CAD: 0068995074/SSFE1822
DIMS: 12x11x11 IN

BILL RECIPIENT

Art # 156297-435 RIT2 12/15

TO ATTN: SAMPLE RECEIVING
TEST AMERICA
301 ALPHA DR

PITTSBURGH PA 15238
(412) 963-7058 REF:
INV:
PO: DEPT:

FedEx Express

TRK# 0201 7880 0479 0607

TUE - 10 OCT 10:30A
PRIORITY OVERNIGHT

E8 AGCA

15238
PIT

Uncorrected temp 1.8 °C
Thermometer ID 13
CF 0 Initials IB

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

180-71131 Waybill

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-71131-1

Login Number: 71131
List Number: 1
Creator: Say, Thomas C

List Source: TestAmerica Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	